

WYOMING SCHOOL USE OF RESOURCES 2

**MAKING MORE PROGRESS IN IDENTIFYING HOW SCHOOLS USE RESOURCES
IN WAYS THAT BOOST STUDENT PERFORMANCE ON STATE TESTS**

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Wyoming School Use of Resources 2

Making More Progress in Identifying How Schools Use Resources in Ways That Boost Student Performance on State Tests

INTRODUCTION

Education policy makers in Wyoming have been working for over a decade to establish an adequate school funding system. Since a 1997 Wyoming Supreme Court ruling in *Campbell*, the State Legislature has worked extensively to establish and fund a “cost based” school funding system. During that time, the state has developed a new funding system; revised it in response to subsequent court rulings; and in 2006, following a system-wide, court mandated, recalibration, implemented a revised funding system based on an Evidence-Based model of school finance. Also in 2006, the Wyoming Supreme Court found the previous funding system to be constitutional and suggested that the Legislature’s recalibration in 2006 represented indication of the state’s efforts to maintain a constitutional system. An important component of this process has been the Court’s ruling that the funding model be recalibrated every five years.

The court called for regular recalibration of the funding system to ensure it continues to meet the expectations of Wyoming’s citizens, recognizes new knowledge about teaching and learning, and accommodates changes in the price of educational inputs. Through this process, state policy makers have developed a growing interest in how districts and schools use the funds they receive through the funding model. More fundamentally, the state wants to know:

How can districts and schools produce significant and large improvements in student academic achievement, and are the resources included in the funding system adequate for those purposes?

The State is also concerned about instances where districts and schools are not using resources in ways that lead to improved student learning, and wants to provide leadership so that over time educational resources are used for strategies that lead to the ultimate goal for Wyoming’s children – authentic learning and full participation in economic, family and civic life.

As part of the school funding system enacted during the 2006 legislative session, the Legislature also funded a two year study to determine how Wyoming schools used all of the resources available to them through the funding model. The study was conducted by Lawrence O. Picus and Associates in partnership with the University of Wyoming’s Education Leadership program. In concert with the Education Leadership department’s faculty and 29 advanced doctoral (Ed.D.) students, Lawrence O. Picus and Associates designed a study to determine how schools used

resources by educational program within the context of each school's education improvement strategy.

HOW WYOMING SCHOOLS USE RESOURCES¹

Lawrence O. Picus and Associates conducted its initial study in both a representative, random sample, of 187 schools (50 percent of all schools in the state), and in a near universe sample of 344 schools, and reported its findings to the legislature in 2008.² The prime focus of that study was on the extent to which schools used their resources in patterns that were similar to, or different from, the way resources were allocated to schools through the block grant and categorical grant provisions of the Wyoming funding model.

The study compared the way districts and schools employed staff resources to the allocation of resources embedded in the funding model. The study found some similarities and a number of important differences in the allocation and use of resources between the model's specifications and actual implementation of resources. Specifically that study found:

- Staffing in small elementary and middle schools is about the same as that provided by the funding model.
- Staffing in small high schools is somewhat less than that provided by the funding model. This appears to be in part because of the generous minimum high school teacher provision of the model.
- In many, if not most, high schools we found that the number of core teachers compared to specialist teachers is proportionately less than the model provides, suggesting a preference in high schools for elective courses rather than core courses.
- Significantly fewer resources were employed by alternative schools in the sample than provided for in the funding model.
- School site administration resources were employed at levels similar to the funding model, which suggests schools did not funnel additional resources to school administration.
- Schools at all levels and all sizes provided for fewer librarian resources than provided in the funding model.

Beyond these general findings, the study found that compared to the staff included in the Wyoming funding model, large (more than 96 students) elementary schools had:

- Slightly less school site administration
- Fewer core and specialist teachers
- More aides
- Fewer certified tutors
- About half the certified librarian staff
- Somewhat more pupil support

¹ Taken from Picus, Odden, Aportela, Mangan & Goetz, 2008a.

² Subsequently, Lawrence O. Picus and Associates expanded the sample to include almost all schools in the state; Analysis of the 344 schools in the final sample found virtually the same patterns as were found in the 187 school sample (Picus, Odden, Aportela, Mangan & Goetz, 2008b).

The findings, with one exception, were similar for large (more than 105 students) middle schools. Compared to the Wyoming Funding Model, large middle schools had:

- About the same level of school administration
- Fewer core teachers
- More specialist teachers
- More aides
- Fewer tutors
- Less certified librarian staff
- Less pupil support

The major difference in the general findings between the large middle and large elementary schools is that the large middle schools employed many more specialist/elective teachers than provided by the funding model. This pattern continued for the large (more than 105 students) high schools in that study's sample. Compared to the Wyoming Funding Model, large high schools had:

- Similar amounts of administration (Principals & assistant principals)
- Double the number of secretaries (though it was difficult to make clear distinctions between secretaries (12 month employees) and clerks (nine month employees), both of which are in the funding model)
- Slightly fewer core teachers
- More specialist teachers
- More aides
- 1/5 the number of certified tutors
- Less certified librarian staff
- Less pupil support

The study's findings on actual resource use compared to the funding model suggested that schools in Wyoming could be relying on a theory of how to improve student performance that differed from the theory embedded in the Evidence Based adequacy model used to recalibrate the funding system in 2005.

The theory of instructional improvement embedded in the funding model is that to boost student learning, initial instruction should be provided in small core classes at all school levels. In addition there should be heavy emphasis on professional development – including funding for instructional facilitators (IFs) or coaches -- to bolster the quality of instructional practices. An emerging element of the professional development around the country today includes the use of formative student assessment data to design instructional strategies that incorporates information about student knowledge before instructional units are taught. The model provides resources to ensure students struggling to learn are provided immediate extra help by certified teacher tutors. The model also provides resources to further help struggling students through extended day academic assistance, summer school – if needed, and special education services as necessary.

As noted above, schools in the study's sample had fewer core teachers and fewer teacher tutors than the model funds. The existence of instructional coaches in numbers similar to that provided by the funding model is likely a result of the categorical funding that required the funds to be used for coaches. More research is required to fully understand what these IFs do and their effectiveness.

The study findings suggested that theory of instructional improvement embedded in the way Wyoming schools chose to use their resources is harder to decipher and not uniform across districts and schools. Core classes, the prime content areas in which the state wants improved student performance, were generally larger than envisioned by the funding model. At the same time, the study found more resources used for elective classes (art, music, physical education, career education, etc.), and for instructional aides. These are strategies which have consistently been found to have a lower impact on student achievement. Educational research suggests it would be hard to argue that the best way to boost student achievement in the core subject areas (math, science, language arts, social studies and world languages) is to have larger core classes and allow students to take many elective classes. Similarly, the use of instructional aides rather than certified teachers for extra help strategies is generally not as effective in helping struggling students. That study concluded:

“Perhaps future research and analysis needs to focus on what theory of instructional improvement works the best in Wyoming. Conclusions about effective resource use patterns can be reached only in the context of the instructional improvement strategy and its effectiveness or ineffectiveness. On the face however, we would predict that if the goal is higher student performance in core subjects, the resource use practices embedded in the funding model have a greater chance of being effective. Nevertheless, this assertion still needs to be empirically substantiated.” (Picus, Odden, Aportela, Mangan & Goetz, 2008a)

Because that study only considered how resources were allocated in Wyoming schools, the current study was designed to address the issues identified in our conclusion.

USE OF RESOURCES IN THE CONTEXT OF IMPROVING STUDENT ACHIEVEMENT

Wyoming, like all other states, wants to know what districts and schools should do to dramatically increase student academic achievement and the resources needed to support those strategies. The state could then be confident that schools are funded at a level that provides adequate resources for them to offer programs that should significantly boost student academic achievement. Higher levels of student learning could be expected to result in state test scores rising over time.

Lawrence O. Picus and Associates argued that in addition to the research evidence behind the many individual programmatic recommendations in the recalibration report, there was also a more comprehensive and integrated “theory of action” behind its recommendations for the recalibration of the Wyoming Funding Model. Since that time, staff associated with the firm have studied schools and districts around the country that have produced dramatic improvements

in student learning; the firm has labeled that significant improvement “doubling student performance,” and has further argued that its resource recommendations are sufficient for schools and districts to “double” performance.³

Moreover, Allan Odden, a principal partner in Lawrence O. Picus and Associates, and Sarah Archibald, a researcher at the University of Wisconsin-Madison who has conducted work for Lawrence O. Picus and Associates, published a book in January 2009 on doubling student performance and strategies and resources needed to accomplish that goal.⁴ Their book is based primarily on studies, conducted in the context of broader adequacy studies, of schools and districts that had “doubled performance,” and also draws from case studies conducted by other researchers of other schools and districts that have dramatically improved student performance (e.g., Chenoweth, 2007; Childress, Elmore, Grossman & Johnson, 2007; Supovitz, 2006). In addition, Odden has a new book that will appear in September 2009 that further elaborates on the ten primary strategies schools and districts use to produce large improvements in student academic achievement.⁵

Both books argue that the schools and districts studied by Odden, Archibald and other researchers affiliated with Lawrence O. Picus and Associates, as well as the others cited above, deployed remarkably similar strategies. These powerful stories of actual districts or schools doubling performance show that there is knowledge about how to dramatically improve student performance results, which we rhetorically refer to as “doubling performance,” and that the successful schools follow a similar set of strategies to achieve newly established rigorous performance targets. These successful educational jurisdictions:

1. Analyzed student results data to become deeply knowledgeable about performance issues and the nature of the achievement gap. The test score analysis first included analysis of state test results and then the use over time of formative assessments to help tailor instruction to precise student needs.
2. Set very high and ambitious goals, many times trying to educate 95 percent of students to at least proficiency, a significant portion of students to the advanced achievement levels, and to substantially reduce the achievement gap.
3. Reviewed evidence on good instruction and effective curriculum. All the schools threw out the old curriculum, replaced it with a different and more rigorous curriculum, most times adopted new textbook series. Over time those schools created their own specific view of what good instructional practice was to deliver that curriculum.
4. Invested heavily in teacher training that included intensive summer institutes and longer teacher work years. The new professional development included resources for trainers and most importantly, instructional coaches, in all school. Time was provided from the

³ See Odden, Picus, Archibald, Goetz, Mangan and Aportela, 2007; Odden, Picus, Goetz, and Mangan, 2006; and Fermanich, Mangan, Odden, Picus, Gross and Rudo, 2006.

⁴ Odden & Archibald, 2009.

⁵ Odden, 2009, forthcoming.

planning period during the regular school day for teacher collaboration focused on improving curriculum units and instructional practice.

5. Provided extra help for struggling students and, with a combination of state funds and federal Title 1 funds, provided some combination of tutoring in a 1-1, 1-3, or 1-5 format, and sometimes extended days, summer school, and though not highlighted, English language development for all ELL students.
6. Created smaller classes in early elementary years often lowering class sizes in grades K-3 to 15 citing research from randomized trials.
7. Restructured the school day to provide more effective ways to deliver instruction, including multi-age classrooms in elementary schools, as well as block schedules and double periods of mathematics and reading in secondary schools. Schools also “protected” instructional time for core subjects, especially reading and mathematics.
8. Supported teachers through strong leadership around data-based decision making and improving the instructional program, by the superintendent, the principal and teacher leaders.
9. Created professional school cultures characterized by ongoing discussion of good instruction and by teachers taking responsibility for the student performance results of their actions.
10. Brought external professional knowledge into the school, e.g., hiring experts to provide training, adopting research-based new curricula, discussing research on good instruction, and working with regional education service agencies as well as the state department of education.

All of these common themes are reflected in Wyoming’s funding model. However, the primary question that still needs to be answered is whether these strategies are used by Wyoming schools to boost student learning, or whether additional or different strategies are used in Wyoming to accomplish these desired goals and objectives.

THE WYOMING IMPROVING SCHOOL

This report presents the findings from a study that probed into the linkage between strategies needed to boost student performance in Wyoming, and the resource needs of those strategies. The first step in this study was to brief key staff in the Wyoming Department of Education on our views of what it takes to produce large improvements in student academic achievement and how the Wyoming funding formula included resources for districts and schools to deploy those strategies. This briefing occurred in September 2008 and entailed a substantive and rich discussion with WDE staff working with districts and schools around the state to boost student performance on PAWS.

After the briefing, we convened a panel of 20 leading Wyoming educators – superintendents, directors of curriculum and professional development, instructional facilitators, principals, lead teachers and others – in October, 2008. The purpose of that convening was to have those educators identify for us what they believed were the educational practices that worked in Wyoming, i.e., that produced large improvements in student learning. In this meeting, we did not query Wyoming educators about our ideas or our understandings of research, largely conducted elsewhere, but asked them to tell us how school improvement worked in Wyoming.

The following description of the Wyoming Improving School builds primarily on what educators from across the state have told us, although those educators also said that few if any schools and districts in Wyoming were implementing all the strategies identified. This section of the report is a description of what these educational leaders believed the Wyoming Improving School should look like. As such it represents a vision – a goal for the design and operation of schools across the state. Each of the following subsections describes an aspect of the improving school in more detail. This is not a linear process; rather each piece is developed and refined as needed.

Performance Monitoring

The Wyoming Improving School uses PAWS student achievement data, and in many districts also relies on additional student achievement data from the NWEA MAP system. The school analyzes these data to determine where its students are performing well, and the areas where performance needs to improve. These data also help school leaders and teachers identify the nature and existence of achievement gaps that may exist in the school. The PAWS analyses provides a “macro” map of performance strengths and weaknesses of the school while the NWEA MAP data provide more detail on performance by sub-topics and concepts included in the district’s and state’s curriculum standards.

Curriculum Mapping

Along with the analysis of such data, the Wyoming Improving School, together with the school district, creates a “curriculum map” or “curriculum scope” or “essential elements” that is designed to take the state’s curriculum content standards and identify the topics and subtopics that must be taught subject by subject and grade by grade in order to cover all material in the state standards. The goal of this mapping exercise is to identify the content that should be taught to all students so that they are fully prepared to take the PAWS test at the end of the year, with the PAWS test theoretically assessing student performance in the curriculum the state wants all students to learn.

One might expect that this process would produce similar curriculum maps and scopes across subjects, grades, schools and districts, because the results derive from the same state curriculum standards. This does not always happen because the specificity of the state’s curriculum standards allows some local flexibility, and the PAWS test is not a perfectly aligned measure of student achievement to the state standards. There are two main reasons for this misalignment: 1) variation in administration processes for the test each year and 2) annual variation in the items and concepts on the test.

Nevertheless, the goal of this curriculum mapping exercise at the district and school level is to identify a curriculum scope and sequence of subtopics for each content area and each grade level that is intended to represent the core content to be taught to all students. Further, many districts and schools add “pacing” schedules to this curriculum scope and sequence, providing time periods during which certain curriculum content should be taught over the course of the school year. One goal of the pacing schedules is to ensure that students are taught the core content that is included on the PAWS tests that are given toward, but not exactly at, the end of the school year.

System Reforms

Using the initial PAWS and sometimes NWEA MAP student achievement data analysis and curriculum scope and sequence mapping, the Wyoming Improving School sets high goals for student achievement. One such goal is for all, or nearly all, students to achieve at least to the proficiency level of the PAWS test. In other cases, schools and districts set a goal to reduce any achievement gaps, such as those that might exist for at-risk students, students with a learning disability, students with minority or Native American backgrounds, or students who come from homes where English is not the primary language. The Wyoming Improving Schools wants to move from being a “good” school to being a “great” school.

The goals identify numeric targets for student performance that require large, absolute gains in student achievement that usually go beyond just meeting AYP under the federal No Child Left Behind program. The Wyoming Improving School does want to make AYP but over time it also wants its students to make more than marginal increases in performance; it wants the vast bulk – 95% – of students to achieve at or above proficiency. And it wants that achievement to be “authentic,” i.e., represent real learning. Further, the Wyoming Improving School wants to produce this high level of learning for all students, including the increasing number of ELL students and students from poverty backgrounds.

One way the Wyoming Improving School strives to meet its goals is by adopting new, research-based curriculum programs. A popular elementary math curriculum is *Every Day Mathematics*, which stresses both basic and problem-solving skills. There is more variation in the reading texts selected and some districts and schools also create their own reading curriculum, but the reading curriculum is a “balanced” reading program, with emphases on phonemic awareness and phonics for very young learners, vocabulary, reading fluency, reading comprehension and writing.

An Emphasis on Good Instruction

The Wyoming Improving School develops a clear point of view about good instructional practice, although the specifics can vary by district. There are a number of approaches to good instruction available to the improving school. These include:

- A “balanced” reading program as a point of view about effective reading instruction
- A clear goal for a lesson plan and acquiring student work that can be scored on the basis of performance rubrics to determine if the goal was met

- Four aspects of good instruction which include: classroom management, curriculum planning, instruction, and assessment
- Five components of good instruction which include: a clear student achievement goal, quality instruction, assessment, extra help for students still struggling and enrichment for those who learned the goal
- “Brain-based” instruction, such as Quantum Learning
- The instructional strategies advocated by Marzano.

Regardless of the approach taken to identify and implement good instructional practice, the Wyoming Improving School has clear and specific notions of what effective instructional practice looks like, and expects all teachers to acquire and use those instructional practices in their classrooms.

To facilitate growth in student achievement at the Wyoming Improving School, the curriculum materials and point of view of effective instructional practice are common across all of the schools in the district. This represents a change in practice from several years ago when curriculum, textbooks and instructional practice often varied across schools within a district but also among classrooms in individual schools and sometimes even among classrooms at the same grade level or focused on the same subject. The Wyoming Improving School recognizes that this kind of curriculum and instructional variability or inconsistency in instructional practice is not effective in producing large system-wide gains in achievement for all students. Rather, a more systemic curriculum and instructional approach is needed if the system as a whole, and each school in that system, is to be successful in educating more students to higher student performance standards.

Though the Wyoming Improving School uses specific curriculum materials and instructional programs, it does not view the programs themselves as the answer to high levels of student achievement. It believes that good instruction in reading, mathematics or any subject, entails certain fundamental tenets of what constitutes good instructional practice. And that is what the school focuses on systemically. As mentioned above, the Wyoming Improving School has concluded that a bundle of different programs focused on individual students has produced average performance in the past and as a strategy will not help a school move from good to great. To achieve greatness, the school recognizes that it needs an essential curriculum, an essential core set of instructional practices, and essential common assessments, used by all teachers and reinforced in multiple ways.

Instructional practice in the Wyoming Improving School is public and systemic and not private and individualistic. Professionalism in the school is viewed as engaging in collaborative work around all aspects of the curriculum and instructional program, including assessment of the effectiveness of each individual teacher to a common set of both teaching standards and student performance assessments.

In the Wyoming Improving School, consistency of curriculum implementation and instructional practice is monitored by formal and informal “walk throughs” by combinations of central office staff, the principal and Instructional Facilitators. These individuals observe instructional practice and conduct post-walk through conferences, focusing on their observations and comparing that

to their expectations of curriculum and instructional practice. The Wyoming Improving School also relies on teachers to observe their peers. The Wyoming Improving School uses peer observations to press for “fidelity” in the implementation of the curriculum and the instructional program, believing that professionalism is reflected through consistent practice by all teachers and not idiosyncratic practice that varies across classrooms.

Professional Development

The Wyoming Improving School provides intensive and ongoing professional development for all teachers to help them implement the common curriculum and instructional vision. Involvement in professional development is not voluntary; instead it is understood that changes in curriculum and instructional practice require all teachers to acquire new knowledge and expertise. Professional development is aided by district and school Instructional Facilitators, who support the work of all teachers – some more intensively than others depending on their experience and an assessment of their current practice. The goal is to help them implement effective instructional practices in their classrooms through observation and feedback. Instructional facilitators model the best ways to deliver instruction and facilitate discussion about best and successful practices among teachers.

Data-Based Decision Making

The Wyoming Improving School relies on teams of teachers (grade-level teams in elementary schools and content teams in secondary schools) to collaboratively develop curriculum units that have common diagnostic/formative assessments, comprehensive lesson plans, ongoing formal and informal formative assessments that can be used when teaching the various lesson plans, and common end-of-unit assessments. In addition to PAWS and NWEA MAP assessments, many schools also use DIBELS and other more micro formative assessment data for improving instruction. Teacher teams create these units, teach them with the support of Instructional Facilitators, and collaboratively reflect on the success of the unit – did students learn the goals and concepts of the unit, were the extra help strategies for the struggling students successful, and did student performance vary significantly by classroom and teacher?

This collaborative reflective assessment helps identify shortcomings of the unit, which the team can then improve for future classes. It also is used to identify how successful individual teachers are in their instructional practice and enables the Instructional Facilitators to target their assistance to those teachers in the short term. Through the use of common end-of-unit assessments, teacher teams are able to engage in analyses of the impact of curriculum planning and instructional implementation.

Interventions

The Wyoming Improving School is also characterized by an “inclusion” approach to students with learning disabilities, by a “response to intervention” approach to any student struggling to achieve to a proficiency level, and by a tiered “continuum of extra services” and “differentiated instruction.” This means that all students with disabilities, except those with the most severe and profound disabilities, are taught first in the regular classroom, with the expectation that they

achieve at least to the proficiency level of student performance. To achieve this goal, all students first experience high-quality instruction in the regular curriculum provided by the regular classroom teacher. If a student has a mild struggle, the regular teacher offers some within-class extra help, such as a small group that receives extra instruction a few times during the week, a multiplication table for a student with math problems, or other similar strategies.

The next “tier” of intervention is more intensive. It might be provided within the regular classroom or in a pull-out setting. This tier of intervention includes some combination of individual or small group (maximum of 5 students) tutoring provided by a licensed teacher. In some cases, this tutoring is provided by a trained and supervised instructional aide, but even trained aides do not tutor the students with the most complex learning challenges, which is left to the expertise of a licensed, and sometimes specially trained, teacher. The second tier of intervention might also include an additional teacher working side-by-side with the regular teacher in the regular classroom, to provide a series of continuous extra help for students who need that assistance.

The Wyoming Improving School also provides additional instructional help to students through some combination of “extended day” (after school, before school, Saturday school, etc.) and/or summer school for students who, after receiving the aforementioned extra services within the regular school day, still need extra help to learn to a proficiency level. The exact combination of extended day and summer school services, as well as the structure of these services varies, but the Wyoming Improving School has the resources to provide this level of additional help to students who need it.

At the Wyoming Improving School, educators recognize that the students most likely to require these extra help strategies are those that come to school unprepared to learn. As a result, they have begun to provide high-quality preschool programs that help increase the degree of kindergarten readiness for children attending their school.

If all of the previously identified extra help strategies prove to be insufficient for the student to achieve proficiency, the Wyoming Improving School goes through the identification process and develops a formal Individual Education Program (IEP) that specifies additional services to be provided under the state’s special education system. It should be noted that because there is virtually no budget cap on special education services, the Wyoming Improving School can provide all the specified services such students need.

Leadership and Professional Culture

Leadership in the Wyoming Improving School is “dense,” meaning that leadership is provided by all levels of the system and by all actors in the system. The district is led by a superintendent who defines the mission of the district as teaching all students at least to the proficiency levels of the state test, and led by curriculum experts who work with schools and teachers to develop a common curriculum scope and sequence that is aligned with the state standards and state testing system, and who also allocate additional monies to provide schools with the benchmark assessments from such places as NWEA MAP. Instructional Facilitators provide considerable instructional leadership as do principals. Schools are characterized by a series of teacher teams –

grade-level teams in elementary schools, and subject-area teams in secondary schools, with each team having a teacher leader or coordinator. Some elementary schools also have cross-grade curriculum teams. The Wyoming Improving School might also have a curriculum council comprised of all teacher team leaders, which provides oversight of the curriculum and instructional program and which is assisted by Instructional Facilitators.

Today these teams are called professional learning communities (PLCs). To facilitate the ongoing work of PLCs, the Wyoming Improving School is structured so that teachers in the various teams or PLCs have common planning periods during the school day, enabling them to meet together and work collaboratively on team business. The Wyoming Improving School is characterized by:

- A collaborative culture that helps create and sustain high expectations for student learning
- Implementation of a common curriculum and instructional approach focused on producing consistent increases in student performance
- All staff taking responsibility for student achievement results – proud when performance rises and professional (asking how they can improve their own instructional practice to achieve better results) when performance does not rise

The culture in a Wyoming Improving School believes that improved student performance derives from improved instructional practice so that if student performance does not rise then something about instructional practice needs to be fixed.

The Wyoming Improving School is professional in the best sense of the term. Its teachers, instructional facilitators and principals do not rely only on their own knowledge to improve student performance. Rather, they are aware of and read research on what works. They identify best practices from professional organizations. They bring the best consultants into their school to provide advice and training – Robert Marzano, Lucy Calkins, Ruby Payne, Harry Wong, Phil Schlechty, and others. They work with regional education units (e.g., the MidContinent Region Educational Laboratory) and with the Wyoming Department of Education. Their goal is to acquire the most current information on best practices and what works and to incorporate that knowledge into their overall school program. The Wyoming Improving School also tracks the impact of all its key initiatives, continuing those programs that work (produce the desired student achievement results) and dropping those that do not.

The Wyoming Improving School knows that talented teachers and principals matter – a lot. They seek to hire the best teachers and administrators, induct them into their professional cultures, equip them with the instructional strategies needed to be successful in their new schools, supervise and evaluate them to rigorous professional standards, and pay them a good wage.

Summary

The Wyoming Improving School's approach to curriculum, instruction and professional development is characterized by the following:

- A common school and district-wide curriculum that is taught in all subjects and all grade levels
- A common instructional approach that is viewed by the district and school as the most effective for this educational system
- Curriculum units collaboratively honed by teacher teams, taught simultaneously and then assessed for impact
- Significant ongoing data-based analyses using diagnostic, formative and common end-of-curriculum-unit tests
- Intensive, ongoing professional development with heavy involvement and engagement of Instructional Facilitators in all aspects of professional development and the implementation of the curriculum and instructional program.
- A tiered series of interventions to help struggling students master standards.

In the Wyoming Improving School instruction is key –improved student achievement results from improved instructional practice linked to a rigorous, content-rich curriculum program. Absent improved instruction, student learning is unlikely to improve.

By focusing their attention on these key areas: performance monitoring, curriculum mapping, system reforms, instruction, professional development, data based decision making, interventions for struggling students, leadership and professional culture, educators at the Wyoming Improving School are able to continually progress toward higher levels of student learning. While schools and districts around the state are at different stages along a continuum, there was general agreement among the individuals who met with us on October 29, 2008 that the features of an improving school described above are the key elements that when combined will help schools move forward on a trajectory of continually improving student learning.

METHODS

The next step in the study, completed before embarking on the school site visits, was development of detailed interview guides designed to elicit the following information from multiple respondents in each school and district:

- Each school’s definition of effective instructional practice (something that we anticipated would entail observation of classroom practice in the sample schools)
- The structural and programmatic details of the district/school professional development strategies, including how training is provided as well as the use of the ten days provided for training in the funding model
- How the schools/districts use instructional facilitators
- Identification of the text books used in each sample school
- The degree to which they use some of planning and preparation time during the regular school day for collaborative work on the curriculum and instructional program, and
- Other key issues related to school improvement identified by those interviewed

Embedded in this work was an effort to determine how schools consciously or unconsciously deployed a “continuum” of services for students struggling to achieve to standards. The Wyoming funding system provides three linked extra help strategies for struggling students – tutoring, extended day academic help and summer school – in addition to full state reimbursement for any and all students with disabilities who receive special education services beyond these three interventions. As a result, the study sought to identify how (and to what extent) schools/districts construct the continuum of extra help strategies as part of their efforts to get the most students up to and beyond the State’s proficiency standards. This emphasis was designed to complement the work on this topic conducted by the Wyoming Department of Education.

We also sought to identify how all staff in schools are used to implement the various strategies the schools deployed. We created staff resource use tables similar to those in the first school use of resources study but linked each resource use practice more explicitly to a strategy or program being deployed in the school. The goal of this study was to identify in very specific ways what Wyoming schools and districts do to dramatically improve student performance and to understand the resource requirements of those actions.

The interview guides created for school and central office staff are included in Appendix A for the following:

1. Superintendent
2. District Curriculum Supervisor
3. District Professional Development Coordinator
4. District Instructional Facilitator Supervisor
5. School Principal
6. School Instructional Facilitator/Coach
7. Teacher
8. Observation of Teacher Classroom Instruction
9. Coaching Observation
10. Observation of Data Analysis or Teacher Team Meeting
11. Teacher Focus Group

Sample Selection

In what was initially planned to be the first year of a three year study, our goal was to draw two types of district/school samples for the study. The first sample was from larger Wyoming districts. In our sample of two large districts, we visited the school district office and three schools that had made significant gains in student performance. Ideally, the schools would have actually doubled student performance over a 4-6 year time period.

In addition in each of the large districts, we visited a comparison school that had not made significant learning gains, and exhibited mostly flat student performance over the same time period. The purpose of studying a “control” school (one with flat student performance) was to help determine the degree to which the schools making improvements actually deployed

different strategies and used resources differently than schools that did not, or did different things within the various strategies.

The second component of our sample was drawn from smaller Wyoming districts. In these districts, the central office is often located in the same building as one or two schools, and in some instances all of the district's schools are co-located in one building. Our sample was composed of two small district/schools that made significant improvements in student performance in the past four to six years.

Two factors limited our ability to identify schools that had dramatically improved performance over the past 4-6 years. First, Wyoming changed its state student testing system between the 2005 and 2006 academic years, dropping the WyCAS tests for the PAWS system, with no good way to "equate" the scores on the two testing systems. Consequently we were not able to develop a consistent measure of school performance across a four to six year period.

Second, there were inconsistencies in the administration procedures for the PAWS tests. Specifically, in 2007, students were able to take the test at least two times and keep the highest score. As a result, PAWS scores were artificially higher across the state for the middle year of the three for which data were available from PAWS testing, limiting our ability to identify strong upward trends in PAWS test results.

As a consequence of these testing realities, we had one set of student scores for the period before 2005-06 and a second set of scores going forward. Moreover, the PAWS data (2006 to 2008) were inconsistent across the three years, leaving us with at most a two year change in test outcomes – i.e. the change in percent proficient and advanced between 2006 and 2008. This hindered our ability to find schools or districts that had doubled performance or otherwise made large improvements.

To resolve these difficulties, in addition to careful analysis of the extant testing data, we worked closely with individuals in the Wyoming Department of Education (WDE) and in the two large districts to confirm our initial estimates of schools that we thought were improving and/or high performing schools, as well as to identify those schools where the growth in student outcomes was not as strong. We also relied on WDE staff to suggest a number of improving small districts, and relying on WyCAS and PAWS test data to confirm their recommendations, selected two districts from the list they provided. One small school consisted of a district office and three co-located schools on the same campus. The other district was somewhat larger, but because of its organization with three schools in one town and an elementary and a secondary (7-12) school in another town, we decided to visit all five district schools to ensure our results comprehensively described the instructional decisions made in that district.

While we are confident that our sample of schools includes schools that many in Wyoming believe are good examples of improving education sites, we cannot say for sure that these schools have actually been able to double performance in the past four to six years.

We are certain that we studied many of the "best" schools in the two large districts, but our analysis of both test data and our interview findings (described in detail below) suggest that

those schools were making modest but not large improvements. This is a concern and limitation of the study because modest improvements can be produced with a few changes in school strategies. Our studies outside of Wyoming have typically found that schools and districts that actually double performance, or make large, quantum improvements in student performance, pretty much deploy all the strategies identified above as important components of a Wyoming Improving School.

Test outcomes for all of the schools in our sample, as well as our case studies are available in an appendix to this report. We have masked the identities of all of the schools and districts, but to help readers follow the findings outlined below, the following table identifies district and school characteristics and pseudonyms for all the schools and districts we visited during the 2008-09 school year. In total, we studied two large and two small districts, and a total of 16 schools (three of which were co-located in Shire School District).

District/School	Characteristics
Shetland	Large District
Palomino Elementary	Improving School
Arabian Elementary	Improving School
Morgan Junior High	Improving School
Quarter Elementary	Non-Improving School
Malamute	Large District
Dachshund Elementary	Improving School
Beagle Elementary	Improving School
Ridgeback High School	Improving School
Great Dane Elementary	Non-Improving School
Shire	Small District (Improving)
Clydesdale Elementary	
Clydesdale Junior High	
Clydesdale High School	
Mastiff	Small District (Improving)
Dalmatian Elementary	
Border Collie Middle/High School	
Greyhound Elementary	
Labrador Middle School	
Schnauzer High School	

Data Collection

Our data collection process included review of district/school documents, interviews with staff at district and school sites, and observation of class activities and coaching and, when possible, observation of teacher collaborative activities.

- Data collection activities included initial document reviews including materials describing:
- District and school instructional goals
- Curriculum plans
- Student course taking policies
- Procedures for assisting students who are struggling and need extra help

At the district level, interviews were conducted with – at a minimum – each district’s superintendent, director of curriculum and instruction, director of professional development, and in some instances the business manager. At the schools, interviews were conducted with school site leaders (principal, assistant principal, lead teachers,), instructional facilitators/coaches, and a sample of teachers in each school. In addition, data collectors conducted classroom observations, observed faculty meetings and where possible conducted small focus groups with school teachers.

Because the size and organization of the sample districts and schools varied considerably, the number of interviews and observations conducted in each district and each school also varied. The interviews ranged in length from about 30 minutes for some teachers to over two hours for school superintendents and principals. The length of each interview was determined more by the span of responsibility of each individual than the size of the district or school. In the smaller districts, one individual often wears multiple hats, in those instances, interview topics were combined as much as possible

Site researchers also observed classroom instruction at each school trying to select classes that would identify teachers demonstrating the type of instructional practices the district/school saw as critical to their overall improvement strategy. When possible, site researchers observed data team meetings where teachers reviewed student assessment data and worked with the instructional coaches to design instructional strategies that evolved from the observation and analysis.

Data analysis and Case Studies

The final product of the study is this report which includes: the preceding contextual information; the description of the Wyoming Improving School from the perspective of leading Wyoming educators; the study methodology; and the following cross-case analysis, along with the district and school case study write-ups. The outline for the cross case analysis and the case studies follows the outline of the Wyoming Improving School as described above. The issues identified for the Wyoming improving school were, in fact, quite similar to the strategies identified for schools that double performance in Odden and Archibald (2009) and Odden (2009, forthcoming).

The case studies (attached as appendices B through E) provide rich data on resource use focused on each school's key educational improvement strategies. They also contain detailed tables displaying resource use in each school compared to the resources provided by the funding model. This approach made it possible for us to more closely link resource use practices to strategies that are successful to substantially boosting student academic learning.

CROSS CASE ANALYSIS

The following is a summary of findings across the district and school cases. When possible, we make distinctions between the improving/high performing schools and the non-improving schools but in many instances the differences are not dramatic. This may in part be due to the problems cited above regarding the limitations of current testing data to identify improving and non-improving schools.

Reviewing Student Performance Data

All of the schools reviewed PAWS testing data to determine the performance status of the school. In several cases, schools also reviewed data from the NWEA MAP tests, both because those data were immediately available to the district/school (as compared to PAWS tests which were given in the spring with the results not available until late summer) and because many schools and districts believed MAP data were more closely aligned to their curriculum and instructional strategies.

The test score analyses led most schools and districts to general or macro understandings of the performance challenge they faced, such as low scores in writing, low percentages of students proficient in reading, or unacceptable student performance in the problem solving aspects of mathematics.

Few if any districts or schools, however, focused on the advanced level of student performance on PAWS. One high performing school (meaning the percentage of students scoring proficient or above on PAWS was in the 90th percentile) said that it was interested in student performance "beyond" that of the advanced levels in PAWS. However, only small portions of students in this school scored at or above the advanced level on PAWS, so it appears that what the school addressed was something other than attaining the advanced level of performance that would be indicated by PAWS.

In our previous work related to the doubling of student performance, schools that move from good to great conduct an in-depth analysis of their test scores and instructional needs. What we found in reviewing how the sample schools in Wyoming use student performance data is that:

- The focus of the analysis of student performance was based largely on whether students were or were not performing at the proficient levels on PAWS
- Virtually no district or school mentioned analysis of student performance at the advanced level of PAWS

- No district or school set a goal to increase the number or percentage of students scoring at the advanced level of PAWS
- Schools did not appear to be developing in-depth analyses of their needs – a crucial step in moving from good to great – rather they seemed to focus on year to year test results.

Curriculum Mapping

In one of the large districts we studied, each school defined the essential skills at each grade level and identified which standards they addressed. They then met in vertical teams to backward map the curriculum and developed pacing guides to help with daily instruction.

Most districts and schools were beginning to map the school or district curriculum to the state content standards, although many had just embarked on this process. Most were also somewhere in the process of identifying the “essential elements” that needed to be taught and learned in core content areas at each grade level. This was generally true across all schools we studied. The relatively recent efforts to map curriculum to the state standards suggests a lack of clarity on the part of leaders (district and school), IFs and even teachers on what the prime focus is or should be for teaching and learning. We found cases where there was an emphasis on reading, writing and/or mathematics – particularly math problem solving – but beyond those broad emphases, there was limited focus on specific content.

Setting Goals

We found few examples of ambitious goals among our sample schools. With the exception of Shire County and the co-located Clydesdale schools, and the non-improving school in Shetland County, none of the districts or schools had what we would identify as ambitious goals. Other than these three examples, the district and school stated goals were generally along the lines of: to “improve reading;” to “improve writing,” often times across the curriculum; and, to “improve mathematics,” sometimes with a focus on improving mathematical problem solving. In several schools, the stated goal was to meet AYP, and in one of those schools AYP had been exceeded for all of the past several years, the result being that there was no goal to even improve so long as the school made its AYP target.

In one of the large districts, the superintendent had specific, numeric goals like moving all students out of the basic or below basic performance category to proficient, to get 100% of all students reading at grade level by the 3rd grade and to be in the top 10% of districts on PAWS (now being in the middle of the pack), but no principal or teacher mentioned these specific goals.

In both of the large districts, the district strategic plans and goals differed from goals for academic achievement of students. For example, one large district had four goals: 1) focus on excellence to every student, 2) build a system that has positive relationships between adults and students, 3) maintain physical and mental safety for students and staff, and 4) build strong collaborative relationships. In the other large district, the strategic plan focused on: 1) leadership development, 2) strategic communication, 3) data driven decision making, and 4) curriculum and instruction. While these are important and worthwhile goals that might be linked to student achievement, they are not goals focused explicitly on student achievement.

In one small district, the goals were numeric and specific, but not particularly ambitious, stating that:

- Every 3rd grader will read at grade level
- 80% of students will read at grade level in grades 5, 8 and 10
- 80% of students will meet expected growth in reading vis-à-vis NWEA MAP growth targets

The goals for this district were patterned after those in the Kennewick School District (in the state of Washington) which did double student performance over a 5 year period (Odden & Archibald, 2009) but whose goals were to have 90% of students reading at grade level. This small district followed through on the reading goal in multiple ways:

- It funded reading specialists in each elementary school (1.5 to 2.0 FTE)
- It chose IFs for their literacy expertise
- It focused district professional development days on reading and writing in the content areas

These goals and strategies seemed to produce results – the percentage of district students scoring proficient or advanced in reading was above the state average at every grade level, and the percentage of students scoring proficient or advanced in reading increased more between the 2006 and 2008 test than the average overall state increase with the exception of grade 8.

This district let each school set its own goals for student writing and there was no district emphasis on achievement in mathematics.

Overall, it would be hard to characterize these goals as “ambitious” or “setting a high bar.” On the assumption that Wyoming policymakers, taxpayers and the public want larger improvements in student academic achievement, goals for improved performance need to be enhanced. The implication, drawing on just the findings from the schools and districts studied is that schools and districts should be encouraged to:

1. Set more ambitious goals
2. Set numeric goals so goal attainment can be measured and assessed and schools held accountable for results
3. Set goals that are above and beyond the expectations of AYP and encourage if not require schools and districts to set goals higher than just reaching a standard they already meet such as attaining AYP when the school already meets that goal

New Curriculum and Instructional Materials

The districts and schools in our sample took some common approaches to curriculum and instruction issues, and they also exhibited some significant differences in their approach, many diverging considerably from the vision articulated in the Wyoming Improving School document

described and included above. Below we discuss the various approaches to math, reading and writing curriculum materials in the sample schools/districts.

Math

For math, many of the improving schools in one large district and all the schools in the other large district selected a specific math program that included *Bridges* for grades K-2, *Everyday Math* for grades 3-5, and *Connected Math* for grades 6-8. In one large district, all of the schools used this common math curriculum.

In the small districts, most elementary schools selected Scott Foresman for the math program, but one selected McDougal Littell and one middle school selected Scott Holt.

However, one of the large districts and one small district did not require schools to use a common mathematics textbook series or curriculum. The belief was that each school would be able to select a textbook series that was best for its students. Moreover, in the one high school in the small district with the McDougal series at the elementary level, three teachers taught algebra I and each used a different text and different tests, so it seems unlikely that there was a common approach to teaching algebra. Additionally, we found one of the improving elementary schools in the second large district had selected the Everyday Math series for its math program, while the other improving elementary school had selected Saxon math. This diversity in curriculum choices across and within schools is in contrast to the vision of a Wyoming Improving School and most studies of dramatically improving schools that have a common curriculum program across all schools and classrooms in the system.

Reading

We found even less commonality among reading programs. In both of the large districts, there were no common reading books. Though both districts adopted a “balanced approach” to reading, the districts let each school select the curriculum materials that would constitute the site specific reading program and the emphases each would place on improvement in reading among the students, which inevitably leads to significant variation in the reading program across schools. The two small districts adopted the Houghton Mifflin elementary reading program, which also claims to have a “balanced approach” including phonics, reading comprehension, and writing. Again, letting each school create their own reading program, with no common text materials, is different from both the vision in the Wyoming Improving School and in findings of Odden and Archibald (2009) and Odden (2009, forthcoming) in their work on schools and districts that have produced large improvements in student reading achievement.

Writing

Unlike math and reading, we found more commonalities across districts in writing curricula. Most of the districts and schools had used Lucy Calkins to improve student writing, and one common feature of most of the improving schools studies was substantial improvements in student writing performance. Calkins is a well know professor from Teachers College,

Columbia University who does professional development in writing across the United States. Her program includes Six Traits of Writing, which identifies six elements of good writing practice, as well as Step up to Writing, which covers how to teach students to write.

At the same time, however, most of the teachers and administrators we interviewed talked less about how to teach writing and more about how to “score” student writing samples by using specific writing rubrics. Much of the training in writing that was mentioned focused on scoring student writing samples to writing rubrics, often having multiple teachers score the same writing sample so teachers could agree about what constituted good writing. From the interview responses, it seemed that many schools had found the six traits useful for assessment but still needed a more detailed way to teach writing. . Thus, many schools had adopted or were in the process of adopting Step Up to Writing. Most of the improving schools in writing made heavy use of the Lucky Calkins training in writing and produced improved writing achievement for their students.

Our study found few if any examples of teachers working together to develop common curriculum units in any subject that they would then teach simultaneously and debrief on how the unit went, which is an emerging characteristic of dramatically improving schools.

In summary, although practice differed in terms of curriculum and textbook approaches, the most prominent finding from our field work is that few of the schools and districts believed that a common textbook for either math or reading should be required. In fact, the two large districts have a policy of not having a common reading program across elementary schools. These practices are at odds with the vision in the Wyoming Improving School. Moreover, none of the schools in our sample had doubled student performance in reading nor had they improved the percentage of students with reading scores at the advanced levels.

A Vision of Effective Instruction

Case researchers asked all persons interviewed to describe the district and school’s vision of effective instructional practice. The responses were somewhat surprising to us; several respondents were surprised by the question and had to think hard about an answer; others said they hadn’t thought about it or it was on a future agenda. Some said good instruction was when students learned. Others said everyone knows what good teaching is, but then couldn’t articulate it. And some said good instruction was when students were engaged. The result: the study did not find that schools and districts had very clear or specific understandings about good instruction.

Some districts and schools did refer to their use of the Danielson Framework for Teaching to put more substance and structure into teacher evaluation systems. However, it should be noted that while the Danielson Framework does identify four domains of teaching – planning, classroom management, instruction, and professionalism – and lists multiple indicators under each of those four domains, the descriptions of teaching are generic and not specific to any content area. The framework speaks to student engagement, asking a variety of questions. But the framework is silent on how specifically to teach reading (phonemic awareness, phonics, vocabulary, decoding, reading comprehension, etc), writing, mathematics, science or any subject area. Therefore, if a

school is seeking to improve student performance in reading and reading comprehension, there is little in the Danielson Framework of teaching that suggests specifically what teachers should be doing in terms of classroom practice. Even districts using the Danielson Framework have only some general ideas of what constitutes good teaching.

In the two large districts with a “balanced” approach to reading, which means a program that gives attention to phonemic awareness, phonics, decoding, vocabulary, reading, reading comprehension, writing and speaking, it was not clear how each teacher addressed all those elements of the “balanced” program. The main focus was on having “leveled” books for student to read, i.e., books organized by reading level. We found many reading classes began with silent and guided reading, with most students reading on their own. So it was not clear how instruction in all those important areas actually was provided, or that much of it was provided.

In sum, unlike the examples in the Wyoming Improving School, the districts and schools studied did not have a well articulated vision of good instructional practice, particularly as it pertained to teaching content such as reading or mathematics.

On the other hand, though not always articulated very well, most of the schools had a better understanding of how to teach writing, generally through the adoption of the Lucy Calkins Step up to Writing program. Similarly, we found that while not always stated clearly, to the degree that teachers were teaching according to the pedagogical practices included in the math curriculum of *Bridges*, *Everyday Math* and *Connected Math*, math instruction probably reflected a more problem solving approach, which aligns with cognitive perspectives on how students learn math and to solve problems in mathematics.

In one observed math classroom in an elementary school in one of the large districts, the lesson was about using a math concept to solve a problem. The problem was posed; students were given time to think about how to solve the problem, and allowed to talk with a partner; various students proposed different solutions to the problem and defended their solutions vis-à-vis teacher and student questions; and at the end of the class, the teacher summed up the commonalities of the various proposed solutions. This kind of classroom practice is both what cognitive research suggests is effective and is embedded in the *Every Day* math curriculum program.

Whole Group Instruction

One of the most striking and unanticipated findings of the study was that, particularly in elementary schools, the amount of time spent in whole group instruction was relatively short. Even when 90 or more minutes were allocated for reading instruction, the entire class often started out immediately in groups with no whole class instruction, or whole group instruction was relatively short and instruction moved to small groups very quickly. In most classes, when small groups were established, an effort was made to provide an adult in all or almost all of the groups. In the case where there were more groups than adults, some of the groups spent part of the time in silent reading until an adult joined their group for reading and/or other instructional activities. Even when other teachers “flooded” a classroom during small group instruction, the time for actual teaching generally amounted to no more than 30 minutes. In one of the schools in

a large district that allocated 90 minutes for reading, that time was divided into 30 minutes for guided reading, 30 minutes for interventions, and 30 minutes for independent reading, so only when the entire guided reading segment was used for instruction did reading instruction rise to 30 minutes. We would call this instructional approach mini lessons. Instruction was provided through a series of *mini-lessons*, followed by group work and then (see discussion below) multiple interventions.

A number of schools divided students into groups for reading based on skill levels or perceived reading ability regardless of grade level. During these reading periods, students went to alternative classrooms for reading instruction. One school called this program walk to read, and school personnel indicated that by having all children move around it was less embarrassing for children than being pulled out as struggling because everyone went to a group, whether for intervention or enrichment.

Though small groups are good strategies for focusing on specific issues with a small number of students, it works best when combined with significant whole group instruction. In fact, many elementary schools in the improving schools we have studied in other states group students across the early elementary grades so that students at the same reading level are grouped together; this approach allows teachers to provide longer amounts of whole group instruction as the students in each class are at the same point in reading achievement. Small groups are then used to target specific reading issues or skills. We did see this approach used in one small district. Furthermore, several people interviewed said that they might have gone too far in always using small groups and that some more whole class instruction might be needed.

The approach of relying less on whole group instruction and more on mini-lessons in small groups also typified mathematics instruction. Moreover, in many math classes, the day began with homework review, then a few minutes of instruction, and then students working independently, so that by the end of the class period, only 10-15 minutes of actual instruction was provided.

Neither of these instructional practices in reading or math has been shown by research to be effective.

Many Electives in Secondary Schools

In secondary schools, we saw similar examples of relatively little whole group instruction. This played out frequently through the proliferation of electives, which we found in every secondary school, and which we also found in our initial study of Wyoming school use of resources. We found that core classes – English/Language Arts/Reading/Writing, mathematics, science, history/geography and world language – constituted only 50 percent or less of all classes taught. Further, a number of secondary schools had 7 or 8 period days, which meant that, given a fixed amount of time in the regular school day, each period was only 42 or so minutes long. One middle school had an eight hour schedule, with 90 minutes during the middle of the day for a 30 minute lunch period and a 60 minute “intervention” period for all students, whether they needed intervention or not. As a result, each regular classroom period was only 44 minutes, limiting time for actual instruction to occur.

There were a few examples of block scheduling at the secondary level, and one of the small districts had moved to a 4 day a week schedule with longer school days. Consequently, that district offers longer instructional periods each day, but one fewer class period a week, meaning total minutes for core classes are not substantially different from those in the more traditional 5 day a week class schedules in the other districts in the sample.

In sum, we were somewhat surprised by what we found in reviewing schools' instructional practice. The schools seemed to have a limited understanding of what constitutes effective instructional practice, particularly in content areas. The amount of time spent on whole group instruction was quite low in elementary reading and mathematics averaging 10-15 minutes for each subject. And, because of the extensive list of elective classes offered in secondary schools, time allotted for core class periods frequently was in the range of 40 to 45 minutes a day.

Data-Based Decision Making

The study found that schools and districts used multiple data on student performance beyond PAWS. Many used NWEA MAP data from tests which typically are given two to three times a year. Many also used STAR, which is a test of reading and math achievement typically given at the beginning of the year. DORA is also used in a number of the schools. One large district has also developed its own student achievement testing data. There were several instances where schools use DIEBELS as well as AIMSWEB, both of which are more formative assessment systems for reading and mathematics. And as mentioned above, several schools focused considerable time on scoring student writing assignments.

However, the student data were used largely to assign students to groups within classrooms and to track how students were performing. For example, various schools and districts used PAWS, STAR, DORA and sometimes even MAP at the beginning of the year to put students into groups.

Though these test data, which are more summative and benchmark tests, were referred to as "formative" assessments, they rarely were used as formative assessment data to design instructional practice or lessons a priori, i.e., before they were taught. The main idea for formative assessments is that they are diagnostic assessments, usually given to students before a curriculum unit is taught; they are intended to be used to adapt lesson plans to the status of student learning, and thus used to modify instruction before it is provided.

But nearly all those interviewed, from superintendents to teachers, talked about using the data to group students for leveled reading or small group instruction focusing on specific areas of need identified by NWEA-MAP, to track student performance, to look back at how students did after the teaching over the course of a quarter or nine week time frame. Certainly this performance monitoring would be helpful to teachers, IFs, principals and others because everyone would be tracking the success of the past instructional efforts. But there were fewer instances in which micro-formative assessment data were used to plan lessons or instructional units so that they would be more effective and tailored to the exact knowledge status of the students. In one large district, schools did engage with the data in their professional learning communities and discuss changes to instructional practice and interventions based on student needs. As mentioned, there

was a heavy emphasis in most improving schools on double scoring of student writing samples, which is another way of monitoring student performance in writing to a set of clear standards.

Monitoring student performance on multiple performance measures constitutes the initial steps of engaging in data based decision making, and developing a performance culture in schools and districts. But in the Wyoming Improving School vision and the practice of schools in other schools that have doubled performance, data based decision making usually includes use of more micro-formative assessment, with the data being used, often by Professional Learning Communities, to hone instructional practices and lesson plans before they are taught, modifying them to the more precise learning status of the students revealed by the formative assessments. An article in the Summer 2009 issue of the Journal of Staff Development, by Julia Steiny (2009) describes two different, teacher focused scenarios for how formative assessments can be used to shape teaching practice before it is provided, in the context of teacher collaborative work on curriculum and instruction. The study found a few isolated examples of this type of data-based decision making, but it was not the norm.

Interventions for Struggling Students

The study found multiple interventions for struggling students. We found the beginnings of versions of “response to intervention” in that many schools identified various instructional modifications made in the regular classroom, the extensive use of small groups which is a next stage of modification within the regular classroom, extended day assistance, summer school, and special education. We found only limited one-on-one tutoring at elementary schools, and almost no tutoring in middle and high schools. A sequenced approach to intervention was explicit in only two districts, and it was left up to teachers and schools to design such an approach in the other districts and schools. Nevertheless, we found the foundational beginnings of efforts to provide a continuum of services to student struggling to meet standards, but most districts and schools were still working to make this approach more specific and detailed.

Tutoring, even though it is the most effective initial extra help strategy, and fully resourced in the Wyoming Funding Model, was rarely used. In one large district, tutoring was provided only for Grade 1. In the other large and small districts, there were people with the label “tutor” but often they actually were used for small group instruction during intervention time, so really did not tutor. In the other small district, there were no tutors, though there was a Title I supported “at risk” coordinator who did some tutoring but was mainly used for small group support. In sum, there was very little tutoring in elementary schools, scant versions in middle schools and virtually none in high schools.

On the other hand, many schools had multiple interventions from even the first instance of instruction, including:

- Fastmath, a computer program to help with learning elementary math facts
- Extensive use of small groups in reading and math with regular teachers and tutors working with the students in the small groups
- SRA reading
- AIMSWEB extra help in math and reading

- Homework help during the regular day
- Before and after school extra help
- Many other specific extra help programs in reading, writing and math

What was striking was the multiplicity of “interventions” and the ability of principals and teachers to articulate the many interventions. At first, the impression was that many schools were what have been called “Christmas Tree” schools in the past, having many intervention programs. But what became clear, we think, is that the multiplicity of interventions was needed because there is so little whole group instruction. Mini-lessons are not an effective approach in getting students to learn to high levels unless they are accompanied by more whole group instruction, so most students needed interventions in order to learn the material. An alternative explanation might be that schools are so focused on interventions as the way to ensure students understand the material and can do well on standardized tests that they don’t focus sufficiently on developing whole group instruction plans and programs.

The commitment to interventions is commendable as it reflects a commitment to do more for struggling students. One example of this strong commitment to interventions was the junior high school described above with seven content periods and a 90 minute period in the middle of the day which provides students with 30 minutes for lunch and 60 minutes for interventions. This example represents both the commitment to going the extra yard for struggling students, and also shows how the focus on interventions results in shortening the length of time available for core instruction. In fact, the school provided more minutes of time for interventions than to any one subject during any period during the day. It might also be interpreted as an example of too heavy a reliance on interventions. A more focused curriculum and fewer periods combined with more whole class instruction minutes could possibly reduce the need for 60 minutes of interventions for all students every day.

Our conclusion is that schools need to focus more on longer times for whole group instruction and to enhance instructional practice with more explicit approaches to teaching reading and mathematics, or any content area. We believe that such a change would produce more student learning with the first dose of instruction and therefore lead to less extensive use of interventions. Several teachers interviewed in districts with a “balanced approach” to reading felt that a more common approach to a reading curriculum was needed, including a common textbook series, and that more whole group instruction was necessary. They said that the system had leaned too far toward small groups of students and had reduced whole group instruction to such small amounts that a proliferation of interventions was necessary and had ensued. More whole group instruction combined with a more systemic reading program would reduce the need for the multiplicity of interventions.

Professional Development and Roles of IFs

The districts and schools had varied approaches to professional development, with only one district providing the ten days of professional development funded for teachers in the Wyoming Funding Formula. Pupil free professional development days totaled 6 in one large district, 9 in the second large district, 7 in one small district, and 14 in another small district. The last district had a total of 14 professional development days available because it used a four day school

week, and was able to use some of the Fridays for professional development for teachers. Though some districts spent additional dollars for professional development during the summer and at other times when school is not in session, only one district studied had actually included a full ten days – or more – of professional development in the regular teacher work year, which was the intent of the funding formula.

The focus of professional development also varied considerably across the schools and districts. We found professional development offered on the establishment and operation of Professional Learning Communities, on technology including embedding technology into the curriculum and the use of smart boards, developing “essential skills” which are content standards for each grade, and developing pacing guidelines to help all teachers cover all of the essential skills. But though there was some professional development for using new textbooks that had been adopted, often provided by the publisher, there was less mention of professional development for reading, mathematics, or other content areas. If the goal was improved student performance in the core subjects, there was less mention than we expected to hear of professional development in either the content of those core classes or how to teach that content, except for writing where many schools and districts used Lucy Calkins.

Most schools and districts employed the number of instructional facilitators funded through the model, but there was wide variation in the uses of IFs. In one large district, IFs primarily worked with teachers individually; there was little IF work with groups of teachers or with teachers in Professional Learning Communities (PLCs). In the other large district, IFs did work with teachers in PLCs, but often the IF would analyze the student performance data and then suggest to teachers what they should do given the results. This contrasts with the Wyoming Improving School Vision where the IF would work directly with *teachers* to help them analyze student data and determine the implications for instruction. Further, there was very little IF work with teachers on formative assessment data to design/adapt/hone/tailor curriculum units and lesson plans based on knowledge of students *before* the units and lessons were taught.⁶

In one large district, while the IFs were content focused, they were not assigned to schools but worked with many schools across the district, which limited the time they could spend in any one location. Further, this district often assigned IFs to work with PLCs, but this meant there could be a math IF who was working with a Spanish PLC, not necessarily the best match.

Though IFs did not spend much of their time on administrative duties, which many had feared, they spent less than half of their time helping teachers or groups of teachers improve their instructional practice, though this was certainly an important focus. During the time spent helping teachers, which averaged between one-fourth and one-third of IF time, IFs both coached teachers and modeled good instruction for them. Much of the balance of IF time was spent analyzing student data – mostly test results and explaining the findings to teachers. They seemed to spend relatively little time helping teachers develop the skills to analyze those data on their own.

At the time we conducted our field work, the overall Wyoming education system was still getting used to the presence of IFs. Teachers appear to be gradually becoming more comfortable with

⁶ Recall that many respondents called benchmark data formative data so we are making a technical distinction here.

another professional observing their instructional practice, which is a necessary first step and it is common for IFs to need time to gain teacher respect and trust in other systems that adopt an instructional coaching approach to improving instructional practice.

A substantial portion of IF time was spent independently analyzing student data and then presenting the results to teachers both individually and in groups. In these presentations, the IFs would indicate what general parts of the curriculum students were learning, and how the performance data could be used to put students into groups, since providing instruction in small groups was such a major part of the teaching delivery strategy for most schools.

Several districts had brought in Jim Knight, a nationally recognized expert on the use of instructional facilitators/coaches, to help them determine the best uses of IFs. We expect that Wyoming will continue to improve the use of IFs, which is a critical component of any district or school's strategy for improving instructional practice and student achievement.

Dalmatian Elementary School provides one of the best examples of the power of focused professional development. This school doubled student performance in writing from 2006 to 2008, moving grade 5 performance from 24 % proficient or advanced to 63%, grade 3 performance from 17% to 34%, and a more modest increase for grade 4 from 63% to 70 % proficient or advanced (although grade 4 did start from a much higher place). When asked what accounted for this jump in writing scores, the principal reported that when the state transitioned from WyCAS to PAWS, the school "realigned our goals and what it would take to meet those goals." He explained that the school "renewed our commitment" to the Six Traits of Writing and Step Up to Writing programs by re-training teachers. This re-training was done partially through building and district PD days, and partly through teachers completing Professional Development Projects (PDP) focused on effective writing instruction. Teachers reported that the renewed focus on the Six Traits of Writing and Step Up to Writing strategies lead to a common language around writing instruction and assessment and more collaborative work among teachers. As one teacher noted, "We are collaborating our efforts to have a more systematic approach," in writing. This school also has a total of 14 professional development days – more than the funding model provides – and is taking advantage of that time to also develop a more common and systemic approach to writing instruction.

Our sense is that these districts have laid a solid foundation for the broadening and deepening of both professional development days and the roles of IFs. As noted above, introducing IFs into a school system is complicated, because the typical practice in the past is that teachers work on curriculum and instruction by themselves in isolation. It takes several years for teachers to become comfortable simply talking about instructional practice to say nothing of having another teacher in their classroom observing their teaching or even modeling a more effective instructional approach. If Wyoming enhances its use of more micro- data based decision making, with IFs working with teacher PLCs to assess how formative data could be used to modify curriculum units and lesson plans before they were taught, we believe the state and its schools could move up to the next level of improving curriculum and instructional practice in schools, boost instructional effectiveness and have teachers become more comfortable with a collaborative approach to teaching. The widespread collaborative work on writing instruction is the best example of what could happen in more content areas.

Leadership, Professional Learning Communities and Professional Culture

There clearly were widespread efforts to develop and use leadership, particularly for instructional improvement, throughout all of the districts and schools studied. Some professional development days were focused on instructional leadership, some specifically for principals. IFs were trained to be instructional leaders and coaches. Teacher leaders also received training in a number of areas. Training for PLCs focused in part on developing leaders for each PLC. Superintendents were consciously and energetically striving to provide both general educational leadership and instructional leadership. Many districts had adopted a “walk through” approach to instructional supervision and teacher evaluation, with central office staff and principals conducting walk throughs together, and trying to do pre- and post- walk through conferencing as well. So there was considerable and authentic efforts to broaden leadership to include teachers and to have administrators throughout the system provide instructional leadership.

Many but not all schools, and not all improving schools, provided and scheduled sufficient time during the regular school day for teacher teams to meet and work on curriculum and instruction. Many schools, moreover, were aware of this shortcoming and planned to modify school schedules in the future to provide more collaborative time for teacher teams. We would encourage these and other schools to move aggressively forward on this agenda.

Incorporating Outside Professional Knowledge and Expertise

There were also extensive efforts to “reach out” to the broader professional community and bring experts and expertise into the district and school. In addition to the previously mentioned widespread use of Lucy Calkins for writing and Jim Knight for PLCs, other experts who were brought in to help schools include the DuFours for PLCS, Lindamood Bell for reading, Shipley for goal setting, Patricia Cunningham for balanced literacy, Charlotte Danielson and her Framework for Teaching, and Bob Marzano on effective instruction. Some districts and principals also brought in research articles for group discussion, book reading on important educational topics, and sent teachers to state and/or national conferences. The use of *Bridges*, *Everyday Math* and *Connected Math* represents adoption of a research-based and effective new mathematics curriculum programs.

In sum, there were substantial efforts to be professional, and bring in research, best practices, and the top experts to help improve school strategy, curriculum, and related instructional and school improvement strategies.

USE OF RESOURCES

Overall, the study of these schools found use of resources somewhat more aligned with the Wyoming Funding model than the previous Lawrence O. Picus and Associates study of use of resources by all schools in the state. Further, among the individuals we talked with, there was generally no discussion that the current level of funding was not adequate to meet school needs. We would say, moreover, that use of resources as suggested by the model is important to improved student achievement, but it is clear from our site visits that schools must use strategies

that research has shown to be effective in order to have such resource use practices lead to dramatic improvements in student learning.

Many of the elements of the Wyoming improving school that require few resources were not present to a large degree in many of the schools we studied. On the other hand, if a school were working in a way that fully reflected the Wyoming Improving School vision it would be using resources according to the funding model and it would also have ambitious numeric goals, a clear view of effective instructional practice, and more widespread use of formative data to improve curriculum and instruction, practices that go beyond just resource use.

In terms of resource use, we found the following compared to the funding model:

- Generally, somewhat larger elementary class sizes
- About the same percentage (20) for elective teachers in elementary schools
- From 40-50 percent more elective teachers than funded through the model in secondary schools
- Much less librarian staff at all levels
- More use of instructional aides
- About the same level of school administration
- IFs at about the same level, and in several instances, above what is provided by state funding
- Much less use of tutors for one-on-one interventions, particularly at the middle and high school levels.

This seems to represent a different concept of how to produce learning. We found more focus on short bursts of instruction followed by multiple interventions, whereas the theory of action in the model is more whole-class, teacher directed instruction followed by small group or 1-1 tutoring.

In terms of elementary class size, all of the elementary schools were 1 or 2 section schools (with two schools in the larger districts having a third section of one grade level) and organized class sizes according to the number of students at each grade. In some cases, class sizes did not rise above twenty (recall that the model funds core elementary class sizes at a ratio of 16:1. At that level, we see this use of resources for core classes as not being a major concern in strategic allocation of staff to improve student performance. Others might take issue with this conclusion, but we believe that in the case where class sizes are less than 20, the class sizes we observed reflected more the actual student numbers in the schools rather than a deliberate effort to have larger classes.

Above 20 students per elementary classroom, more concern is warranted. We suspect there is evidence of districts or schools substantially increasing class sizes to enable them to use resources for other purposes. For example they may have used the savings from lower numbers of staff (or from other areas) to offer higher salaries than are generally funded through the model. An analysis of class sizes in the six elementary schools we studied in the two large districts revealed a total of 81 teachers with regular assignments compared to a total of 103.7 regular teachers generated by the model. Table 1 shows the number of teachers observed and the

number of teachers generated by the model at each of the six elementary schools. There are a total of 22.7 fewer teachers in core programs in elementary schools than funded by the model.

Table 1
Actual Teacher Assignments Compared to Model Generated Teachers by School

School	ADM	Observed Teachers	Model Funded Teachers	Difference
Malamute School District				
Dachshund	310	16	19.3	3.3
Beagle	255	12	15.9	3.9
Great Dane	290	14	18.1	4.1
Total	855	42	53.3	11.3
Shetland School District				
Palomino	330	15	20.6	5.6
Arabian	162	9	10.1	1.1
Quarter	315	15	19.7	4.7
Total	807	39	50.4	11.4
Combined Total	1,662	81	103.7	22.7

To develop a clearer picture of the variation between the model and actual elementary class sizes, Table 2 shows the average class size by grade for each of the schools we observed. Two patterns emerge from this. First many of the class size averages exceed the 16:1 ratio provided through the model (and recall at the elementary level, each school receives an additional 20% of the number of teachers generated for core instruction. Additionally, average class size seems to get larger at the higher elementary grade levels, and finally, in conjunction with the data in Table 1 it is clear that at least in these two districts, core elementary teachers are under-resourced compared to the funding model.

Table 2
Average Class Size by Grade for Observed Schools

School	K	1	2	3	4	5	6
Malamute School District							
Dachshund	17.0	17.0	21.5	21.5	26.0	26.0	21.0
Beagle	16.0	16.0	20.5	20.0	19.0	20.0	--
Great Dane	17.0	16.0	20.0	16.5	18.0	22.5	16.5
Shetland School District							
Palomino	21.5	17.5	18.0	25.0	26.0	25.5	25.5
Arabian	21.0	21.0	21.0	23.0	11.0	25.0	23.0
Quarter	20.5	14.7	20.5	21.0	24.5	24.5	22.0

Given the widespread use of fewer library staff than provided by the funding model, our conclusion at this point is that the funding model could be over resourcing this function. No person interviewed stated that library staff was insufficient; and when asked what more resources they would like – their future wish list – no one mentioned more library staff. It could be that software systems that automate library services can, with fewer staff than in the funding model, operate a school library efficiently.

We also found that schools and districts under utilize professional tutors is something that should be addressed. One-to-one and very small group (maximum of 5 students) tutoring is the most powerful intervention for any student struggling to learn to standards. After regular class accommodation efforts, tutoring should be the first intervention. And as the group size increases, tutoring time should also increase. If schools would provide more whole group instruction, and then follow that with individual or very small group tutoring, we believe there would be less need for the multiple interventions in the schools that we studied, and that overall student performance would rise.

REFERENCES

- Chenoweth, Karen. (2007). *It's Being Done. Academic Success in Unexpected Schools*. Cambridge: Harvard Education Press.
- Childress, Stacey, Richard Elmore, Allen Grossman & Susan Moore Johnson. (2007). *Managing School Districts for High Performance*. Cambridge: Harvard Education Press.
- Fermanich, M., Mangan, M.T., Odden, A., Picus, L.O., Gross, B., and Rudo, Z. (2006). *Washington Learns: Successful District Study*. Submitted to the Washington Learns Steering Committee, Olympia, WA available at:
http://www.washingtonlearns.wa.gov/materials/SuccessfulDistReport9-11-06Final_000.pdf
- Odden, A. (2009, forthcoming). *Ten Strategies to Doubling Student Performance*. Thousand Oaks, CA: Corwin Press.
- Odden, A. and Archibald, S. (2009). *Doubling Student Performance and Finding the Resources to Do It*. Thousand Oaks, CA: Corwin Press.
- Odden, A. Picus, L.O., Archibald, S., Goetz, M., Mangan, M.T., and Aportela, A. (2007). *Moving from Good to Great in Wisconsin: Funding Schools Adequately and Doubling Student Performance*. Madison: University of Wisconsin, Wisconsin Center for Education Research, Consortium for Policy Research in Education. Available at
<http://www.wcer.wisc.edu/cpre/finance/WI%20March%201%202007%20Adequacy%20Report1.pdf>
- Odden, A., Picus, L.O., Goetz, M., Mangan, M.T., and Fermanich, M. (2006). *An Evidence-Based Approach to School Finance in Washington*. Submitted to the Washington Learns Steering Committee, Olympia, WA available at:
http://www.washingtonlearns.wa.gov/materials/EvidenceBasedReportFinal9-11-06_000.pdf
- Picus, L.O., Odden, A., Aportela, A. Mangan, M.T., and Goetz, M. (2008a). *Implementing School Finance Adequacy: School Level Resource Use in Wyoming Following Adequacy-Oriented Finance Reform*. North Hollywood, CA: Lawrence O. Picus and Associates. Prepared for the Wyoming Legislative Service Office. January 25, 2008. Available at,
<http://legisweb.state.wy.us/2008/interim/schoolfinance/Resources.pdf>
- Picus, L.O., Odden, A., Aportela, A. Mangan, M.T., and Goetz, M. (2008b). *Implementing School Finance Adequacy: School Level Resource Use in Wyoming Following Adequacy-Oriented Finance Reform*. North Hollywood, CA: Lawrence O. Picus and Associates. Prepared for the Wyoming Legislative Service Office. June 30, 2008. Available at
www.lpicus.com.
- Steiny, Julia (2009). A Work in Progress: Formative Assessments shape teaching and provide mutual professional development. *Journal of Staff Development*, 30(3), 32-37.

Supovitz, Jonathan. (2006). *The Case for District Based Reform*. Cambridge: Harvard Education Press.

APPENDIX A – INTERVIEW GUIDES

1. Superintendent
2. District Curriculum Supervisor
3. District Professional Development Coordinator
4. Instructional Facilitator Supervisor
5. School Principal
6. School Instructional Facilitator/Coach
7. Teacher
8. Observation of Teacher Classroom Instruction
9. Coaching Observation
10. Observation: Data Analysis Meeting
11. Teacher Focus Group

**WYOMING SCHOOL USE OF RESOURCES STUDY
Using Resources to Improve Student Performance**

Interview protocol: Superintendent

School District: _____

Name of Superintendent: _____

Contact Phone Number: _____

1. How long have you been the superintendent of this school district?
2. What was your previous position?
3. What are the goals for student achievement in this school district?
4. What is the plan for producing that level of student performance at the schools?
5. What role, if any does the central office play in the schools' selection of curriculum?
 - a. What role, if any, does the central office play in ensuring the curriculum is aligned with state standards?
 - b. What role, if any, has the central office played in mapping curriculum across grades?
6. Has your district defined essential skills?
7. Does this district have a specific view of good instruction?
 - a. If so, what is it?
 - b. How was it developed?
 - c. To what degree have schools bought into it?
 - d. Do you believe it has made a difference?
8. Please describe how you use student assessment data in this district.
 - a. There are a lot of tests: PAWS, NWEA. Do you also encourage or require schools to use another form of testing?

- b. What do you and your staff do with the data from these assessments/how do you use them?
- 9. What kind of professional development does the district offer?
 - a. Do you hold a summer institute? If so, of what length? Are teachers required to attend? If not, is there an incentive for teachers to attend?
 - b. What about other professional development days? How many are there?
 - c. How do you determine the topic(s) for district-based PD?
- 10. Do you or your staff do walk-throughs or any other kind of regularly scheduled visits to the schools to observe instruction in the classrooms?
- 11. Please describe the evaluation process for administrators in your district.
 - a. What is your role in this process?
 - b. If an administrator is underperforming, how do you ensure that they get the help they need to improve their instructional leadership?
- 12. How do you view the role of the coach(es)/IF(s) in this district?
 - a. How many are there?
 - b. Was the district involved in choosing them?
 - c. What do they do?
 - d. How do they work with teachers?
 - e. Do they seem to be helping teachers improve?
 - f. What kind of interaction do you have with them?
- 13. Does the district have a set of strategies for students who are struggling to understand the material presented in the classroom?
 - a. What is the first step?
 - b. What is the second step?
 - c. What if they still don't understand the material they need to master?
- 14. Do your schools have the following? Are any of these district-sponsored programs?

- a. Double period
 - b. Tutoring/small group support
 - c. Parental liaison/support
 - d. ELL
 - e. Extended day
 - f. Summer school
15. Who qualifies for these programs?
- a. Is the district at all involved in determining eligibility criteria?
 - b. Is the district at all involved in determining how/when students are reassessed?
16. Is there a particular process for school-based decision-making suggested or required by the district, such as a school improvement team or site council?
- a. What role, if any, does district staff have in this process?
17. Are the schools in this district fairly consistent in terms of their culture? Please answer the following questions about each of the buildings we are visiting:
- a. How focused is the staff on learning?
 - b. Is there a professional learning community (PLC) at the school?
 - c. How does staff work together?
 - d. How are data used to make decisions?
 - e. Do you believe most teachers are “on board with the school’s vision for good instruction?
18. Is your district part of any regional network, or do you regularly work with other districts in some capacity? Please describe.
19. What resources or support would be needed to continue and/or expand your efforts to improve student performance?
20. Anything I haven’t asked about that you’d like to mention?

WYOMING SCHOOL USE OF RESOURCES STUDY
Using Resources to Improve Student Performance
Interview protocol: District Curriculum Supervisor

School District: _____

Name of Curriculum supervisor: _____

Contact Phone Number: _____

1. How long have you been in this position?
2. What was your previous position?
3. What are the goals for student achievement in this school district?
4. What is the plan for producing that level of student performance at the schools?
5. What role, if any does the central office play in the schools' selection of curriculum?
 - a. What role, if any, does the central office play in ensuring the curriculum is aligned with state standards?
 - b. What role, if any, has the central office played in mapping curriculum across grades?
6. Has your district defined essential skills?
7. Does this district have a specific view of good instruction?
 - a. If so, what is it?
 - b. How was it developed?
 - c. To what degree have schools bought into it?
 - d. Do you believe it has made a difference?
8. Please describe how you use student assessment data in this district.
 - a. Does it guide the selection or implementation of curriculum? If so, in what way?
9. Do you work with the district professional development coordinator to ensure that principals and teachers receive professional development on new curriculums?

10. Do you do any sort of monitoring at the school level of curriculum implementation? If so, please describe.
11. Is your district part of any regional network that involves curriculum in some way, or do you regularly work with other districts in some capacity? Please describe.
12. What resources or support would be needed to continue and/or expand your efforts?
13. Anything I haven't asked about that you'd like to mention?

WYOMING SCHOOL USE OF RESOURCES STUDY
Using Resources to Improve Student Performance

Interview protocol: District professional development coordinator

School District: _____

Name of Professional development coordinator: _____

Contact Phone Number: _____

1. How long have you been in this position?
2. What was your previous position?
3. What are the goals for student achievement in this school district?
4. What is the plan for producing that level of student performance at the schools?
5. Does this district have a specific view of good instruction?
 - a. If so, what is it?
 - b. How was it developed?
 - c. To what degree have schools bought into it?
 - d. Do you believe it has made a difference?
6. What kind of professional development does the district offer?
 - a. Do you hold a summer institute? If so, of what length? Are teachers required to attend? If not, is there an incentive for teachers to attend?
 - b. What about training for administrators?
 - c. What about other professional development days? How many are there?
 - d. How do you determine the topic(s) for district-based PD?

Probe: Do you use assessment data to help determine the topic(s)?

- e. Have you provided professional development on any of the following? If so, please describe and say for whom it was provided:
 - i. Curriculum selection
 - ii. Curriculum mapping
 - iii. Essential skills
 - iv. Use of data
 - v. Creating a systemic strategy for struggling students
 - vi. Teacher evaluation
 - vii. Professional learning communities
 - viii. Other
- 7. Are you involved in helping schools administer school-level professional development? If so, how?
- 8. How do you view the role of the coach(es)/IF(s) in providing school-level professional development?
 - a. What do they do?
 - b. How do they work with teachers?
 - c. Do they seem to be helping teachers improve?
 - d. What kind of interaction do you have with them?
- 9. Is your district part of any regional network, or do you regularly work with other districts in some capacity? Please describe.
- 10. What resources or support would be needed to continue and/or expand your efforts?
- 11. Anything I haven't asked about that you'd like to mention?

WYOMING SCHOOL USE OF RESOURCES STUDY
Using Resources to Improve Student Performance

Interview protocol: Instructional Facilitator Supervisor

School District: _____

Name of Instructional Facilitator supervisor: _____

Contact Phone Number: _____

21. How long have you been in this position?
22. What was your previous position?
23. What are the goals for student achievement in this school district?
24. What is the plan for producing that level of student performance at the schools?
25. Does this district have a specific view of good instruction?
 - a. If so, what is it?
 - b. How was it developed?
 - c. To what degree have schools bought into it?
 - d. Do you believe it has made a difference?
26. How do you view the role of the coach(es)/IF(s) in this district?
 - a. How many are there?
 - b. Was the district involved in choosing them?
 - c. How were they selected?
 - d. What do they do?
 - e. How do they work with teachers?
 - f. Do they seem to be helping teachers improve?

27. Do you guide instructional facilitators in the following issues related to their roles? If so, how?

- a. Determining which teachers they will work with and in what capacity
- b. Using common planning time to work with teachers
- c. Working with teachers during a summer institute or in any sort of summer training capacity
- d. Teaching a teach a lesson side-by-side with a teacher in his/her classroom
- e. Using the method of modeling something for a short period of time, and then having the teacher do what the if just did, and then model something else, and then have them do it – what some call shadow coaching
- f. Providing resources to teachers for use in classrooms

28. Do you work with instructional facilitators around use of assessment data?

- a. In what ways?

29. How much time do you estimate instructional facilitators spend on the following tasks? Do you give them any guidance about how to apportion their time?

- a. Time in classroom helping students
- b. Time in classroom modeling instructional strategies/observing teachers
- c. Time working directly with or meeting with teachers individually or in small groups
- d. Time in preparation
- e. Time in research
- f. Time spent coordinating with other coaches in school/district
- g. Time spent on administrative tasks
 - i. Related to coaching
 - ii. Not related to coaching – general administrative tasks

30. Is there any kind of professional development specifically provided for instructional facilitators? If so, please describe.

- a. Have you provided training on what to do if teachers are resistant to working with instructional facilitators/the best way to approach teachers about improving instruction?
 - b. Do you work with the principal on how to support instructional facilitators at the school level?
 - c. Is there regularly scheduled time for instructional facilitators from different schools to meet together? If so, how is this time used?
31. Please describe the evaluation process for instructional facilitators in your district.
- a. What is your role in this process?
 - b. If an instructional facilitator is underperforming, how do you ensure that they get the help they need to improve?
32. Are the schools in this district fairly consistent in terms of the way they've received instructional facilitators and been willing to work with them?
33. Are there factors you could identify about schools that are more/less receptive, such as those listed below?
- a. Degree to which the staff is focused on learning
 - b. Presence of a professional learning community (PLC) at the school
 - c. How well the staff works together
 - d. How data are used to make decisions
 - e. Extent to which most teachers are "on board" with the school's vision for good instruction
34. Is your district part of any regional network, or do you regularly work with other districts in some capacity? Please describe.
35. What resources or support would be needed to continue and/or expand your efforts?
36. Anything I haven't asked about that you'd like to mention?

**WYOMING SCHOOL USE OF RESOURCES STUDY
Using Resources to Improve Student Performance**

Interview protocol: Principal

School District: _____

School Name: _____

Name of Principal: _____

Contact Phone Number: _____

Demographic Information

	All School Types
Enrollment (September count)	
Grade Span	
Number of Low Income (FRL) Students	
Number of Special Education Students (self-contained)	
Total Number of Special Education Students (IEPs)	
Number of ELL/Bilingual Students (ELL scoring 1-5)	
NOTES	

**(As much as possible confirm what interviewee said in previous year.)
Core academic teachers (Self-contained Regular Education)**

	Teacher FTEs
Kindergarten (Indicate full or part-time)	
Grade 1	
Grade 2	
Grade 3	
Grade 4	
Grade 5	
Grade 6	
Grade 7	
Grade 8	
Grade 9	
Grade 10	
Grade 11	
Grade 12	

English/Reading/L.A.	
History/Soc. Studies	
Math	
Science	
Foreign language	
NOTES:	

Specialist and Elective Teachers/Planning and Prep

	All School Types
Art	
Music	
PE	
Drama	
Technology	
Health	
Vocational	
Drivers Education	
Other Specialist & Elective Teachers	
Other Specialist & Elective Teachers Description:	
NOTES	

Library Staff

	All School Types
Librarian	
Library Aide	
Media Specialist	
NOTES:	

Extra Help

	FTEs
Tutoring Staff (Teachers who work with students in 1-5 ratio)	
Certified Teacher Tutors	
Non-Certified Tutors	
ELL Staff	
ELL Class Teachers	

Aides for ELL	
Other Staff (Including portions of regular teaching staff)	
Other Extra Help Teachers	
Other Extra Help Classified Staff	
Special Education	
Special Ed. Teacher (Self-contained for severely disabled students)	
Special Ed. Aides (severely disabled students—1:1 ratio)	
Special Ed. Teachers in Resource Room	
Special Ed. Aides in Resource Room	
Inclusionary special ed teachers	
Inclusionary special ed aides	
Extended Day	
Extended Day Teachers (number of teachers)	
Extended Day Other Classified Staff (number of classified staff)	
Number of Hours of Extended Day Program (weekly)	
NOTES:	

Other Instructional Staff

	All School Types
Building substitutes	
Other Teachers	
Other Instructional Aides	
NOTE	

Professional Development

	All School Types
Substitutes and Stipends (teacher time)	
Instructional Facilitators/Coaches	
Trainers/Consultants	
Administration	
Travel	
Materials, Equipment and Facilities	
Tuition & Conference Fees	
Other Professional Development	
Other Professional Development Description:	
NOTES:	

Student Services

	All School Types
Guidance	

Attendance/Dropout	
Social Workers	
Nurse	
Parent advocate/community liaison	
Psychologist	
Speech/O.T./P.T.	
Health Asst.	
Non-teaching aides	
Other Student Services	
Description Of Other Student Services Staff:	
NOTES:	

Administration

	All School Types
Principal	
Assistant principal	
Other Administrator	
Description of Other Administrator:	
Secretary	
Clerical staff	
Technology Coordinator/ I.T.	
NOTES:	

Open-ended portion of the interview:

- 37. How long have you been the principal at this school?
- 38. What was your previous position?
- 39. What are the goals for student achievement in this school?
- 40. What is the plan for producing that level of student performance at your school?

41. (Elementary level) What curriculum do you use for reading in your school?
- What textbook do you use?
 - How was the curriculum selected?
 - What kind of professional development did/do teachers receive on this curriculum?
 - Do you monitor teacher implementation of the curriculum for fidelity to the design? If so, how?
 - How do you ensure that the curriculum is aligned with state standards?
42. (Elementary level) What curriculum do you use for math in your school?
- What textbook do you use?
 - How was the curriculum selected?
 - What kind of professional development did/do teachers receive on this curriculum?
 - Do you monitor teacher implementation of the curriculum for fidelity to the design? If so, how?
 - How do you ensure that the curriculum is aligned with state standards?
43. Do all of your teachers use curriculum standards that have been developed by the district?
44. Has your school defined essential skills or done curriculum mapping at your school? Please describe.
- Is your school's version different from what is done (if it is done) at the district level? If so, why?
45. How does this school approach instruction?
- Is there a school view of good instruction?
 - If so, what is it?
 - How was it developed?
 - Do you believe it has made a difference?

46. Please describe how you use student assessment data at this school.

Probes: There are a lot of tests: PAWS, NWEA. Do you also use other forms of testing at this school (common formative assessments, common end of curriculum unit assessments, etc.)?

What do you and your staff do with the data from these assessments/how do you use them? (be aware of role of IF in helping to turn these data into instructional practices)

47. What kind of professional development does the school offer?

- a. Do you hold a summer institute? If so, of what length? And what focus? Are teachers required to attend? If not, is there an incentive for teachers to attend?
- b. What about other professional development days? How many are there?
- c. Do you have early release or another time you use for PD?
- d. How do you determine the topic for school-based PD?
- e. Describe a typical professional development program or initiative (probe for content focus, pedagogy focus, how many hours/days, role of IFs, whether the entire staff attends, time for practice in one's own classroom, etc.)

48. Do your teachers (either grade or subject peers) have collaborative time to meet with grade-level peers during the regular school day?

- a. How often?
- b. How is this time used?
- c. Do you feel you need to monitor this time to ensure it is effective, or have someone else monitor it (and if so, whom)?

49. Do your teachers have collaborative time to meet with subject-matter peers during the regular school day?

- a. How often?
- b. How is this time used?
- c. Do you feel you need to monitor this time to ensure it is effective, or have someone else monitor it (and if so, whom)?

50. Please describe the evaluation process for teachers at your school.
- a. What is your role in this process?
 - b. How do you ensure that they get the help they need to improve their teaching?
51. How do you view the role of the coach(es)/IF(s) at this school?
- a. How many are there?
 - b. How were they chosen?
 - c. What do they do?
 - d. How do they work with teachers?
 - e. Do they seem to be helping teachers improve?
 - f. What kind of interaction do you have with them?
52. What is your school's approach to students who are struggling to understand the material presented in the classroom?
- a. What is the first step?
 - b. What is the second step?
 - c. What if they still don't understand the material they need to master?
53. Do you have the following?
- a. Double period
 - b. Tutoring/small group support
 - c. Parental liaison/support
 - d. ELL
 - e. Extended day
 - f. Summer school

54. Who qualifies for these programs?
- How do you decide?
 - How often do you reassess?
 - What is the basis for reassessment?
55. Who is involved in making instructional decisions at your school?
- What is the general decision-making approach at the school?
 - Who is involved and at what level for each type of decision?
56. How would you characterize the culture among staff/among students/between staff and students at your school?
- How focused is the staff on learning?
 - Is there a professional learning community (PLC) at the school?
 - How does staff work together?
 - How are data used to make decisions?
 - Do you believe most teachers are “on board with the school’s vision for good instruction?”
57. How would you characterize the leadership provided by your superintendent?
- What about other district administrators?
58. How much authority do you have over your budget?
59. What resources or support would be needed to continue and/or expand your efforts to improve student performance?
60. Anything I haven’t asked about that you’d like to mention?

**WYOMING SCHOOL USE OF RESOURCES STUDY
Using Resources to Improve Student Performance**

Interview Protocol: Instructional Facilitator/Coach

School District: _____

School Name: _____

Name of Coach: _____

Contact Phone Number: _____

2. How long have you been a coach at this school?
3. What was your former role, and was it in this school, in another school in this district, or in a different district or state?
4. Are there other coaches in this school, or in this district? If so, how do you interact with them?
5. How were you chosen to be a coach?
6. What sort of training (if any) did you receive from the district about your role as a coach?
7. What sort of training or guidance (if any) did you receive at the school level from your principal?
8. What is your understanding of the plan for improving student performance at this school?
9. Do you have a clear mission/goal/sense of what you are trying to accomplish in your role at this school? If so, what is it?
 - a. How is your role related to the school improvement goals?
10. Please describe how you are involved in professional development at the school.
11. Please describe your role in collecting and analyzing data for the school.
 - a. Do you help teachers analyze their student achievement data and identify specific areas that need to be targeted in the classroom?
12. Please describe the ways in which you interact with teachers in the school. Specifically:

- a. How do you determine which teachers you will work with and in what capacity?
 - b. Do you work with all teachers one-on-one at some point during the year, or only those identified as needing improvement?
 - c. Do you work with teachers during a regularly scheduled common planning time?
 - d. Do you work with teachers during a summer institute or in any sort of summer training capacity? Is there such a summer institute?
 - e. Do you sometimes teach a lesson side-by-side with a teacher in his/her classroom?
 - f. Do you use the method of modeling something for a short period of time, and then having the teacher do what you just did, and then model something else, and then have them do it – what some call shadow coaching?
 - g. Do you provide resources to teachers for use in their classrooms? If so, can you give a specific example?
13. What have you found to be the most effective means of helping a teacher improve instruction in their classroom?
14. How much time would you estimate you spend on the following tasks:
- b. Time in classroom helping students
 - c. Time in classroom modeling instructional strategies/observing teachers
 - d. Time working directly with or meeting with teachers individually or in small groups
 - e. Time in preparation
 - f. Time in research
 - g. Time spent coordinating with other coaches in school/district
 - h. Time spent on administrative tasks
 - i. Related to coaching
 - ii. Not related to coaching – general administrative tasks

15. Have you encountered resistance from some teachers to working with you to make improvements to their teaching?

i. If so, were you able to overcome that resistance? How?

16. What additional resources would help you continue to improve instruction at this school?

After the interview, researcher makes a note about:

Whether this coach appears to be an instructional leader in the school?

**WYOMING SCHOOL USE OF RESOURCES STUDY
Using Resources to Improve Student Performance**

Observation Protocol: Coaching Observation

School District: _____

School Name: _____

Name of Principal: _____

Contact Phone Number: _____

Name of teacher observed: _____

Name of coach: _____

Date of Observation: _____ Time of Observation: _____

Research Associate: _____

General Information

Grade level: _____

Subject area: _____

Lesson topic: _____

Number of students present: _____

Pre-lesson (Y or N)

1. What is the reason for the coaching session? _____
 - a. What is teacher-initiated? _____
 - b. Principal initiated? _____
 - c. Part of regularly scheduled coaching for all teachers? _____
2. The coach and teacher discuss the objectives of the upcoming coaching experience.

3. The coach and teacher discuss specific instructional strategies that will be used during the lesson. _____

During the lesson (Y or N):

4. How much time does the coach spend:
 - a. Observing the teacher teach _____
 - b. Modeling teaching strategies _____
 - c. Team-teaching _____
 - d. Shadow coaching _____

5. The lesson incorporates use of:
- a. A graphic organizer _____
 - i. By the teacher _____ by the coach _____
 - b. A SmartBoard _____
 - i. By the teacher _____ by the coach _____
 - c. A PowerPoint presentation _____
 - i. By the teacher _____ by the coach _____
 - d. Other technology _____
 - i. By the teacher _____ by the coach _____
 - e. A hands-on experiment _____
 - i. By the teacher _____ by the coach _____
 - f. A “real life” example/application
 - i. By the teacher _____ by the coach _____
 - g. Other _____
 - i. By the teacher _____ by the coach _____

Post-lesson (Y or N)

6. The teacher and coach debrief after the lesson (or schedule a time to do so). _____
- a. If yes, the teacher’s strengths are discussed. _____
 - b. The teacher’s areas for improvement are discussed. _____
 - c. The teacher asks questions about strategies modeled by the coach. _____
 - d. The teacher and coach discuss student response/engagement to the lesson. _____
 - e. The teacher and coach discuss student outcomes. _____
 - f. The teacher and coach discuss ways to improve the lesson in the future. _____
 - g. The teacher and coach discuss “next steps.” _____
 - h. Other _____

**WYOMING SCHOOL USE OF RESOURCES STUDY
Using Resources to Improve Student Performance**

Interview protocol: Teacher

School District: _____

School Name: _____

Name of Teacher: _____

Contact Phone Number: _____

1. What is your understanding of the plan for improving student performance at your school?
2. Do you use curriculum standards that have been developed by the district to guide instruction in your classroom?
3. How does this school approach instruction?
 - a. Is there a school view of good instruction? If so, please describe.
 - b. How did that view of instruction come to be in this school?
 - c. Do you support it?
 - d. Do you believe it has made a difference?

If applicable:

- e. How do you approach reading instruction?

Probes: Phonics? Comprehension?

- f. How do you approach writing instruction?

Probes: Six traits for writing/peer editing

- g. How do you approach mathematic instruction?

Probes: Do you ask your students to use concepts to address problems in the real world? Can you give me an example? How do kids engage in mathematical problem solving?

- h. Other core subject(s)?
4. Are you/were you involved in either defining essential skills or curriculum mapping at your school? Please describe.
 - a. Is your school's version different from what is done (if it is done) at the district level? If so, why?
 5. Have you worked directly with a coach at your school? If so, please describe this work.
 - a. Who initiated the coaching?
 - b. What was the content/focus/goal of the coaching?
 - c. How often/for how long did you meet with the coach?
 - d. Was there follow-up afterwards? If so, of what nature?
 - e. Was the coaching effective?
 - f. Can you give me an example of a new strategy you use in your classroom as a result of the coaching?
 6. What kind of professional development do you receive?
 - a. Did you attend a summer institute? If so, of what length?
 - b. Which PD has been most effective at helping you improve instruction in the classroom?
 - c. Do you get to select the PD topics you attend?
 7. Do you have collaborative time to meet with teachers in your cohort (either grade or subject peers) during the regular school day or as a scheduled meeting after school?
 - a. How often?
 - b. How is this time used?
 - c. Do you feel this time has helped you improve instruction?
 - d. Do you have opportunities to observe other teachers classes? If so, do you feel these observations have helped you improve instruction?
 8. What else would help you continue to improve instruction in the classroom? [prompts: resources, time, decreased class size, increased aides]

9. Please describe how you use student assessment data.

Probes: There are a lot of tests: PAWS, NWEA. Do you also use other forms of testing at this school?

What do you do with the data from these assessments/how do you use it?

10. What do you do when you have a student who is struggling to understand the material you're presenting in the classroom?

- a. How do you know when a student is struggling?
- b. What is the first step?
- c. What is the second step?
- d. What if they still don't understand the material they need to master?

Probe: Is this a schoolwide approach or one you've personally developed?

- e. Do you have an extended day program?
- f. Do you have summer school?
- g. Who qualifies for these programs?

11. How would you characterize the leadership provided by your principal?

- a. By your district administrators?
- b. By department or grade level leaders?

12. How would you characterize the culture among staff/among students/between staff and students at your school?

13. Is there anything else you'd like to mention?

**WYOMING SCHOOL USE OF RESOURCES STUDY
Using Resources to Improve Student Performance**

Observation Protocol: Classroom Instruction

School District: _____

School Name: _____

Name of Principal: _____

Contact Phone Number: _____

Teacher observed: _____

Grade observed: _____

Date of Observation: _____ Time of Observation: _____

Research Associate: _____

General Information

Number of Students Present: _____ Number of Students Enrolled: _____

Number of teachers: _____

Number of aides: _____

Number of volunteers: _____

Number of other adults [student teacher, coach, etc.): _____ (specify type): _____

Number of adults providing one-on-one instruction: _____

Number of adults providing small group instruction: _____

Number of adults providing whole class instruction: _____

Lesson duration: _____

Classroom environment (Y or N)

1. Current student work on display:
 - a. Worksheets: _____
 - b. Projects: _____
 - c. Achievement/progress charts: _____
 - d. Other: _____
2. The classroom (K-6 only) has visible:
 - a. Manipulatives: _____

- b. Arts and crafts materials: _____
 - musical instruments: _____
- 3. The standards for this grade level are on display: _____
- 4. Behavioral expectations posted: _____
- 5. Academic expectations posted (rubrics/processes, etc.): _____
- 6. The schedule for the day/period is visible in the classroom: _____
- 7. The classroom looks like a library—full of books (K-6). _____
- 8. Technology is present _____
 - a. # of Computer(s) _____
 - b. # turned on _____
 - c. # in use _____
- 9. The pattern of the desks is (Check all that apply and describe)
 - a. Rows – Desks in straight-line rows. _____
 - b. Small Groups – Desk placed in small groups of 3-4. _____
 - c. Semi-Circle – Chairs or desks are placed in a semi-circle with students facing each other. _____
 - d. Table Seating – Tables rather than desks _____
 - e. Other: _____
 - f. Describe: _____

Learning Opportunities (Y or N)

- 1. Individual Active Learning (project-based) _____
 - a. Learners working individually on a real-life project: _____
 - b. Learners and adult (or learners independently) designing a project to be completed at a later date _____
 - c. References made regarding gathering information outside of school for an assignment: _____
 - d. Learning projects that deal with real problems through exercises, simulations, case studies, role playing, hands-on experiences, etc. _____
- 2. Grouped Active Learning (project based)– same as above, but learners are working in pairs or small groups to complete the assignment. _____
- 3. Read Aloud – teacher reading to students AND involving them in thinking/discussion about the material being read. _____
- 4. Think Aloud – working with meta-cognition (teacher modeling his/her thinking process or helping students think about how they think). _____
- 5. Structured Reflection – time set aside specifically for students to silently reflect on or talk about experiences. _____
- 6. Group Discussion – teacher plays a less dominant role than in recitation. Learners ask questions, answer each other’s questions, and respond to each other’s answers, explore, express opinions, agree and disagree. _____
- 7. Reading – learner(s) reading. _____

8. Writing – learner(s) writing – may include previously prepared worksheets that ask students to reflect, organize (graphic organizers, etc.), project/hypothesize (does not include copying, fill in the blank, skill and drill). _____
9. Passive Listening – listening to a lecture by a teacher. _____
10. Passive observing – watching a demonstration or a presentation by a teacher, other student, TV, listening center, film/filmstrip, CD, etc. _____
11. Recitation – format of teacher questioning, learner response, and teacher feedback. _____
12. Worksheet or workbook – learner(s) completing a previously prepared worksheet or copying from overhead or board. (Includes fill-in-the-blank, practice/drill, repetitive or rote writing.) _____
13. On Task (but not academically focused) – learner(s)/teacher(s) transitioning, managing, grading, etc.
 _____ # of students on task but not academically focused
 _____ # of teachers on task but not academically focused
14. Off Task – not academically involved – learner(s)/teachers(s) socializing, resting/sleeping, etc.
 _____ # of students not academically involved
 _____ # of adults not academically involved

Your estimate of the percentage of time the teacher was talking: _____

Teacher’s instructional Strategies (Y or N)

1. The teacher stated the purpose of the lesson. _____
2. The teacher made an effort to connect lesson to what students had learned previously.

3. The teacher made an effort to connect the lesson to current events/ students’ experiences/what students might know. _____
4. If a student did not understand, the teacher recognized this and found another way to communicate with that student or made a plan to follow-up. _____
5. The teacher summarized what the students had learned at the end of the lesson. _____
6. Did the teacher ask questions? _____
 - a. If yes, were they aimed at:
 - i. Assessing student factual knowledge? _____
 - ii. Assessing student understanding? _____
 - iii. Engaging students in critical thinking? _____
 If yes, did the teacher employ a “wait time” strategy? _____

Pre/post-observation teacher interview

1. How many students are enrolled in this class? _____
2. Where does the lesson you were teaching fall in relation to the unit that it’s part of – near the beginning of the unit, at the middle of the unit, toward the end of the unit, or is it unrelated to the unit? _____
3. Is this lesson part of a larger *project* related to the unit? _____

4. How typical would you say this particular class was of the way the class generally operates and of the way you teach? _____
 - a. If "untypical", in what way(s) was it different? _____

Observer comments

1. As far as you can tell, what was the learning objective of the class? Was it clear to you as an observer? Did it seem clear to the students? Why do you say this?

2. Did the teacher seem engaged/enthusiastic/dynamic or disengaged/bored? Why do you say this?

3. Did students seem engaged/enthusiastic or passive/bored? Why do you say this?

4. Were there things related to instruction, management, the quality of teacher-student relationships, or other factors that particularly pleased/displeased/surprised you about the class?

5. What was the classroom climate [i.e., did students or the teacher ridicule other students, did the teacher use humor, was behavior/discipline an issue?]

6. What other information is important to note?

WYOMING SCHOOL USE OF RESOURCES STUDY
Using Resources to Improve Student Performance

Protocol for Focus Group

School District: _____

School Name: _____

Name of Principal: _____

Contact Phone Number: _____

Date of Focus Group: _____ Time of Focus Group: _____

Research Associate: _____

General Information

Number and description of teachers present: _____

Number and description of other staff involved: _____

Goal of the focus group:

I am visiting your school as part of a study funded by the state Legislature looking at how schools work to improve student performance. The goal of this focus group is to try to better understand your school's strategies to improve student performance. I've interviewed the principal [and others] and will be doing/have done some classroom observations. Now, I'm interested in hearing about the school's efforts to increase student performance from your perspective. I will keep anything you say confidential – the schools name and your name will not be used. However I can not guarantee that participants in this session will not share what is said with others in the district or the state.

Questions

1. Do you use state test data at this school? If so...
 - a. How often is it analyzed and by whom?
 - b. What is done after it is analyzed?
 - c. How useful is this information in helping you shape instruction?
2. Talk a little about goal-setting.
 - a. What are the goals for student performance at this school?
 - b. Are goals set by the district, the administration, grade levels/subject areas, or individual teachers?
 - c. Are goals formalized (in the School Improvement Plan, in personal documents)?
 - d. Do the SIP goals influence your instruction?
 - e. How often are goals revisited?
 - f. Is there widespread agreement/buy-in toward the school's goals?

3. Let's talk about the curriculum (LA and math).
 - a. When was it adopted and by whom?
 - b. Were you trained in how to implement it?
 - c. Do you feel it does a good job of preparing students for PAWS?
 - d. Do you believe it helps make them better readers, writers, mathematicians, thinkers?
 - e. Do you feel it is well aligned to state standards?
 - f. Do you have discretion over supplementary curriculum materials?
 - g. Is there curriculum planning by grade level/subject area teams? If so, is this valuable?
4. Does the school engage in data-based decision making with formative and benchmark assessments?
 - a. To what extent are teachers involved in this process?
 - b. To what extent does this inform your instruction and/or improve student outcomes?
5. Talk about the value of professional development.
 - a. At the district level...
 - b. At the school level...
 - c. On an individual basis...
 - d. Who else has a role in your professional development, and what is that role? [probes: Coaches/IFs, the principal, the district, other school staff, consultants]
6. How much class time do you feel is spent on instruction and how much is spent on administrative tasks (e.g., permission slips, announcements) or discipline?
7. Talk about what you do to help struggling students [probes: tutors, summer school, additional period of LA/math for extra help, extended day, support staff, other]:
 - a. Is there a clear way to identify students in need of interventions?
 - b. Is there an efficient process for getting them the help they need once identified?
 - c. Are the interventions effective?
 - d. How are the interventions coordinated within the school/ within the district?
8. Does your school use professional learning communities?
 - a. If so, what is the intended purpose?
 - b. Do you feel you were adequately trained to adopt the PLC model?
 - c. What outcomes have you seen since their implementation?
9. Do school leaders support instructional improvement? In what ways?
10. Does the school take advantage of external expertise [probes: consultants, curriculum experts, district leaders]? In what ways? [probes: budgeting]
11. What additional resources are needed to help you do your job to the best of your ability?

APPENDIX B

Malamute School District

Malamute School District: A Case Study of Instructional Improvement Efforts and Resource Use

INTRODUCTION

Malamute School District is large Wyoming school offering instruction in pre-kindergarten through 12th grade. It is an open enrollment district where parents can choose to enroll their children in the school of their choice among the district’s high schools, middle schools, and elementary schools. The district website reports that the purpose of open enrollment is to provide a variety of instructional strategies with the belief that “there is no one school that meets the needs of all children. The best education happens when parents, students, and school staff work together as a team towards common goals.”**Error! Hyperlink reference not valid.** The website further notes the range of “different teaching styles, activities, and academic programs” offered at the district’s schools.

During the 2008-09 school year, with a new superintendent in place, Malamute School District’s instructional improvement strategies have been focused on creating “efficient and effective process for improvement” such that they make AYP, with an emphasis on improving reading. At the district level, improvement strategies have been implemented through a variety of means: identification of essential skills and curriculum mapping, using Instructional Facilitators to support teacher growth, utilizing tutors to help struggling students, and having teachers engage in goal-setting with their students. The purpose of this case study is to tell the story of efforts to improve student learning in Malamute School District and to identify how the corresponding resources were allocated.

TEST SCORE DATA

During the 2005-06 school year, Wyoming implemented the new statewide Proficiency Assessment for Wyoming Students (PAWS) testing system. PAWS scores during the 2005-06 to 2007-08 school years show steady growth across all grades in math and reading (except for in 11th grade math) and mixed results in writing in the Malamute School District, shown in Table 1.

Table 1: Malamute District Percent Proficient and Advanced on PAWS, 2005-06 - 2007-08

Grade	Math				Reading				Writing			
	05-06	06-07	07-08	Change	05-06	06-07	07-08	change	05-06	06-07	07-08	change
3	68.0	87.9	79.9	11.9	55.0	72.1	59.4	4.4	33.0	63.3	37.1	4.1
4	70.0	82.4	75.3	5.3	57.0	73.2	70.2	13.2	38.0	58.2	48.3	10.3
5	62.0	78.4	68.1	6.1	62.0	71.2	64.6	2.6	31.0	49.5	27.7	-3.3
6	65.0	76.0	77.8	12.8	54.0	71.2	66.3	12.3	39.0	54.9	40.8	1.8
7	56.0	63.7	64.8	8.8	57.0	68.3	64.6	7.6	41.0	59.6	39.7	-1.3
8	52.0	53.1	60.9	8.9	59.0	70.4	65.6	6.6	56.0	70.9	53.7	-2.3
11	72.0	69.7	65.9	-6.1	55.0	74.1	71.8	16.8	67.0	81.8	74.7	7.7

As shown in the table, the most significant gains occurred in 4th and 11th grade reading in which the percentage of students scoring proficient or advanced rose from 57.0 to 70.2 and from 55.0 to 71.8 respectively. Gains in 3rd, 4th, 6th, and 11th grade writing were tempered by losses in 5th, 7th and 8th grade writing.

Malamute’s 2007-08 scores were slightly better than the state averages in 11th grade math, reading and writing, but trailed behind in the other grades except for 4th grade reading. These data, shown below in Table 2, are not surprising considering that Malamute is among the largest and most diverse districts in the state.

Table 2: School, District, State Comparison –Percent Proficient or Advanced on PAWS 2007-08

Grade	Math		Reading		Writing	
	District	State	District	State	District	State
3	79.9	83.4	59.4	61.0	37.1	41.0
4	75.3	76.8	70.2	64.0	48.3	52.8
5	68.1	70.9	64.6	66.0	27.7	37.1
6	77.8	78.2	66.3	70.1	40.8	47.4
7	64.8	72.2	64.6	64.9	39.7	47.6
8	60.9	67.7	65.6	70.5	53.7	58.2
11	65.9	64.4	71.8	65.8	74.7	73.0

Figure 1 through 3 below show the changes in percentage of students scoring proficient or advanced on PAWS from the 2005-06 to 2007-08 school years for the district and state. Looking at growth on PAWS scores between 2005-06 and 2007-08 shows that Malamute had greater advances than those of the state in 3rd, 4th, 5th and 6th grade math. It showed a similar patterns for all grades in reading except 8th grade. In writing the district exceed the state average gain for and 3rd, 4th, and 6th grade writing, and had smaller losses than the state average for 7th and 8th grade writing,

Figure 1: District and State Comparison – Change in Percent Proficient or Advanced on PAWS MATH Scores

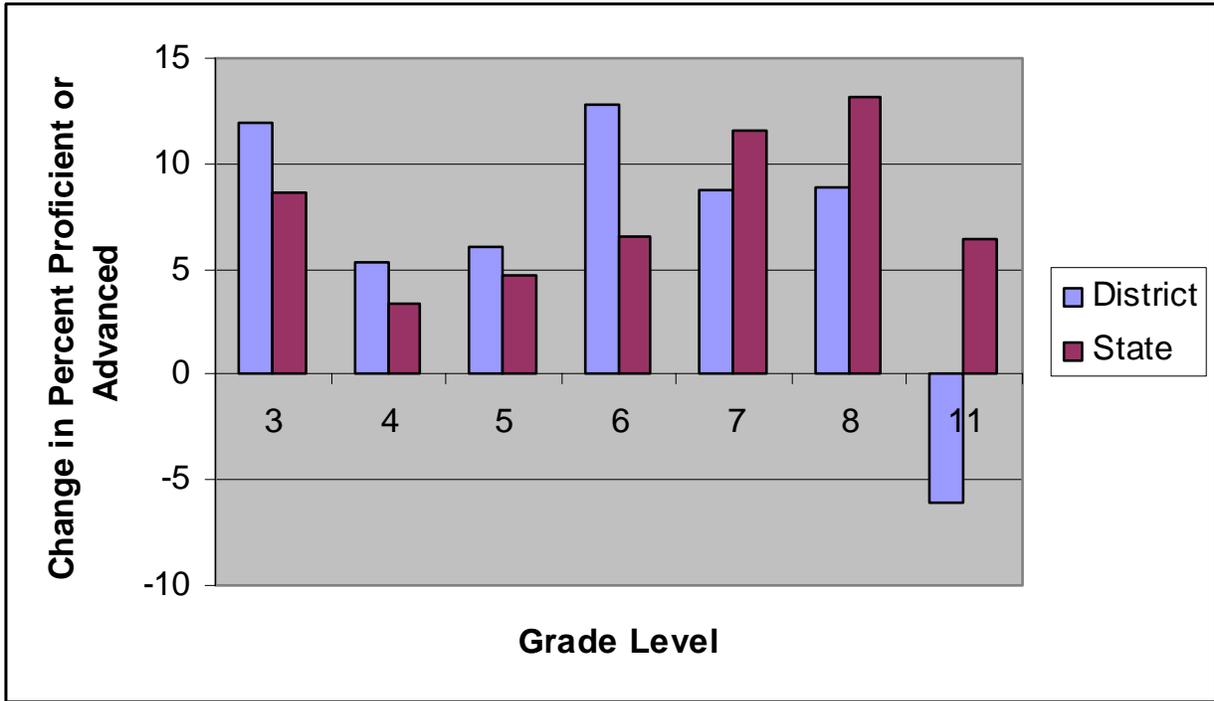


Figure 2: District and State Comparison – Change in Percent Proficient or Advanced on PAWS READING Scores

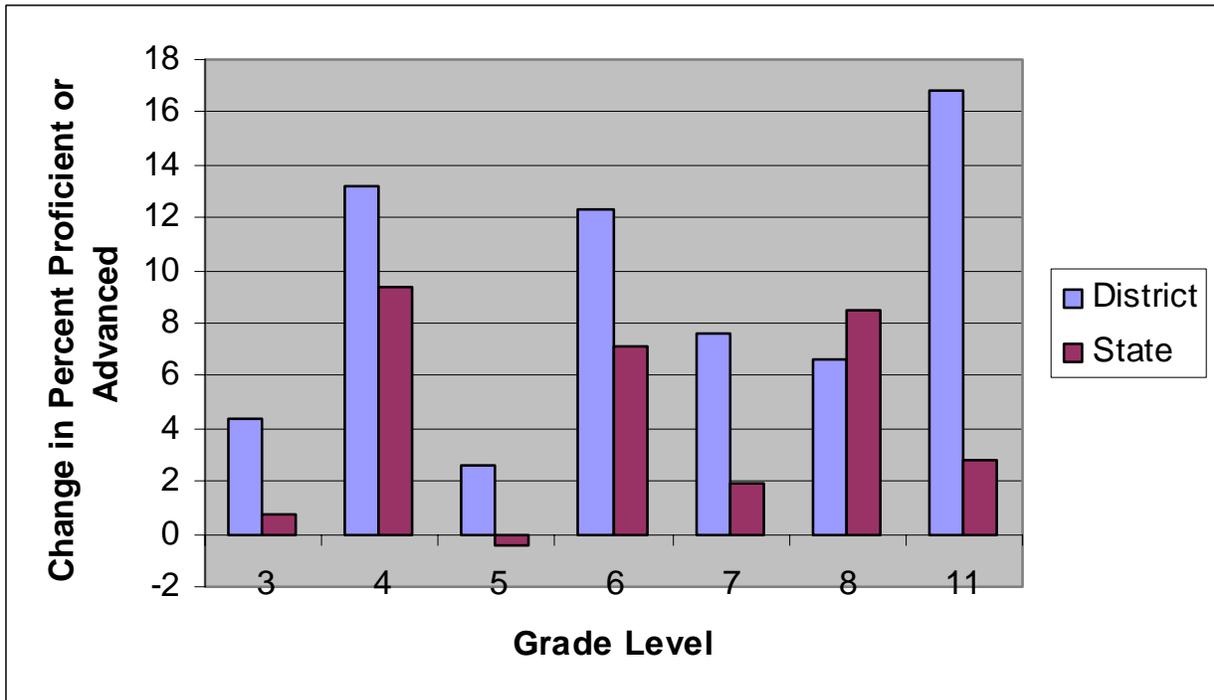
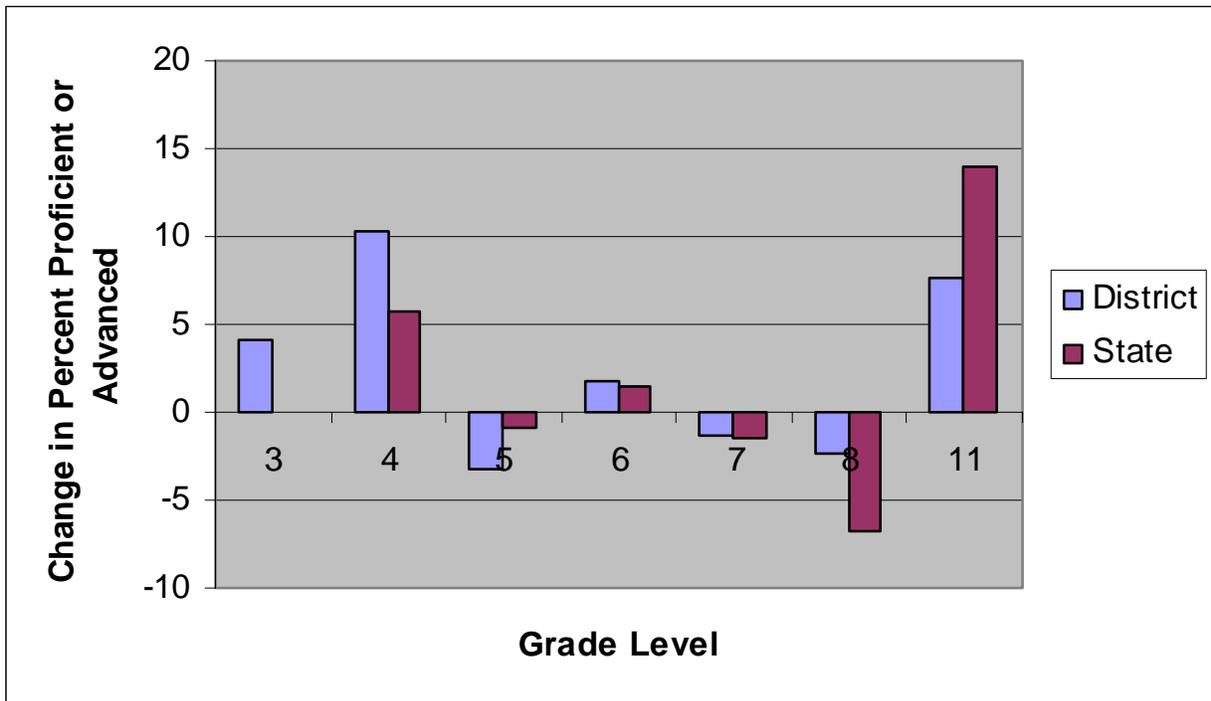


Figure 3: District and State Comparison – Change in Percent Proficient or Advanced on PAWS WRITING Scores



EDUCATIONAL IMPROVEMENT STRATEGIES

Malamute’s superintendent was new to the position in the 2008-09 school year; however, he has experience in the district, having been the Assistant Superintendent for Curriculum previously. Interviewees at the school level noted that his background in the district has meant that the new superintendent came into the position “reform-minded,” and “ready to shake things up.” The Superintendent reported that during his first year, the district has focused its resources and improvement strategies in several areas. First, the district has stressed that each school needs to have a clear mission and focus. Second, the district has tried to replace the spirit of competition, which the superintendent attributed to the district’s open enrollment policy, with one of collaboration. Third, a group of “community stakeholders” devised a district strategic plan “based on the Baldrige model of continuous improvement.” Finally, the district has focused on creating “efficient and effective process for improvement” such as the Plan Do Study Act approach (see below).

The Associate Superintendent for Curriculum and Instruction added that at the school level, improvement strategies over the past several years have focused on “implementing the Instructional Facilitators (IF) component as well as tutors, working on giving special education students increased access to the regular curriculum, and having teachers engage in goal-setting with their students.”

These and other reform efforts are described in the following sections.

Needs Assessment

Malamute School district failed to make AYP in 2006 for the second year in a row for students on IEPs at all three levels (elementary, middle, and high school). Thus, the district was required to form a District Improvement Team (DIT) to create a District Improvement Plan (DIP), something the district lacked because of “decade-long commitment to site-based management” as one district administrator put it. At the same time, a district Organizational Development Council was created to establish district priorities for PD topics.

Goals

A range of goals have been articulated in Malamute, from the school board, District Improvement Team, and Superintendent’s office.

The Malamute School Board identified the following four key goals:

1. Focus on excellence for each and every student and engage students, faculty and staff in supporting and promoting that focus.
2. Build a system that monitors, supports and enhances positive relationships between adults and students.
3. Maintain physical and mental safety for students, staff and faculty.
4. Build strong, collaborative relationships with students, parents and the community to support and promote student achievement.

As part of the District Improvement Plan, the district created a school improvement, performance, and accountability document in the fall of 2008 that outlines the following district goals:

- Promote excellence in student achievement in all schools
- Provide guidance regarding accountability to various publics
- Honor improvement efforts
- Provide avenues of assistance for all schools
- Provide opportunities for flexibility and autonomy for excelling schools

The District Improvement Plan also established three goals to help improve achievement within the district:

- Alignment of curriculum and standards
- Make use of goal setting strategies
- Improve writing for all students.

The Superintendent listed his goals for district-wide student improvement as:

- To have all students reading at grade level by 3rd grade
- To be in the top 10% in the state on PAWS, noting that they are currently “middle of the pack”
- To move all students out of the “academic cellar”, noting that 30% are currently reading below grade level (stated by other district personnel as “closing the gap for special needs students and other student subgroups”)
- To have all students graduate ready for college and/or work

The superintendent felt that the district is “in the beginning stages of getting the output we want, in order to go from good to great.” He added that “an emphasis on outputs and accountability has been given lip service in the past, but now the legislature expects tangible returns for their investment.”

Curriculum and Instructional Approach

The District Improvement Plan created by the District Improvement Team outlined “research-based interventions” that would be put into place to improve student achievement. For example, the district embraced Marzano’s idea of “a guaranteed and viable curriculum” that stresses providing students “an opportunity to learn.” The district also consulted the First International Mathematics Study (FIMS) technical report which identified three types of curricula: the intended curriculum, the implemented curriculum, and the attained curriculum. The district defined the intended curriculum as the “content specified by the state and district to be addressed in a particular course or at a particular grade level,” the implemented curriculum as “what is actually delivered by the teacher”, and the attained curriculum as “what is actually learned by students.” The district felt that their failure to meet AYP for two years in a row resulted primarily from a disconnect between the intended and the implemented curricula. As a result, during the 2007 summer PD Institute, Malamute used the state standards, PAWS descriptors and NWEA topics to define the essential curriculum. During the summer 2008 PD institute, teachers used the essential curriculum to create monthly curriculum maps and established a sequence for teaching them in all grade levels and subject areas. Essential curricula have been developed in language arts, math, science, and social studies. An example of the Language Arts – Reading essential curriculum is outlined in Figure 4 below:

Figure 4: Language Arts Reading Essential Curriculum

Language Arts - Reading Curriculum

Common Strands for Malamute reading curriculum

There are end-of-year requirements at each grade level that should be in place by the beginning of PAWS testing.

The student understands and uses different skills and strategies to read.

Use vocabulary (word meaning) strategies to comprehend text.

Build vocabulary through wide reading.

Apply word recognition skills and strategies to read fluently.

The student understands the meaning of what is read.

Demonstrate evidence of reading comprehension.

Understand and apply knowledge of text components to comprehend text.

Expand comprehension by analyzing, interpreting, and synthesizing information and ideas in literary and informational text.

Think critically and analyze author's use of language, style, purpose, and perspective in informational and literary text.

The student reads different materials for a variety of purposes.

Read to learn new information.

Read to perform a task.

Read for literary experience in a variety of genres.

The student sets goals and evaluates progress to improve reading. (K-5 only)

Assess reading strengths and need for improvement.

Develop interests and share reading experiences.

An example of grade level mapping is shown in Figure 5 below for 4th grade reading to address the first element of the essential curriculum listed above, "The student understands and uses different skills and strategies to read."

Figure 5: Curriculum Map, 4th Grade Reading

Reading-Grade 4

The student understands and uses different skills and strategies to read.

Use word recognition skills and strategies to read and comprehend text.

Apply understanding of phonics.

Use multi-syllabic decoding when reading words in all texts.

Use vocabulary (word meaning) strategies to comprehend text.

Apply reference skills to define, clarify, and refine word meanings.

Use dictionaries, thesauruses, and glossaries to find or confirm word meanings, pronunciations, syllabication, synonyms, antonyms, and parts of speech of words.

Apply vocabulary strategies in grade-level text.

Use word origins to determine the meaning of unknown words.

Use the meanings of prefixes, suffixes, and abbreviated words to determine the meaning of unknown words in grade-level text. (i.e. con, com, ex, able, ible)

Explain how to derive word meaning from knowledge of affixes and roots (e.g., port: transportation, porter, import, report).

Use prior knowledge, the text, context clues, and graphic features of text to predict, clarify, and/or expand word meanings and concepts.

Build vocabulary through wide reading.

Understand and apply new vocabulary.

Use new vocabulary from informational/expository text and literary/narrative text, including text from a variety of cultures and communities, in oral and written communication.

Understand and apply content/academic vocabulary critical to the meaning of the text.

Define words and concepts necessary for understanding math, science, social studies, literature, and other content area text.

Explain that some words have a different meaning in different content areas (e.g., concept of *shade* in science and art).

Select, from multiple choices, the meaning of words necessary to understand.

Use new vocabulary in oral and written communication and content/academic text.

Apply word recognition skills and strategies to read fluently.

Apply fluency to enhance comprehension.

Read aloud grade-level informational/expository text and literary/narrative text accurately, using appropriate pacing, phrasing, and expression.

Read aloud unpracticed grade-level text at a fluency rate of 115-125 words correct per minute.

Apply different reading rates to match text.

Adjust reading rate to match difficulty and type of text and the purposes for reading (e.g., skimming for facts, scanning for key words, and close/careful reading for understanding new or complex ideas).

As an open enrollment district, Malamute does not require schools serving the same grade levels to adopt a common curriculum. Rather, they advocate that different schools “offer a wide variety of programs for our students.” However, district personnel did point out that regardless of the specific curriculum selected, the district has “common benchmarks across schools” based on the essential curriculum.

The Malamute Superintendent reported that although “everyone knows the basic principles of good instruction; the devil is in operationalizing the definition.” He noted that “fidelity of implementation is a challenge.” Other district personnel echoed this sentiment. The Associate Superintendent for Curriculum and Instruction reported that classroom walk-throughs conducted by district personnel, a new process implemented this year, “have revealed a disconnect between theory and practice.” He added, “There is knowledge of what good instruction looks like,” which he defined as “kids being actively engaged and using meta-cognitive skills,” but “knowledge doesn’t always translate into practice.”

Data Collection and Use

While schools in Malamute School District use a variety of student assessments to provide data on student performance, at the district level, emphasis is placed mainly on PAWS and NWEA-MAP, described below:

- **PAWS:** The Proficiency Assessment of Wyoming Students (PAWS) is a summative statewide assessment, administered each spring to 3rd through 8th and 11th graders in a mix of online and print formats in reading, writing, math, and recently, science. PAWS data are used for Adequate Yearly Progress reporting and provide a picture of overall progress of the schools as well as identifying subgroup performance. Malamute district personnel reported that they use PAWS data, along with NWEA-MAP data, to classify schools as excelling, unclassified, or focus (see below).
- **NWEA-MAP:** Malamute requires schools to use the Northwest Evaluation Association Measures of Academic Progress (NWEA-MAP), state-aligned computerized adaptive assessments in language arts and math, twice a year to create benchmarks and growth targets for each student and as a tool to classify schools as excelling, unclassified or focus.

Part of the work of the District Improvement Team (DIT) was to create a classification system, termed the District Data Review, to identify schools making student achievement gains, making no progress, and those in need of improvement. The district classifies each school as “excelling,” “unclassified,” or “focus” in reading, math and language use/writing based on a combination of their PAWS and NWEA-MAP result and utilizes a “hands off” approach for schools that are labeled excelling, monitoring schools labeled unclassified and providing additional support, resources and professional development to schools deemed underperforming, or “focus.” Table 3 outlines the district’s draft document on academic recognition and support as per their classification system.

Table 3: Draft Academic Recognition and Support Document

Level IV REOGNITION in 3 content areas for more than 2 years	Level III RECOGNITION in 3 content areas for 2 years	Level II RECOGNITION in one or more content areas for 1 year		Level I SUPPORT All Schools	Level II SUPPORT FOCUS in one or more content areas for 1 Year	Level III SUPPORT FOCUS in same content area for 2 Years	Level IV SUPPORT FOCUS in a content area for 3 Years OR FOCUS in more than one content area doe 2 years
<p>EXCELLING STATUS: Award Plaque identifying Excelling Content Area/s and recognition at Medallion of Excellence Ceremony</p> <p>IMPROVING: Award Certificate and recognition at Medallion of Excellence</p>	<p>EXCELLING STATUS: Award Plaque identifying Excelling Content Area/s and recognition at Medallion of Excellence Ceremony</p> <p>IMPROVING: Award Certificate and recognition at Medallion of Excellence</p>	<p>EXCELLING STATUS: Award Plaque identifying Excelling Content Area/s and recognition at Medallion of Excellence Ceremony</p> <p>IMPROVING: Award Certificate and recognition at Medallion of Excellence</p>	<p>Academic Review</p>	<ul style="list-style-type: none"> Conduct Annual Needs Assessment for School Improvement Plan (SIP) 	<ul style="list-style-type: none"> Conduct Annual Needs Assessment to identify needs for School Improvement Plan (SIP) Participate in School Data and Essential Curriculum Review with C&I team 	<ul style="list-style-type: none"> Conduct Annual Needs Assessment to identify needs for School Improvement Plan (SIP) in collaboration with C&I team Data Review/ Essential Curriculum Conversations Facilitated Purposeful Community Reflection with C&I 	<ul style="list-style-type: none"> Conduct Annual Needs Assessment to identify needs for School Improvement Plan (SIP) in collaboration with C&I team and External Partner Data Review/ Essential Curriculum Conversations with C&I team and External Partner Facilitated Purposeful Community Reflection with C&I and External Partner
			<p>School Improvement Plan</p>	<ul style="list-style-type: none"> Schools develop goals and interventions and submit to Curriculum and Instruction Plan includes DIP elements of: <ul style="list-style-type: none"> - 6 +1 Traits of 	<ul style="list-style-type: none"> Schools develop goals, interventions and budget and submit to C&I 	<ul style="list-style-type: none"> Schools develop SIP goals, interventions, professional development plan, and budget in collaboration with C&I team 	<ul style="list-style-type: none"> Develop SIP goals, interventions, PD plan, and budget in collaboration with C&I team and External Partner SIP plan must include student progress

				Writing - Goal Setting Essential Curriculum			monitoring, targeted interventions, PD plan, and resource allocation based upon recommendations from external partner and C&I team
			School Supervision	<ul style="list-style-type: none"> Regular scheduled visits by C&I Team to monitor SIP goals using NCA QAR process: <ul style="list-style-type: none"> - Vision and Purpose - Governance and Leadership - Teaching and Learning - Documenting/Using Results - Resources & Support Systems - Stakeholder Communication - Commitment to Continuous Improvement 	<ul style="list-style-type: none"> Regular scheduled visits by C&I Team to monitor SIP goals using NCA process Assisted Reflection with Principal and School Leadership 	<ul style="list-style-type: none"> Frequent, regularly scheduled visits by C&I Team to monitor progress toward SIP goals Assisted Reflection with Principal and School Leadership 	<ul style="list-style-type: none"> Frequent, regularly scheduled visits by C&I Team and External Partner to monitor progress toward SIP goals Assisted Reflection with Principal and School Leadership Professional development for school leadership recommended by External Partner and C&I
On-going Autonomy as requested and approved by Superintendent	Option to request autonomy from Superintendent in: <ul style="list-style-type: none"> Leadership and Management Curricular Programming 		Curricular Supervision	<ul style="list-style-type: none"> Emphasis on self-direction in the implementation of district curriculum, instruction and 	<ul style="list-style-type: none"> Academic Classroom Walk with Principal and IF <ul style="list-style-type: none"> - Gather data - De-brief 	<ul style="list-style-type: none"> Academic Classroom Walk with Principal and IF <ul style="list-style-type: none"> - Gather data - De-brief conference 	<ul style="list-style-type: none"> On-going consultation with External Partner including Academic Walks Work collaboratively

	<ul style="list-style-type: none"> • Learning and Teaching • Learning Environment • Involvement of Parents/ Guardians and the Community 			<p>professional development in collaboration with Curriculum and Instruction</p> <ul style="list-style-type: none"> • Increased autonomy/ flexibility for EXCELLING schools (2+ years) 	<p>conference</p> <p>- Next steps</p>	<p>- Next steps</p> <ul style="list-style-type: none"> • Monitored implementation of SIP by C&I team to insure adherence to and effective implementation of Curriculum Maps and Academic Goal setting 	<p>with C&I team and External Partner to insure student progress monitoring, class and student goal setting, effective instructional strategies, and implementation of Curriculum Maps</p>
			Oversight and Peer Assistance	<ul style="list-style-type: none"> • Peer Review of Improvement Plan is Optional 	<ul style="list-style-type: none"> • Peer Review of Improvement Plan is required. School team receives written feedback 	<ul style="list-style-type: none"> • Peer Review of Improvement Plan is required. • Principal/School Team make annual presentation to Peer Review Team & receive written feedback 	<ul style="list-style-type: none"> • Peer Review of Improvement Plan is required. • External Partner Review of Improvement Plan required • Principal/School Team make presentation to Peer Review Team & receive written feedback
			Progress Monitoring	<ul style="list-style-type: none"> • Progress Monitoring Plan in place and functioning 	<ul style="list-style-type: none"> • Progress Monitoring Plan in place and functioning with approval from C&I 	<ul style="list-style-type: none"> • Progress Monitoring Plan in place and functioning with approval from C&I 	<ul style="list-style-type: none"> • Progress Monitoring Plan in place and functioning with approval from C&I and in collaboration with External Partner

Based on 2007-08 data, three schools were classified as “excelling” in all three areas, four were “unclassified” in all three areas and three were classified as “focus” in all three areas. The Associate Superintendent for Curriculum and Instruction reported that schools classified as “focus” receive additional PD money and are assigned an “eternal partner, an outside consultant “to help them work on defining and implementing good instruction.” Excelling schools, as well as those who moved from focus to unclassified or from unclassified to excelling in any one area, receive recognition at the district’s annual Medallion of Excellence ceremony.

Professional Development

District personnel reported that when the District Improvement Team was formed, they adopted a “time to learn” approach to PD “to align with the budget recalibration model that calls for time for teachers to ‘go in depth’ into PD topics.” To this end, Malamute School District adopted an Institute approach to required professional development (PD), with a five day institute over the winter recess and a four day summer institute in August. District personnel reported that schools are expected to use the institutes to hold some PD on topics “aligned with their School Improvement Plans,” and others are devoted to district-mandated topics. School level interviewees noted that the district sets PD requirements (e.g., trainings on 6+1 Traits of writing and goal-setting are two of the topics currently required) that must be completed within a three year time period; schools have the flexibility to select when to complete each topic. At other times, the district will mandate that the institute have a certain focus. For example, during the winter institute in January 2009, the district focused PD on identification of essential curriculum. The institute included online “training” in how to access information from the essential curriculum maps: teachers completed “scavenger hunts” to find information “in order to make them familiar with the tools available.” In addition, Podcasts were posted on the district’s website explaining the essential curriculum. Following the institute, the district implemented the following policy regarding adherence to the essential curriculum:

As a result of January’s winter institute, teachers are expected to:

- Access the Essential Curriculum Maps (posted on the district’s Website)
- Use the curriculum maps beginning with the remainder of the 2008-09 school year (NOTE: If teachers have not previously used the curriculum maps, they may need to look at August-December maps to see what was expected of the students)
- Articulate school programs/instructional materials to the Essential Curriculum

District personnel noted that the district is “moving toward a menu approach in which schools can request areas [for PD] in which they need improvement.”

Training for administrators is provided in several ways. Monthly meetings discuss “human relations topics like state laws, student and employee rights” noted one district personnel. In addition, there are six administrative cohorts “based on interest”; some work with outside consultants on things like how to lead curriculum implementation efforts or how to conduct classroom evaluation walk-throughs. There is also a new administrator cohort for new principals to receive more targeted PD.

In addition to participating in mandatory PD institutes at the district and building level, Malamute offers school the option of using the Fun Rewarding Enriching Days (FRED) program to free teachers for afternoon grade level meetings once a month while providing enrichment activities for the students. The FRED program was started by the district in 2003 to help reduce the number of in-service days or substitute teachers used in the district, while providing students hands-on learning experiences and exposing them to scientific, visual and performing arts presentations by local groups such as the Science Zone, the art museum, and the Natrona County Public Library as well as bringing in motivational speakers, athletes, and scientists from around the country.

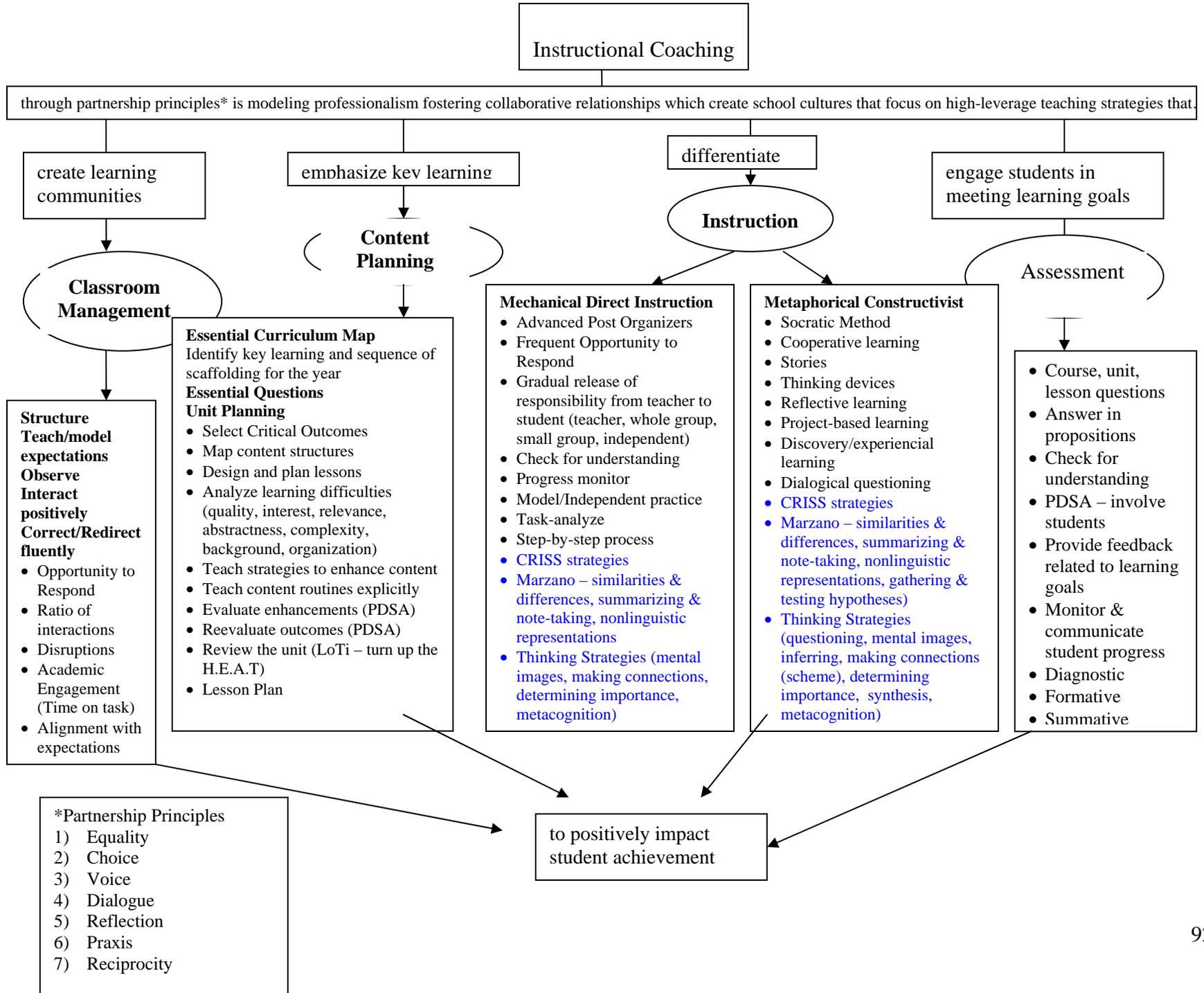
Instructional Facilitators

In addition to PD days, Malamute utilizes Instructional Facilitators to promote individual teacher growth. The superintendent reported that the district's 59 full and part time IFs are "the hands and feet of the district's instructional vision" but that selection of IF's at each school "is a site-based decision." The main responsibilities of the IFs are to help teachers:

- 1) Implement "good classroom management"
- 2) Analyze and interpret data
- 3) Turn the essential curriculum into classroom practice
- 4) Understand pedagogy
- 5) Reinforce professional development training by modeling the new strategies learned

During the 2008-09 school year, the district created a diagram (see Figure 6 below, blue text as per original document) outlining the roles and responsibilities of Instructional Facilitators, adapted from Jim Knight's *Instructional Coaching*. District personnel reported that the IFs received district training during the 2008-09 school year in the ideas shown in the figure and are expected to bring these ideas back to the schools the following school year. District personnel also noted that the district has held the state's IF conference and district personnel serve on the state IF task force.

Figure 6: Malamute IF Schematic



Instructional Facilitators are hired by school-based teams comprised of “at least three credible, highly gifted teachers,” according to district personnel.

Instructional Facilitators are required to submit weekly “time and effort logs” tracking how they spend their time. District personnel said that ideally, IFs would spend about 75% of their time modeling instructional strategies and/or observing teachers, working with teachers individually or meeting with groups of teachers, but that currently, IFs devote an average of about 50% of their time on these tasks, 25% on data analysis and preparing to lead professional development, and 25% researching topics for individual teachers. District personnel added that the ways in which IFs spend their time varies according to the time of year: the start of the year is spent looking at the previous year’s PAWS data, followed by a period of “heavy coaching” in the fall until December when they turn to looking at NWEA-MAP test data, and then in March, “they get pulled in different directions” as teachers get ready for PAWS testing. This year, for the first time, IFs were asked to interview each teacher at their school at the start of the year; they reported their interview data to their School Improvement Team as recommendations.

During the 2008-09 school year, district personnel created a draft IF evaluation that assesses their involvement in five areas:

1. Assessment – The IF will collaborate with teachers in the process of using the data from formative and summative assessments to guide instruction
2. Content planning – The IF will collaborate with teachers in systematically designing maps to teach courses, units and lessons that identify the content knowledge (procedural and declarative) and integrates higher level thinking, engagement, authenticity, and technology
3. Instruction – The IF will collaborate with teachers in implementing research based instructional strategies
4. Learning Environment – The IF will collaborate with teachers in the classroom in reflecting upon and enhancing the learning environment
5. Relationships/Professionalism – The IF will foster collaborative relationships with colleagues; research, receive, plan and deliver professional development; and model professionalism with integrity

District personnel noted that although schools have “embraced the IFs, there needs to be more consistency in how they are used.” For example, in some cases, when a principal gets called away from the school to attend a meeting, the IFs are expected to “fill in the administrative gaps” while he or she is gone. District personnel noted a tension between IFs feeling that they should focus on their fundamental task, “influencing teacher practice that has an impact on student performance,” but that since principals conduct their evaluations, “that affects the choices they make about how they spend their time.”

New teachers in Malamute District undergo a three year mentoring program. The first year consists of weekly classroom observations “to help assimilate them into the program at the school,” according to district personnel. There are four mentor teachers who work

with the new teachers, as well as nurse and counselor mentors to work with new nurses and counselors.

Intervention Strategies

The Malamute superintendent reported that the district employs a tiered intervention model to provide extra-help strategies for struggling students. The first step is “within classroom help. This is the main area that teachers need to address first” reported the Superintendent. He went on to say that the second step is a “menu of approaches, a big part of which is providing tutors.” The district’s emphasis on site-based decision-making has meant that no district-wide approach to providing interventions exists. However, the new superintendent has pushed for consistency in goal-setting, with the expectation that teachers will create Plan Do Study Act charts with each of their students. Figure 7 shows the district’s Plan Do Study Act template.

Figure 7: PDSA Template

Reflection and Implementation Action Plan

Group/Individual Name _____
 Implementation dates _____ to _____
 Implementation Focus _____

STUDY (Set Learning Priorities) Initial Baseline Data:	PLAN Instructional Goal(s)/ Strategies	TAKE TIME TO IMPLEMENT PLAN	STUDY Results	ACT Adjustments/ Possible Solutions	
What specifically does your data show is a need for improvement?	What is the goal? What strategies will be employed?			Describe the results of the strategy/ activity(ies) that you used.	Post Date: Next Steps:
Who are the direct recipients of this improvement?	DO Action Steps: 1) 2) 3)			What is working (successes)? What is not working (challenges)? Evidence that goal was met/not met. (Provide	

			supporting data.)	
			Questions I have now:	

Instructional Leadership

The Superintendent reported that the evaluation process for Malamute administrators “is not working well at the moment because it doesn’t specify who is accountable.” The district has created a new evaluation model this year, to be “phased in” during the 2009-10 school year.

In addition, the superintendent reported that the district is trying to “promote and model a collaborative model of decision-making,” noting that about 8-9 years ago, a collaborative model was adopted in which parent advisory groups are involved in the budget process at each school.

External Professional Knowledge

The Malamute superintendent reported that he is “searching for high performing districts within and outside of the state to borrow their improvement models,” adding that he is “stealing unabashedly and giving credit for ideas” they find that will help Malamute become a better district.

FUTURE IMPLICATIONS AND CONCLUSIONS

The superintendent felt the schools would benefit from having more counseling resources at the elementary level to help “make students ready to learn.” Additionally, the superintendent felt that “salaries have outstripped the model,” noting that there is a “tension between what the model gives in terms of salaries and the ability to draw the right talent.” The Associate Superintendent for Curriculum and Instruction felt that in most schools “it’s not a question of needing more resources, but consistently implementing the existing resources,” but did feel that targeted resources are needed for “consistently failing schools.”

Ridgeback High School: A Case Study of Instructional Improvement and Resource Use

INTRODUCTION

Ridgeback High School is a ninth through twelfth grade school with just over 1,400 students in an open enrolment urban district of Wyoming. About 16% of the students at Ridgeback High are eligible for free and reduced-price lunch and a little over 7% receive special education services. Fewer than one percent of Ridgeback’s student population is identified as English language learners. Ridgeback offers a standards-based curriculum as well as an International Baccalaureate program. In addition to a commitment to the core academic subjects, Ridgeback offers classes in the Fine and Performing Arts. Ridgeback has the largest foreign language department in the state. The school also offers vocational, technology and consumer science programs.

Over the past five years, Ridgeback’s motto, “Every Day Is A Great Day to be a Ridgeback,” has been implemented through using student assessment data to drive instruction, identifying learning goals for all subgroups of students, supporting struggling students through a range of extra help strategies, providing ongoing professional development for teachers, and supporting teacher growth through the use of instructional facilitators. The purpose of this case study is to tell the story of improvement in student learning at Ridgeback High School and to identify how the corresponding resources were allocated.

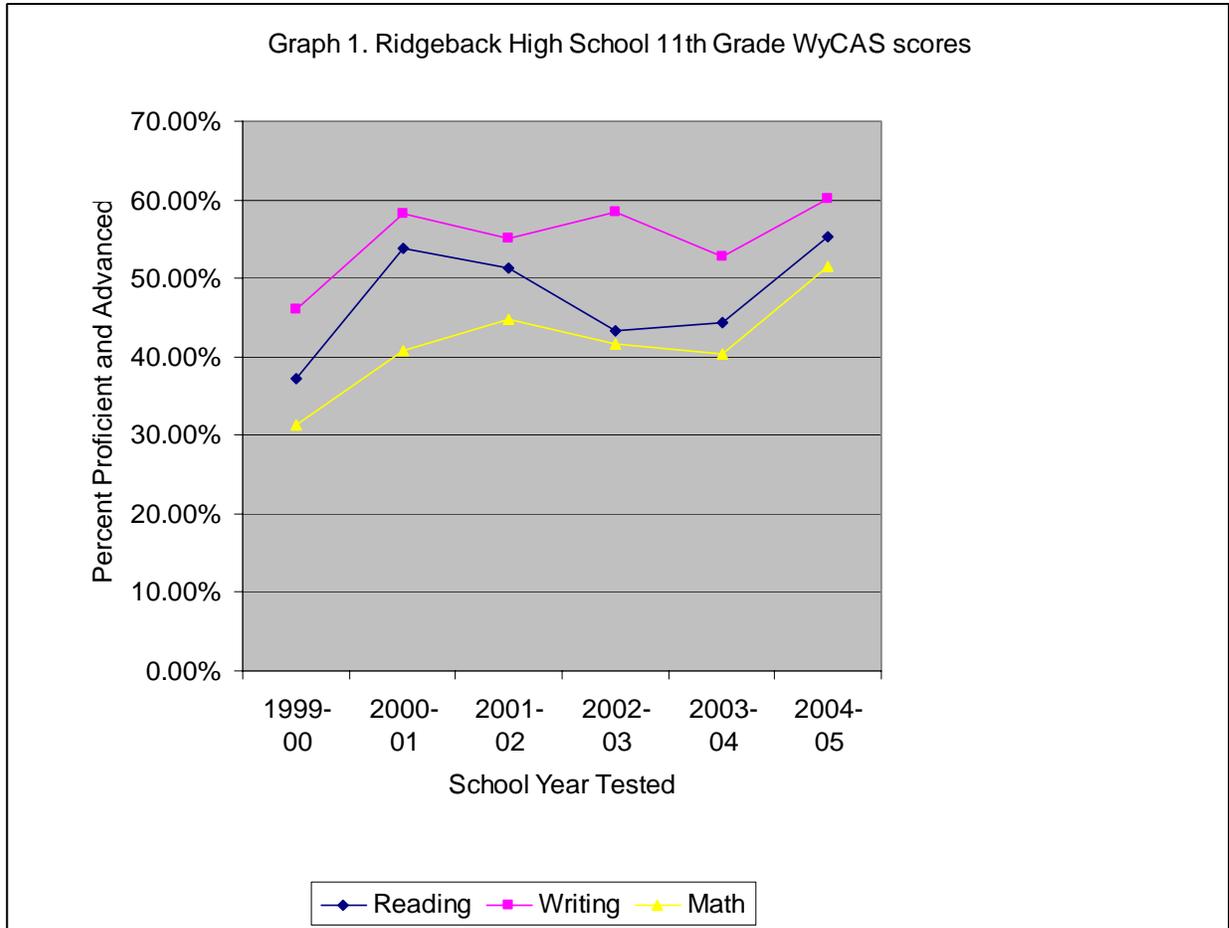
TEST SCORE DATA

Ridgeback High School’s student test scores have increased over the past eight years. From the 1999-2000 to 2004-05 school years, proficient and advanced scores on the Wyoming Comprehensive Assessment System (WyCAS) increased by 18 percent in reading, 14.2 percent in writing and 20 percent in math, as shown in Table 1.

Table 1. Ridgeback High 11th Grade WyCAS Proficient and Advanced Scores

SUBJECT	1999-00	2000-01	2001-02	2002-03	2003-04	2004-05
Reading	37.2%	53.9%	51.3%	43.4%	44.3%	55.2%
Writing	46.0%	58.2%	55.0%	58.5%	52.7%	60.2%
Math	31.4%	40.7%	44.8%	41.7%	40.3%	51.4%

The growth over this six year period was an initial climb in each content area, with drops in the middle years followed by renewed growth. The changes in performance throughout this period can be seen in Graph 1 below.



During the 2005-06 school year, Wyoming implemented the new statewide Proficiency Assessment for Wyoming Students (PAWS) testing system. Although not directly comparable to WyCAS, PAWS scores from during the 2005-06 to 2007-08 school years show continued growth in student achievement at Ridgeback, as shown in Table 2.

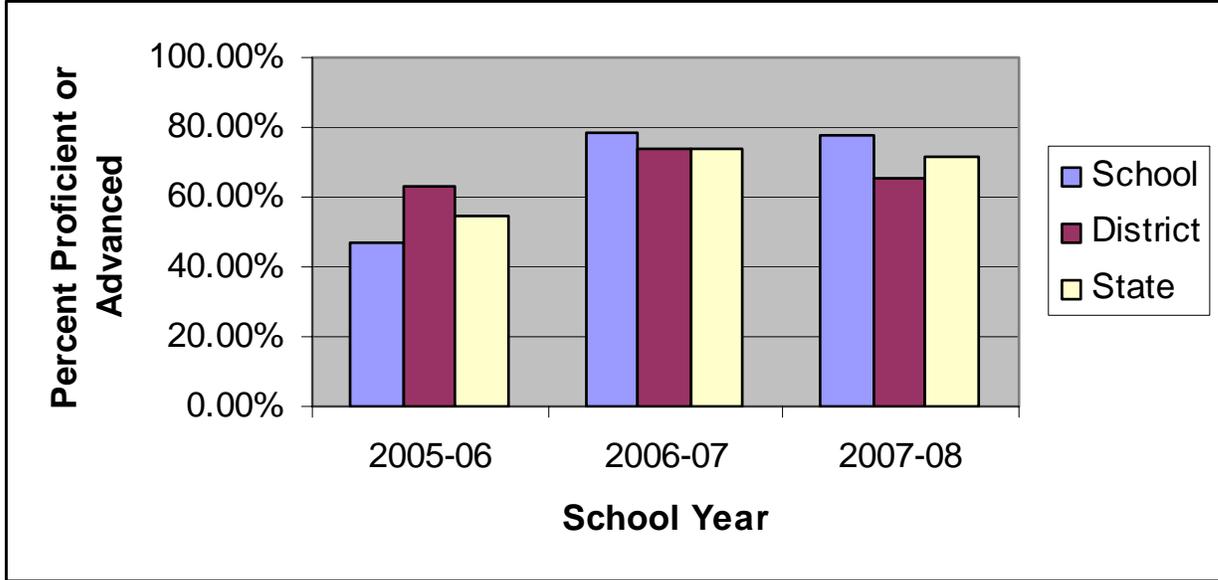
Table 2. Ridgeback High 11th Grade Proficient and Advanced PAWS Scores

SUBJECT	2005-06	2006-07	2007-08
Reading	47.2%	78.2%	77.9%
Writing	54.2%	81.8%	80.9%
Math	56.8%	72.2%	68.5%

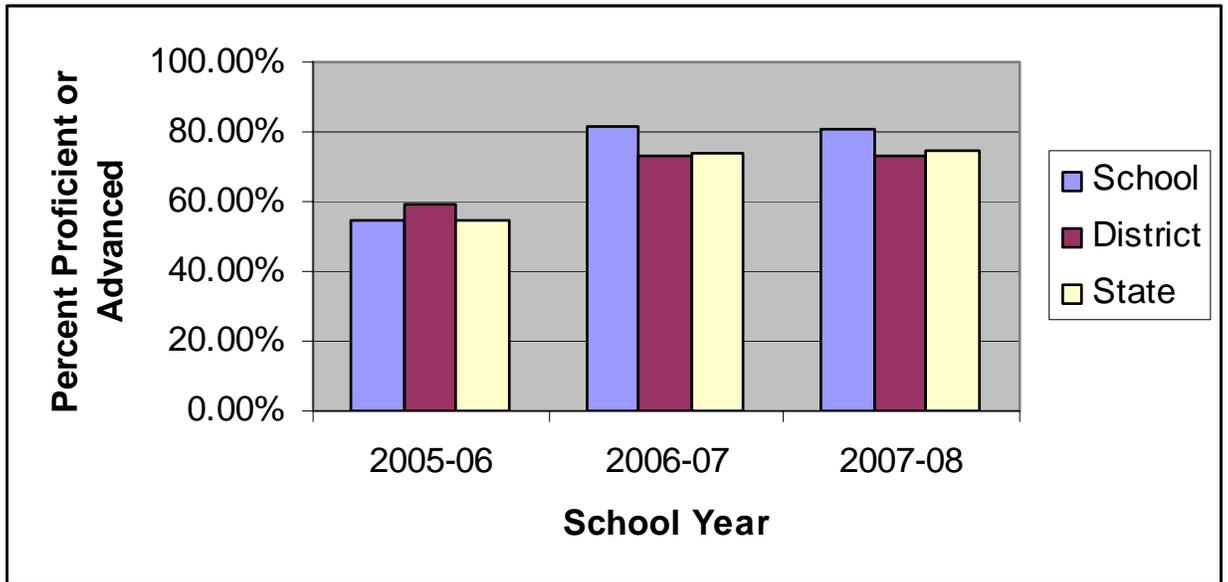
Specifically, Ridgeback’s percentage of 11th grade students receiving proficient or advanced scores on PAWS increased by 30.7 in Reading, 26.7 in Writing, and 11.7 in Math during the 2005-06 to 2007-08 school years. Ridgeback’s 2007-08 scores in all three subjects were better than the state average of 66% in reading, 73% in writing and 64% in math. Similarly, Ridgeback’s growth was more pronounced than either the

district or state growth. Graphs 2 through 4 below provide a visual representation of growth in Ridgeback's PAWS results in reading, writing and math from the 2005-06 to 2007-08 school years compared with district and statewide results.

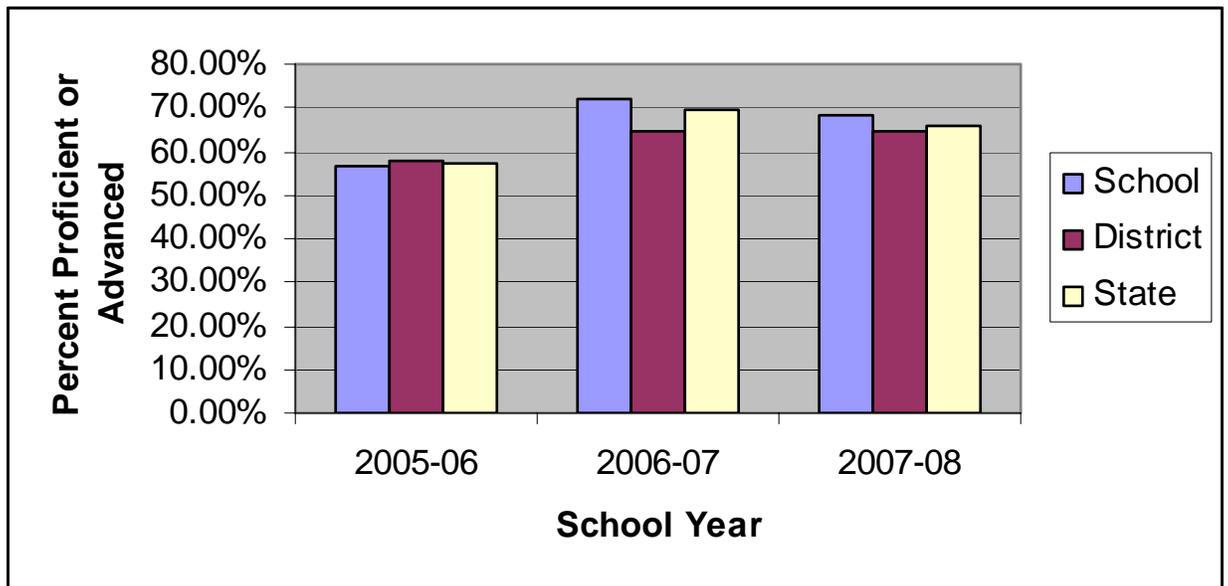
Graph 2: School, District, State Comparison – 11th Grade PAWS Reading



Graph 3: School, District, State Comparison – 11th Grade PAWS Writing



Graph 4: School, District, State Comparison – 11th Grade PAWS Math



EDUCATIONAL IMPROVEMENT STRATEGIES

A new principal came on board at Ridgeback High School in the 2007-08 school year. He had been an Assistant Principal at the school for six years before becoming principal (and a math teacher for the three years prior to that), so he was familiar with the school's culture, achievements, and areas needing improvement. Over the past several years, the primary focus of Ridgeback's educational improvement strategy has been on aligning the math, language arts and science content with state's curriculum standards and the content tested on PAWS. To this end, the school has followed the district Curriculum and Instruction division's alignment efforts. The school has made an effort to determine "what concepts should be taught when and where" by engaging in mapping the "essential curriculum." Teachers have been involved in the process through district working groups that included teachers from three other high schools and during a recent professional development "winter institute," the math teachers worked on vertical alignment of the math curriculum across grades. On a day to day basis, the school's five Instructional Facilitators are involved in overseeing both content ("the what") and delivery ("the how"), stressing to teachers the importance of common instructional strategies to create uniformity across classes. The school has begun backwards mapping to incorporate the essential curriculum into unit designs.

These and other approaches to improving student performance are discussed in the following sections.

Needs Assessment

PAWS data are the primary tool for assessing areas of focus for each school year. For example, during the 2006-07 school year, the school determined that there were no specific interventions in place for at-risk students (students receiving free or reduced

price lunch), and when this subgroup failed to meet AYP, the school engaged in a “redesign of our service delivery model” to focus professional development on strategies aimed at engaging this population and increasing the number of literacy coaches from one to two.

Goals

Ridgeback identified the following three goals on their School improvement Plan in reading, writing and math for the 2008-09 school year:

- All students will improve reading comprehension and writing across the curriculum;
- All students will improve their math skills; and,
- Students will participate in higher order thinking, engaging, and authentic learning experiences utilizing technology when appropriate to the lesson plan.

Curriculum and Instructional Approach

Ridgeback adopted a new math curriculum in the 2006-07 school year to help them meet their goals for increasing student performance. The school selected the curriculum from a menu of options created by the district. Math Connections, is used for Algebra I and II and “a variety of texts are used for geometry, trigonometry, etc.” reported the principal. After implementing the Math Connections curriculum, the teachers felt that it required higher level thinking skills that comprise the state standards, but lacked “the building blocks” the school’s struggling students needed work on, so the school supplements the text to “match the knowledge pieces found on PAWS.”

In Language Arts, the school has followed the district mapping to align the curriculum to the state standards. As such, they teach American Literature in 10th grade and World Literature in 11th grade to align with PAWS test material and to offer cross-curricular alignment with the social studies curriculum. The school uses 6+1 Traits of Writing techniques to teach writing; the principal reported that the school “has been doing it for the past 12 years,” and that teachers recently completed a mandatory district PD on the approach as well.

The district is in the process of identifying “essential curriculum” in language arts, math and science, noted the principal, who reported that this process “identifies the minimum to be covered” in each subject and is created “by correlating the state standards to PAWS descriptors.” At the department level, teachers “figure out what needs to be taught when to cover the curriculum, as well as what to bring in for supplementary materials.”

The principal regularly observes classroom instruction to identify teachers who are struggling with curriculum implementation. He then alerts the Instructional Facilitators as to which teachers they should work with (more on the IFs below).

Ridgeback is working toward a common vision of effective instruction. To this end, the school improvement team brought in a teaching strategies program, Creating Independence through Student-owned Strategies (CRISS) about three years ago to strengthen the coherence of teaching methods across the faculty. The district has since adopted this program. Some Ridgeback teachers have attended national training in CRISS strategies, while others received professional development locally. The principal reported that most of the school's 90 teachers have embraced the CRISS strategies, which aim to make students more accountable for their learning while also providing "brain-based" approaches such as incorporating opportunities for movement during class periods to help refocus the students, something seen as particularly important in the 90-minute block format the school implemented this year. A teacher noted that students have embraced the CRISS strategies, viewing them as "fun activities."

In class, teachers use a variety of strategies to actively engage students. Student understanding is monitored through use of teacher questioning strategies. In an Algebra II classroom, the teacher modeled problem-solving on an overhead projector before having students work independently while she circulated to provide individual assistance. In a "core focus" (see below) Algebra I class, a teacher reviewed skills from their regular Algebra class with a small group of students. In this setting, the atmosphere is more relaxed (students brought in food and drinks) to alleviate the stress of struggling with the material. An 11th grade English teacher made an effort to connect the lesson to the students' lives, asking students to compare ideas from the reading to their experiences on cattle farms.

One teacher described the approach to improving student performance as "making an effort to find out what students know [through in-class assessments included in the curriculum] and what they don't know and teach accordingly." In addition to the CRISS strategies, the school employs a "think, share, pair" strategy for students to become more active in their learning.

Data Collection and Use

Ridgeback uses a variety of student assessments to provide data on student performance, described below:

- PAWS: The Proficiency Assessment of Wyoming Students (PAWS) is a summative statewide assessment, administered (at the high school level) to 11th graders in a mix of online and print formats in reading, writing, math, and recently, science. PAWS data is used for Adequate Yearly Progress reporting and provides a picture of overall progress at the school as well as identifying subgroup performance.
- NWEA: The school has used the Northwest Evaluation Association (NWEA) computerized adaptive assessment in the fall and spring for the past two years (since the 2007-08 school year) in language arts and math. NWEA data are used to establish growth as well as to group students into performance lexiles for

placements into skill level groupings for math as well as to identify students who need extra help. The principal noted that the tests provide the school “a little” information but doesn’t tell them “that much” as it is aligned with the K-8 curriculum but not the high school curriculum. As one teacher noted, the fall scores are used primarily as a diagnostic measure of what students know and areas of weakness and although teachers have the option of using the test again in the spring as a summative evaluation, “there is too much else going on in the spring to make it a priority.” In contrast, another teacher reported that she uses the spring NWEA test as a measure of how she has done as a teacher and what areas she needs to improve on in the following year: “If my students increase by 5-10 points, I’ve met my goal; if they haven’t, I need to rethink what areas of the curriculum to spend more time on.”

- PLAN test: Ridgeback administers the PLAN test to 10th grade students as a “pre-ACT” test to help predict success on the ACT and plan for interventions.
- Formative assessments are given three times a year for students placed in Ridgeback’s academic literacy program who enter the school below-grade level in language arts.

One challenge noted with the various tests at the high school level is that none of them carry consequences for the students, so it can be hard to get students at that age to take the testing seriously, which affects the validity with which teachers interpret the results. As such, some teachers utilize data generated through in-class tests to assess student understanding, as these count toward the students’ grade and are therefore treated by students with more seriousness. End of unit assessments can help identify students needing extra help. Some of these are teacher-created. Others are common assessments created by the state Assessment Consortium; the district selected from among the state-created assessments, with the requirement that they “hit all of the standards,” noted the principal, who added that although “the concept was to give comparability across teachers and schools, the district hasn’t done much in terms of using inter-rater reliability or double-scoring of common assessments,” so typically, teachers just use the assessments for their own purposes.

Professional Development

The district had some say in setting professional development topics and allows the school to select some topics that they feel their school needs to focus on. For example, the school elected to hold PD on the creation of curriculum units and also attended two district-run PD on Shipley’s goal-setting approach (one day in fall 2007 and one in January 2008) and one day on 6 +1 Traits of Writing in fall 2007. Schools are given five years to complete the district PD initiatives and at times, the district brings in consultants and offers the training on specific days. In other cases, the school sends teachers out to receive training, employing a “train the trainers” model, or hires a consultant to come to the school.

Ridgeback adopted the district “institute” approach to professional development in the 2007-08 school year, implementing 4-day winter and summer institutes instead of spreading professional development days or half-days throughout the year. As one teacher noted, this approach has the benefit of enabling the school to bring in outside consultants to work with the teachers, something they couldn’t afford to do for a one day meeting. Another teacher reported that the value of the institutes is that the teachers can learn about a new approach and then engage in hands-on practice during the institute, something not possible in a one-day PD format. However, teachers have felt that the drawback of the institute format can be that teachers are “bombarded” with too much information to absorb. This can be particularly problematic in a subject like technology usage where the skill levels vary dramatically among staff.

For the past 4-5 years, cohort meetings led first by one of the Assistant Principals and now by the IFs are held twice a month to discuss school-wide approaches to specific areas. For example, the school’s technology focus has meant a need for unified Internet policies across staff. Staff members view these meetings as more valuable than the traditional staff meeting: teachers are grouped based on their planning periods to create a “cross-section” of the staff and ideas are shared with the administration. One teacher noted that the small group format has created a “safe space” in which teachers are more apt to ask for help.

In addition, the school offers voluntary PD Tuesday after school. This year, they are using this time to train teachers in the use of technology before the school adopts a “high access” technology model (computers with wireless Internet access in each classroom) in the 2009-10 school year. However, the principal reported that only about a third of the teachers have attended these voluntary sessions, so he is making them mandatory next year. Beyond the PD offered by the school and district, some teachers have attended conferences related to their specific content areas.

The 2008-09 school year was Ridgeback’s third year using Instructional Facilitators (IFs). The school had four IFs the first two years, and added a fifth during 2008-09. Two of the IFs focus on language arts, one on math, one on science, and one on technology integration. The principal noted that there has been some “involuntary turnover” in IFs during the three years they have used them time, in an effort to “get the right people on the bus” in terms of skills and credibility among teachers. The current IFs were all recruited from within, as the principal felt this lent them a greater level of credibility with teachers compared with bringing IFs in from “outside” of the school.

The role of the IFs as coaches, not evaluators is emphasized at Ridgeback. The ways in which they work with teachers varies based on teacher needs and abilities. The school follows the coaching model developed by the district IF coordinator. The first step in the coaching process is to establish a dialogue between the IF and the teacher to see what help the IF can offer and, more importantly, to build a trusting relationship. Once a trusting relationship exists, the IF then initiates suggestions based on their observations of the teacher’s needs. In addition to working periodically with departments and with the whole faculty during school-based PD days, IFs work with one-on-one with

approximately 80-85% of the Ridgeback teachers; the remaining 15-20% have either not felt a need or have resisted the help offered by the IFs. One teacher said that her interaction with the IF helped “confirm that what I was doing in the classroom was actually working” while another noted that the IF was valuable in researching best practices around teaching vocabulary, saving the teacher the time of having to do so herself. She noted that she met with the IF assigned to her during her planning period twice over a two week period to design a strategy for teaching vocabulary. In a coaching session between an IF and a history teacher, the IF met with the teacher to collaboratively plan an interdisciplinary English-social studies unit that they will be teaching (the IF teaches a 9th grade English class). The IF and teacher discussed pacing of the unit and brainstormed ideas for student activities and assessment. The principal reported that an effort is underway to create more collaborative time for teacher groups to work with the IFs, both within a content area and on interdisciplinary units.

The principal reported that the IFs have been the “best use of money” in terms of having a direct positive impact on increasing student performance. He noted IFs are able to be more visible in the classrooms than the principal or assistant principals can be (since they don’t have other administrative duties), which positions them as “change agents for the school.” The IFs meet with the principal every two weeks “to discuss what’s going on in the school.” In a recent meeting, the IFs shared their impressions about a voluntary teacher meeting approach and determined that in order to combat low attendance, the meetings should be made mandatory.

The IFs have also been instrumental in receiving training and then bringing back new ideas to share with the staff. For example, the IFs have been trained in new uses of technology, which they share with the staff during the voluntary Tuesday afternoon PD mentioned above. In addition, the IFs receive a lot of training at the district level in their first year, working in district-created cohorts to brainstorm ideas across campuses.

Structure of School Day

During the 2008-09 school year, Ridgeback implemented a 90 minute block schedule. As such, teachers have 90 minutes of planning time per day, which they can use for their own planning or to work with an IF. Previously, the school ran a 7-period day and noticed a decreased number of students enrolling in the advanced track International Baccalaureate program. When students reported that their reason for opting out of this program was that they couldn’t fit in any electives with the 7-period day due to the number of courses required for the IB program, the school switched to an 8-period AB schedule (four 90 minute blocks on alternating days).

Interventions for Struggling Students

Teachers reported that the first step to provide extra help for struggling students occurs at the classroom level. Teachers are generally available to provide one-on-one help at lunch, as well as before and after school. Students who may not speak up in class have the opportunity to seek clarification during this time.

Small group and one-on-one instruction is provided by the school's 3.07 FTE certified teacher tutors as part of Ridgeback's "core focus" program in which students receive elective credit for a second period in subject areas in which they are identified as needing extra help if in-class strategies are deemed insufficient to meet the student's needs. The principal noted that this program is intended to teach "success skills" so that the student can be successful in the core curriculum; it is not intended to be a "crutch" for the rest of their school career. Students can request placement in these classes, teachers can recommend placement, or counselors can assign students to the class.

The extended day program at Ridgeback consists of a "learning center," described by the principal as a "reactive model" since students are only sent to the program to recover course credits once they fail. He feels that the "core focus" approach described above does a better job of meeting student needs to help them become successful "before they fail". In addition, there is an after school "math lab" that rotates among the department's teachers to help students master concepts and provide one-on-one help with homework.

Instructional Leadership

Department chairs, IFs, and the principal share in providing instructional leadership at Ridgeback. The principal described the IFs as "my right hand" in terms of letting him know what areas of support teachers need. One teacher described the instructional support provided by the principal, saying, "I'm motivated to work harder because of the appreciation he shows for our efforts." She added that as a new principal, there is a new "sense of community" among staff as a result of the principal seeking teacher input. This emphasis on the principal being there to "serve" the teachers has played a significant role in recent increases in student achievement, according to one teacher.

Department chairs organize periodic lunch meetings for teachers to share curricular ideas since common planning times do not exist within a department. These meetings are voluntary, and it is generally the chair who picks a topic and researches ideas and resources to provide to the other teachers. One teacher noted that her department chair will teach the lowest level students if needed and in so doing has fostered a team spirit and willingness among staff to share resources.

The Ridgeback principal felt that the effectiveness of district leadership in helping the school improve student performance was mixed, giving the district an overall grade of "C." The principal noted that at times, the district has been responsive to school needs and ideas and has included the school in conversations around reforms and new curriculum approaches, but in other cases, the district has "not been service oriented," creating policies that result in extra work for the school without the school seeing any benefit. For example, the district created a method of measuring school success using multiple measures beyond PAWS, but they have not worked out how to incorporate high school success, so the utility of the effort is questionable at the high school level, according to the Ridgeback principal.

RESOURCE ALLOCATION

The following table compares the actual resource allocation in Ridgeback High School to that provided in the Wyoming Funding Model and compares resource allocation in the 2008-09 and 2007-08 school years.

Table 3. Ridgeback High School Resource Allocation (FTEs and Dollars)

Staffing Category	2008-09	
	WY Funding Model	Actual
Core Academic Teachers		42.00
Specialist & Elective Teachers		29.25
Alternative Teachers/ Small School Teachers		N/A
LIBRARY STAFF		
- Librarian/Media Specialist (Certified)		2
- Library/Media Tech Aides (Non-Certified)		2
EXTRA HELP		
- Certified ELL Teachers		0.33
- Certified Teacher Tutors for English Language Learners		
- Certified Teacher Tutors for At-Risk Students		4
Certified Teacher Tutors who Work with Small Groups		
- Non-certified Tutors		
- Resource Room Teachers		
- Resource Room Aides		
- Special Education Teachers (self-contained)		3.5
- Special Education Aides (self-contained)		18
-Special Education Teachers (inclusion)		4.5
-Special Education Aides (inclusion)		
- Gifted & Talented Teachers		
- Gifted & Talented Aides		
- Gifted & Talented Funds		
- Extended Day (teachers and classified staff)		2
- Summer School		

Staffing Category	2008-09	
	WY Funding Model	Actual
PROFESSIONAL DEVELOPMENT		
- Total # of Professional Development Days		8
- Instructional Facilitators		5
- Teacher Time (Substitutes & Stipends)		
- Trainer/Consultant Funds		6,000
- Materials, Equipment & Facilities		
- Travel & Transportation		22,500
- Tuition & Conference Fees		7,500
Other Instructional Staff		
- Building Substitutes & Other Substitutes		
- Instructional Aides		2
- Supervisory Aides (non-teaching aides)		
Student Support		
- Counselors		5
- Nurses		1
- Social Workers		1
- Psychologists		1
- Speech/ OT/ PT		
- Health Assistant		
Administration		
- Principal		1
- Assistant Principal		3
-Other Administrator		1
- Secretary		5.5
- Clerical		5

FUTURE IMPLICATIONS AND CONCLUSIONS

In order for Ridgeback High School staff to continue and expand efforts to increase student achievement, the school felt that it needed additional money for teachers to take advantage of national professional development opportunities and conferences. The preferred approach would be a “train-the-trainers” model in which select staff would be able to attend training and then introduce the new strategies to the rest of the staff.

The principal noted that the school uses an annual climate survey to assess staff morale and to elicit suggestions for improvements. The most recent survey indicated that a portion of the teachers feel that there have been too many changes (in the curriculum, the use of IFs, the implementation of a block schedule) in too rapid a time period, resulting in stress and antagonism among staff. The principal therefore highlighted the need for the school to be able to practice self-reflection as part of the growth process: reforms need time to be tested and allowed to become institutional practice before bringing in new reforms. Therefore, while the school is continuing to work on effective delivery of the curriculum through the new emphasis on unit design, CRISS strategies and the block schedule, they are holding off on any other major reforms until the staff are comfortable with these. One exception to this is that the school is being re-wired for “high access,” so staff are being trained in incorporating technology into their teaching.

Dachshund Elementary School: A Case Study of Instructional Improvement Efforts and Resource Use

INTRODUCTION

Dachshund Elementary School is a Kindergarten through 6th grade school with 310 students in a large open enrollment urban district of Wyoming. About one third of the students at Dachshund Elementary are eligible for free and reduced-price lunch and 6.8% receive special education services. None of Dachshund's students are identified as English language learners. Dachshund's class sizes for the 2008-09 school year are as follows:

- Kindergarten = 17 in all three classes
- 1st grade = 17 in all three classes
- 2nd grade = 21 in one class, 22 in the other
- 3rd grade = 21 in one class, 22 in the other
- 4th grade = 26 in both classes
- 5th grade = 26 in both classes
- 6th grade = 21 in both classes

In February, 2009, Dachshund was one of nine of the district's 37 schools to be recognized as an "excelling school" at the district's annual "Medallion of Excellence" award ceremony. Their instructional improvement strategies have been implemented through using student assessment data to drive instruction, identifying individual learning goals for all students, supporting struggling students through a range of extra help strategies, providing ongoing professional development for teachers, and supporting teacher growth through the use of an instructional facilitator. The purpose of this case study is to tell the story of improvement in student learning at Dachshund Elementary School and to identify how the corresponding resources were allocated.

TEST SCORE DATA

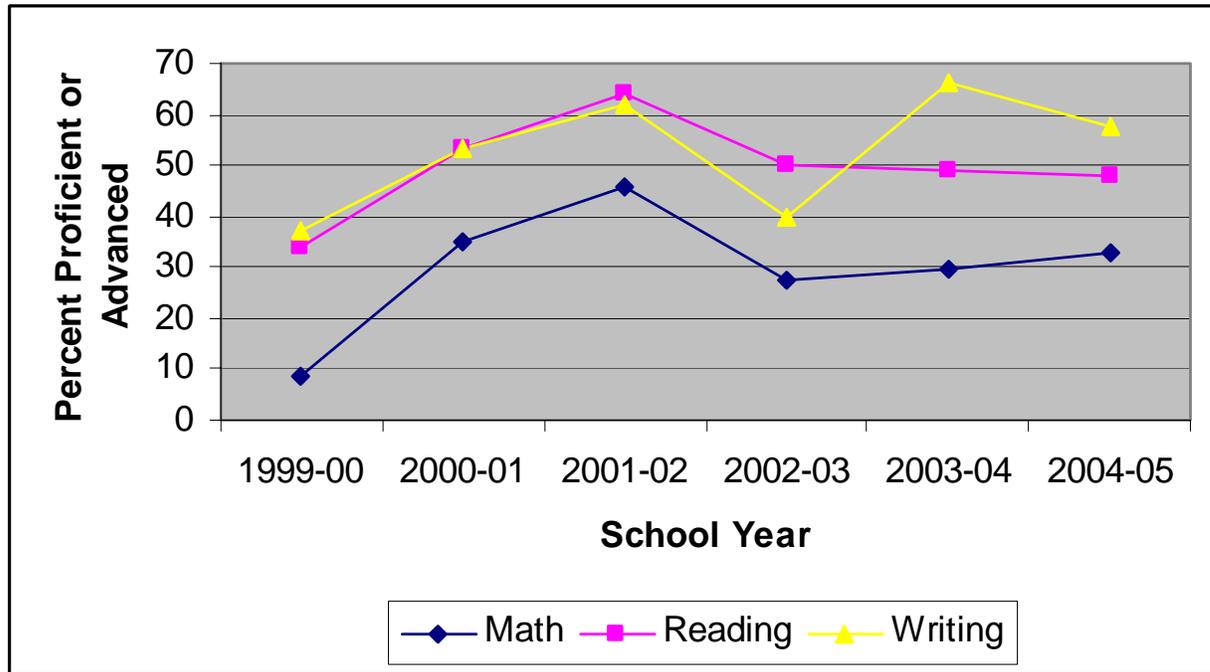
Dachshund Elementary School's student test scores have increased over the past eight years. From the 1999-2000 to 2004-05 school years, proficient and advanced scores on the Wyoming Comprehensive Assessment System (WyCAS) increased by 14.2 percent in reading, 20.4 percent in writing and 24.2 percent in math, as shown in Table 4.

Table 4: Dachshund Elementary 4th Grade WyCAS Percent Proficient and Advanced Scores

	1999-00	2000-01	2001-02	2002-03	2003-04	2004-05
Math	8.5	35.0	46.0	27.5	29.8	32.7
Reading	33.9	53.3	64.0	50.0	48.9	48.1
Writing	37.3	53.3	62.0	40.0	66.0	57.7

The growth over this six-year period was an initial climb in each content area, with drops in each subject in the 2002-03 school year followed by renewed growth in math and writing, and slight declines in reading. The changes in performance throughout this period can be seen in Figure 8 below.

Figure 8: Percentage of Dachshund Elementary Students Scoring Proficient or Advanced on WyCAS, 1999-00 through 2004-05



During the 2005-06 school year, Wyoming implemented the new statewide Proficiency Assessment for Wyoming Students (PAWS) testing system. Although not directly comparable to WyCAS, PAWS scores from during the 2005-06 to 2007-08 school years show continued growth in student achievement at Dachshund, as shown in Table 1.

Table 5: Dachshund Elementary Percent Proficient and Advanced PAWS Scores

Grade	Math				Reading				Writing			
	05-06	06-07	07-08	change	05-06	06-07	07-08	change	05-06	06-07	07-08	change
3	78.6	95.2	94.6	16.0	69.0	76.2	78.4	9.4	38.1	52.4	37.8	-0.3
4	84.0	95.6	93.6	9.6	64.0	91.1	80.8	16.8	54.0	75.6	72.3	18.3
5	72.0	91.8	85.4	13.4	66.0	75.5	87.8	21.8	20.0	28.6	24.4	4.4
6	81.1	82.2	89.2	8.1	51.3	82.2	70.3	19.0	45.9	42.2	37.8	-8.1

Dachshund’s percentage of students achieving proficient or advanced scores on PAWS increased in Reading and Math between the 2005-06 and 2007-08 school years for all grades. The percentage of students achieving proficient or advanced in writing increased in 4th and 5th grades but decreased in 3rd and 6th grades. Dachshund’s 2007-08 scores in math and reading across all four grade levels and in 4th grade writing were better than the district and state averages, while their 3rd, 5th, and 6th grade writing scores were not as strong, shown below in Table 2.

Table 6: School, District, State Comparison –Percent Proficient or Advanced on PAWS 2007-08

Grade	Math			Reading			Writing		
	School	District	State	School	District	State	School	District	State
3	94.6	79.9	83.4	78.4	59.4	61.0	37.8	37.1	41.0
4	93.6	75.3	76.8	80.8	70.2	64.0	72.3	48.3	52.8
5	85.4	68.1	70.9	87.8	64.6	66.0	24.4	27.7	37.1
6	89.2	77.8	78.2	70.3	66.3	63.0	37.8	40.8	47.4

Further, Dachshund’s student performance growth has been more pronounced in most subjects and grades than that of either the district or state, with an exception in 6th grade math and 3rd and 6th grade writing. Figures 2 through 4 show the changes in percentage of students scoring proficient or advanced on PAWS from the 2005-06 to 2007-08 for the school, district, and state.

Figure 9: School, District, State Comparison – Change in Percent Proficient or Advanced on PAWS MATH Scores

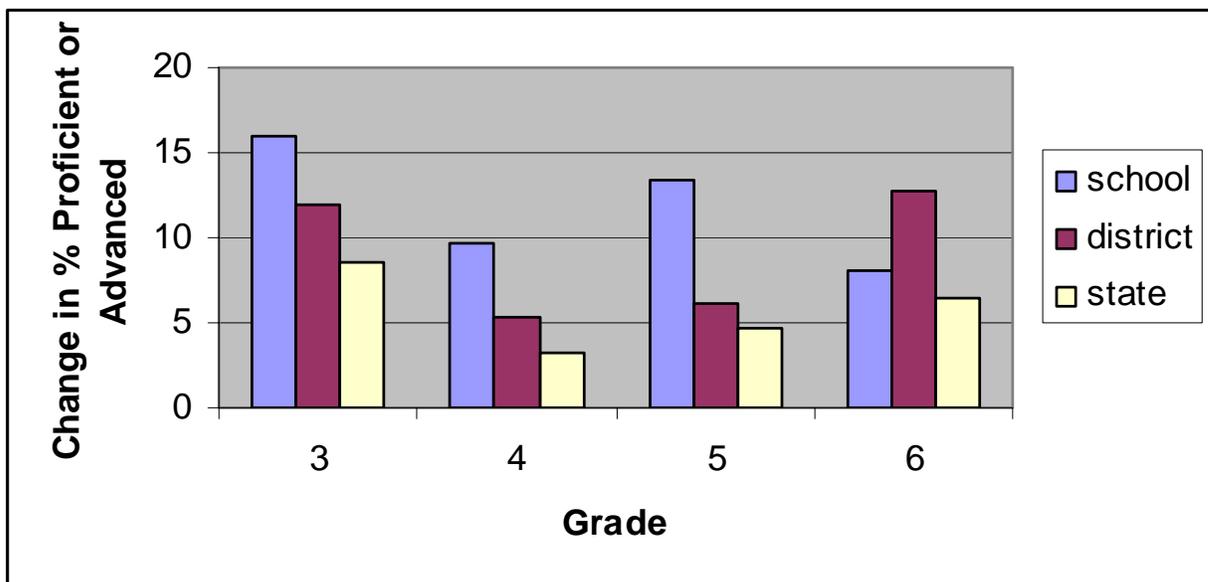


Figure 10: School, District, State Comparison – Change in Percent Proficient or Advanced on PAWS READING Scores

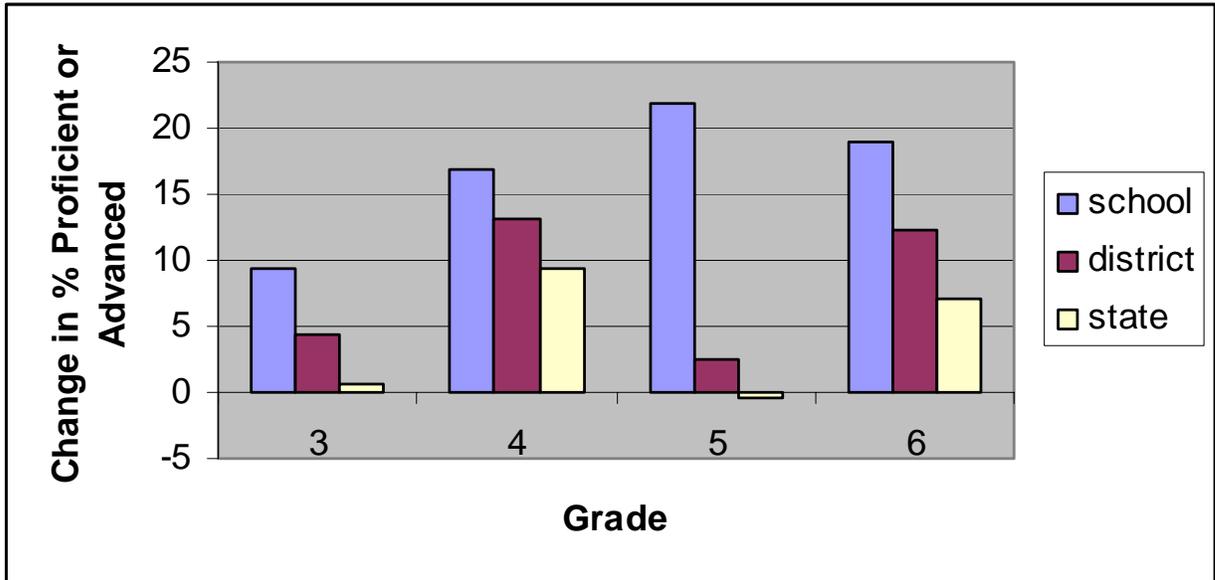
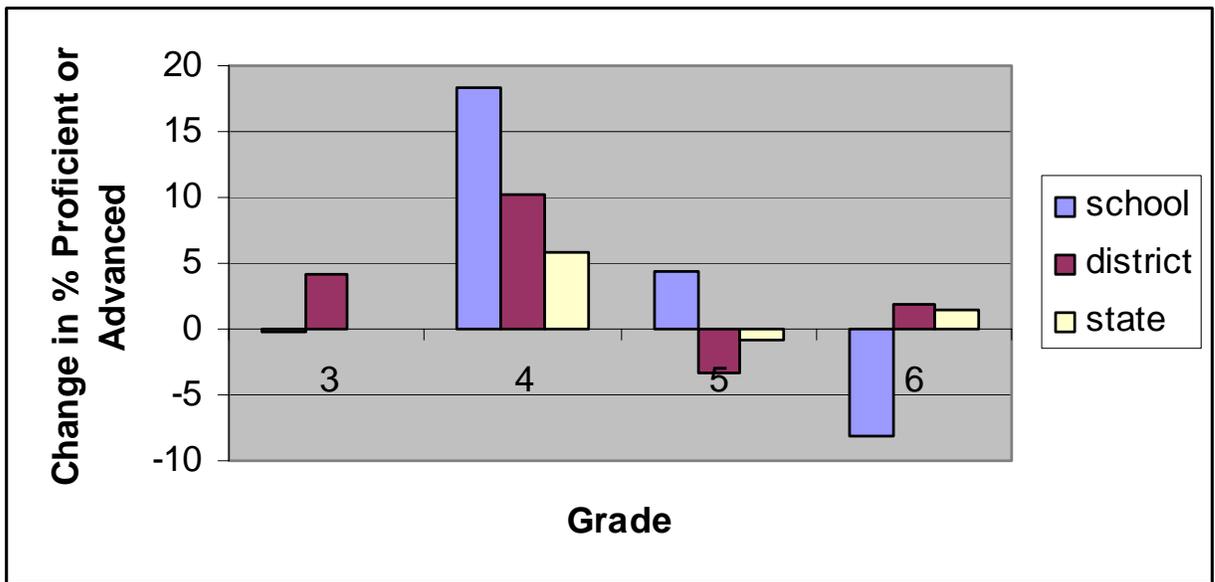


Figure 11: School, District, State Comparison – Change in Percent Proficient or Advanced on PAWS WRITING Scores



EDUCATIONAL IMPROVEMENT STRATEGIES

The principal at Dachshund has been at the school for 11 years, with a further 11 years' experience at another elementary school. Over the past several years, the school has reached 85-95 percent proficiency in math across the different grades, so the primary focus of Dachshund's educational improvement strategy has been on increasing reading and writing scores. To this end, the school has focused its resources and improvement strategies in two ways. First, they use tutors for small group "pullout" reading instruction, focusing on students in the "middle range," those scoring in the 25th-40th percentile on PAWS. Tutors are also used for small group instruction with struggling students and the principal reported that the use of tutors has been effective in increasing student performance for both groups (those scoring in the middle and lowest-scoring students). Second, the IF, brought in at the start of the 2008-09 school year, has focused thus far on helping teachers implement Writer's Workshop in an effort to improve writing scores on PAWS. The principal similarly reported that the IF has "been a great resource for both the students and the teachers."

Needs Assessment

PAWS data are the primary tool for assessing areas of focus for each school year. For example, the Dachshund principal reported that when test score data showed growth stopping at around 5th grade, teachers devised a shared goal of "needing to challenge students who are doing well," those scoring in the middle, rather than focusing mainly on low-performing students.

Goals

Dachshund has been focused on writing across the curriculum for the past few years in an effort to increase the students' writing scores on PAWS. In particular, the school is focused on "teaching students to incorporate background knowledge into their writing," according to one teacher. Continuing growth in reading and math are also school goals, but less emphasis has been placed in these areas since the students are "already excelling."

Approaches to meeting these goals are discussed in the following sections.

Curriculum and Instructional Approach

The principal reported that the school has used Saxon Math since before he came to the school. He used the curriculum at his prior school and found it to be successful, so has not felt a need to try a different program; it is aligned with PAWS and the school has had high test scores in math under the use of this curriculum. A consultant is used to train new teachers in the curriculum. One teacher reported that she likes that the math curriculum "spirals from one concept to another, with remediation and enrichment built

in.” She reported that every five lessons, there is a “multi-step problem” embedded in the curriculum for the students to work on, which helps prepare them for similar problems found on the PAWS test.

Dachshund uses “a Reading First approach to reading instruction” as the principal put it, although the school is not a federally-funded Reading First school. He added that they selected a research-based reading curriculum, McGraw Hill, as required (research-based is required, not the specific curriculum) by Reading First. Although the teachers have not received any specialized training in the McGraw Hill curriculum, the IF works with teachers, especially those new to the school and/or program, in understanding how to implement the curriculum.

To help them meet their goal of increasing student performance in writing, the school uses Step Up to Writing, a research-based program that includes strategies and activities aimed at teaching students to proficiently write narrative and expository pieces, actively engage in reading materials for improved comprehension and demonstrate competent study skills. In addition, the school has implemented 6 +1 Traits of Writing, a framework that offers a “common language” of the components of writing to help schools create a common vision of what “good” writing looks like. Dachshund also uses Writer’s Workshop, an interdisciplinary writing technique designed to build students’ fluency in writing through attention to the process of writing, editing and re-writing not just the finished product. The principal reported that the school combines all three approaches: “We use 6 Traits to help teachers know what to look for in students’ writing and how to create and use a rubric to assess student writing, Step Up for how to deliver writing instruction, and Writers’ Workshop to help get students to have fun in the revision process.”

In addition to the core curriculum, Spanish is taught at all grade levels (the state mandates Spanish for K-2 and the school decided to use a full time paraprofessional instead of just hiring someone for K-2) and technology is integrated across the curriculum. Dachshund’s philosophy on homework is that for the primary grades, homework is mainly limited to work not completed during classroom time; for the older students, homework is given “to help them become more organized and independent.”

The state standards have been adopted by the district and embraced by the school, according to one teacher. The principal noted that the district is just beginning to develop curriculum standards. During a winter professional development institute (see below), the school spent a day completing curriculum mapping for language arts; they will do so for math during the upcoming summer institute. Although curriculum mapping is incomplete, Dachshund teachers reported that a common vision of effective instruction exists at the school. One teacher described this common vision as allowing for different teaching styles, but adhering to shared goals. Grade level teachers collaborate in “cohort study groups” to ensure that they are following the standards.

Most primary classrooms are set up in “pod” formation with 4-5 students sharing tables in the center of the room for group work with learning “centers” set up around the room as well as a space on the floor for students to sit during whole group instruction.

In class, teachers use a variety of strategies to actively engage students. In one 1st grade classroom, the 90 minute language arts period started with the class gathered on the floor for whole group instruction in syllables. The students clapped out the syllables contained in each others’ names, led by the teacher. After about 10 minutes, the students went back to their tables, at which point the teacher rotated among each table to read and discuss a story (spending about 20 minutes at each table) while a student teacher worked with another group on phonics and the third group worked independently on a worksheet. Student understanding was monitored through use of teacher questioning strategies: for example, the student teacher asked students to explain how they knew what the word on a flashcard was (i.e., it was a compound word, it followed a certain vowel or consonant rule, etc.).

In a 3rd grade math class, the teacher started the lesson with a couple of activities that are done as part of the daily routine: one student led the class recitation of addition, subtraction and multiplication problems associated with the current day of the year. For the remainder of the lesson, a cognitive approach to learning math was followed. First, the students first worked independently on math word problems. Next, the whole group came together and the teacher asked students to explain the rules that governed the method they used to find the problem’s answer. The teacher called on several students to explain their answer to each problem, highlighting that there were multiple ways to reach the same (correct) answer.

Class progress toward specific learning outcomes, such as math skills, is charted visually on a poster on the wall in some classrooms. This is done anonymously, with the teacher adding stickers to the chart that show how many, but not which, students have mastered a particular skill. In many classrooms, 6 Traits of Writing posters adorn the walls, encouraging the adoption of a common language to discuss writing among both teachers and students.

Data Collection and Use

Dachshund uses a variety of student assessments to provide data on student performance, described below:

- PAWS: The Proficiency Assessment of Wyoming Students (PAWS) is a summative statewide assessment, administered (at the Elementary school level) to 3rd through 6th graders in a mix of online and print formats in reading, writing, math, and recently, science. PAWS data is used for Adequate Yearly Progress reporting and provides a picture of overall progress at the school as well as identifying subgroup performance. The school also uses PAWS data as a diagnostic tool: at the start of each year, the school invites the district data coordinator to work with grade level teams to identify areas of improvement for

the coming year. Further, in an effort to improve reading scores, the school has also brought in the district reading specialist to “lead a discussion on how to improve scores, identify professional development opportunities and offer supplemental curriculum materials” for teachers to use, reported the principal.

- NWEA-MAP: Dachshund uses the Northwest Evaluation Association Measures of Academic Progress (NWEA-MAP), state-aligned computerized adaptive assessments in language arts and math, twice a year (in the fall and then again in the spring). Fall data are used to “create targets” as well as to place students identified as needing extra help into small group tutoring groups, reported one teacher. Spring data help teachers see if they have met their goals.
- DIBELS – Dachshund uses Dynamic Indicators of Basic Early Literacy Skills (DIBELS), short (one minute) fluency measures to monitor struggling students and identify tutoring needs.
- Rigby: Rigby assessments are used to diagnose areas of weakness requiring extra help in the four domains of language proficiency: listening, speaking, reading and writing.
- Each student utilizes a data folder to keep track of their own progress in language arts and math.

The IF reported that she hasn’t played a large role in helping teachers analyze their student achievement data “because they’re already good at it.” She noted that teachers look at data “in an ongoing fashion, building-wide,” sharing data to help inform school decisions about areas to target.

Professional Development

Dachshund has adopted the district “institute” approach to professional development (PD), utilizing 5 days over the winter recess and four days in August. As noted above, the district reading specialist helps the school select PD topics based on PAWS data. In addition, the district has some say in setting professional development topics and allows the school to select some topics. For example, the school attended district-run PD on science workshops in the winter institute and elected to hold PD on the Plan Do Study Act model of goal-setting in the summer institute. Schools are given four years to undergo PD in district initiatives and at times, the district brings in consultants and offers the training on specific days. In other cases, the school sends teachers out to receive training, employing a “train the trainers” model. The IF noted that PD was “more district-mandated in the past, but they are now moving more toward school-selected PD, so I can help facilitate the school’s PD by finding out what teachers would like training in.”

Scheduling constraints restrict the use of collaborative time for grade-level teachers to meet during the school day. Instead, they have meetings after school 1-2 times a month for teachers to discuss the curriculum. In addition, the school uses the Fun Rewarding

Enriching Days (FRED) program to free teachers for afternoon grade level meetings once a month while providing enrichment activities for the students. The FRED program was started by the district in 2003 to help reduce the number of in-service days or substitute teachers used in the district, while providing students hands-on learning experiences and exposing them to scientific, visual and performing arts presentations by local groups such as the Science Zone, the art museum, and the Natrona County Public Library as well as bringing in motivational speakers, athletes, and scientists from around the country.

Dachshund brought on an Instructional Facilitator (IF) at the start of the 2008-09 school year. The IF had been a teacher at the school for 15 years, which the principal noted helped increase teachers' willingness to work with her because "the trust was already built because she worked here." The IF received training at the start of the school year, officially starting one week before school opened, participating in a two day state IF conference in September, and attending a Jim Knight coaching institute. The IF reported that at the start of the year, she and the principal "sat down to identify areas for improvement based on test data." They determined that although she has been selected to be a coach based on her science and technology expertise, the biggest need in the school was in the area of writing. Therefore, the IF thus far has focused primarily on familiarizing the teachers with Writers' Workshop "since our school goal is to increase writing scores, but we haven't had any PD yet on it," as one teacher put it. As such, most of the IF's time is spent team-teaching and modeling lessons; the IF estimated that she spends about 50% of her time in classrooms, 20% preparing lessons, 10% conferencing with teachers prior to going into classrooms, 10% on administrative tasks, 5% in researching new strategies and 5% meeting with other IFs in the district. A teacher who has worked with the IF on Writers' Workshop five times so far reported that first, the IF instructs her "to read up on the relevant material." Then, the IF models the instructional strategy in one lesson, after which the teacher will use the methods in subsequent lessons. This teacher felt that the knowledge she has gained from working with the IF has meant that she now "expects more" from students' writing and knows how to express that expectation.

The principal stressed that Dachshund views the IF's role as that of a coach, not an evaluator. As the IF put it, she and the principal "decided that the best use of the role was to provide an opportunity for teachers to try things they wouldn't have been able to do otherwise," be it organizing materials for a science experiment or trying out new strategies from Writers' Workshop. The teachers approach her if they want her to come into their classroom: the principal noted that "she is fully-booked." In addition to spending time in classrooms, the IF is working on setting up technology systems school-wide and training teachers in how to utilize technology in their teaching.

There are ongoing IF training opportunities provided by the district; Dachshund's IF is part of a self-selected district cohort that meets once a month to discuss how to teach teachers to use Writers' Workshop and attends district coaching meetings with the other IFs on a regular basis.

Interventions for Struggling Students

Dachshund has implemented multiple strategies to minimize the need for “extra help” outside of the classroom. For example, a 90 minute uninterrupted reading period is utilized, during which the school’s two certified teacher tutors are available to work with small groups of students after whole group instruction is provided by the teacher. If in-class assistance with a tutor is not sufficient, the teacher will organize a conference with the students’ parents to create a Plan Do Study Act goal for the student. If students still need extra help, the next step is to have them work with one of the school’s tutors in a small group pullout format. In addition, the school runs a homework lab before school; a staff rotation is in place for teachers to run the homework lab. Although Dachshund does not have an extended day program, some of the school’s students attend a homework help program at another local school.

Summer and Winter Bridges programs offers students in grades two through six a chance to catch up in subjects where they struggle. The principal reported that about 25-30 students attend the Bridges programs.

Special education students are included in many classes, with pullout sessions for areas where they need more specialized help. A special education resource room also is utilized at the school. The progress of students who attend the resource room as well as those scoring below the 35th percentile on PAWS is monitored every two weeks through “status checks” to determine whether further intervention is needed.

Instructional Leadership

The principal conducts ongoing informal classroom observations to ensure that the curriculum is implemented with fidelity to design. In addition, he conducts half-day formal observations of each teacher annually. He reported that he is only required to do 25 minute classroom observations, but feels spending extra time in each classroom helps give him a more complete picture of the teacher’s strength and weaknesses: through discussions after the observations, he helps teachers identify areas for improvement and strategies to enable that improvement. The principal noted that in these observations, he is looking for the following:

- Are kids on task?
- Is the teacher following the essential curriculum identified by the district?
- Is the teacher teaching to the state standards?
- Is the Plan, Do, Study, Act model being followed?

Error! Not a valid bookmark self-reference. shows the teacher evaluation instrument designed by the district that the principal uses in his observations.

Figure 12: Teacher Evaluation Instrument

Teacher Evaluation Instrument	
Evaluation Code: S (Successful) or N (Needs Assistance)	
1. Instructional Activities	<ul style="list-style-type: none">a. Implements learning goals and objectives aligned with building and district guidelinesb. Develops and implements lesson/educational plansc. Uses instructional techniques that are District recommended or research based on show evidence of students' growthd. Acknowledges improvement by studentse. Evaluates student progress in a timely manner and communicates results to students and parentsf. Identifies and implements appropriate instructional interventions to assist students who are not achievingg. Establishes realistic/developmentally appropriate expectations for studentsh. Implements a specific system to monitor progress of studentsi. Selects and uses appropriate materials and equipment to facilitate students' learning Comments:
2. Management Activities	<ul style="list-style-type: none">a. Completes required reports correctly and according to established time lineb. Maintains accurate records of students' progressc. Reports facility concerns to the appropriate persond. Makes efficient use of instructional timee. Organizes classroom activities and materials to support learningf. Communicates appropriately and correctlyg. Organizes the physical environment so it is conducive to student learningh. Is prepared for substitutes according to building standards Comments:
3. Pupil Relations	<ul style="list-style-type: none">a. Provides appropriate and timely feedback to studentsb. Uses effective and age appropriate techniques to build positive student relations Comments:
4. Parent Relations	<ul style="list-style-type: none">a. Works toward positive relationships with parentsb. Seeks and implements alternatives when solving problems/conflicts Comments:
5. Discipline Activities	<ul style="list-style-type: none">a. Develops and implements an effective classroom discipline plan, system, or set of proceduresb. Communicates discipline plan to students, parents, and principal/supervisorc. Uses developmentally appropriate discipline pland. Uses discipline plan and practices that align with building procedures and District policies Comments:
6. Faculty/Staff Relations	<ul style="list-style-type: none">a. Communicates effectively and works toward positive relationships with faculty/staff membersb. Seeks and attempts to implement positive alternatives when solving problems/conflictsc. Uses appropriate channels for resolving problems and concerns (This does not preclude contacting the district for assistance) Comments:
7. Professional Responsibilities	<ul style="list-style-type: none">a. Demonstrates knowledge competencies in subject (content) areas that are taughtb. Demonstrates implementation of school improvement goalsc. Develops and works toward an annual professional growth goal that benefits studentsd. Adheres to the law, the Professional Negotiated Agreement, District policies & regulations and building procedurese. Uses district property (equipment, facilities, materials, etc.) in a safe and responsible manner Comments:

Dachshund teachers are all part of the Building Leadership Team (BLT) which has meetings “as needed,” generally twice a month, to discuss school issues and determine how to spend the school’s discretionary funds. For example, the BLT decided to focus on technology school-wide, so have allocated discretionary funds accordingly to meet that goal.

The principal reported a “spirit of collaboration” that exists among the teachers and likened the BLT to an informal school-wide professional learning community, with teachers embracing the concept that they are part of a “community of learners.” One teacher noted that “there are high expectations for teachers as well as for the students.”

The Dachshund principal felt that the district has at times stifled the school’s reform efforts by creating district-wide policies that do not take individual school context or needs into consideration. For example, the school has focused the use of tutors on students in the 25th-40th percentile, with the idea that these students are closer to reaching proficiency than those scoring in the lowest percentiles. District stipulations in the past few years that schools should prioritize having tutors work with the lowest performing students have limited the school’s flexibility; as the principal put it, the district has traditionally “made decisions based on ‘some schools’ in the district rather than looking at each specific school and their results.” The Dachshund principal was optimistic that gains in achievement will allow them to receive a waiver from this rule from the new district superintendent, who he feels is “mapping out a new direction” for the district.

RESOURCE ALLOCATION

Table 4 compares the actual resource allocation in Dachshund Elementary School to that provided in the Wyoming Funding Model and compares resource allocation in the 2008-09 and 2007-08 school years.

Table 4. Dachshund Elementary School Resource Allocation (FTEs and Dollars)

Staffing Category	2008-09	
	WY Funding Model	Actual
Core Academic Teachers	19.13	16
Specialist & Elective Teachers	3.83	3
Alternative Teachers/ Small School Teachers	N/A	N/A
LIBRARY STAFF		
- Librarian/Media Specialist (Certified)	1.06	1
- Library/Media Tech Aides (Non-Certified)		
EXTRA HELP		
- Certified ELL Teachers	0.02	0
- Certified Teacher Tutors for English Language Learners		
- Certified Teacher Tutors for At-Risk Students	1.06	
Certified Teacher Tutors who Work with Small Groups		2
- Non-certified Tutors		
- Resource Room Teachers		1
- Resource Room Aides		0.5
- Special Education Teachers (self-contained)		
- Special Education Aides (self-contained)		1.5
-Special Education Teachers (inclusion)		
-Special Education Aides (inclusion)		
- Gifted & Talented Teachers		
- Gifted & Talented Aides		
- Gifted & Talented Funds	\$8,618	
- Extended Day (teachers and classified staff)		
- Summer School		

Staffing Category	2008-09	
	WY Funding Model	Actual
PROFESSIONAL DEVELOPMENT		
- Total # of Professional Development Days		10
- Instructional Facilitators		1
- Teacher Time (Substitutes & Stipends)	\$34,471	
- Trainer/Consultant Funds		
- Materials, Equipment & Facilities		
- Travel & Transportation		
- Tuition & Conference Fees		
Other Instructional Staff		
- Building Substitutes & Other Substitutes		
- Instructional Aides		
- Supervisory Aides (non-teaching aides)	2.13	
Student Support		
- Counselors	1.06	0.3
- Nurses		0.5
- Social Workers		
- Psychologists		0.2
- Speech/ OT/ PT		0.5
- Health Assistant		
Administration		
- Principal	1.06	1
- Assistant Principal		
-Other Administrator		
- Secretary	1.06	1
- Clerical	1.06	1

The only major change in resource allocation between the 2007-08 school year and the 2008-09 school year was the addition of the school's first Instructional Facilitator in 2008-09 and the corresponding loss of a specialist teacher and instructional aide.

FUTURE IMPLICATIONS AND CONCLUSIONS

In order for Dachshund Elementary School staff to continue and expand efforts to increase student achievement, the principal felt that additional money is needed to enable them to update technology every few years. Teachers felt that the curriculum was "a lot to cram in" before PAWS tests.

Beagle Elementary School: A Case Study of Instructional Improvement Efforts and Resource Use

INTRODUCTION

Beagle Elementary School is a pre-Kindergarten through 5th grade school with 255 students in a large open enrollment urban district of Wyoming. About 65% of the students at Beagle Elementary are eligible for free and reduced-price lunch and 11% receive special education services. Just over 1% of Beagle’s student population is identified as English language learners. Beagle’s class sizes for the 2008-09 school year are as follows:

- Kindergarten = 16 in both classes
- 1st grade = 16 in both classes
- 2nd grade = 21 in one class, 20 in the other
- 3rd grade = 20 in both classes
- 4th grade = 19 in both classes
- 5th grade = 20 in both classes

In February, 2009, Beagle was one of nine of the district’s 37 schools to be recognized as an “excelling school” at the district’s annual “Medallion of Excellence” award ceremony. Their instructional improvement strategies have been implemented through vertical alignment of the curriculum, the use of student assessment data to drive instruction, having students identify and monitor individual learning goals, supporting struggling students through a range of extra help strategies, providing ongoing professional development for teachers, and supporting teacher growth through the use of instructional facilitators. The purpose of this case study is to tell the story of improvement in student learning at Beagle Elementary School and to identify how the corresponding resources were allocated.

Test Score Data

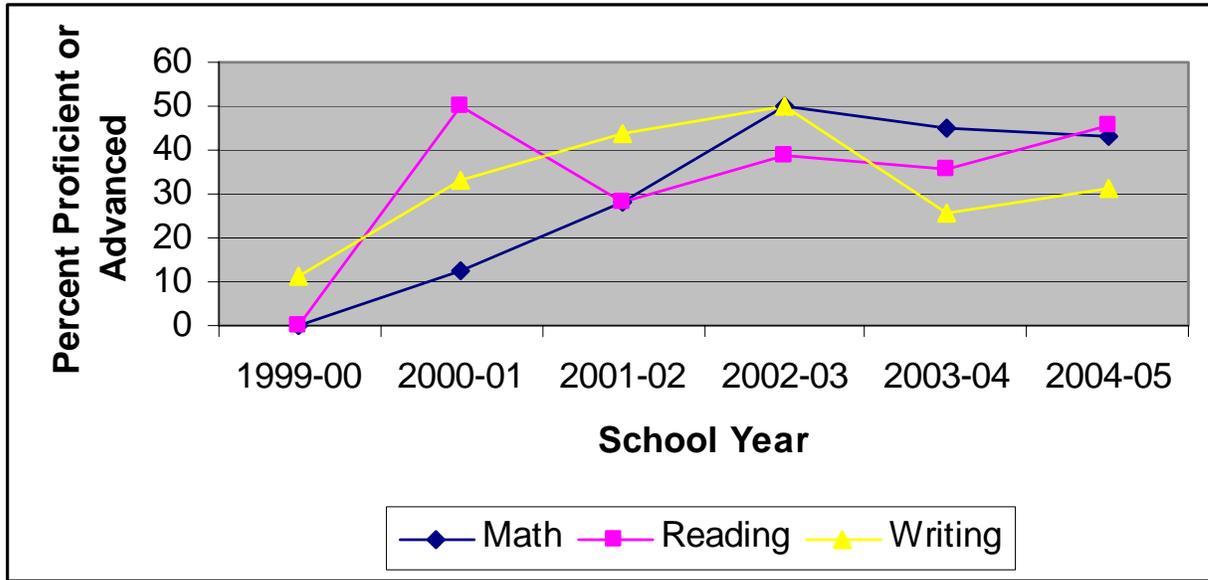
Beagle Elementary School’s student test scores have increased dramatically over the past eight years. From the 1999-2000 to 2004-05 school years, the percentage of students scoring proficient or advanced on the Wyoming Comprehensive Assessment System (WyCAS) increased by 42.9 in math , 45.7 in reading, and 20.3 in writing, as shown in Table 4.

Table 7: Beagle Elementary 4th Grade WyCAS Proficient and Advanced Scores

	1999-00	2000-01	2001-02	2002-03	2003-04	2004-05
Math	0.0	12.5	28.0	50.0	45.2	42.9
Reading	0.0	50.0	28.0	38.9	35.5	45.7
Writing	11.1	33.3	44.0	50.0	25.8	31.4

The growth over this six year period, though substantial, has not been steady. In math and writing, performance peaked in 2002-03 and in reading, scores did not fully rebound after an impressive jump from 0% proficient in 1999-00 to 50% in 2000-01 was followed by a dramatic drop in 2001-02. The changes in performance throughout this period can be seen in Figure 8 below.

Figure 13: Percentage of Beagle Elementary Students Scoring Proficient or Advanced on WyCAS, 1999-00 through 2004-05



During the 2005-06 school year, Wyoming implemented the new statewide Proficiency Assessment for Wyoming Students (PAWS) testing system. Although not directly comparable to WyCAS, PAWS scores during the 2005-06 to 2007-08 school years show continued growth in student achievement at Beagle, as shown in Table 1.

Table 8: Beagle Elementary Proficient and Advanced PAWS Scores

Grade	Math				Reading				Writing			
	05-06	06-07	07-08	change	05-06	06-07	07-08	change	05-06	06-07	07-08	change
3	57.5	97.7	95.0	37.5	32.5	84.1	77.5	45.0	30.0	88.6	60.0	30.0
4	66.7	87.8	69.8	3.1	51.1	73.2	74.4	23.3	35.6	48.8	51.2	15.6
5	58.1	76.2	73.2	15.1	51.2	64.3	61.0	9.8	37.2	45.2	34.1	-3.1

Beagle's percentage of students achieving proficient or advanced scores on PAWS increased in Reading and Math between the 2005-06 and 2007-08 school years for all grades, with the greatest progress in both subjects seen in 3rd grade. The percentage of

students achieving proficient or advanced in writing increased in 3rd and 4th grades but decreased in 5th grade. Beagle’s 2007-08 scores in 3rd and 5th grade math, in 3rd and 4th grade reading and in 3rd grade writing were better than the district and state averages, while their 4th grade math and 5th grade reading were not as strong. 4th and 5th grade writing scores were better than the district average but not as good as the state average, shown below in Table 2.

Table 9: School, District, State Comparison –Percent Proficient or Advanced on PAWS 2007-08

Grade	Math			Reading			Writing		
	School	District	State	School	District	State	School	District	State
3	95	79.9	83.4	77.5	59.4	61	60	37.1	41
4	69.8	75.3	76.8	74.4	70.2	64	51.2	48.3	52.8
5	73.2	68.1	70.9	61	64.6	66	34.1	27.7	37.1

Despite Beagle’s mixed record of student performance overall, their growth on PAWS scores has been more pronounced in nearly every subject and grade than that of either the district or state, with the exception in 4th grade math and 3rd and 5th grade writing. ,

Figure 1 through 4 below show the changes in percentage of students scoring proficient or advanced on PAWS from the 2005-06 to 2007-08 for the school, district, and state.

Figure 14: School, District, State Comparison – Change in Percent Proficient or Advanced on PAWS MATH Scores

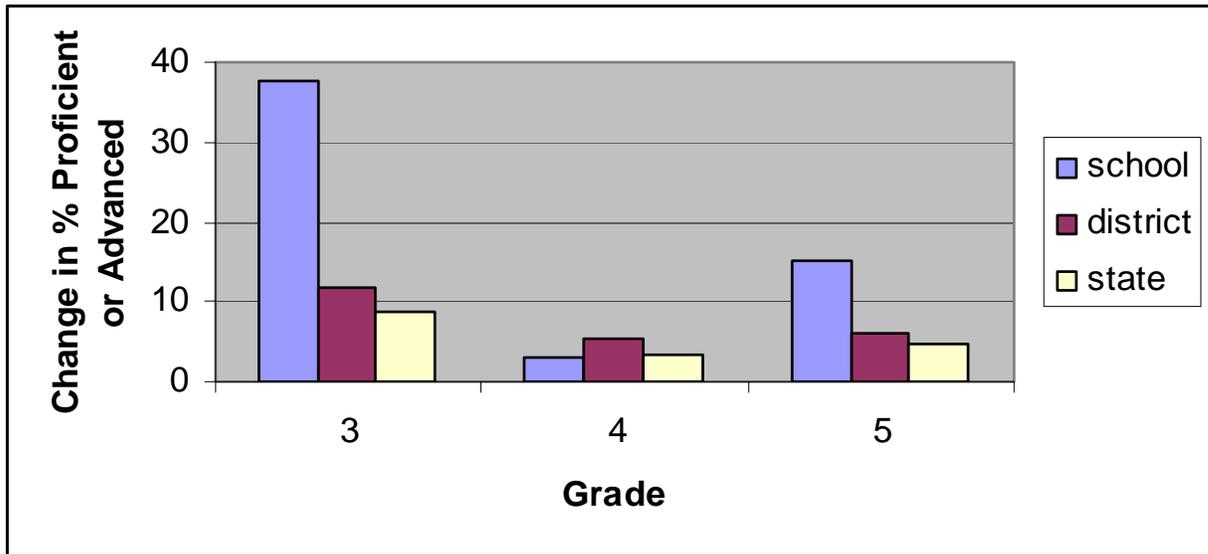


Figure 15: School, District, State Comparison – Change in Percent Proficient or Advanced on PAWS READING Scores

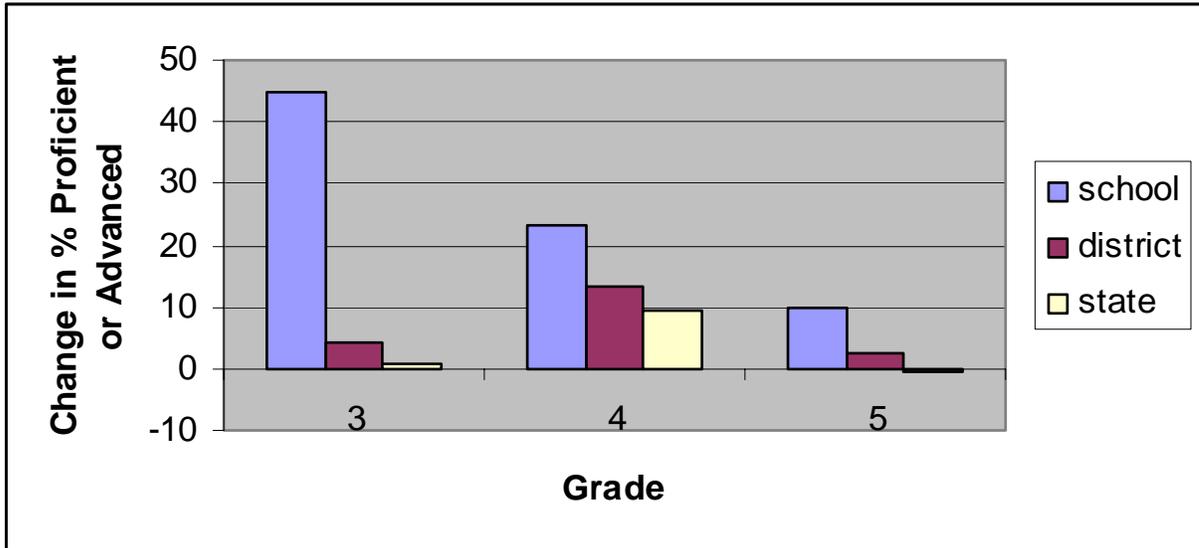
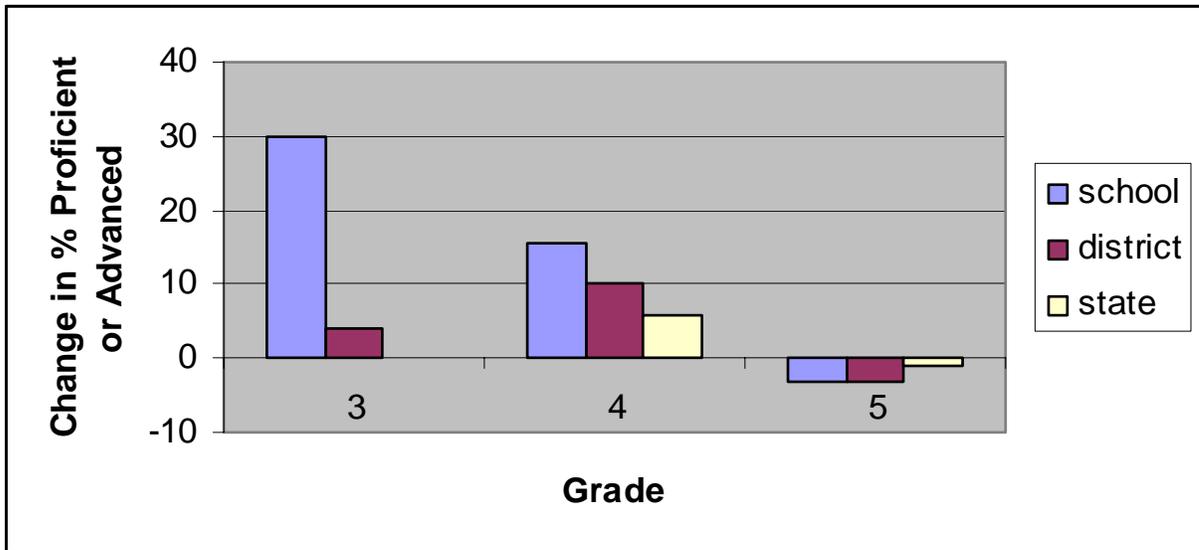


Figure 16: School, District, State Comparison – Change in Percent Proficient or Advanced on PAWS WRITING Scores



EDUCATIONAL IMPROVEMENT STRATEGIES

The principal at Beagle has been at the school for 10 years, with prior experience as a high school principal, junior high school principal, and elementary school teacher. Over the past several years, the school has gone “from low to high performing,” noted the principal. Staff attributes this turnaround to several factors. First, teachers continually noted the strength of the principal’s leadership, something echoed by the district Superintendent who said, “The principal has an ethos that failure is not an option.” The principal, in turn, credited their improvement to the “extraordinary dedication of staff.” In addition, the school has focused its resources and improvement strategies predominantly in two ways. First, they use certified tutors and instructional aides in the classroom during reading and math to reduce the student teacher ratio. Second, the school has completed a vertical alignment of the curriculum and instituted multiple strategies for teachers to convey information while at the same time holding students accountable for their own learning through the Plan Do Study Act approach.

Needs Assessment

Assessment data (see section below) are the primary tools for assessing areas of focus for each school year. The principal reported that the staff meets in August to review the prior year’s assessment data and make goals for the coming year. The IFs noted that they meet with teachers every two weeks to monitor student progress, group students for language arts and math instruction, and provide any necessary interventions. Particular attention is paid to students considered “at-risk.”

Goals

Beagle has been focused on all three subject areas tested on PAWS (reading, writing and math) for the past few years in an effort to increase students’ scores. Their long term goal is have all students reach proficient or above, with an emphasis on being able to “express themselves in writing across the curriculum,” as the principal put it.

Specific school goals for the 2007-08 school year were:

- All students will improve reading comprehension skills across the curriculum; and
- All students will improve their problem solving and achievement in math.

Approaches to meeting these goals – and measuring whether they have been met – are discussed in the following sections.

Curriculum and Instructional Approach

The principal reported that the school uses Everyday Math, a Pre-K through 6th grade mathematics curriculum developed by the University of Chicago School Mathematics Project that focuses on problem solving, a combination of whole-class and self-directed learning and the use of technology, supplemented with Saxon Math, a program that

teaches math skills systematically while focusing on problem-solving and communication of math concepts. The principal noted that the school chose this curriculum because “they saw that it covers what was needed to meet state standards and essential curriculum.” Staff receives ongoing training in the math curriculum. The IF noted that particular emphasis has been placed on the idea of “teachers as facilitators” by increasing teachers’ depth of knowledge of math concepts and their ability to use questioning techniques to engage students in their own understanding of concepts.

Beagle uses Houghton-Mifflin curriculum for reading. The principal reported that teachers “previewed a range of textbooks and selected that one as their first choice.” The staff received one week initial training in the curriculum as well as undergoing ongoing training.

The principal reported that she and the IFs monitor fidelity of language arts and math curriculum implementation through regular classroom observations.

The principal noted that the school and district are working together to create curriculum standards in language arts and math with the state plan as the guide. In addition, the school has “pinpointed what needs to be done at each grade” reported the principal; each teacher has a binder with the essential skills defined by the school. The principal noted that the school has placed “a high priority on teacher competence,” defined as constantly challenging teachers to renew and build upon their skill base. The principal felt that this was made possible through “the extraordinary dedication of the staff” and can be credited for “the school going from low to high performing.” As one teacher noted, vertical alignment has created a school-wide accountability for results. One of the IFs echoed this, saying that vertical alignment of the K-5 program in reading was at the core of the school’s improvement efforts.

Classrooms are set up in different desk formations: one 3rd grade classroom arranged desks in traditional rows, while a 4th grade room was set up with three rows of paired desks. Some of the classrooms, particularly the K-2 rooms have “centers” set up around the room as well as a space on the floor for students to sit during whole group instruction. Posters outlining behavior expectations and progress charts are in most classrooms.

In class, teachers use a variety of instructional strategies. One teacher described the approach to mathematics instruction as, “We start with a mental math warm-up, for example, flashcards, and then move to a math message with hands-on manipulation.” During one 3rd grade math lesson, the students were introduced to the idea of graphing data by the math IF. Students then worked individually with the IF and teacher circulating to answer questions. As students finished their independent work, they wrote their data on the whiteboard and then returned to their desks to do “mental math” worksheets while the rest of the students completed their graphs. Student understanding was monitored through use of teacher questioning strategies as well as a “talk to a partner” method.

In a 4th grade language arts lesson, students were grouped by reading level for “universal access,” a component of the Houghton Mifflin Reading Program in which the teacher works with small groups of students (eight out of a class of 19 students in this case) on pre-teaching, re-teaching, or enrichment activities.

Data Collection and Use

Beagle uses a variety of student assessments to provide summative, formative, and diagnostic data on student performance, described below:

- PAWS: The Proficiency Assessment of Wyoming Students (PAWS) is a summative statewide assessment, administered (at the Elementary school level) to 3rd through 6th graders in a mix of online and print formats in reading, writing, math, and recently, science. PAWS data are used for Adequate Yearly Progress reporting and provide a picture of overall progress at the school as well as identifying subgroup performance. One of the IFs noted that the school also uses PAWS data as a diagnostic tool “to see who is where and how to move forward.”
- NWEA-MAP: Beagle uses the Northwest Evaluation Association Measures of Academic Progress (NWEA-MAP), state-aligned computerized adaptive assessments in language arts and math, to track student progress twice a year (in the fall and then again in the spring).
- AIMSweb: AIMSweb is a progress monitoring system based on direct, frequent and continuous student assessment. The results are reported to students, parents, teachers and administrators via a web-based data management and reporting system to determine response to intervention (see <http://www.aimsweb.com/>).
- Orchard: Orchard is targeted software instruction in math, reading, writing, language arts, and science for grades K-9 that combines formative and benchmark assessments aligned with state standards to assess students’ strengths and weaknesses in order for schools to remediate those weaknesses to ensure better scores on state-specific or national tests (see www.orchardsoftware.com).
- DIBELS – Beagle uses Dynamic Indicators of Basic Early Literacy Skills (DIBELS), short (one minute) fluency measures used to regularly monitor the development of early literacy and early reading skills, to assess the acquisition of early literacy skills from Kindergarten through 5th grade (see www.dibels.org).
- Rigby: Rigby ELL assessments are used in Kindergarten through 2nd grade four times a year to assess the progress of English-language learners in the four domains of language proficiency: listening, speaking, reading and writing.
- District benchmarks and growth assessments are used to compare Beagle’s progress with that of other elementary schools in the district.

The use of these tests to measure the school’s progress toward meeting its student achievement goals is shown below in Table 10.

Table 10: Assessments used to measure achievement goals

Assessment	Language Arts Goals	Math Goals
PAWS	X	X
NWEA-MAP	X	X
Everyday math testing program		X
AIMS	X	X
Orchard		X
DIBELS	X	
SRI	X	
K-2 assessments	X	
District benchmarks and growth assessments	X	

Each student completes a goal sheet in the fall to keep track of their individual goals and progress in language arts and math. In K-2, the students record their spring test scores from Rigby, DIBELS, Houghton Mifflin, Saxon/Everyday Math, and any other assessments on the goal sheet, which also has a column for the student to circle whether they are above, on, or below grade level, and a column to record their growth goal. In addition, students are asked to interpret the data by completing an open-ended section of the goal sheet that says, “The information tells me I am good at...” and “The information tells me I need to work to improve...” The student, teacher, and parents sign the sheet. The 3rd-5th grade sheet is set up similarly and includes scores from NWEA reading and math, PAWS reading, writing and math, DIBELS, AIMS WEB math, and orchard reading and math.

The IFs noted that they meet with teachers every two weeks to monitor student progress, group students for language arts and math instruction, and provide any necessary interventions. Particular attention is paid to students considered “at-risk.”

Professional Development

Beagle has adopted the district “institute” approach to professional development (PD), utilizing 5 days over the winter recess and four days in August. The district has some say in setting professional development topics and allows the school to select some topics. A teacher reported that the institute approach is particularly effective during the winter break “because you have your classroom set up already” compared to the August institute when teachers were more focused on preparing for the new year than on learning new teaching strategies. The winter institute allows teachers to reflect on students’ strengths and weaknesses in order to “focus on content and improvement,” according to this teacher.

Grade level teachers have collaborative time to meet during the school day; scheduling constraints and fewer specialist teachers than the funding model suggests mean that some teachers have common planning time a few times a week while others only once a week for 45 minutes. The principal noted that she does not monitor common planning times, saying that “teachers are empowered to make the best use of that time,” but that teachers are expected to spend it primarily on lesson planning, assessment design and analysis of student data. One teacher reported that the time provides an opportunity to “check where we are in the curriculum” and adjust math groups as needed.

In addition to common planning time, there are weekly staff meetings that incorporate training by the IFs to help teachers monitor student progress and plan and initiate appropriate interventions. They also have staff meetings after school 1-2 times a month for teachers to discuss the curriculum.

In addition to professional development institutes and grade level common planning time, Beagle takes advantage of the district’s Fun Rewarding Enriching Days (FRED) program to free teachers for afternoon grade level meetings approximately five times a year while providing enrichment activities for the students. The FRED program was started in 2003 to help reduce the number of in-service days or substitute teachers used in the district, while providing students hands-on learning experiences and exposing them to scientific, visual and performing arts presentations by local groups such as the Science Zone, the art museum, and the County Public Library as well as bringing in motivational speakers, athletes, and scientists from around the country. The school’s IFs reported working with grade level teachers, the school’s tutors and the principal during FRED days.

Beagle had three FTE Instructional Facilitator’s (IF) during the 2008-09 school year, two provided by district funds (one math and one language arts) and one through the state grant they receive as a Reading First school. One IF was in her first year at the school, one in her 3rd year and one (the Reading First coach) in her 5th year. All had been teachers in the district for between 7 to 20 years prior to becoming coaches. The Reading First coach noted that she was required to have a Masters degree with expertise in reading instruction to be eligible as a Reading First coach; the other two IFs described an application process that included background checks and interviews.

The principal reported that most of the three IFs’ time is spent working with teachers individually in classrooms to model lessons, observe instruction, and team-teach. The principal and IFs “touch base daily” and have more formal meetings once a week. One IF described the primary purpose of her job as “doing whatever teachers need me to do” and all spoke about the importance of building trust with the teachers so that teachers feel comfortable approaching the IFs when they need help; 2 of the 3 noted they have encountered resistance from some teachers to working with them. As one IF noted, they are working to change teachers’ mindset to understand that “coaching isn’t about working with teachers who aren’t good teachers; it’s about working with teachers who want to try new approaches.” The IFs’ estimates of how they spend their time are shown below in Table 11.

Table 11: Percentage of time IFs spend on different tasks

Percentage of time spent on each task	Math IF	Language Arts IF	Reading First Coach
In classrooms helping students	40	30	50
In classrooms modeling instruction or observing teachers	40	30	25
Meeting with teachers	10	20	10
Researching or preparing lessons	5	10	10
Working with other IFs	5	10	3
Completing administrative tasks	0	0	2

It is important to note that an average of 40% of the IFs time is spent working with students, not a role that classifies as the work of IF as defined by the state. Therefore, in the resource allocation table, the IFs are each counted as 60% FTE and 40% small group instruction.

The Reading First coach noted that she works with small groups of students in a pullout format as needed. One IF noted that she meets with teachers every two weeks to discuss student data used as the basis for math groups and interventions. Bringing in new resources for teachers to use was also mentioned by the IFs, with one saying, “I can keep current on the research to know when new programs are available.”

The IFs reported that at times, a teacher will invite one of them in to observe his or her classroom “if they are having a problem” as one IF noted and at other times, the principal makes a request for a teacher to work with one of the IFs. The Reading First teacher works only with the K-3 teachers as part of the requirement of the grant, while the other two IFs reported working with every teacher “at some point in some capacity” as one IF put it. A teacher who has worked with the Reading First coach reported meeting with her for 35-45 minutes prior to team-teaching a “word work” lesson; after the lesson, they debriefed for about 20 minutes. This teacher felt that her instruction improved as a result of the coaching. One of the IFs described a lesson she team-taught with a teacher that involved data analysis based on Valentine’s Hearts: the IF created a rubric for assessing the students’ work on the lesson.

The IFs receive ongoing training from the district: during the 2007-08 school year, the Reading First coach and language arts IF participated in an Advanced Leadership Training seminar in diagnosing reading difficulties and training staff in assessment strategies. The math coach reported attending a Shipley coaching course in the summer and the first year IF said she attended ongoing training at the state and district level with other new IFs, such as training in Jim Knight’s coaching methods. The math IF reported

engaging in regular email and phone correspondence with other math IFs as well as attending periodic math cohort meetings.

The Beagle principal stressed that Beagle views the IFs' role as that of coaches, not evaluators. As such, the principal (not an IF) conducts teacher evaluations twice a year for new teachers and once a year for tenured teachers. The evaluation includes two classroom observations and a "long form evaluation" that considers a teacher's strengths and areas for improvement. The principal meets with the teacher after an evaluation and if needed, they set goals for improvement.

Structure of School Day

Beagle utilizes 90 minute uninterrupted blocks for language arts and math. This time is staggered for different grades so that tutors, instructional aides and IFs can work with small groups of students (see below). In many cases, grade level teachers have adjoining classrooms and will combine classes during the 90-minute block in order to provide first whole group instruction and then break into groups for differentiated instruction based on skill level (see below).

Interventions for Struggling Students

The Beagle principal reported that the school provides a range of extra-help strategies for struggling students "depending on why they are struggling," noting that as a school with a high percentage of students who qualify for free and reduced price lunch (65%), "the students have a lot of needs beyond academic needs." Grade level meetings are used "to identify deficits and create remediation groups" noted the principal. In language arts and math, strategies to meet the needs of all students include small group instruction both within the classroom and as pullouts; to this end, two 0.75 tutors, two full time Title One teachers as well as the three IFs enable the use of small group and one-on-one instruction. If further intervention is deemed necessary, individual, diagnostic and prescriptive tutoring, the use of the learning center, and RtI interventions are used. Student progress is monitored every two weeks through DIBELS testing (see Data Use).

Within classroom support is provided via a variety of research-based instructional methods and curricula. For example, in Language Arts, the principal reported that Beagle uses Step Up to Writing, Read Naturally, ERI, SRA Corrective Reading, Reading Mastery+, 6+1 Traits, Handwriting Without Tears, AIMS HM CORE, Orchard and other teacher-selected intervention programs and assessments to meet the needs of at-risk and low SES learners.

Extended day support and enrichment programs are offered three hours a day: before and after school as well as during lunch and include Early Bird Reading, Students Taking Academic Responsibility (STAR), Attitude, Learning and Behavior (A-LAB) and Late Assignment Study Hall (LASH).

A summer school program offers students a further chance to catch up in subjects where they struggle.

Instructional Leadership

Beagle staff felt that the principal is a “strong leader” who is focused on both academics and discipline. One teacher noted that the principal’s leadership style is to “ask questions rather than dictating what we should do.” The principal is actively involved in enforcing homework requirements: students who fail to turn in homework are required to complete it in the principal’s office after school.

The principal reported that while she is a clear instructional leader, the school employs a collaborative approach to decision-making. For example, Beagle holds weekly staff meetings; attendance is mandatory since, as the principal noted, “that’s where decisions are made.” She reported that the “challenges of teaching in a high poverty school” has created a “close knit staff” that share “a sense of community with a focus on achievement as the first priority.” Further, she reported that the school has a mix of new and veteran teachers who “are all on board with the school’s mission.” A teacher echoed this sentiment, saying that there is a “very strong professionalism among faculty, with everyone on the same page.”

The Beagle principal felt that the district has been supportive of her judgment in how to run the school, saying that the school has “total control” over the school’s discretionary budget. She also noted that the new Superintendent is “making positive changes” to the way the district operates.

RESOURCE ALLOCATION

Table 6 compares the actual resource allocation in Beagle Elementary School to that provided in the Wyoming Funding Model for the 2008-09 school year.

Table 6. Beagle Elementary School Resource Allocation (FTEs and Dollars)

Staffing Category	2008-09	
	WY Funding Model	Actual
Core Academic Teachers	15.61	12
Specialist & Elective Teachers	3.12	1.2
Alternative Teachers/ Small School Teachers	N/A	N/A
LIBRARY STAFF		
- Librarian/Media Specialist (Certified)	0.87	1
- Library/Media Tech Aides (Non-Certified)		
EXTRA HELP		
- Certified ELL Teachers	0.05	0
- Certified Teacher Tutors for English Language Learners		0
- Certified Teacher Tutors for At-Risk Students	1.56	1.5
-Certified Teacher Tutors who Work with Small Groups		3.2
- Non-certified Tutors		
- Resource Room Teachers		1
- Resource Room Aides		2.5
- Special Education Teachers (self-contained)		2
- Special Education Aides (self-contained)		8
-Special Education Teachers (inclusion)		0
-Special Education Aides (inclusion)		0
- Gifted & Talented Teachers		
- Gifted & Talented Aides		
- Gifted & Talented Funds	\$7,032	
- Extended Day (teachers and classified staff)		1.3
- Summer School		
PROFESSIONAL DEVELOPMENT		
- Total # of Professional Development Days		9
- Instructional Facilitators		1.8
- Teacher Time (Substitutes & Stipends)	\$ 28,129	\$1901.75
- Trainer/Consultant Funds		
- Materials, Equipment & Facilities		
- Travel & Transportation		
- Tuition & Conference Fees		
Other Instructional Staff		
- Building Substitutes & Other Substitutes		
- Instructional Aides		1
- Supervisory Aides (non-teaching aides)	1.73	0.3

Staffing Category	2008-09	
	WY Funding Model	Actual
Student Support		
- Counselors	1.56	0.7
- Nurses		0.5
- Social Workers		0.5
- Psychologists		
- Speech/ OT/ PT		0.9
- Health Assistant		
Administration		
- Principal	1	1
- Assistant Principal		
-Other Administrator		
- Secretary	1	0.5
- Clerical	0.87	0.5

FUTURE IMPLICATIONS AND CONCLUSIONS

In order for Beagle Elementary School staff to continue and expand efforts to increase student achievement, the principal felt that it would be beneficial if the district allowed the teachers to select the new principal who will replace the current one when she retires after the 2009-10 school year. The IFs all felt that additional professional development time would be beneficial.

Great Dane Elementary School: A Case Study of Instructional Improvement Efforts and Resource Use

INTRODUCTION

Great Dane Elementary School is a Kindergarten through 6th grade school with 290 students in a large open enrolment urban district of Wyoming. About 17% of the students at Great Dane Elementary are eligible for free and reduced-price and 10% receive special education services. None of Great Dane's students are identified as English language learners. Great Dane's class sizes for the 2008-09 school year are as follows:

- Kindergarten = 17 in both classes
- 1st grade = 16 in both classes
- 2nd grade = 18 in one class, 22 in the other
- 3rd grade = 15 in one class, 18 in the other
- 4th grade = 18 in both classes
- 5th grade = 22 in one class, 23 in the other
- 6th grade = 15 in one class, 18 in the other

In February, 2009, Great Dane was one of nine of the district's 37 schools to be recognized as an "excelling school" at the district's annual "Medallion of Excellence" award ceremony. This was the second year in a row that the school received this distinction, based on a combination of PAWS and NWEA-MAP scores, for their math scores. Their instructional improvement strategies have been implemented through identifying individual learning goals for all students, supporting struggling students through a range of extra help strategies, providing ongoing professional development for teachers, and supporting teacher growth through the use of an instructional facilitator. The purpose of this case study is to tell the story of efforts to improve student learning at Great Dane Elementary School and to identify how the corresponding resources were allocated.

TEST SCORE DATA

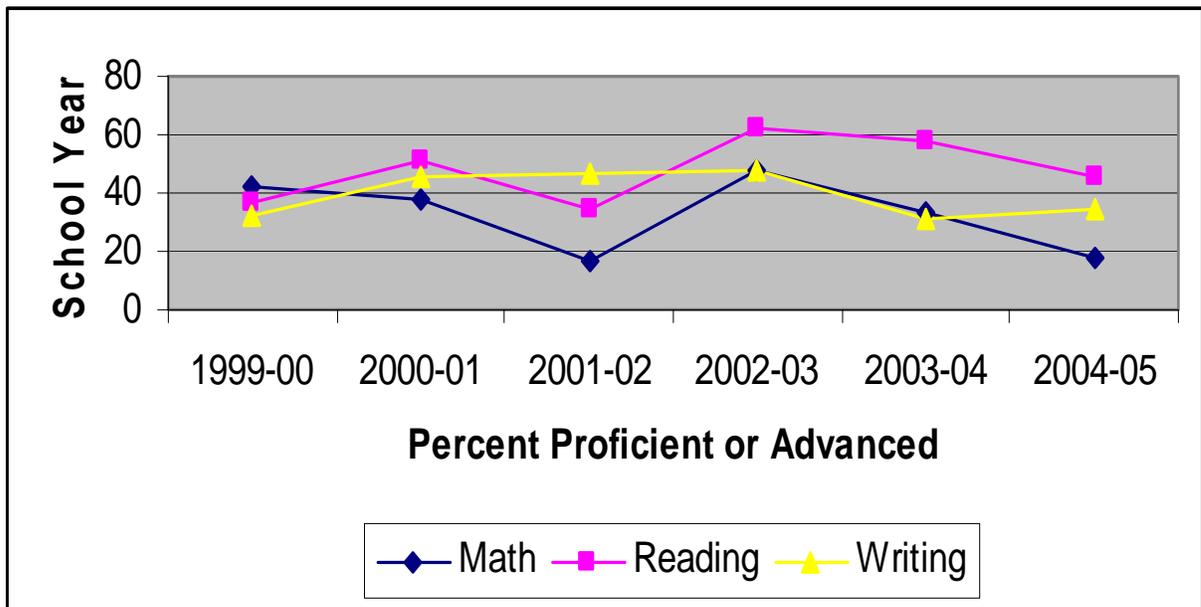
Great Dane Elementary School's student test scores have been fairly flat over the past eight years, with some modest gains and some declines. From the 1999-2000 to 2004-05 school years, the percentage of students scoring proficient or advanced scores on the Wyoming Comprehensive Assessment System (WyCAS) decreased by 23.7 in math and increased by 8.3 in reading and 1.5 in writing, as shown in Table 1.

Table 1. Great Dane Elementary 4th Grade WyCAS Percent Proficient and Advanced Scores

	1999-00	2000-01	2001-02	2002-03	2003-04	2004-05
Math	41.9	37.8	17.1	48.0	33.3	18.2
Reading	37.2	51.4	34.1	62.0	58.3	45.5
Writing	32.6	45.9	46.3	48.0	31.3	34.1

WyCAS scores over this six year period fluctuated in math and reading with a rollercoaster of gains and losses; writing scores rose steadily between 1999-00 and 2002-03 and then fell. Scores in reading and math also peaked in 2002-03, with a higher percentage of students scoring proficient or advanced that year than any other year. The changes in performance throughout this period can be seen in Figure 1 below.

Figure 17: Percentage of Great Dane Elementary Students Scoring Proficient or Advanced on WyCAS, 1999-00 through 2004-05



During the 2005-06 school year, Wyoming implemented the new statewide Proficiency Assessment for Wyoming Students (PAWS) testing system. Although not directly comparable to WyCAS, PAWS scores from during the 2005-06 to 2007-08 school years show similar results in student achievement at Great Dane, with some gains and some declines, as shown in Table 2.

Table 2. Great Dane Elementary Percent Proficient and Advanced PAWS Scores

Grade	Math				Reading				Writing			
	05-06	06-07	07-08	change	05-06	06-07	07-08	change	05-06	06-07	07-08	change
3	78.4	95.1	73.9	-4.5	47.1	78.0	56.5	9.4	47.1	36.6	32.6	-14.5
4	80.0	81.2	74.5	-5.5	64.4	70.8	78.7	7.9	48.9	33.3	36.2	-12.7
5	76.2	86.0	75.0	-1.2	64.3	68.0	72.9	4.9	57.1	50.0	39.6	-17.5
6	69.8	87.5	93.2	23.4	74.4	72.5	84.1	11.6	65.1	52.5	54.5	-10.6

Great Dane’s percentage of students achieving proficient or advanced scores on PAWS increased modestly in reading from the 2005-06 to 2007-08 school years for all grades. The percentage of students achieving proficient or advanced in math increased in 6th grades but decreased in all other grades; writing scores decreased across the grades. Despite fairly flat performance over time, Great Dane’s 2007-08 scores in 5th and 6th grade math, 4th, 5th and 6th grade reading and 5th and 6th grade writing were better than the state averages, shown below in Table 3. As noted above, the school was one of nine of the district’s 37 schools to be recognized as an “excelling school” at the district’s annual “Medallion of Excellence” award ceremony. This was the second year in a row that the school received this distinction, based on a combination of PAWS and NWEA-MAP scores, for their math scores, even though their scores declined in three of the four grades (math was a focus area after the school failed to meet AYP in math in 2004-05).

Table 3: School, District, State Comparison – Percent Proficient or Advanced on PAWS 2007-08

Grade	Math			Reading			Writing		
	School	District	State	School	District	State	School	District	State
3	73.9	79.9	83.4	56.5	59.4	61.0	32.6	37.1	41.0
4	74.5	75.3	76.8	78.7	70.2	64.0	36.2	48.3	52.8
5	75.0	68.1	70.9	72.9	64.6	66.0	39.6	27.7	37.1
6	93.2	77.8	78.2	84.1	66.3	63.0	54.5	40.8	47.4

However, Great Dane’s student performance growth has been less pronounced in most subjects and grades than that of either the district or state, with exceptions in 6th grade math and 3rd and 5th grade reading. Figures ,

Figure 1 through 4 below show the changes in percentage of students scoring proficient or advanced on PAWS from the 2005-06 to 2007-08 for the school, district, and state.

Figure 18: School, District, State Comparison – Change in Percent Proficient or Advanced on PAWS MATH Scores

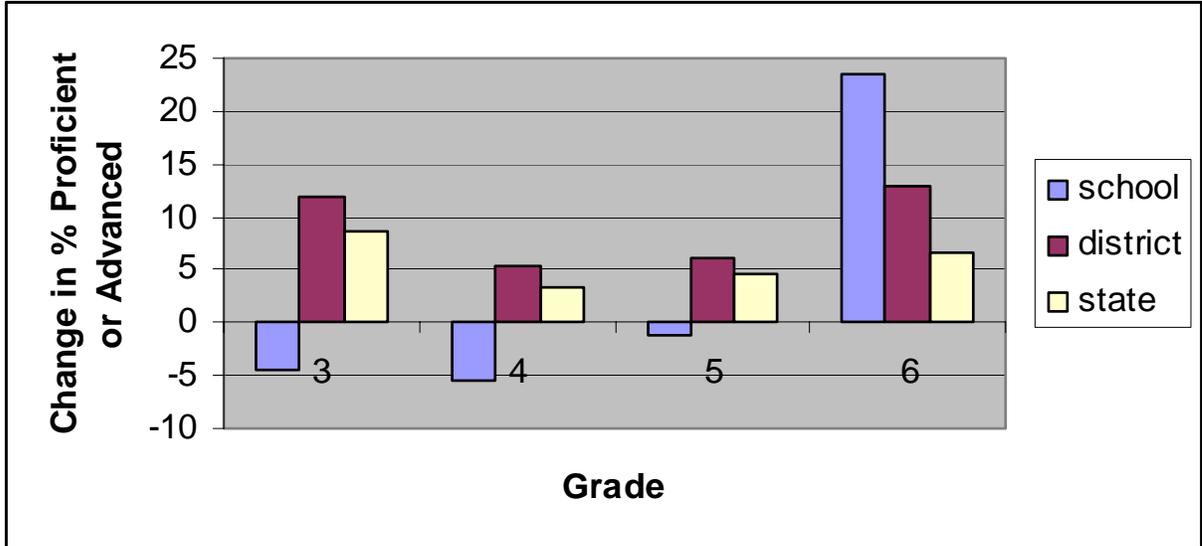


Figure 19: School, District, State Comparison – Change in Percent Proficient or Advanced on PAWS READING Scores

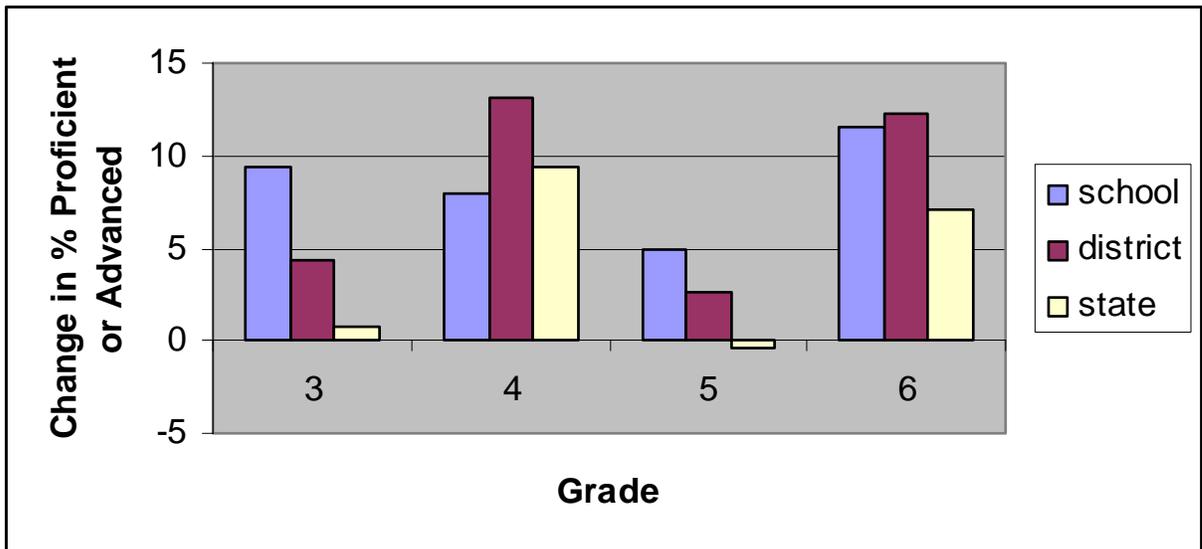
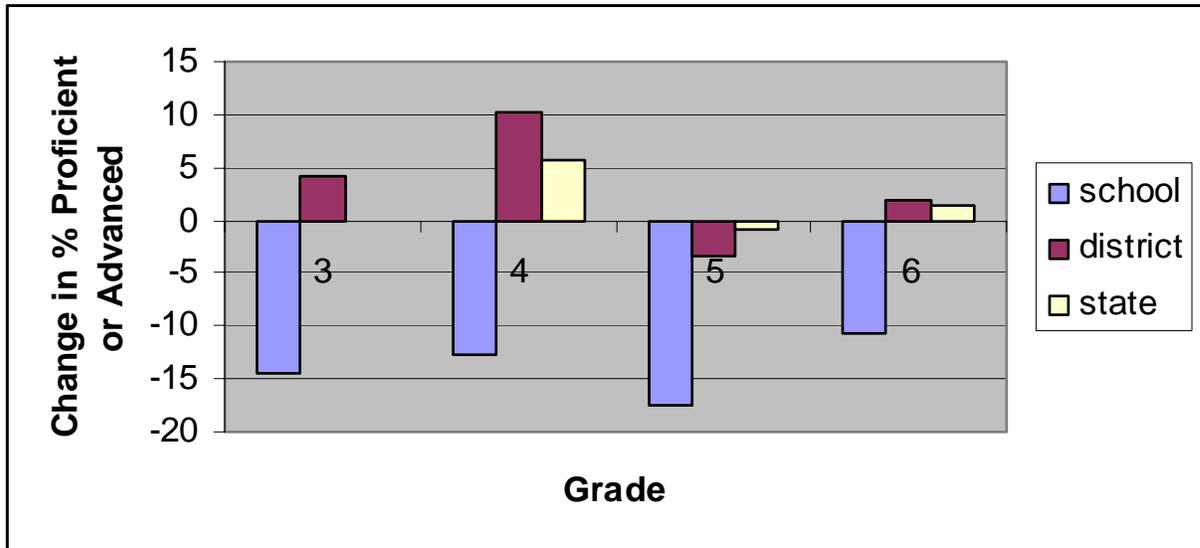


Figure 20: School, District, State Comparison – Change in Percent Proficient or Advanced on PAWS WRITING Scores



EDUCATIONAL IMPROVEMENT STRATEGIES

Great Dane has had stable leadership, with the principal in her current position at the school for the past eight years; prior to becoming principal, she was a teacher at the school for nine years and for 15 years at another elementary school before that. For the past several years, the primary focus of Great Dane’s educational improvement strategy has been on increasing math scores. To this end, the school adopted a new math curriculum, Bridges in Mathematics, for Kindergarten through 5th grade and hired a consultant to work with teachers on implementing the curriculum (see below). For 6th grade, the school adopted the Connected Math curriculum and teachers attended monthly meeting with other 6th-8th grade teachers in the district.

Needs Assessment

Math was selected as Great Dane’s primary focus area based student test scores on PAWS. In the fall 2006 Data Analysis Summary submitted to the state annually, the school indicated “a need to substantially improve math achievement” after the school failed to meet AYP in math in spring of 2005.

Goals

In addition to focusing on improving math scores, Great Dane identified the following goals on their Wyoming North Central Association Action Plan for the 2008-09 school year:

- All students will improve reading comprehension in particular, the area of informational text
- All students will improve their written expression.

Curriculum and Instructional Approach

As noted above, in the 2005-06 school year Great Dane adopted the Bridges in Mathematics curriculum in the 2005-06 school year for grades K-5, a program created by The Math Learning Center which “grew out of a project funded by the National Science Foundation,” according to the program’s website (see www.mathlearningcenter.org). The school hired a consultant to work with teachers on implementing the curriculum. The consultant came in two days a month to observe classroom instruction with the IF and conduct professional development with teachers through half day release time. In addition, the principal reported that the Bridges consultant taught her “how to observe and comment on standards-based math instruction.” The school’s Instructional Facilitator helped teachers continue to implement the curriculum after the initial training. In a focus group, teachers noted that they liked that this curriculum “builds on itself; students learn certain games and language that are repeated each year” with different skills and concepts covered.

The Bridges in Mathematics website notes that the curriculum is based on the National Council of Teachers of Mathematics (NCTM) standards. For 6th grade, the school selected the Connected Mathematics curriculum, a program out of the Michigan State University that aims to teach middle school students “to reason and communicate proficiently in mathematics. They should have knowledge of and skill in the use of the vocabulary, forms of representation, materials, tools, techniques, and intellectual methods of the discipline of mathematics, including the ability to define and solve problems with reason, insight, inventiveness and proficiency” (see <http://connectedmath.msu.edu>). The principal reported that although the middle school most of the Great Dane students enroll in uses Math Thematics program by McDougal Littell, Great Dane chose Connected Math “because it matches Bridges well.”

Except for Kindergarten, Great Dane has structured their classes to be multi-grade (1st/2nd, 3rd/4th and 5th/6th), with two teachers per classroom. The classrooms were previously set up as two rooms with a removable dividing wall; this divider is now not used, but each grade has desks on one side of the room with other spaces around the large area such as “centers,” reading corners, and space on the floor to meet as a whole group. Although each grade level has its own curriculum in the core subjects, cross-grade groups are used for some activities. The principal reported that the idea is to keep the students with the same teacher for two years, “plus, it provides opportunities for older students to be role models for younger students.”

In addition to the core curriculum, Spanish is taught at all grade levels; the district only mandates it be taught in K-2 but the school had been awarded a state grant for it to be taught in all grades under the Foreign Language in Elementary Schools program prior to

the district mandate, so they have simply continued the program for all grades. Further, the use of technology to aid teaching and learning is emphasized. Great Dane is designated “high access” by the district: every teacher has a laptop and there is one desktop computer per four students at the K-2 level, one laptop (via mobile labs) per two students for grades 3-5, and one to one for 6th graders. Recently, the school has elected to use discretionary funds to focus further on technology, purchasing document cameras and Promethean boards in January 2009. The IF held classes after school to teach teachers how to use these new forms of technology and next year, will work on integrating technology across the curriculum.

During a focus group, a teacher commented that the district “has said that developing essential curriculum is a ‘work in progress,’ so schools are supposed to send feedback to the district.” The teachers were in agreement that the school will “ignore district mandates if we don’t think it’s developmentally appropriate,” such as using NWEA-MAP testing in Kindergarten (see below). Teachers emphasized that the district’s backward mapping has “stressed what will be tested rather than skills to be taught,” something they felt contrasted with the school’s priority on skill development.

The principal noted that the district is in the process of curriculum mapping: six or seven Great Dane teachers took part in district teams that completed initial curriculum mapping over the past summer. She reported that these teams “started with the state standards and determined what was to be taught at each grade.” In January of 2009, over the winter professional development institute, the school completed month-by-month curriculum mapping for the two math programs; language arts mapping will follow. Although curriculum mapping is incomplete, the Great Dane principal reported that a common vision of effective instruction exists at the school, especially for math due to the adoption of the Bridges in Mathematics curriculum which has introduced common strategies across grade levels such as “think-pair-share” in which the teacher asks a question, the students are told to think about the answer, then talk to a partner, and then share their ideas with the class. The principal reported that Bridges in Mathematics techniques have “permeated other content areas” through a natural process of teachers discussing instruction informally and through common planning times.

As noted above, Great Dane uses multi-grade classrooms with two teachers per room. Most classrooms include some area of tables for groups of 6-8 students to work together (often, under the guidance of one of the classroom teachers or a student teacher) as well as chairs/desk on opposite sides of the room for grade or skill level instruction. In one 5th/6th grade combined class, four adults (two certified teachers and two student teachers) were present for language arts guided reading instruction. The students were grouped by ability level into six groups, reading three different novels, and the adults rotated among the groups. Within each group, students took turns reading aloud when an adult was present, and the adult asked questions about the material being read. When the adult moved to another group, this signified silent reading time for the group. The four adults used common predictive/discussion questions such as, “Why do you think he did that?”, “I’m wondering why...” and “I’d like to ask the author why...”, some of which may have been scripted in advance. Discussions seemed to spark student interest, which waned

when they returned to reading aloud. Groups without a teacher present spent much less time on-task, engaging in non-related discussion, putting their heads down on the table, or doodling.

In a 2nd grade math class (1st graders were grouped at the other end of the room), the teacher worked with a student who had been absent the previous day while the student teacher worked with the rest of the class on whole group instruction. The class sat on the floor in a semi-circle with individual whiteboards and worksheets. The student teacher posed a question, students solved it on their whiteboards, and then a student volunteered to demonstrate his/her answer on the larger whiteboard in front of the class and verbally describe the thought process used to solve the problem. In one case, four students were called to the board to show how they had solved the same problem using different strategies. Students were eager to show their classmates their thought-processes, but seemed a little bored during a whole group recitation portion of the lesson.

During this time, the lesson for the 1st graders started out with an activity on measuring; students gathered on the floor and used string, tape measurers, rulers, etc. to measure different objects around the room. They then returned to their grouped tables to complete a workbook exercise on the characteristics of different types of penguins. The teacher admitted that the lesson, a task from the math curriculum, was “a little too hard for most of the students,” as it required strong reading comprehension skills “beyond their skill level.” To help them complete the worksheet, the teacher told students to work with a partner and to refer to the large chart they had previously completed as a class. However, limited reading comprehension made either tactic ineffective, as partners generally were unable to access the information from the written chart.

Data Collection and Use

Great Dane uses a variety of student assessments to provide summative, formative, and diagnostic data on student performance, described below:

- PAWS: The Proficiency Assessment of Wyoming Students (PAWS) is a summative statewide assessment, administered (at the Elementary school level) to 3rd through 6th graders in a mix of online and print formats in reading, writing, math, and recently, science. PAWS data is used for Adequate Yearly Progress reporting and provides a picture of overall progress at the school as well as identifying subgroup performance. The school uses PAWS data to benchmark their progress.
- NWEA-MAP: Great Dane uses the Northwest Evaluation Association Measures of Academic Progress (NWEA-MAP), state-aligned computerized adaptive assessments in language arts (language usage and reading comprehension) and math, twice a year in the fall and then again in the spring. The school opts not to administer the test a third time in winter: as the principal noted, “any time we administer the test, we can’t use the computer lab for instruction, plus any time we spent testing is time away from instruction.” The principal noted that the test

has been used district-wide since she became principal eight years ago. NWEA-MAP data are used to identify areas in which to supplement instruction during the extended day program as well as in small group instruction through pullouts and within the regular classroom setting. Additionally, teachers noted that students set goals for each area assessed by NWEA in student-parent-teacher meetings. This year, the district has mandated that schools use the NWEA-MPA test with Kindergarten students, something staff feel is inappropriate at that developmental level.

- Rigby language arts assessments are used to diagnose students' reading level for placement into reading groups.

The principal reported that Great Dane is “not a strongly data-driven school” because there are two teachers in every classroom, so the teachers “are able to monitor individual students on the spot instead of waiting for test results.” To this end, in the 2008-09 school year, teachers started charting the progress of individual students on end-of-unit assessments. The IF noted that she works with teacher pairs to look at pre and post assessments included within the math and reading curriculum “in order to refine instruction”; less emphasis is placed on district or state assessments.

Professional Development

The district has some say in setting professional development topics and allows the school to select some topics that they feel their school needs to focus on. For example, teachers have attended district-run PD on Writer’s Workshop and 6 Traits of Writing. The district has a 5-year plan for PD; schools select when to complete the required training and when to hold sessions on school-selected topics.

Great Dane adopted the district “institute” approach to professional development in the 2007-08 school year, implementing 4-day winter and 5-day summer institutes instead of spreading professional development days or half-days throughout the year. In addition to the institutes, the principal noted that teachers have two “self-directed” PD days, one at the end of each semester “to put report cards together.”

The principal noted that one professional development challenge is training new teachers. For example, the school invested in an outside consultant to help implement Bridges in Mathematics, but new teachers do not have the opportunity to receive the same level of training or support. In an effort to combat this, the Bridges consultant provided the principal a list of “look fors,” teaching techniques the principal and IF can monitor through classroom observations such as whether the classroom has a “number corner” display, the time spent on “student talk” versus “teacher talk”, the use of “rich language,” questioning, and manipulatives.

Grade level teachers have common planning time twice a week, once for 60 minutes and once for 90 minutes, when “specials” are scheduled consecutively to allow for the longer planning time.

Since fall of 2007, Great Dane has been part of a university partnership in which the local university places student teachers at the school for extensive pre-service training. During the 2008-09 school year, Great Dane had seven student teachers from the university. The student teachers are assigned to classrooms in the fall and come in 1-2 times a week “to get to know the students,” reported the principal. In the spring, the student teachers are in the classrooms every day and university faculty come every other week to observe them and to plan lessons in conjunction with Great Dane teachers. The principal noted that the Great Dane teachers benefit from working with the university professors and the students “benefit from having extra adults in the classrooms.”

In prior years, Great Dane’s had two 0.5 FTE Instructional Facilitators (IFs), one in literacy and one in math. One also served as a 0.5 small group instructor; the other as a 0.5 Kindergarten teacher “to maintain her connection with classroom practice,” as the principal put it. The principal reported that they “found it hard to balance the IF and tutoring duties,” and so for the 2008-09 school year, the school reorganized duties such that one of the IFs is now full-time in this role, focusing on literacy since they have been recognized as “excelling” in math by the district. The other IF returned to the classroom full time. The principal noted that one benefit of having a single IF is that it’s “easier to ensure that time is spent evenly with different teachers.”

The IF and principal have weekly meetings to “take the temperature of the building,” as the principal put it. During these meetings, they look at student performance data (in class assessments, last year’s PAWS data and the most current NWEA-MAP data) and “discuss what is going well and what needs improvement.”

Most of the IF’s time is spent helping teachers implement the core curriculum (language arts and math.) She prepares material for the teachers to use and models lessons. For example, the principal reported that the IF has been working with some teachers on questioning techniques to use with students. At first, the IF will script the questions for the teachers to ask; after they “get the hang of it,” the teachers will devise their own questions. In a 3rd/4th grade class, the IF modeled Writer’s Workshop for the two classroom teachers for about 10-15 minutes; afterwards, the students broke into groups and the IF and two classroom teachers rotated among the groups. The IF reported that she met with the classroom teachers prior to the lesson and would “debrief” the following day.

The IF noted that there is “no end point” to her coaching; rather, “the goal is to support student achievement but also to raise the bar of all teachers” through continuous improvement and reflection. One of her roles is to do “professional reading” as she put it, “because teachers don’t have time to do this sort of thing themselves.” Teachers will request information on certain topics and she will research the topic and report her findings back to the teacher. She noted that she is working with a group of six teachers who are going through National Board certification. In other cases, she works with teachers to create classroom assessments. She said that she does not spend much time working with teachers during their common planning time as “that time is devoted to

planning between co-teachers.” The IF reported that some teachers have been reluctant to work with her, arguing that the techniques she introduces are “what I was doing anyway.”

In addition to training teachers in new curricula, the IF receives ongoing training at the district. She reported that all of the district’s IFs met for 3-4 days in August before school started “for training on coaching skills.” They meet periodically throughout the year as a group; for example, the district held a goal-setting training for all IFs. In addition, the IF reported attending optional monthly trainings on specific topics (e.g., technology) as well as meeting monthly for half a day with a group of IFs working on balanced literacy instruction.

Structure of School Day

As part of the Bridges in Mathematics program, Great Dane utilizes a 90 minute math block for Kindergarten through 4th grade. The principal reported that “teachers are committed to using this time exclusively for math.” The principal reported that teachers utilize a mix of whole group instruction, small group, and independent work, adding that “some teachers will break students into skill level groups for part of the time.”

Interventions for Struggling Students

Great Dane utilizes a number of extra-help strategies for struggling students. Small group help is utilized as the “primary intervention” at the K-2 level, according to the principal. For grades 3-6, the schools has begun to use the Response to Intervention (RtI) model adopted by the district in fall of 2008: students identified as Tier I receive extra help within the classroom “from the teacher’s bag of tricks” as the principal put it, while Tier II interventions are given through an extended day program offering small group instruction. This program is staffed by four teachers who receive a stipend for working the program’s 65 hours spread throughout the year. Language arts instruction is for 30 minutes before school three times a week and math is provided for 30 minutes after school three times a week. The principal noted that some students do both the language arts and math extended day programs. Tier III interventions include one-on-one tutoring during the day and before school.

Enrichment for advanced students is provided through a Gifted Program that has been at the school for the last nine years. In the past, this program served high performing students in grades 4-6; several years ago, they expanded the program to include 1st-3rd graders.

In the past, Great Dane held a three-week summer school program from 8:30am-1pm, but due to building renovations, has not done so for the past few years. The principal noted, though, that the results of the summer program were not significant, saying, “it kept at-risk students from losing ground, but we didn’t see any real gains.”

Instructional Leadership

The principal reported that although she is a clear instructional leader, staff meetings use a “site-based decision approach” and has noticed an increased spirit of collaboration among staff since the adoption of the Bridges in Mathematics curriculum.

The principal conducts 10 minute “walk-throughs” of each classroom about 4-6 times per semester and more formal classroom observations for 30 minutes once a semester. During the walk-throughs, the principal fills out a checklist that includes questions such as, “What is the teacher doing?” “What are the students doing?” and the level of engagement.

The principal reported that instructional leadership is also provided by the district. She noted that a new superintendent took over in the summer of 2008, and his leadership style has been such that “there is more flexibility about what works at each school.”

RESOURCE ALLOCATION

Table 4 compares the actual resource allocation in Great Dane Elementary School to that provided in the Wyoming Funding Model and compares resource allocation in the 2008-09 and 2007-08 school years.

Table 4. Great Dane Elementary School Resource Allocation (FTEs and Dollars)

Staffing Category	2008-09	
	WY Funding Model	Actual
Core Academic Teachers	19.17	14
Specialist & Elective Teachers	3.83	3.32
Alternative Teachers/ Small School Teachers	N/A	N/A
LIBRARY STAFF		
- Librarian/Media Specialist (Certified)	1.07	
- Library/Media Tech Aides (Non-Certified)		1
EXTRA HELP		
- Certified ELL Teachers		
- Certified Teacher Tutors for English Language Learners		
- Certified Teacher Tutors for At-Risk Students	1.07	0.5
- Non-certified Tutors		0.37
Certified Teacher Tutors who Work with Small Groups		0.6
- Resource Room Teachers		
- Resource Room Aides		
- Special Education Teachers (self-contained)		
- Special Education Aides (self-contained)		1.65
-Special Education Teachers (inclusion)		1
-Special Education Aides (inclusion)		1.65
- Gifted & Talented Teachers		2
- Gifted & Talented Aides		
- Gifted & Talented Funds	\$8,636	
- Extended Day (teachers and classified staff)		0.11
- Summer School		

Staffing Category	2008-09	
	WY Funding Model	Actual
PROFESSIONAL DEVELOPMENT		
- Total # of Professional Development Days		11
- Instructional Facilitators		1
- Teacher Time (Substitutes & Stipends)	\$34,544	
- Trainer/Consultant Funds		\$500
- Materials, Equipment & Facilities		\$4,000
- Travel & Transportation		\$3,500
- Tuition & Conference Fees		\$3,000
Other Instructional Staff		
- Building Substitutes & Other Substitutes		
- Instructional Aides		
- Supervisory Aides (non-teaching aides)	2.13	0.93
Student Support		
- Counselors	1.07	0.5
- Nurses		0.5
- Social Workers		0.2
- Psychologists		0.2
- Speech/ OT/ PT		0.26
- Health Assistant		
Administration		
- Principal	1.07	1
- Assistant Principal		
- Other Administrator		
- Secretary	1.07	1
- Clerical	1.07	0.93

A notable change in resource allocation between the 2007-08 school year and the 2008-09 school year was a reduction in core teachers from 15.49 to 14, in line with decreased enrollments. One significant difference between the model and actual resource allocation is in core teachers: while the model allocated 19.17 for the 2008-09 school year, the school utilized only 14.

FUTURE IMPLICATIONS AND CONCLUSIONS

In order for Great Dane Elementary School staff to continue and expand efforts to increase student achievement, the principal felt that more tutors were needed to provide

effective interventions to struggling students. She reported that they have only been able to focus on one content area at a time due to limited tutoring resources, noting that as a result, “reading and writing scores have been fairly flat.” Teachers noted that focusing the use of tutors for small group and one-on-one instruction in the primary grades “has left the upper grades without services.”

APPENDIX C
Shetland School District

Shetland School District: A Case Study of Instructional Improvement Efforts and Resource Use

INTRODUCTION

Shetland County School District (SCSD) is one of the larger urban school districts in Wyoming. The district's mission, in cooperation with students, parents, staff and the community, is to guarantee a high-quality education in a safe and orderly environment for all students, inspiring them to become life-long learners and responsible, productive citizens. Its core values include high expectations, shared responsibility, maximizing learning opportunities and human connection. The mission and core values were revised in March 2007, a few months before the current superintendent came to the district. Rather than revising it again when he arrived, the new superintendent believed it was important to build on the foundation that existed – to use the strengths already in place and work on adding to them rather than tearing everything down and starting over. Instead, he put his energy into developing a strategic plan that would help the district bring its mission and core values to fruition. The strategic plan includes four main elements: Leadership Development, Strategic Communication, Data-Driven Decision Making, and Curriculum and Instruction. Each of these is further defined into actionable items.

The purpose of this case study is to profile this district's beliefs and practices around different aspects of instructional improvement. The sections that follow provide more detail on the following: setting goals, adopting a research-based curriculum, using data to guide decisions, investing in long-term professional development, providing extra help strategies for struggling students, instructional leadership, taking advantage of outside expertise, and other practices specific to the district. The case study ends with a brief summary.

SETTING GOALS

The goals of the district, established in February of 2006 as part of the NCA District Accreditation Process, are threefold:

- All students will improve in math problem solving skills.
- All students will improve in reading comprehension and writing across the content areas.
- The percentage of students graduating from the district will increase from the previous year.

These remain the goals that the district is working toward; district leaders see quantifying the goals as one of the next steps in the improvement process. Currently, the focus is on system improvement, with the belief that the people in the system can only be as good as the system supporting them.

CURRICULUM AND INSTRUCTIONAL APPROACH

Shetland County School District requires its schools to use a daily balanced literacy framework which has three structures: reading, writing, and speaking and listening. The district website includes a description of the different components for each structure. For example, reading includes nine components:

- Reading Aloud: Teacher reads aloud from a book above the grade level of students; part of the daily schedule; 10-20 minutes per day.
- Shared Reading: Students and teacher read text aloud together; amount of time varies.
- Guided Reading: Small group instruction with four to eight students grouped according to their instructional reading level; 20-45 minutes daily.
- Literature Circles: Small groups of students (4-8) who have selected a book to read and share through discussion; time varies.
- Reader's Workshop: A philosophy and a classroom structure where students have consistent time, be able to select some of their own work and be committed to it, share aloud and feel a part of a safe classroom environment; varies but must be practiced at least weekly.
- USSR: Undisturbed Sustained Silent Reading – a daily scheduled block of time during which students read self-selected material; 10-30 minutes per day.
- One-to-one Tutoring: Includes teacher and student taking turns reading out loud and more sophisticated programs like CLIP; time varies.
- Intervention Structures: At the primary level, CLIP, is an intervention for at-risk students as well as invaluable training for teachers.
- Homework: USSR (above) extends into homework when teachers assign 15-45 minutes of accountable reading as regular homework.

The components involved in teaching writing include:

- Interactive writing or guided writing: Teacher models the mini lesson or focus skill (which usually takes about 10 minutes) with the students.
- Writer's Workshop: Same philosophy and structure as reader's workshop, uses mini-lessons and prompts and is set up to give students experience in the writing process: drafting, revising, editing (peer and teacher) and publishing.

- USSW: Undisturbed, sustained silent writing is a daily writing opportunity which allows students to put into practice the mini-lessons introduced during interactive writing.

The components involved in teaching speaking and listening include:

- Speaking: Teachers model and give mini-lessons to help students prepare and practice speaking skills.
- Listening: Students practice listening skills for a variety of purposes. Includes following directions, giving relevant feedback, relating information to prior knowledge and exhibiting comprehension strategies.
- Word Work: Weaved into all pieces of the literacy framework, this phonics component involves word walls, snapping, clapping, chanting words, etc.

To teach guided reading, schools are expected to stock classrooms and keep libraries of books that have been lexiled, or given a specific reading level which is then matched to readers' abilities. Different schools use different strategies and programs to teach other parts of reading. Some schools use strategies from Lindamood Bell, including LIPS, a phonetic component; Seeing Stars – also phonics but with comprehension; VV – visualizing and verbalizing (2nd grade and up), and Talkies – trying to get kids who have trouble verbalizing to talk. Some use a basal to supplement guided reading.

For the writing portion of balanced literacy, schools in the district are expected to use the Six Traits of Writing to assess student writing. These traits include: Word Choice, Sentence Fluency, Conventions, Ideas, Organization and Voice. To teach writing, schools use different programs and strategies. Some schools use Lucy Calkin's Step up to Writing program. Because writing is one of the elements of the PAWS (Proficiency Assessment for Wyoming Students) test, and students are expected to know how to write a different piece at each grade level (how-to paragraph, descriptive paragraph, friendly letter), teachers provide instruction in each grade level on the piece that will be tested.

To teach math, elementary schools in Shetland County School District use Bridges in K-2, Everyday Math in grades 3-5, and Connected Math in grade 6. Junior High Schools use Connected Math in grades 7-8 as well. These math texts have problem solving embedded throughout, which aligns well with the district's emphasis on math problem solving. (According to the district website: "Problem-solving has been integrated throughout the content strands. The development of problem-solving skills should be a major goal of the mathematics program in every strand at every grade level. Instruction in the process of problem solving will need to be integrated early and continuously into each student's mathematics education. Students must be helped to develop a wide range of skills and strategies for solving problems.") Since the implementation of that curriculum, teachers have received extensive professional development on how to emphasize problem-solving and relate mathematics to real life situations.

Rather than defining essential skills for schools, the district administrators said they believed there was value in the process of teachers at each school defining them for their students. In most schools, teachers have identified these essential skills in grade level or subject area teams (the former in elementary schools, the latter in secondary schools), in single section schools, teachers defined them for their grade level and then were given an opportunity to collaborate with a teacher of the same grade at another school in the same triad (this system is described in more detail later in this case study.) The district also has documents that outline content standards and then provide a benchmark checklist that is aligned to the district test. An example of this document, language arts for kindergarteners, appears below in Table 1.

Table 1: Shetland County School District Kindergarten Language Arts Content Standards Aligned To District Reading Assessment

BENCHMARK CHECKLIST		<i>Proficiency Demonstrated</i>
Content Standard 1: <u>READING</u> Students use the reading process to demonstrate understanding of literary and informational texts.		
R.K.1	Use the reading process to apply a variety of comprehension strategies before, during, and after reading:	
R.K.1.A	Use illustrations and prior knowledge to decode unknown words and understand text.	
R.K.1.B	Recognize and produce rhyming words orally.	
R.K.1.C	Orally combine and segment syllables.	
R.K.1.D	Recognize initial and final sounds of words orally.	
R.K.1.E	Self-correct for meaning.	
R.K.1.F	Use pictures and illustrations to understand text and to make predictions.	
R.K.1.G	Connect information and events in texts to life experiences.	
R.K.1.H	Identify parts of a book including the front and back covers, the title page, and the names of the author and illustrator.	
R.K.1.I	Differentiate letters and words	
R.K.1.J	Understand concepts of print, including that print conveys meaning and that print is read top-to-bottom and left-to-right.	
R.K.1.K	Match voice with print, associating syllables, words, and phrases with their written form.	
R.K.1.L	Name upper and lower case alphabet letters	
R.K.1.M	Know letter/sound correspondences.	
R.K.1.N	Are familiar with a variety of modes such as Big Books, storytelling, and audio and video modes.	
R.K.2.	Demonstrate an understanding of literary texts:	
R.K.2.A	Understand sequence, i.e. beginning, middle, and end.	
R.K.2.B	Use illustrations to retell story.	
R.K.2.C	Listen and respond to stories based on characters, themes, plots, and settings.	
R.K.3	Demonstrate understanding of informational text by listening and responding to nonfiction texts.	
Content Standard 2: <u>WRITING</u> Student uses the writing process and uses appropriate strategies to write a variety of expressive and expository pieces.		
W.K.1	Apply writing skills to plan, draft, revise, and publish writing:	
W.K.1.A	Use phonemic awareness, letter-sound knowledge, letter formation, and directionality of print to express ideas.	
W.K.1.B	Know some dominant sounds in words.	
W.K.2	Write a variety of expressive and expository pieces by drawing pictures and telling about them, including pictures of “real-world” events and ideas.	
Content Standard 3: <u>SPEAKING AND LISTENING</u> Student uses listening and speaking skills for a variety of purposes and audiences.		
SL.K.1	Follow simple one-and two-step directions.	
SL.K.2	Orally share and listen to stories and other expressive pieces such as poetry, songs, nursery rhymes, etc.	
SL.K.3	Share ideas after hearing or viewing nonfiction and informational passages.	

8/12/2003

When asked about the district's view of instruction, both the superintendent and the central administrators talked about the Danielson framework. The superintendent described how useful an evaluation system is to identify teachers who just are not cut out for the job and master teachers; but for the majority of teachers, he stressed that coaching is needed because evaluation does not improve instruction, coaching does. Because of this belief, he encourages principals to do the evaluation portion early and then have a conversation with the teacher and the instructional facilitator about how to improve instruction.

Data-Based Decision Making

The district has a number of assessments that it requires schools to take each year in both literacy and mathematics. At the beginning of the school year, all first graders are given the CLIP assessment to identify which students most need that intervention (described in more detail in the subsection on extra help strategies.) Students in grades 2-6 are tested with STAR for Vocabulary, and the information from this test is then used to set Accelerated Reader goals. Similarly, these students are given STAR math to set Accelerated Math goals. These tests are given three times during the school year to ensure that goals are updated and students continue to grow. It also helps teachers plan their instruction around children's readiness to learn the material. All students in grades 2-6 are also tested with the district reading assessment and the district math assessment four times per year. PAWS is administered once a year in the spring. A portion of it is online, for which schools receive scores back right away, and a portion of it is on paper, for which schools receive scores in August.

In addition to those tests, schools use different tests to supplement what the district requires including AIMSweb at Palomino Elementary School. At the secondary level, district assessments and PAWS are still given, but many other tests are teacher-generated. This year every 11th grader will take the ACT as well.

Professional Development

In terms of professional development, the content for all of the district-wide student-free days is currently selected by the district, with the exception of a day before school starts when schools are given the opportunity for teachers to meet in their PLCs and discuss student data and what it means for how instruction will be provided in the coming year. Over the past five years, the focus of the district-directed professional development has largely been professional learning communities (PLCs), providing principals and teachers with extensive training on how to create and maintain PLCs in their schools. This training involved learning how to take data from formative assessments and use it to design instructional strategies during the unit as suggested by the DuFours. From my observation, this has facilitated a clear direction and allowed for a deep understanding of PLCs at the school level. However, some teachers complained that they need more professional development time spent in their PLCs actually doing what they have learned. In the coming years, district leaders plan to allow schools to select some of the content for student-free professional development days so that schools can focus on the specific

needs of their teachers and students. To support the development of PLCs, the district has provided extensive professional development, offered resources in the form of PLC grants, and required schools to give teachers weekly in-school time to meet in their PLC groups. (Simultaneously, the district increased the number of specials teachers to help make this possible). Other professional development offered in the district has centered on how to teach effectively with the math curriculum and how to teach writing. As described in some of the school case studies, teachers received significant professional development to help them implement the Bridges/Everyday Math/Connected Math Series, and ongoing professional development continues in writing since this is an area where most schools need to improve.

The district also plays an active role in the training, assignment and deployment of instructional facilitators in the schools. They are trained extensively, with a two-week summer institute before the school year begins and one day every week devoted to either training or collaboration with other instructional facilitators. For example, some of the training involves how to analyze data for teachers and help them integrate into their classrooms, some involves how to model lessons for teachers, some involves how to help teachers plan, how to provide feedback after an observation – all part of the expectations for coaches in this district. This allows the district to structure programs where experienced instructional facilitators provide coaching/mentoring to new instructional facilitators, which, according to an experienced literacy facilitator, greatly improves the effectiveness of those in their first year. However, the same facilitator complained that because training is so extensive, she did not have enough time to work in classrooms. While they are still working to fine tune it, it was clear that the district is committed to the use of instructional facilitators. The district’s “sticky message” about instructional coaches is that they provide the district with a way to “close the gap while raising the bar.”

According to the superintendent and district leaders, when instructional facilitators were first funded, no one really knew what their role was or how to use them. Principals didn’t know, facilitators didn’t know, and teachers didn’t know, which did not make for a particularly smooth first year of implementation. As some facilitators described, though, it takes time to build this relationship and for teachers to understand and warm to the idea of having a coach in their classroom to help them improve, and so the first year may have been difficult no matter how it was implemented. Now, according to the superintendent, teachers are beginning to recognize, as he puts it, “all champions have coaches.”

One of the things that district leaders learned last year was that in the schools where the principal was taking an active role in the deployment of the facilitators were more successful at using them to improve instruction. As a result, last summer the district brought in Jim Knight to work with principals on how to support facilitators. The appendix includes a list of roles that instructional facilitators can play which was distributed to facilitators, principals and teachers for this school year to help give everyone a better idea of what the role meant. As a result, schools are now using their coaches in different ways. For example, a coach at Arabian Elementary School is

working with a teacher on classroom management; prior to this year, according to the facilitator, she did not realize that was a role she could take.

The district stated that according to statute, instructional facilitators are allocated on the basis of 1.5 for a prototypical elementary school with 288 students and 1.5 for a prototypical secondary (junior high and high) school. The district staff stated that based on 2008-2009 enrollments, this would have meant a total of 62.88 FTEs in SCSD. However, in the 2008-2009 school year, they were not funded at that level by the state; the prorated amount from the state was 46.66 FTE. The district then made the decision to spend over a million dollars of general funds on facilitators so that administrators could staff schools at levels that they believed would be effective. (In addition to increasing the total amount of funding, administrators made allocation decisions on the level of need in each school.) Table 2 below shows what the four schools for which case studies were written in Shetland County School District would have received from the model, the level at which they were funded by the state, and the actual FTE of instructional facilitators found at the school in 2008-09.

Table 2: Instructional Facilitator Allocations in SCSD Case Study Schools

School	2008-2009 Enrollment*	IFs from model	IFs allocated	Actual IF FTEs
Arabian Elementary	160	.83	.62	1.0
Palomino Elementary	330	1.72	1.28	.8
Quarter Elementary	314	1.64	1.22	1.3
Morgan Junior High	1,131	5.39	4.0	3.2

*The enrollment numbers given here are those used to calculate state funding and may differ slightly from the numbers reported in the case studies.

The district also offers a mentoring program for new teachers that is required in the first year and optional in the second year, although a mentor I spoke to in one of the schools said that she has never had a mentee turn down the second year of mentoring. This program goes along with the Pathwise evaluation system that the district uses, which is linked to PRAXIS III, a set of teaching standards appropriate for first year teachers. In the first semester, this process focuses on the classroom environment, knowing your students, knowing your school and classroom management. In the second semester they start to focus on planning and begin to implement the cycle of plan, teach, reflect, apply. The mentor and the mentee meet at least once a week. Mentors can mentor two teachers

at a time and are paid \$1,000 a year for one, \$1,500 for two. They are trained for 2-3 days in the summer and meet with new teachers before the school year begins.

Providing Multiple Extra-Help Strategies for Students

Shetland County School District , similar to many other Wyoming school districts, have adopted the pyramid of intervention model, where different levels of intervention are specified and available to students based on their need. District leaders are also encouraging school leaders to begin investigating and implementing RTI (Response to Intervention) service delivery models. This begins with Tier 1 interventions that all students receive, such as small group support in the classroom, additional practice on skills when needed and identified by the teachers, and others. While some of these interventions vary from school to school, some strategies that benefit struggling students are available in all schools (or all schools of the same level) because they are supported, initiated or mandated by the district. For example, it used to be the case that schools could choose whether or not they wanted to offer full-day kindergarten. Allowing this choice did not align with the superintendent’s strategy of ensuring that no matter where a child goes to school in the district, they will get the same education, and thus this year, for the first time, every kindergartener in the district goes to school for a full day.

An example of a Tier 2 intervention that the district supports in all of its elementary schools is the CLIP program, which stands for Collaborative Literacy Intervention Project. This program, designed in Tempe, Arizona, involves the use of certified teachers in a one-on-one program to bring up the bottom quartile of first grade to grade level. At the beginning of the year, teachers test all the students and then rank the kids, identifying and beginning with the students who need the most help. The strategy includes 60 lessons, and then the teacher moves on to another student who needs it. Teachers report that with the help of this program, very few are not at grade level at the end of the school year.

The district supports this strategy by having teachers trained in offering the CLIP intervention and allocating their time to schools to help implement the program. These district-level teachers can be used at the school site either to provide the one-on-one instruction or to cover the classroom for the teacher while he or she provides the intervention. All first grade teachers are trained in CLIP, and their certification has to be renewed every three years. Table 3 shows the CLIP teachers allocated to the elementary schools profiled.

Table 3: CLIP Allocations in sample elementary schools

School	Enrollment	Percent FRL	CLIP allocation
Palomino	330	10	.5
Arabian	160	71	45 min, 4 days/week
Quarter	314	73	1

Allocations are based on student enrollment and student need, which is why the most CLIP teacher time is dedicated to Quarter, a two-section, high-poverty school.

The use of certified teacher tutors to help struggling students is one of the interventions that is included in the block grant portion of the Wyoming funding model. The CLIP program is one way in which the strategy of certified teacher tutors is being used in SCSD. Schools can also apply for grants from the district to receive funding for such strategies. The district has what it calls PLC grants, where schools can write up a plan that its PLCs have come up with of serving their students – a part of that plan might be to provide certified teacher tutors – and the district would then fund that strategy as part of a PLC grant. The junior high school profiled, Morgan, is thinking of making certified teacher tutoring a part of its intervention strategy in the 2009-10 school year, through a PLC grant.

Similarly, the district has what it calls Extended Day grants, for which schools can apply to receive additional funding to provide extended learning opportunities for their students. For example, at Palomino, one of the elementary schools profiled, school leaders applied for and received an extended day grant that allows six teachers and one paraprofessional to offer reading and writing instruction before and after school. Reading instruction is offered before school from 7:30am-8:30am Monday through Thursday, and writing is offered on Wednesday and Thursday from 7:30am-8:30am or 3:15-4:00pm. Different schools configure their extended day instruction in different ways, but the money is available to pay for it through these grants.

Another intervention that is offered in this district is summer school. Teachers can recommend students for summer school by filling out an ILP (Individual Learning Plan) that documents what interventions they have tried during the school year and what the remaining learning needs of the student are. For 2nd-6th graders, summer school focuses on reading and math. For 6th graders there is jump start program for students not quite ready to go to junior high school. For grades 7-12, summer school lasts for six weeks, and junior high students can take two classes, each of them two hours a day for all six weeks. High school students can only take one class for credit, and classes meet 4 hours a day for three weeks. Priority is given to students who have failed a class, but if there is space, a student who got a B in geometry could take summer school and bring his or her grade up to an A. Secondary students are required to pay \$60 to take a class in summer school, but if they pass, they get the money back.

Providing Instructional Leadership

Many of the principals and teachers in the schools I interviewed spoke about the superintendent's leadership in positive ways, calling him supportive, responsive, citing his visibility out in schools, and expressed general satisfaction about some of the changes he has brought to the district, including the separating of schools into triads by geographical location and building connections between all levels of schools within the triad. In conversations with the superintendent, he emphasized the need for all of the district's schools to provide the same education, and the same quality of education, that

every other school provides, so that students could move from one school to the other and not need to spend time catching up or figuring out what they had missed because schools were teaching things at different times. He also put it this way: “the goal is to reduce the variance no matter where a kid is being educated.”

The superintendent also emphasized his belief that a truly great system is one in which each level learns from the other. For example, what can the principal learn from the teachers, and then, what can the principal teach the district and then what can the district teach the state, and so on. The strategy, he said, to build a learning organization is to align it and build communication and build it so you each level can learn from the level above and the level below and then make data available seamlessly.

Another way of providing instructional leadership is to give principals the tools they need to be instructional leaders. For example, to help facilitate the process of principals ensuring that teachers are implementing the district’s curricular strategies with fidelity, district leaders created “look fors” or walkthrough checklists for administrators to use when observing in classrooms. For example, the walkthrough checklist for writing emphasizes the six traits, prompting the principal to record whether these traits are displayed in the classroom, whether they are being talked about, and whether students know which trait is being addressed during the writing lesson. A copy of these checklists can be found in the appendix.

The superintendent also created a leadership team, consisting of his top central office administrators – the assistant superintendent for instruction, the assistant superintendent for support operations, the director of instruction, the assistant director of instruction, the head of human resources, the director of community relations, the director of technology, the director of special education, and the director of finance. The superintendent’s view and expectation of this team is to come together and think and make decisions that a superintendent needs to make – but with all of these perspectives, the decision is much more likely to be in the best interests of students.

Once a month, district administrators hold a leadership team meeting with all the principals. The expectation at these meetings is that they involve sharing back and forth, not just central office administrators relaying information to principals. At the meeting I attended, much of the emphasis was on “celebrations” or things that principals and their schools were proud of and wanted to share, and the superintendent talked a lot about his vision that they plant the seed as kindergarteners and 13 years later they harvest them as graduates and how vital each grade and each teacher and each administrator is in that process.

Taking Advantage of External Professional Knowledge

As mentioned in the school cases, leaders in this district are strong proponents of bringing in experts and learning from research so that they can implement the programs and strategies that they adopt with as much fidelity as possible. When the district adopted Bridges, Everyday Math, and Connected Math, they sent teachers to training and engaged

the experts in the district so that teachers had an opportunity to learn how to teach the curriculum from the experts who created the programs (one of whom, an author of Bridges, was actually a teacher in the district for a time but has since left.)

Other examples of taking advantage of external professional knowledge include the district's adoption of the DuFour's strategy of creating Professional Learning Communities and giving teachers in the district substantial professional development with the DuFours to ensure that they understood and could see the value of implementing professional learning communities in their schools. Also, district leaders have engaged Jim Knight on multiple occasions to work with instructional facilitators as well as principals on how to get the most out of having coaches on site to help improve instruction.

Other Practices Specific to this District

Shetland County District has also begun an initiative, under the new superintendent, to organize the schools into triads, where elementary schools that feed into junior highs which feed into high schools are grouped together. To make this configuration possible, and also to move the 9th graders out of the junior high and into the high school, a new high school is currently being built. The theory of action behind the triad is that it allows the district to provide continuity of services to students from kindergarten to grade 12.

SUMMARY

District leaders in Shetland County School District are focused on creating a school system where it would not matter which school a child attended or which classroom teacher he or she is assigned to, the child would get the same education. With this as a goal, the district specifies which curricula schools need to use, require them to provide collaborative time for PLCs to meet during the school day, trains and places instructional facilitators in every school and require common assessments across the district multiple times per year. As a result, schools in the district are operating in an environment of high expectations, significant support, and a prescribed view of what good macro teaching looks like (modeled on the Danielson Framework for Teaching) and how it can be improved (through coaching). Over time, the superintendent hopes to show the benefits of providing consistent education across the 13 years that students are in school through higher test scores and higher graduation rates.

APPENDIX

Instructional Coaches Roles

Resource Provider

- ↓ Offers resources requested by teachers, such as materials, websites, rubrics, etc.
- ↓ Recommends resources to teachers that relate to topics the coach and teacher have discussed
- ↓ Shares research, best practices or emerging trends with the school staff

Data Coach

- ↓ Help teachers use data most effectively
- ↓ Provide and analyze PAWS data and District Assessment data
- ↓ Facilitate teachers' understanding of data
- ↓ Engage teachers in discussion about data
- ↓ Help create rubrics
- ↓ Help collect data for track II and track III

Curriculum Specialist

- ↓ Deepening teachers' content knowledge
- ↓ Conference, model, observe strategies to support goal of Reading and Writing across content area
- ↓ Conference, model, observe strategies to support school goal of Math Computation and Problem Solving
- ↓ Develop teachers' understanding of the structure of the curriculum
- ↓ Aligning the written, taught and tested curriculum
- ↓ Analyzing curricular materials to determine which parts of those materials support achievement of the standard
- ↓ Integrating the content areas to provide additional opportunities for students to practice and apply their learning

Instructional Specialist

- ↓ Ensure that teachers implement effective, research-based instructional strategies
- ↓ Help teachers select and implement the most appropriate strategies to meet the learning of all students
- ↓ Conference, model, observe strategies to support goal of Reading and Writing across content area
- ↓ Conference, model, observe strategies to support school goal of Math Computation and Problem Solving
- ↓ Provide guidance on differentiation strategies

Mentor

- ↓ New teachers in building
- ↓ Support other teachers who mentor novice teachers
- ↓ Collaborate about support materials, classroom management, District Directed Programs and/or Curricula – Guided Reading, 6 Traits of Writing, Connected Math, etc.
- ↓ Work with Collaborative Teams and help with specific needs

Learning Facilitator

- ↓ Serve as provider of professional development and/or plan for others to provide professional development
- ↓ Coordinate or facilitate other forms of professional development
- ↓ Create personal lessons to model and observe in classrooms

Catalyst for Change

- ↓ Engage teachers in looking critically and analytically to discover what is working and what is not in order to redefine their work and improve results
- ↓ Introduce alternatives and refinements to current practices
- ↓ Conference, model, observe strategies to support district goal of Reading and Writing across the content area
- ↓ Conference, model, observe strategies to support school goal of Math Computation and Problem Solving

Personalized Professional Development

- ↓ Professional development with any area in which you need assistance
- ↓ Have TOSA (District Coach) conference, model and observe lessons

Technology

- ↓ Provide training for NetTrekker, School Fusion, Gradebook, Email, MS Office Suite, Smart Notebook, Smart Ideas, etc.
- ↓ Help with setting up technology in classroom
- ↓ Help observe technology standards in core subject areas
- ↓ Model/observe technology in the classroom
- ↓ Answer specific technology questions
- ↓ Help with COW usage

Walk-Through Checklist

Language Arts
K-2 Guided Reading

Teacher being observed:

Observation Dates	Q1	Q2	Q3	Q4	Other
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This checklist is intended to help principals focus their attention as they “walk through” a classroom. A “walk-through” should take no more than 10 minutes. It is not intended to take the place of a full observation, but will help the principal quickly check on program implementation.

It is important that the principal be familiar with the Guided Reading “Look & Listen for’s” document, *before* using this checklist.

PART 1: PHYSICAL CHARACTERISTICS

What should a principal see *within the room?* What is *accessible?*

Q1	Q2	Q3	Q4	Observable Characteristic
				Teacher maintains guided reading area with a small table, lesson plans, strategies, prompts, charts, running record forms, student journals, alpha chant card, manipulatives, white board, hand aides, and pencils.
				1 st & 2 nd grade guided reading groups meet 30 minutes a day. Kindergarten beginning around January meets 15-30 minutes a day.
				Leveled readers are labeled and available.

PART 2: LESSON STRUCTURE

What should a principal see *during a lesson?*

Q1	Q2	Q3	Q4	Lesson Characteristics
				Students reread familiar text while the teacher administers (1) running record to one student.
				Students practice the alpha or blends/digraph chant.
				Teacher introduces a new book, leveled reader (instructional level) (90-94%) <ul style="list-style-type: none"> • focus lesson (reading strategy) • high frequency word • book walk-reading the pictures • read together – students leading • reread new book - fluency
				Teacher instructs a word work activity-letter, word or meaning
				Teacher provides a meaningful extension activity such as the retelling rubric or journal writing.

Walk-Through Checklist

Language Arts
K-2 Six Traits of Writing

Teacher being observed:

Observation Dates	Q1	Q2	Q3	Q4	Other
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This checklist is intended to help principals focus their attention as they “walk through” a classroom. A “walk-through” should take no more than 10 minutes. It is not intended to take the place of a full observation, but will help the principal quickly check on program implementation.

It is important that the principal be familiar with the Six Traits “Look & Listen for’s” document, *before* using this checklist.

Ideas, Organization, Sentence Fluency, Word Choice, Voice, Conventions

PART 1: PHYSICAL CHARACTERISTICS

What should a principal see *within the room*? What is *accessible*?

Q1	Q2	Q3	Q4	Observable Characteristic
				1 st & 2 nd Six Trait posters are posted with clear definitions. Kindergarten pictures without definitions could be posted. Teacher often refers to posters for continual reminder to students.
				Text Crate picture books and lessons, exemplars, dictionaries, writing paper, variety of writing utensils are easily accessible.
				Large chart, white board or smart board easily accessible and looks used.
				Interactive writing samples on the walls.

PART 2: LESSON STRUCTURE

What should a principal see *during a lesson*?

Q1	Q2	Q3	Q4	Lesson Characteristics
				Manipulatives included in writing lesson before pencil-paper writing has been introduced. Can be used to introduce a lesson in any primary grade.
				Teacher verbally explains which mode the students are writing (See Reading and Writing Genre & Mode alignment to 2003 Language Arts Standards).
				Teacher uses picture books, other content driven material, student writing examples, to model the Six Traits.
				Interactive writing (sharing the pen) is included in the lesson.
				During interactive writing, accepts all student suggestions, scaffolding instruction.
				Teacher and students are “talking the traits”.
				Teacher uses scoring rubric and exemplars to model proficient and non-proficient writing.

Walk-Through Checklist

Mathematics
Everyday Mathematics (EDM)

Teacher being observed:

Observation Dates	Q1	Q2	Q3	Q4	Other

This checklist is intended to help principals focus their attention as they “walk through” a classroom. A “walk-through” should take no more than 10 minutes. It is not intended to take the place of a full observation, but will help the principal quickly check on program implementation.

It is important that the principal be familiar with the CMP “Look-fors” document, *before using this checklist.*

PART 1: PHYSICAL CHARACTERISTICS

What should a principal see *within the room*? What is *accessible*?

Q1	Q2	Q3	Q4	Observable Characteristic
				Classroom is arranged to facilitate small group interaction.
				An overhead is easily accessible and looks used.
				Manipulatives, Student Reference books, and math journals are easily accessible for students and teacher and look used.
				Mathematics projects (Name Collection Boxes, explorations, solutions to math challenges, student work, etc.) are displayed throughout the room.
				The class schedule for the day indicates 1 hour to 1 hour and 15 minutes for Math.
				Class number line (with negative numbers) is displayed and easily accessible.
				Math Vocabulary as part of a “word wall” is displayed and referred to by class members.
				Evidence of year-long projects exists: (3 rd) Sunrise/Sunset, (4 th) World Tour, OR (5 th) American Tour.

PART 2: LESSON STRUCTURE

What should a principal see *during a lesson*?

Q1	Q2	Q3	Q4	Lesson Characteristics
				Students are seen explaining and justifying their solutions either in large group or small group settings to the teacher or each other.
				Students are sharing observations and self-evaluating.
				There is active listening demonstrated by both students and adults.
				Students are working independently in Math Journals.
				Students should be able to offer you explanations of what they’re doing and why.
				Students are working together doing EDM Math Games.

Morgan Junior High School: A Case Study of Instructional Improvement Efforts and Resource Use

INTRODUCTION

Morgan Junior High School serves 1,050 students in grades 7-9. Morgan is located in Shetland County School District. Twenty-three percent of the school's student population qualify for free or reduced price lunch, and approximately 10 percent receive special education services. None of the school's students are officially classified as English language learners, and the majority of students (85 percent) are Caucasian. Morgan's class sizes for 2008-09, reported as averages by subject area, are:

Math: 20
English: 19
Science: 20
Social Studies: 23
Foreign Language: 18
Physical Education: 23
Art: 19
Music: 21
Vocational/Technical Education: 18
Special Education: 8

The purpose of this case study is to describe the instructional and organizational strategies that teachers and school leaders use to help students achieve at higher levels and identify how resources are allocated to support those strategies. The next subsection provides student test data from Morgan Junior High School for the past seven years.

STUDENT TEST SCORES

For the 2005-2006 school year, Wyoming state officials changed the standardized test administered to students from WYCAS (Wyoming Comprehensive Assessment System) to PAWS (Proficiency Assessment for Wyoming Students). Though the tests are not directly comparable, examining the scores for students at Morgan Junior High School over the past seven years on both tests helps illustrate overall trends in student achievement. As Figure 1 illustrates, student achievement on WYCAS was relatively flat over the time period of 2002-2005 in both language arts and math; scores in both subjects declined slightly.

However, as illustrated in Figure 2, student test scores on the math portion of PAWS increased by 10 points between 2006 and 2008. (The test was administered twice during the 2006-07 school year, causing higher test scores across the state in that year, so the only the scores from 2006 and 2008 are reliable.) Reading scores also increased, but only slightly.

Figure 1: Percent Proficient and Advanced on the WyCAS Test, Morgan Jr. High School, 2002-2005

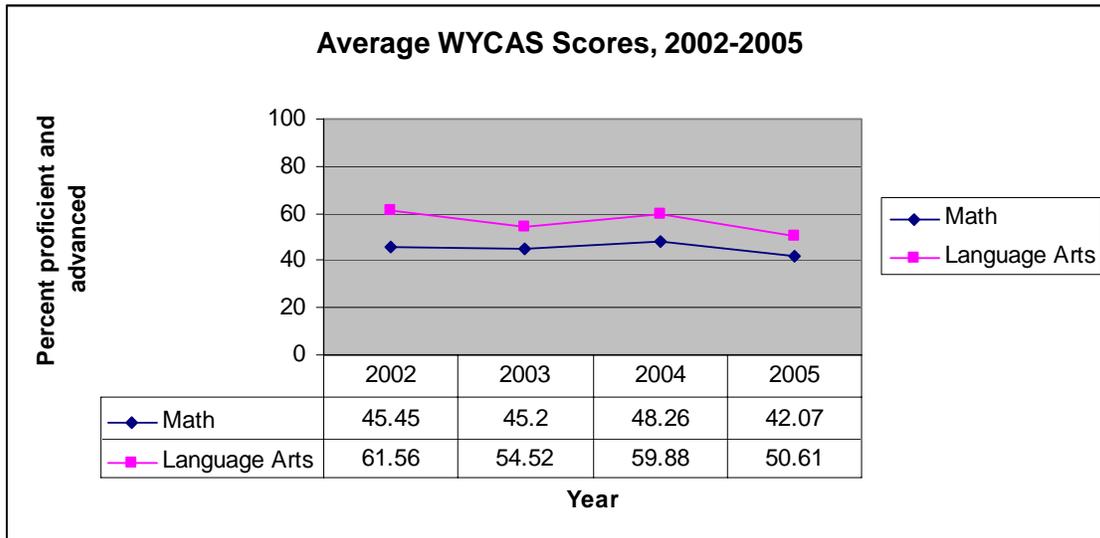
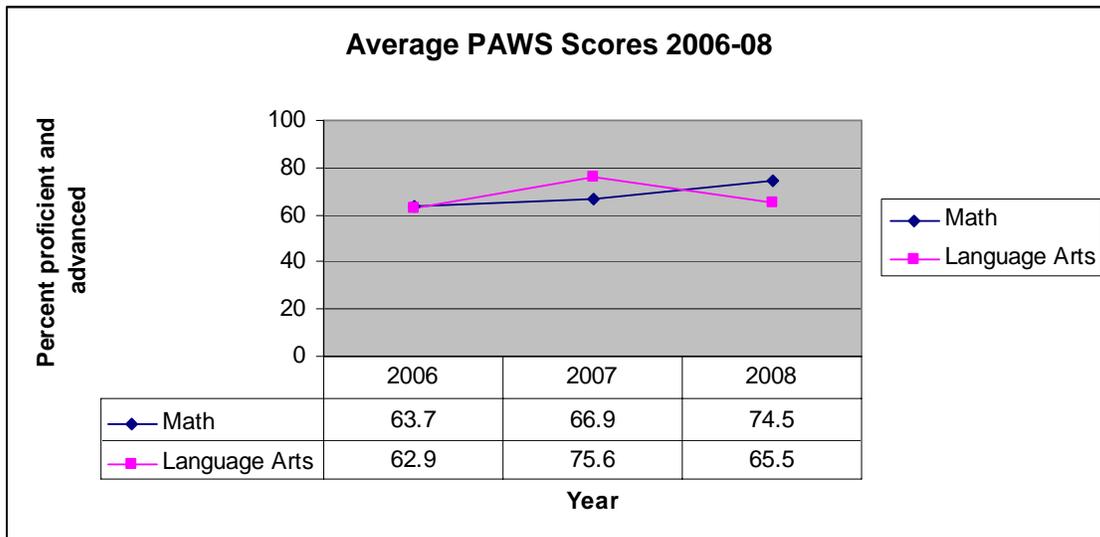


Figure 2: Percent Proficient and Advanced on the PAWS Test, Morgan Jr. High School, 2006-2008



The remainder of this case study tells the story behind these scores, and it is divided into three major sections. The next section, section two, begins with an overall description of the educational improvement strategies that staff at Morgan use and then details each of these strategies in separate subsections. Section three provides information about the allocation of resources for the strategies in use at Morgan and compares them to

Wyoming model. The last section concludes the case study, highlighting the instructional strategies and allocation of resources that have likely led to the improvement at Morgan Junior High School.

EDUCATIONAL IMPROVEMENT STRATEGIES

Morgan’s school leaders and staff employ a number of strategies to help students succeed on PAWS and other measures of student achievement. All teachers are organized into Professional Learning Communities (PLCs), and an on-site instructional facilitator is assigned to each of these groups as well. PLCs meet weekly, and school leaders communicate expectations about what teachers should be working on during a given month through their weekly newsletter “the Friday Focus.”. In their PLCs, teachers plan together (developing pacing guides and common assessments), discuss how various instructional strategies work in the classroom, and analyze student data. Another important strategy at Morgan is called “power hour” which, as described in the section on providing extra help to struggling students, is a time during the regular school day to provide extra help to students who require it. These and other strategies are described in the subsections below.

Setting Goals

When asked about goals for student performance at Morgan, the principal emphasized that the school was dedicated to providing every opportunity for every student, which sometimes means providing multiple opportunities for students to learn core content to proficient levels. The principal stated that at Morgan, students have to work hard not to be a success. The school also measures their performance according to whether or not they make AYP, and monitor the number of Fs students receive. In addition, the instructional facilitators reported that the district goals were also school goals:

Goal one: All students will improve their problem solving skills in mathematics.

Goal two: All students will improve their reading comprehension

Goal three: All students will improve in writing across the content areas

The strategies in place to help meet these goals are described below.

Curriculum and Instructional Approach

Students at Morgan have a basic language arts text, the Glencoe Textbook series, and augment the text with other novels, such as *To Kill a Mockingbird*, as well as non-fiction texts. A 9th grade teacher said that she supplemented the grammar found in the text with an online tool called Grammar Girl to which her students seem to respond well. The teacher also used songs, one more modern and the other traditional, to supplement the lesson about racism from the novel students were reading. With prompting from the district, staff at Morgan are making an attempt to teach reading and writing across the curriculum. For example, the language arts instructional facilitator has been working in

the P.E./health teacher's classroom on helping the teacher understand how to integrate writing instruction into her unit on drugs and alcohol.

In mathematics, the 7th and 8th graders use Connected Math, a continuation of the series in place at the elementary level. Connected math emphasizes real-life problems and helps teachers draw the connection to students' everyday lives. One teacher reported that the math teachers in the school were divided over whether they liked Connected Math, and she said she did not think it would be selected again next year when the math curriculum is up for re-adoption. She herself thought it was an excellent series because it did offer so many real life examples for students; in the class she taught that I observed, she presented the material in an engaging way and students seem enthused about what they were learning. The teacher used a combination of whole group instruction and having students work on their own and then share with their neighbor and discuss the strategy they used to come up with the answer. She then resumed whole group instruction to ensure that students were learning what was intended for that class period.

Classrooms are arranged in traditional rows, but as the examples from English and mathematics indicate, students are often encouraged to turn to their neighbor and discuss something during a lesson. When asked about the view of good instruction at Morgan, the principal mentioned the Charlotte Danielson framework that forms the basis of the evaluation system for the school (and the district). When asked the same question, one teacher emphasized that good instruction is being aware of whether or not the students learned what you were trying to teach them and if they did not, finding another way of presenting material until they do learn it. Another teacher talked about the work of PLCs, saying that good instruction is tailored to specific student needs as identified by data.

When asked about defining essential skills, teachers referenced the district requirement that as a PLC, teachers select what skills are most important for the grade they teach to know and that guides instruction and what they do in the classroom. The appendix gives an example of the essential skills and assessments and deadlines for 9th grade language arts.

Data-Based Decision Making

Students at Morgan Junior High School are tested using a variety of assessments, some formative, some benchmark and some summative, designed to give teachers, students and parents a comprehensive view of how students are doing and help shape instruction and interventions so that they meet student needs. Each collaborative team designs a series of assessments to be administered throughout the year. A 9th grade English teacher gave the example of "here are the three things that we think the kids need to know this week" and then coming back to the PLC after giving the assessment to discuss how students did, what each teacher may have done differently, etc. These common tests facilitate discussion around instruction and allow teachers to design other lessons together if students have not grasped what they were trying to teach.

There are also classroom summative assessments that are more comprehensive (end-of-unit, etc.) as well as district assessments. District assessments are treated by teachers as part of the unit and part of students' grades. For example, the district gives a test to 9th graders on fiction in the fall and non-fiction in the spring. Teachers reported that they get the results from these assessments back in a week, and then they meet in their PLCs and identify what areas students have not yet mastered and use that information to shape their instruction in the classroom.

Finally, PAWS is given to students in April but the results from that test do not come back until the fall of the following school year, so that information is less useful in shaping instruction in the classroom. It is used, however, to help identify students for possible interventions at the start of the school year.

Investing in Extensive, Long-term Professional Development

Professional development has been an important factor in the changing culture at Morgan Junior High School. As noted in the district case study, teachers in this district get six days of professional development where the district chooses the topic, and one of the main areas of emphasis over the past few years has been developing professional learning communities. In addition to those six days, teachers had two days at the beginning of the school year which was, in part, spent meeting with their PLC. New teachers receive professional development in the district's math series as well as in the Six Traits of Writing and Guided Reading.

During the school year, teachers have the opportunity to meet and collaborate for 30 minutes each week in their PLCs. Most groups meet once a week, but groups are only required to meet biweekly. For the 2008-09 school year, each PLC group was assigned an instructional facilitator, and these facilitators come to the weekly (or biweekly) meetings. The school has four instructional facilitator staff members, two full-time for language arts, one full-time for math and one for technology who is there 3 days a week, for a total of 3.6 FTE instructional facilitators.

The facilitators reported that going to PLC meetings keeps them in the loop about what teachers are working on and what they may need or want in the way of support from them. For example, during one PLC meeting teachers discussed the results of a district assessment in writing where the students did not do well. The facilitator assigned to the particular group was a math facilitator, but the language arts facilitator trained her in how to teach writing strategies and then she worked with the teachers from the PLC on implementing the strategies in her classroom.

The facilitators said that they also sometimes work with teachers outside the PLCs to which they are assigned, but that most of the requests for help in the classroom had been around language arts and technology which is why they decided to train the math instructional facilitator to provide the writing intervention as well.

Another role that instructional facilitators play is to analyze data from various assessments and then present it at PLC meetings and suggest strategies to address deficiencies identified by the data.

In addition, faculty meetings are held once a month and these meetings are sometimes used to present data and discuss possible organizational or structural changes. For example, the meeting I observed involved one of the assistant principals presenting some data on how many students were getting Fs this year compared to prior years in each grade as well as some other statistics. The meeting also involved some discussion about adding tutoring to the “power hour” intervention (described in the next section).

School Time

A typical day at Morgan Junior High School begins for teachers at 7:20am and for students at 7:35am. (This may change next year to take into account the research on when students learn best.) Classes are organized into 44 minute periods with the exception of 5th block – a 90 minute block of time in the middle of the school day of which 30 minutes is dedicated to lunch and the other 60 minutes is devoted to interventions and enrichments for students and collaborative time for staff. (This strategy is new for 2008-09.) During the intervention block, each classroom of students has two teachers, and each teacher is assigned 15 students.

On Mondays, during the 5th period block, students do not travel to interventions, instead, they stay in their homeroom and their teacher reviews whether they have student work pending (all of this is tracked on the computer). Part of this time is used for silent reading in an effort to meet the district directive that students improve their reading scores. Tuesday-Friday, if one of their teachers has identified them as in need of an intervention, they travel to that intervention for extra help, which may include instruction in reading or math or another core subject. If they do not need extra help, there are a variety of enrichments (fencing, yoga) offered to students during that hour, but no courses are offered for credit. After fifth block, the rest of the day is broken into three additional 44 minute periods, and students are dismissed at 2:37pm. The end of the teacher workday is 3:00pm.

To summarize, students have seven 44-minute periods plus 30 minutes for lunch and an hour-long intervention or enrichment period in the middle of the day.

Extra-Help Strategies for Students

When students begin failing a class, they are assigned to an intervention. The interventions take place during 5th period or 5th block, as described above, and they usually mean working with the teacher in a smaller group setting. If students do not show up for the intervention, they receive disciplinary action. During 5th block, on Mondays, student grades are reassessed and the decision is made about whether they need to continue in intervention or not. If things do not improve for the student, the plan is to provide intensive tutoring that could be up to 90 minutes. (The school is currently

discussing options with the district but thinking about using some of their PLC funds to hire teachers to tutor the students most in need of extra help.)

For this year, another extra help strategy that is in place is the extended day program. This is offered at two different times during the school day. The first is math academy, which is held from 7:00 to 7:30am, and the second is homework room for each subject from 2:45-4:00, where a teacher is available to provide extra help.

Summer school is also available for students needing extra help. For 6th graders there is jump start program for students not quite ready to go to junior high school. For grades 7-12, summer school lasts for six weeks, and junior high students can take two classes, each of them two hours a day for all six weeks. High school students can only take one class for credit, and classes meet 4 hours a day for three weeks. Priority is given to students who have failed a class, but if there is space, a student who got a B in geometry could take summer school and bring his or her grade up to an A. Secondary students are required to pay \$60 to take a class in summer school, but if they pass, they get the money back.

For students in special education, a change in the delivery has taken place. According to a special education teacher, he recognized that he lacked the content knowledge to teach mathematics adequately, and the regular education mathematics teacher lacked the expertise to work with special education students. So this year they came up with a strategy of having a class with 10 special education students and 10 regular education students and two teachers, one special education and one mathematics to teach math to special education students. According to this special education teacher and the principal, this strategy has been effective and they are looking into expanding it into other content areas in coming years.

Creating Professional Learning Communities

As described in the section on professional development, teachers at Morgan are part of professional learning communities organized around their content area – they are collaborating around student work and student assessment data, developing common assessments, and discussing instructional strategies that work in their classrooms. Beyond these formal PLC meetings, a math teacher reported feeling that her department in particular had a high degree of collegiality and shared expertise. She specifically mentioned informal observations of each other's teaching and the ability to talk with one another about what they may be struggling with or succeeding with in their classrooms as helpful to her continued growth as a teacher.

Instructional Leadership

The principal at Morgan has been in the position for seven years. It is clear in talking to him that he is committed to the students. Teachers characterize the principal as laid back and open to trying new things. They reported that this accommodating style has an upside

and a downside – the upside is flexibility and the downside is a lack of consistency and a strong, clear, coherent message.

At Morgan, as at all other schools in the district, the principal uses the walkthrough checklists to see whether what is happening in the classroom meets the expectations of the district (See the district case study for examples of these checklists). He then presents his findings to curriculum coordinators and other central administration staff.

In addition to the leadership provided by the principal, the leadership team, comprised of the assistant principals and department heads as well, meets once a month to discuss issues affecting the organizational and instructional strategies at the school. (The instructional facilitators noted in my meeting with them that they were asked to join this leadership team but declined because they wanted to send the message to staff that they were separate from any kind of evaluative process.)

External Professional Knowledge

As noted in the district case study, central office leaders have brought in a lot of external professional knowledge to ensure that the strategies they are implementing in the district are done with as much fidelity as possible. Some examples of this include sending teachers to conferences and hosting conferences on professional learning communities run by the DuFours and bringing in Jim Knight to work with instructional facilitators and principals on how to get the most out of the use of coaches to improve instruction.

The next section shows how resources were allocated in 2008-09 to the strategies described above and compares that allocation to the one suggested by the Wyoming model.

ALLOCATION OF RESOURCES

This section describes the allocation of resources at Morgan Junior High School and compares those resources to the resources in Wyoming model in Table 1. A discussion of the alignment of resources to the model follows the table. It should be noted that special education resources, though fully reimbursed by the state, are not part of the funding model and therefore do not appear in the left hand column below.

Table 2: Allocation of Resources at Morgan compared to WY model

Staffing Category	WY Funding Model	Actual
Enrollment	1,131	1,050
Core Academic Teachers	53.88	54.0
Specialist & Elective Teachers	18.19	23.4
Alternative Teachers/ Small School Teachers	0	0
LIBRARY STAFF		
- Librarian/Media Specialist (Certified)	1.8	2
- Library/Media Tech Aides (Non-Certified)	3.59	1
EXTRA HELP		
- Certified Teacher Tutors for English Language Learners	0.12	0
- Certified Teacher Tutors for At-Risk Students	3.59	0
- Non-certified Tutors	0	0
- Resource Room Teachers (non-special education)		
- Resource Room Aides (non-special education)		
- Special Education Teachers		6
- Special Education Aides		9
- Gifted & Talented Teachers		0
- Gifted & Talented Aides		0
- Gifted & Talented Funds	\$31,849	\$2,100
- Extended Day		0.6
- Summer School		District level

Staffing Category	WY Funding Model	Actual
PROFESSIONAL DEVELOPMENT		
- Total # of Professional Development Days	10	8
- Instructional Facilitators	4.0*	3.6
- Teacher Time (Substitutes & Stipends)	\$127,395	23,920
- Trainer/Consultant Funds		
- Materials, Equipment & Facilities		
- Travel & Transportation		
- Tuition & Conference Fees		
- Building Substitutes & Other Substitutes		
- Instructional Aides		
- Supervisory Aides	7.8	
STUDENT SUPPORT		
- Counselors	8.12	4.0
- Nurses		1
- Social Workers		0.5
- Psychologists		0.5
- Speech/ OT/ PT		0.5
- Health Assistant		0

Staffing Category	WY Funding Model	Actual
ADMINISTRATION		
- Principal	1.0	1.0
- Assistant Principal	2.59	3.0
- Secretary	3.59	1
- Clerical	3.59	6

*Amount that was funded in 2008-09.

The allocation of resources at Morgan Junior High School is similar in some ways and different in others compared to the allocation in the Wyoming model. For example, the number of core teachers is almost exactly the same, but there are more specialists. Morgan does have two certified library staff which is close to the 1.8 allocated by the model.

One major difference in the use of resources at this school and the resources allocated by the model is that of certified teacher tutors. The extra help provided by teachers during the 5th period intervention is part of their regular teaching contract – teachers have only one free period per day. As noted in the section on extra help strategies, school leaders are looking into using the tutoring strategy next year so that particularly hard-to-educate students would have a skilled teacher to work with one-on-one or in a small group, and district leaders have made it clear that there is money available for this strategy, but it is not yet in use at the school.

Much less is spent on gifted programming than allocated by the model. In terms of professional development, fewer days and fewer resources are actually allocated at Morgan than the model provides, but many of the resources spent on professional development in which Morgan teachers participate would not show up in this table because it is spent at the district level.

The school has almost as many instructional facilitators as were funded through the model in 2008-09. Finally, the school has fewer resources dedicated to student support than allocated by the model, but its allocations to administration are very close to what the model provides.

SUMMARY

Morgan Junior High School has a number of strategies in place that are helping improve teaching and raise the level of achievement for students. Some of these strategies include grouping teachers in professional learning communities and giving them time to collaborate during the regular school day, either weekly or biweekly, around student

work, student data, and instructional strategies and interventions that yield results. Other practices include an intervention time when students who are not doing well in their classes have access to more instruction from the teacher and opportunities to work with teachers during extended day programs in the morning and afternoon.

APPENDIX

2009-2010:

Language Arts PLC Essential Skills/Assessments/Deadlines

Skill Category	District Standards/Essential Skills	Assessment	Deadline Date
Reading	<i>Students will interpret elements of fiction. Students will apply a variety of reading comprehension strategies. Students will understand informational texts</i>		
	Students will identify setting and its effect on the plot.	PLC	1 st quarter
	Students will use inferential comprehension strategies (prediction, cause/effect)	Embedded District Fiction Assessment	1 st quarter
	Students will outline plot structure as found in a piece of fiction.	PLC	2 nd quarter
	Students will understand author's purpose.	Embedded District Nonfiction Assessment	3 rd quarter
	Students will use literal comprehension strategies (main, idea, summarizing, paraphrasing)	Embedded District Nonfiction Assessment	3 rd quarter
	Students will identify universal theme.	PLC	4 th quarter
	Students will conduct research using grade appropriate sources.	PLC	4 th quarter

Palomino Elementary School: A Case Study of Instructional Improvement Efforts and Resource Use

INTRODUCTION

Palomino Elementary School serves 330 students in grades K-6. Ten percent of the school's student population qualify for free or reduced price lunch, and approximately 10 percent receive special education services. The school does not serve any students officially classified as English language learners, and nearly all students are Caucasian. Palomino's class sizes for the 2008-09 school year are as follows:

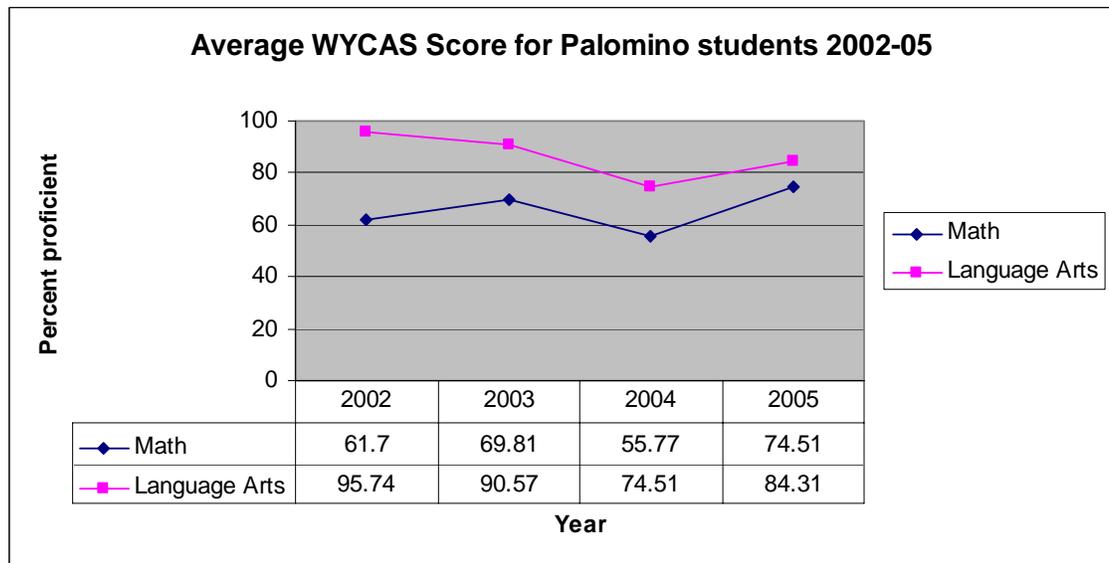
- Kindergarten = 22 in one class, 21 in the other
- 1st grade = 17 in one class, 18 in the other
- 1st/2nd = 18 (9 from each grade)
- 2nd grade = 18 in both classes
- 3rd grade = 25 in both classes
- 4th grade = 26 in both classes
- 5th grade = 25 in one, 26 in the other
- 6th grade = 25 in one, 26 in the other

The purpose of this case study is to describe the instructional and organizational strategies that teachers and school leaders use to help students achieve at high levels and identify how resources are allocated to support those strategies. The remainder of this introduction provides student test scores for the past seven years.

STUDENT TEST SCORES

For the 2005-2006 school year, Wyoming state officials changed the standardized test administered to students from WYCAS (Wyoming Comprehensive Assessment System) to PAWS (Proficiency Assessment for Wyoming Students). Though the tests are not directly comparable, examining the test scores for students at Palomino Elementary School over the past seven years on both tests helps illustrate overall trends. Figure 1 displays the average WYCAS scores in language arts and mathematics for Palomino students between 2002 and 2005. As Figure 1 illustrates, particularly in language arts, Palomino students performed quite well over this time period, with somewhat of a downward trend. In math, scores were not as high, and rose and fell somewhat but did not change dramatically.

Figure 1: Percent Proficient and Advanced on the WyCAS Test, Palomino Elementary School, 2002-2005



The following table and figures provide a more detailed look at PAWS scores over the past three years, including the scores for language arts separated into reading and writing. As Table 1 and Figures 2 and 3 illustrate, although there is no clear upward trend, the average percent proficient or advanced over the last three years is 94 percent in reading and 96 percent in math. In both subjects, in at least one year and grade (and not necessarily the year that the state allowed students to take the test more than once, which was 2007), 100 percent of students were proficient or advanced. Palomino students are not quite as successful in writing. As Table 1 and Figure 4 show, after a general increase in writing scores between 2006 and 2007, scores fell in 2008. (This phenomenon of higher scores in 2007 was likely related to the PAWS being administered twice that year; in fact, one of the current strategies for improving writing scores, as described in a subsequent section, is to have students take practice tests before PAWS is officially administered in April.)

Table 1: Percent Proficient/Advanced on PAWS, Palomino Elementary School 2006-2008

Grade	Reading			Math			Writing		
	2006	2007	2008	2006	2007	2008	2006	2007	2008
3	81	94	89	90	98	92	65	92	60
4	94	100	94	94	100	100	86	86	76
5	92	96	98	92	96	100	64	91	72
6	87	98	100	87	100	98	75	96	81

Figure 2: Percent Proficient/Advanced on PAWS READING Tests, Palomino Elementary School 2006-2008

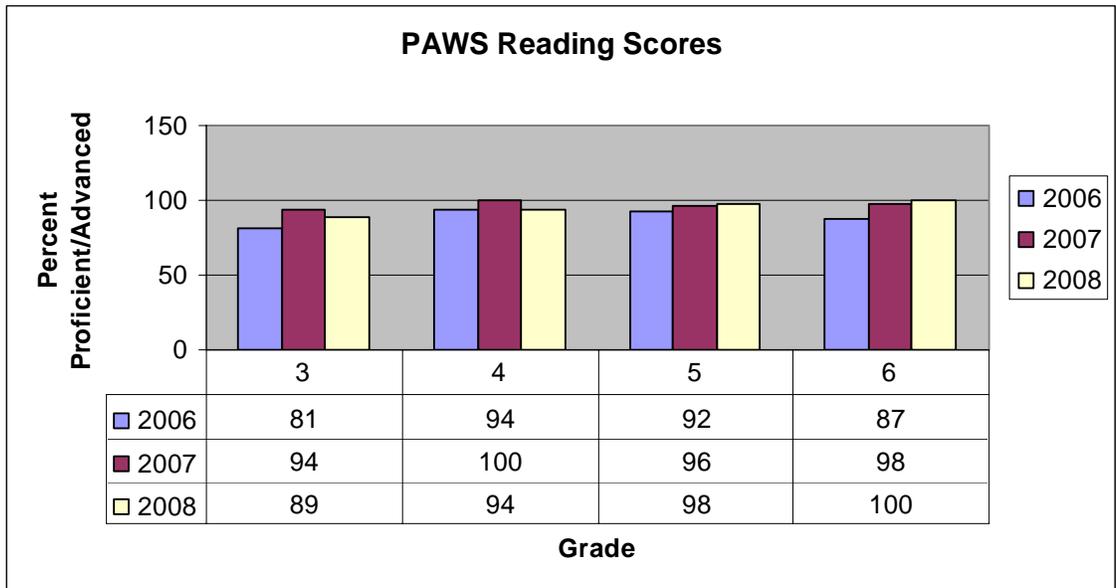


Figure 3: Percent Proficient/Advanced on PAWS MATH Tests, Palomino Elementary School 2006-2008

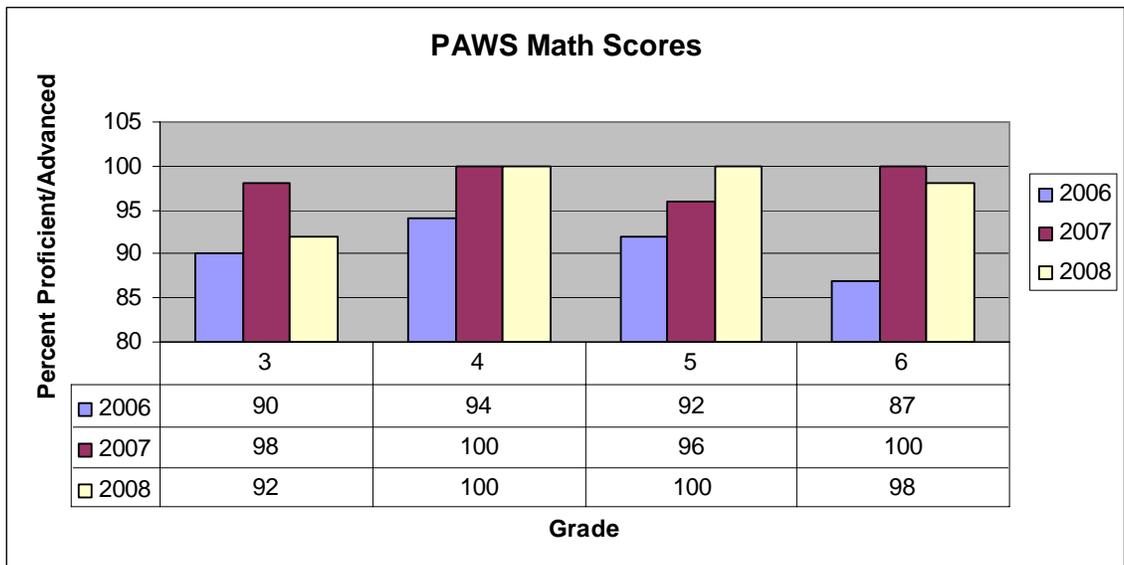
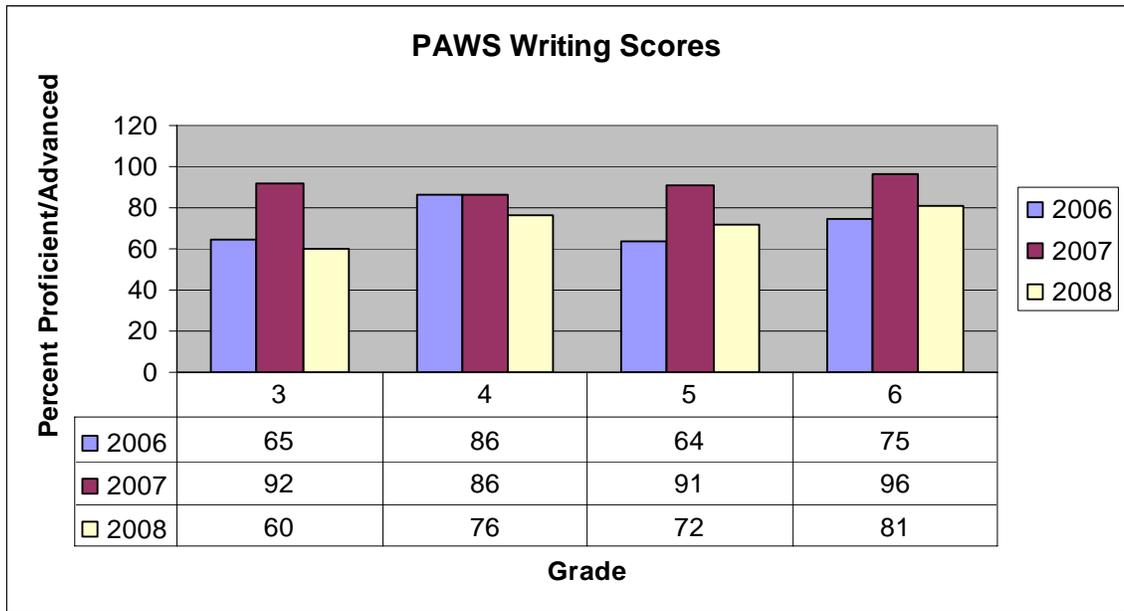


Figure 4: Percent Proficient/Advanced on PAWS WRITING Tests, Palomino Elementary School 2006-2008



The remainder of this case study tells the story behind these scores, and is divided into three major sections. The next section, section two, begins with an overall description of the educational improvement strategies that Palomino uses to help staff and students succeed and then details each of these strategies in separate subsections. Section three provides information about the allocation of resources for the strategies in use at Palomino and compares them to Wyoming model. The last section concludes the case study, highlighting the instructional strategies and allocation of resources that has led to high levels of achievement at Palomino Elementary School.

EDUCATIONAL IMPROVEMENT STRATEGIES

As detailed in this section, Palomino’s school leaders and staff employ a number of strategies to improve student achievement in writing and maintain high achievement in math and reading. The strategies are all driven by the Wyoming state standards, students’ understanding of the standards according to prior year’s PAWS test results, and a shared desire to provide a high-quality education to every student. The principal has high expectations for the staff, and teachers, in turn, have high expectations for their students. Testing is seen as a way to celebrate what students have learned, and numerous tests, both formative and summative as described below , are administered throughout the school year to provide information to teachers, parents and students about academic progress. Students are treated with kindness and respect, given high-quality instruction in the classroom, and supported with other strategies such as extended day and one-to-one tutoring as necessary. Teachers also receive a variety of supports, including a highly involved and resourceful principal, modeling and lesson planning assistance from

instructional facilitators, and time to meet with each other (in grade-level teams) each week during the regular school day. The paragraphs that follow describe the different aspects of Palomino's organizational and instructional strategies in more detail.

Setting Goals

As part of the school improvement plan developed with the input of students, staff, parents and community, the school has three goals for improvement, which also mirror the district goals:

Goal one: All students will improve their problem solving skills in mathematics.

Goal two: All students will improve their reading comprehension

Goal three: All students will improve in writing across the content areas

The third goal, regarding writing, was set in response to PAWS results: Palomino students scored lower on writing than in reading or in math.

In terms of quantitative goals, because Palomino students score higher on reading and math than writing, the goal is to raise achievement levels in writing so that at least 90 percent of students are proficient or advanced and maintain the level of at least 90 percent of students at proficiency in math and reading. Rather than striving to get more students to advanced levels on PAWS, the staff strives to broaden student knowledge beyond PAWS. The principal cites what she calls soft statistics, such as that this year five students from Palomino will go to National History Day, as evidence of the school's success in achieving this goal.

Curriculum and Instructional Approach

Reading

Like other schools in the district, teachers at Palomino use a balanced literacy approach to language arts. (This is described in detail in the Shetland District Case study.) For the reading portion, teachers use the following components: guided reading, reading independently, shared reading, and read aloud. The school does not use a reading series; instead, they have a guided reading library of books. These sets of books have been lexiled, or given a specific reading level according to accelerated reader so that teachers and students can easily select books at the appropriate reading level for each student. The school also uses Jamestown publisher, Ebsco Host, and other online sites to pull up texts appropriate to the level of the student. Staff is careful to select books for their classrooms that are appropriate for all readers in the room, and they meet in vertical teams to select books for read aloud so that they are not redundant from year to year. The principal has made it clear that although other schools in the district use them, basal readers are not a part of the Palomino approach. However, teachers utilize Stephanie Harvey's Strategies that Work for teaching comprehension as well as Lindamood Bell Learning Processes. New teachers are encouraged to use Great Source, a more prescriptive program that includes coaching and materials, for the first nine weeks.

Math

For math, Palomino was the first school in the district to adopt the Bridges curriculum nine years ago. The principal and teachers selected the curriculum nine years ago when they decided that the curriculum being used by the district did not fit their needs. (All elementary schools in the district subsequently adopted Bridges for the primary grades, Everyday Math for grades 3-5 and Connected Math for grade 6.) The principal emphasized the fact that the teaching staff has a lot of expertise in mathematics – teachers with degrees in mathematics – and for many years they have been focused on problem solving. The school has a constructivist approach to math; rather than teaching algorithms, or problem-solving strategies (like estimation), they teach math via problem-solving to teach the skill within a real problem. For example, in order to understand how large the stimulus package was, the 6th grade took newspaper words and figured out how big the stimulus would be in area, and then hung all the required newspaper in the hallway to demonstrate how large it is.

In the primary grades, Palomino teachers emphasize number sense, as suggested by both research and a need identified from the prior years' PAWS test scores. Although Bridges addresses number sense to some extent, teachers supplement the curriculum with other material to ensure that their students develop a full understanding of number sense. For example, using both wall displays and everyday opportunities in the classroom, the primary teachers work to build student's math vocabulary showing and saying that 10 and 9 are 19.

Writing

Writing is emphasized across the curriculum and is evaluated, as at other schools in the district, using the Six Traits of Writing, which include Word Choice, Sentence Fluency, Conventions, Ideas, Organization and Voice. Because the Six Traits are more about assessing writing than teaching it, the school has adopted the Lucy Calkins Step Up to Writing program for teaching writing. This includes a number of different strategies used in all subjects across the curriculum including giving students writing prompts, mini lessons in writing just like in guided reading, and helping students master the type of writing tested for that particular grade on PAWS. For example, third graders are assessed on the friendly letter, fifth graders are assessed on the descriptive paragraph.

The staff has worked hard to define essential skills across all grades and have also developed pacing guides to go along with the documents defining essential skills. (Both the essential skills and the pacing guides were developed at the school site. See the appendix for an example of the pacing guide.) Teachers backward mapped the essential skills off of the WY standards, so the combination of the essential skills and the pacing guides provides teachers with a comprehensive list of what needs to be taught, when, and which assessments line up with each unit.

The district's use of the Danielson Framework, and in turn, the school's use of it as an evaluation tool, also shapes the school's view of instruction. When asked about the view

of instruction at Palomino, a number of teachers mentioned the Danielson framework as a written documentation of their shared view of good instruction. The principal emphasized the school's embracing of Classrooms that Work by Patricia Cunningham, and noted that the key to good instruction is making the student responsible for their learning.

Data-Based Decision making

Student achievement data is carefully analyzed and used to make decisions in a number of different areas at Palomino. For each tested subject, math, reading and writing, school leaders established documents called assessment timelines and procedures to map out all the types of assessment throughout the year for each subject in each grade. The full procedure for reading, the most comprehensive system in place at Palomino, is described below (a copy of the document can also be found in the appendix), followed by some information about mathematics and writing assessments. (The appendix also includes a list of test acronyms for reference.)

As described above, Palomino has a comprehensive system in place for tracking student progress in reading. At the beginning of the school year, staff members review the PAWS scores from the previous year for students in grades 4-6 and identify students who may require extra help. They also administer a series of tests that they refer to as the fall summative assessments. Some tests, such as the CLIP assessment for first graders, is administered district-wide (this program is described in more detail in the Shetland District case study as it is an intervention available at all elementary schools), and some are specific to the school, such as the AIMS-Web fluency assessments. Students in grades 2-6 are tested with STAR for Vocabulary, and the information from this test is then used to set Accelerated Reader goals. All students in grades 2-6 are also tested with DORA, which is the district reading assessment. (Although DORA also tests for fluency, AIMS-Web was selected because the information about student learning gleaned from the tests can be immediately fed back to teachers and applied in classrooms.) Some students are given running records if the teacher feels more information is needed. Running records involves assessing a student's reading performance as she/he reads from a benchmark book.

The process of using these data to inform teaching is also specified in the timeline and procedures document (found in the appendix). The document states that whole group assessment data (this includes all tests given to all students in a particular grade) are analyzed to help determine instructional focus in grade-level PLC groups, and individual student scores should be analyzed for instructional focus. Teachers are also expected to identify class and individual instructional priorities, including identifying which students should be considered "intensive" and "strategic" for AIMS progress monitoring and additional instruction. Intensive and strategic are also referred to as Tier 1 and Tier 2 interventions, respectively. Students identified as intensive are then progress monitored weekly using AIMS. Those students identified as strategic are progress monitored monthly using AIMS. The at-risk students who were given running records plans are monitored either weekly or monthly depending on their needs. The RTI (Response to Intervention) team then reviews the progress on AIMS of the students identified as

intensive or strategic on AIMS at least once a month. If a student is not meeting the trend line within six weeks, the intervention is either changed or an additional intervention is put in place.

At the end of second quarter, all students are assessed again with AIMS fluency, and grades 2-6 are tested with STAR for Vocabulary and DORA. Students for whom Running Records are being used to help monitor improvement are tested on this as well. As they did after the fall assessments, staff then meets to review whole group assessment data for adjustment of instructional focus in their grade-level PLC groups. In March or April (the test window is between March and April) students take the PAWS exam. At the end of the last quarter, students are given the same tests (STAR, DORA, AIMSweb) so that information on student progress in reading has been captured for the entire school year.

This process of using multiple formative and summative assessments allows teachers and students to know exactly where they are at the beginning of the year so that they can then track progress throughout the year. In some classrooms, students are using data notebooks – a way of having students directly involved in tracking their progress. Data notebooks are being piloted this year, and thus far teachers report that they have been very positive in terms of the ability to engage students in their learning process. At Palomino, this is the way things are almost always done: if the principal or a teacher has an idea that they want to implement, it is piloted in a few classrooms first, and then those classroom teachers report back on the results to the rest of the staff before the decision is made to move to full implementation.

Other assessments are also used to gauge progress in mathematics, and new ways of doing this are continuously added at Palomino. For example, this year, Palomino's instructional facilitator for primary math decided to give last year's version of the district summative assessment of mathematics to all kindergartners before the actual district-administered assessment. She did so, with buy-in from the teachers (the decision was made during a PLC meeting involving the coach and two kindergarten teachers), so that they would have the data to be used in a formative way – to modify instruction in the classroom or modify interventions for specific students. The instructional facilitator tested each student so that the teachers would not be taken away from their regular instructional duties, and then displayed the results according to a four category rubric and gave it to the teachers. The instructional facilitator then met with the teachers to discuss the results, talk about what interventions some of the students might benefit from, and when they might administer the test again to ensure that the interventions they put in place were effective. The teachers were also happy to have the data because they were beginning to make decisions about which students to recommend for retention, and they felt much more comfortable communicating with parents when they could supplement their observations with data.

As mentioned previously, because of the lower test scores in writing, the principal and instructional facilitator implemented another layer of testing in writing so that students could practice before taking PAWS. As described in the next section, teachers received extensive training in how to grade writing assessments and were given the time to do so,

ensuring that adding this layer of testing would not detract from classroom time available to devote to writing instruction.

Professional Development

Professional development for staff has been an important factor in the success at Palomino. Although the district generally controls the content of the six student-free professional development days, the principal builds time into the calendar during the school year when subs release teachers for site-based professional development. (Not all of the teachers are released at the same time, at most it is all the primary teachers or all of the intermediate teachers. Also, the school selects its substitutes as carefully as possible to help ensure that students receive instruction during this professional development time.) She finds that half-days are the most productive amounts of time for teachers to work together on projects such as defining essential skills and creating pacing guides for each grade that include these essential skills.

When the PAWS scores came out and Palomino students had not done as well on writing, the principal worked with the instructional facilitator to address the problem in multiple ways. One was for the instructional facilitator to model how to teach writing and to observe and help teachers implement Step Up to Writing in their classrooms. The other was to implement a system for giving students practice tests in writing. In order to do this, the instructional facilitator came to several staff meetings (these weekly meetings are called staff development meetings because they are only used for professional development) and gave teachers a stack of papers to grade, and then they discussed how they scored them and how they could score them so that they were consistent across classrooms. Then, after their students took the writing practice test, teachers were given a half-day in which to score the exams – they were not expected to just absorb this time consuming process into their already busy teaching loads without being given more time.

Each week, grade-level teams have at least one opportunity to collaborate around instruction during the regular school day. Vertical teams also meet once a week, sometimes in the form of the 3rd and 4th grade teachers meeting and the 5th and 6th grade teachers meeting, or it might be primary and intermediate in two separate groups. In addition, teachers are constantly talking about instruction during all times of the school day, including before and after school, in short, informal intervals.

The instructional facilitators are an important part of the overall professional development strategy. The school is allocated 0.8 instructional facilitators which is divided between four people: two literacy instructional facilitators, one for primary and one for intermediate, and two math facilitators, one for primary and one for intermediate. These facilitators are all shared with other buildings. Teachers commented that all of the facilitators were viewed as instructional leaders and cited by multiple teachers as instrumental in helping improve instruction in their classrooms. For example, a teacher who switched grades was grateful for the help from the instructional facilitator on what needed to be taught at that grade level and how to do it. (This collaboration included planning together as well as the instructional facilitator modeling in her classroom and

then observing and providing feedback when the teacher taught a similar lesson.) The math instructional facilitator also works with multiple buildings but is also viewed by teachers as an instructional leader and an example was given above about her role in assisting teachers.

While the principal said that the expectation is that all teachers will work with instructional facilitators, the facilitators reported that they work with teachers when teachers request help, providing anything from help planning a lesson, to modeling in the classroom, to help with how to grade assessments. They also meet with teachers during their collaborative planning time, helping to frame the discussion, give examples, bring resources and any number of other supports for improving classroom practice. The two kindergarten teachers, for example, meet with the math coach weekly during their collaborative time. As mentioned above, instructional facilitators also work with teachers during staff development time; this is one means through which they can reach the teachers who do not necessarily request their help.

Although they cannot afford to do it every year, (they must apply to the district and Title I schools take precedence) last year Palomino's principal and teachers attended a one-week summer institute to learn more about the Lindamood Bell reading program (<http://www.lindamoodbell.com/>). This has been implemented in grades K-2, with teachers using strategies such as visualizing and verbalizing.

School Time

At Palomino, the emphasis is on instruction in math and reading, though not necessarily in long blocks of time since teachers and school leaders have consulted the research and learned that students, particularly in the primary grades, need breaks in order to function at high levels. Social studies and science, particularly at the primary level, are woven into reading and math instruction, as is writing. At the intermediate level, writing makes up a more central piece of the instruction students receive since they are expected to know and be able to demonstrate those skills on PAWS.

Teachers devote at least 60 minutes a day to math, utilizing different strategies at the different levels to engage all learners. Teachers differentiate instruction in their classroom, often with the help of another adult such as a student teacher or para-educator. For example, in the 5th grade math classroom, if a group of students is struggling with a concept in geometry, the teacher might work with that group to ensure that they master the concept while the higher achieving students play a related math game. In another instance in the same classroom, the student teacher worked with a group of struggling students on a math game to work on their skills while the teacher working with the higher-achieving students.

Extra-Help Strategies for Students

The emphasis on use of data to monitor progress means that students who need extra help are identified early and often. The school has implemented an RTI (Response to

Intervention) model. As described above, the results of previous year's PAWS scores may place students into one of two categories of students in need of extra help: strategic (tier one) or intensive (tier two). Those classified as strategic are then progress monitored monthly and given interventions, such as extended day, either before or after school for 30 minutes with a certified teacher, which they are placed in for six weeks and then retested to see if they need to remain and/or require a supplemental intervention such as CLIP, the one-to-one, reading recovery pull-out program where a regular classroom teachers serves the three students most in need of help each semester. (As described in the district case study, the district allocated a 0.5 FTE CLIP teacher at Palomino who can either do the CLIP intervention or take over the classroom so that the teacher can do the intervention.) In addition, a core skills tutor, who is not a certified teacher, comes to the school for 2 hours each day to work one-on-one or with small groups of students.

Interventions are also offered in mathematics. Some are within the classroom, such as the teacher taking a small group of kids and working with them on a concept they haven't mastered while the higher group plays a math game, for example. Some interventions are outside the classroom. A core skills (reading and math) tutor, who is a certified teacher paid for with the school's PLC grant, works with struggling students for two hours each day.

The extended day program mentioned above is paid for through a grant from the school district. The program focuses on reading and writing, and takes place before and after school. Reading instruction is offered before school from 7:30am-8:30am Monday through Thursday, and writing is offered on Wednesday and Thursday from 7:30am-8:30am or 3:15-4:00pm. The program is staffed by six teachers and one paraprofessional.

Summer School is provided by the district, and is described in the Shetland District case study. Teachers at Palomino see it as a part of the interventions available for struggling students. They can recommend that their students attend summer school on the basis of their test scores by filling out an Individual Learning Plan (ILP), which details what the teacher has tried in the classroom context, the interventions that the student has had, and the remaining learning issues of that student.

Creating Professional Learning Communities

As described in the district case study, creating professional learning communities (PLCs) in its schools has been an ongoing initiative in Shetland County School District #1. To support the development of PLCs, the district has provided extensive professional development, offered resources in the form of PLC grants, and required schools to give teachers weekly in-school time to meet in their PLC groups. With this high degree of support and several years of implementation, PLCs at Palomino now function as intended by the DuFours, experts on the subject that the district has brought in as a part of the professional development. That is, PLCs are groups of teachers who meet at least once a week for an hour with their grade-level teams and engage with student performance data and talk about how those data can be used to shift the instructional focus or lead to the use of a different instructional strategy.

Teachers feel free to come into one another's classrooms, knowing that observing another teacher is an excellent way to learn. As a result of all of the openness and collaboration, teachers are engaged in their work, excited to talk to each other about new instructional strategies, what works with a certain student, or how an intervention could be altered to help a student who isn't progressing. Since the expectation is that all adults are learning, there is little defensiveness when a teacher does need to improve on something. Instead, they are supported and embraced as an essential part of achieving the overall goals of the school.

Instructional Leadership

The principal of Palomino Elementary has been at the school for 11 years. Prior to this position, she was a principal in a high-needs school. She noted that when she came to Palomino, a school that had the reputation of being the place principals come to retire, she brought with her all of the high expectations, rigorous research-based practices, strong work ethic, and no-nonsense management style that had served her well in the high poverty school from which she came. Over time, the principal noticed a cultural shift taking place at Palomino. Slowly teachers learned that their new principal expected more of them, but, as teachers stated in interviews, they also learned that the principal would go to great lengths to support them in stretching to reach their highest potential.

Because of this, teachers noted, they came to rely on her deep well of expertise and knowledge of education research, and trust that they could take chances and make changes that would benefit not only the students but also themselves. She makes a point to visit every classroom at least once a day, and as she says, "take the temperature of the room," meaning checking to see that teachers are respectful, enthusiastic and students are engaged. She also does more formal observations and then conferences with the teacher afterward asking "What do you think I saw today?" She understands that everyone has an off day sometimes and gives teachers the right to say "not today" when she comes in to do an informal observation, but she has made it clear that she will be back with in the next couple of weeks to do the observation. The principal also strongly believes in giving positive recognition to "classrooms that work."

Her philosophy is threefold: 1) Students first; 2) If it is working keep doing it; and 3) Smarter not harder. I observed her embodying the first part of this philosophy – greeting kids by name every day in the halls and talking about student's best interests when describing decisions she made. I also heard from teachers that they feel both challenged and supported by their principal, and the principal emphasized that she offers that support and continued resources as long as teachers are getting results. An example of this is providing the intermediate teachers who had just given their students a practice writing test a half-day to grade all of the assessments, rather than expecting that they do it on their own time. Another example is encouraging teachers to target assignments and homework so that they are not correcting non-important work, but rather, be careful about what they assign

Teachers also play an important role in instructional leadership at Palomino. For example, a RTI (Response to Intervention) team is comprised of experienced general and special education teachers who provide leadership about how to respond to student needs. Instructional facilitators in the school are also instructional leaders – teachers look to them to learn from their expertise and value their role at helping them continue to grow as teachers.

As described in section one, district leaders are actively engaged in instructional improvement and their support and leadership has been an enabling factor in Palomino’s success. From the development of PLCs to their involvement in ensuring that instructional facilitators provide high-quality support, district leaders have helped raise the level of professionalism around teaching at Palomino.

External Professional Knowledge

As mentioned above, the principal is an avid consumer of education research and she continuously brings the latest research to her staff. In addition, instructional facilitators are used as experts to train teachers in how to implement more powerful instructional strategies in reading and math. The principal works closely with the district, teaching a course on WY standards, and managing the mentoring program in the district. District leaders have brought a number of experts, including Jim Knight, to work with instructional facilitators and with principals on how they can support the instructional facilitators in their school, and the DuFours, to help teachers fully understand Professional Learning Communities (PLCs).

To aid teachers in implementing an emphasis on number sense, they brought in someone from Boulder who was one of the authors of Connected Math. Similarly, to help teachers implement the Investigations portion of the math program, they brought in someone from the company to work with teachers on how to implement it.

Other Practices Specific to this School or District

The hiring process at Palomino is an important piece of its high-expectations, high achieving environment. When a position comes open at Palomino, a team of teachers and the principal get together and define who and what they are looking for in the next person, making sure to include any qualities of the departing staff member that are an important part of the Palomino community will be shared by the new staff member. In addition, the principal spoke the school’s embodiment of the Native American Legend that asks “who speaks for wolf?” – the strong, shared belief that Palomino needs to have someone on staff to represent all aspects of the community. Teachers who interview at Palomino immediately recognize that it is a school in which all staff members are expected to work hard, embody lifelong learning, collaborate with each other, and expect to have all of their students achieve at high levels. This process of interviewing prospective candidates helps ensure that all staff are committed to the school’s mission and goals.

The subsections above described the many ways that Palomino supports teachers and students to continuously improve their performance. The section that follows describes the allocation of resources at Palomino, and compares them to the WY model.

ALLOCATION OF RESOURCES

This section describes the allocation of resources at Palomino Elementary School and compares those resources to the resources in Wyoming model in table format. A discussion of the alignment of resources to the model follows in Table 1. (Note: special education resources, though fully reimbursed by the state, are not part of the funding model and therefore do not appear in the left hand column below.)

Table 2: Allocation of Resources at Palomino compared to WY model

Staffing Category	WY Funding Model	Actual
Enrollment	329.701	330
Core Academic Teachers	20.61	15
Specialist & Elective Teachers	4.12	3.1
Alternative Teachers/ Small School Teachers	0	0
LIBRARY STAFF		
- Librarian/Media Specialist (Certified)	1.14	0
- Library/Media Tech Aides (Non-Certified)	0	1
EXTRA HELP		
- Certified Teacher Tutors for English Language Learners	0.09	0
- Certified Teacher Tutors for At-Risk Students	1.14	0.5 (CLIP)
- Non-certified Tutors		0.25 (core skills tutor)
- Resource Room Teachers (non-special education)		0
- Resource Room Aides (non-special education)		0
- Special Education Teachers		1
- Special Education Aides		2
- Gifted & Talented Teachers		0
- Gifted & Talented Aides		0
- Gifted & Talented Funds	\$9,281	0
- Extended Day		\$9,383 for teacher and aide time
- Summer School		district

Staffing Category	WY Funding Model	Actual
PROFESSIONAL DEVELOPMENT		
- Total # of Professional Development Days	10	6**
- Instructional Facilitators	1.28*	0.8
- Teacher Time (Substitutes & Stipends)	\$37,122	\$2,000
- Trainer/Consultant Funds		(use ifs)
- Materials, Equipment & Facilities		\$750
- Travel & Transportation		\$500 (district pays most)
- Tuition & Conference Fees		(district pays)
Other Instructional Staff		
- Building Substitutes & Other Substitutes	0	0
- Instructional Aides	0	1.7
- Supervisory Aides	2.29	1.3
Student Support		
- Counselors	1.14	0
- Nurses		0.5
- Social Workers		0.3
- Psychologists		0.3
- Speech/ OT/ PT		.35
- Health Assistant		0
Administration		
- Principal	1.14	1
- Assistant Principal	0	0
- Secretary	1.14	1.5
- Clerical	1.14	0

*Amount that was funded in 2008-09.

** This does not include summer training; some years staff receive it and some they do not.

As shown in Table 2, there are some differences between the model's allocation of resources and the way resources are allocated at Palomino. For example, the model allocated 20.61 core and 4.12 specialist teachers for 2008-09, the school had 15 core teachers and 3.1 specialists. This difference can partially be explained by the school having higher class sizes than the 16 students on which the model bases core teacher allocations; the lowest class size at Palomino is 17 students and the average is 21. Another difference is that rather than staffing the library with a certified librarian, the school, like others in the district, staffs it with a para-educator.

In terms of resources allocated to certified teachers providing one-to-one tutoring, the model allocates 1.14 FTE for Palomino but the school has only 0.5 FTE dedicated to this practice. (This is the .5 CLIP tutor that the district allocates which is described in more detail in the Shetland District case study.) The school also hires what they call a core skills tutor to work one-on-one with students for 2 hours each day, but this tutor is not a certified teacher.

Although the model allocates funds for gifted and talented, no such funding is allocated at the school level. The amount of funding allocated by the model for professional development looks significantly higher than that allocated by the school, but this is difficult to compare because most of the money spent on professional development is at the district level. However, the number of days dedicated to professional development for Palomino teachers (and all other teachers in the district) is significantly fewer: 6 as compared to the 10 allocated by the model. (This does not include the half days for teachers discussed above; since substitutes are required to provide this professional development it is not part of the intended 10 student-free days added to the teacher contract in the model.) Finally, the school has slightly greater numbers of aides and student support than allocated by the model, but slightly fewer secretaries and clerical workers.

SUMMARY

As this case study has described, Palomino Elementary school has implemented numerous research-based practices that help its teachers and students reach high levels of achievement. These practices range from hands-on instructional leadership characterized by daily walk-throughs, staff meetings led by instructional facilitators and focused on instruction, on-site coaching in reading and math, collaborative time for grade-level teacher teams to meet during the regular school day, and many others strategies described in the preceding sections. These strategies are all funded by the model the state uses to generate funds for each school, but in some cases, as noted above, the actual allocation of funds is different than the model intends for a school of this size.

Appendix

Tests:

PAWS: The Proficiency Assessment of Wyoming Students (PAWS) is a summative statewide assessment, administered between March and April to students in grades 3-8 and grade 11 in a mix of online and print formats in reading, writing, math, and recently, science.

CLIP: Collaborative Literacy Intervention Project. This program, designed in Tempe, Arizona, involves the use of certified teachers in a one-on-one program to bring up the bottom quartile of first grade to grade level. At the beginning of the year, teachers test all the students and then rank the kids, identifying and beginning with the students who need the most help. The strategy includes 60 lessons, and then the teacher moves on to another student who needs it.

DIBELS –Dynamic Indicators of Basic Early Literacy Skills (DIBELS), short (one minute) fluency measures used to regularly monitor the development of early literacy and early reading skills.

DORA: District Oral Reading Assessment administered quarterly to students in grades.

AIMSweb: AIMSweb is a progress monitoring system based on direct, frequent and continuous student assessment. The results are reported to students, parents, teachers and administrators via a web-based data management and reporting system to determine response to intervention (see <http://www.aimsweb.com/>).

STAR: There is a math and a vocabulary portion of this test, also administered quarterly, to students in grades 2-6, which helps locate the student's skill level for use with the Accelerated Reader and Accelerated Math programs.

Running Records: This test is used for students who need more comprehensive services in reading. It involves assessing a student's reading performance as she/he reads from a benchmark book.

Elementary

Reading Assessment Timeline and Procedure: 2008-2009

Assessment Timeline and Procedures:

Summative Assessment Triangulation:

Grade	Kindg	1st	2nd	3rd	4th	5th	6th
Assessments	AIMS PAWS DORA	AIMS CLIP AIMS DORA	AIMS DORA STAR	PAWS AIMS DORA STAR	AIMS DORA STAR	AIMS DORA STAR	AIMS DORA STAR

Fall Summative Assessment

- Review PAWS scores in 4th through 6th: Identify students who may be at risk and those who may need enrichment.
- Additional summative assessments
 - Assess all students in first grade with CLIP assessment
 - Assess all students with AIMS fluency (Both one minute read and maze)
 - Assess all students in grades 2-6 with STAR—(Vocabulary). Use information to set Accelerated Reader Goals.
 - Assess all students in 2nd through 6th grades with DORA
 - Optional: Running record for additional information
- Analyze whole group assessment data for instructional focus in grade level PLC groups. Analyze individual student scores for instructional focus.
- Identify class and individual instructional priorities.
- Decide which students should be considered intensive and strategic for AIMS progress monitoring and additional instruction (Tier 1 or Tier 2).

1st Quarter Summative Assessments

- Progress monitor weekly students identified as intensive in AIMS.
- Progress monitor monthly students identified as strategic in AIMS.
- Administer running records weekly or monthly with identified at-risk students.
- Review progress of students identified as intensive or strategic on AIMS at least once a month by RTI Team. If student is not meeting the trend line in 6 weeks, either change intervention or an additional intervention is put in place (Decision is made by the RTI team—teacher is a part of that team).

2nd Quarter Summative Assessments

- Progress monitor weekly students identified as intensive in AIMS.
- Progress monitor monthly students identified as strategic in AIMS.
- Administer running records weekly or monthly with identified at-risk students
- Review progress of students identified as intensive or strategic on AIMS at least once a month by RTI Team. If student is not meeting the trend line in 6 weeks, either change intervention or an additional intervention is put in place (Decision is made by the RTI team—teacher is a part of that team).

End of 2nd Quarter Summative Assessments

- Assess all students with AIMS fluency (Both one minute read and maze)
- Assess all students in grades 2-6 with STAR—(Vocabulary). Use information to set Accelerated Reader Goals.

Math			
Topics/Themes/Essential Questions	Review Whole Number Concepts & Skills Extend data analysis & probability		
	Quarter 1		
	Essential Outcomes		
		Students will:	
	Content	Skills	Teacher's Lesson Guide
	Whole Numbers	<ul style="list-style-type: none"> ❖ Read & write whole numbers in word, standard, & expanded form ❖ Add & subtract four digit numbers ❖ Multiply by two digits ❖ Divide 3 digits by 1 digit ❖ Recite basic multiplication & division facts through 9 	
	Data Analysis & Probability	<ul style="list-style-type: none"> ❖ Find & interpret mode ❖ Predict probability ❖ Record data in bar graphs 	
Common Assessments	Summative: <ul style="list-style-type: none"> • Star Math • District Fluency 	Formative: <ul style="list-style-type: none"> • District Whole Number & Data Analysis and Probability Assessments 	

Arabian Elementary School: A Case Study of Instructional Improvement Efforts and Resource Use

INTRODUCTION

Arabian Elementary School serves 162 students in grades K-6. Arabian is located in Shetland County School District. Seventy-one percent of the school's student population qualify for free or reduced price lunch, and 6.75 percent receive special education services. Forty-nine percent of students are Hispanic and 44 percent are White. Less than one percent of students are officially classified as English language learners. Arabian's class sizes for the 2008-09 school year are as follows:

- Kindergarten = 21
 - 1st grade = 21*
 - 2nd grade = 21*
 - 3rd grade = 23
 - 4th grade = 13 in one; 9 in the other
 - 5th grade = 25
 - 6th grade = 23
- *An additional teacher is shared across 1st and 2nd grades to reduce class sizes during instructional time.

The purpose of this case study is to describe the instructional and organizational strategies that teachers and school leaders use to help students achieve at high levels and identify how resources are allocated to support those strategies. The remainder of this introduction provides student test scores for the past seven years.

STUDENT TEST SCORES

For the 2005-2006 school year, Wyoming state officials changed the standardized test administered to students from WYCAS (Wyoming Comprehensive Assessment System) to PAWS (Proficiency Assessment for Wyoming Students). Though the tests are not directly comparable, examining the test scores for students at Arabian Elementary School over the past seven years allows one to examine scores over a longer period of time. Figure 1 shows the average WYCAS score for 3rd-6th grade Arabian students on Reading and Math between 2002-05. As illustrated by the Figure, no clear trend was present in either subject – both had a rise and a decline.

Figure 1: Percent Proficient and Advanced on the WyCAS Test, Arabian Elementary School, 2002-2005

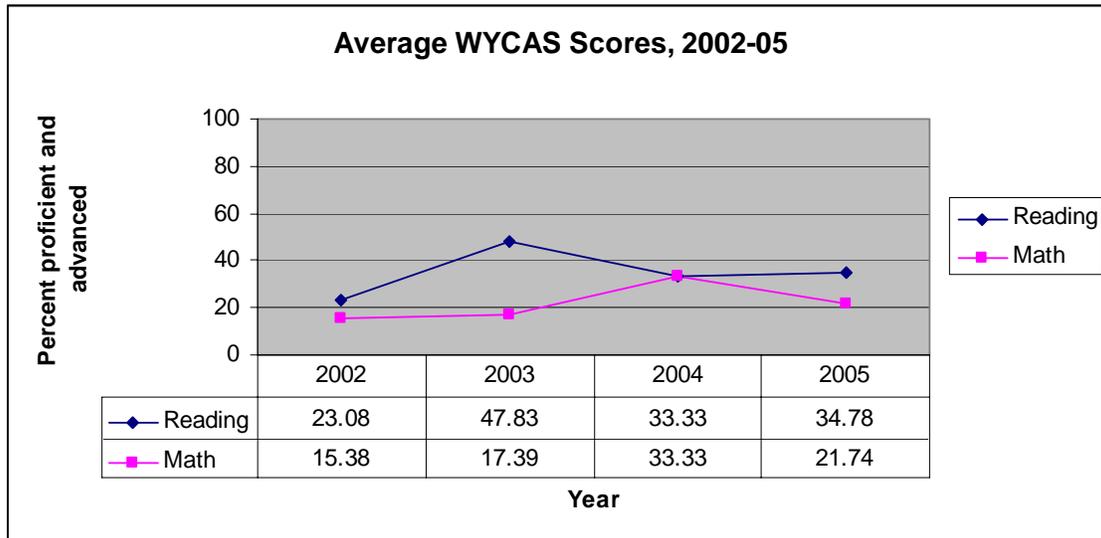


Figure 2: Percent Proficient and Advanced on the PAWS Test, Arabian Elementary School, 2002-2005

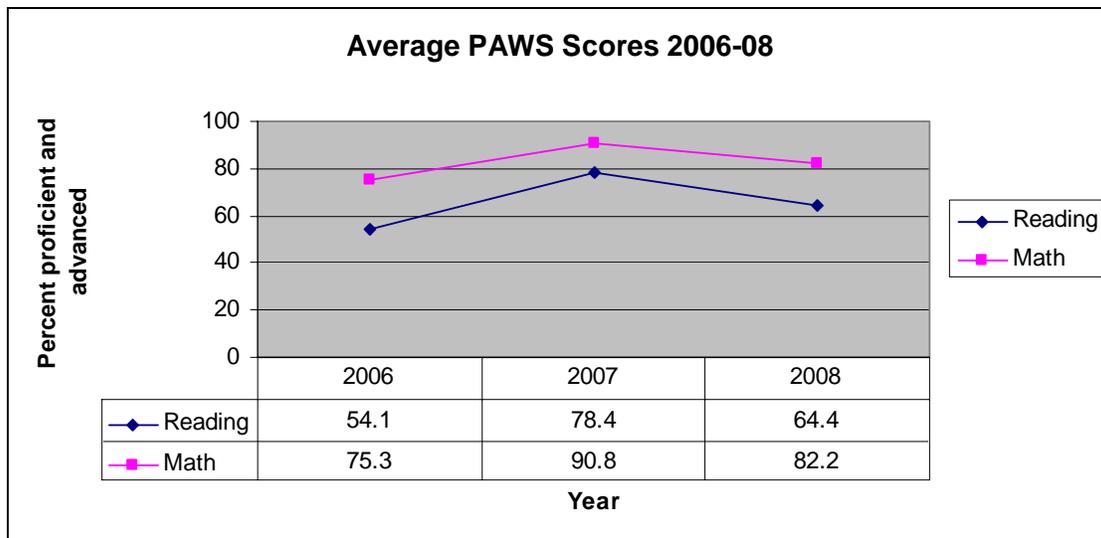


Figure 2 shows the average PAWS score for 3rd-6th grade Arabian students between 2006-2008. The test was administered twice during the 2006-07 school year, causing higher test scores across the state in that year, so the only the scores from 2006 and 2008 are reliable. Even without considering the 2007 scores, however, student achievement in both math and reading went up between 2006 and 2008; math by 10 points and reading by 7 points.

The remainder of this case study tells the story behind these scores, and is divided into three major sections. The next section, section two, begins with an overall description of the educational improvement strategies that Arabian used to help staff and students succeed and then details each of these strategies in separate subsections. Section three provides information about the allocation of resources for the strategies in use at Arabian and compares them to Wyoming model. The last section concludes the case study, highlighting the instructional strategies and allocation of resources that have led to improvement at Arabian Elementary School.

EDUCATIONAL IMPROVEMENT STRATEGIES

At Arabian Elementary School, the principal, teachers, students and their parents are all committed to high levels of student achievement. The principal has high expectations for teachers, teachers have high expectation for students, and everyone agrees that parents play a vital role in student success. Further, a number of strategies, including mandatory nightly reading logs and parent standards night, are in place to ensure that parents are active participants. A variety of strategies are in place to help students succeed, including small group instruction with a certified teacher, extended time to ensure that students have learned the skills being taught, the opportunity to attend homework academy and many other strategies described in the subsection on extra help below. Teachers at Arabian describe their professional culture as collaborative, collegial, challenging and satisfying, and attribute much of what is positive about the school to strong, consistent leadership from their principal. The following subsections describe these and other strategies in more detail.

Setting Goals

The numeric goals for student achievement at Arabian Elementary are the same as the AYP goals, which students have already surpassed and therefore these goals are not meaningful. For example, for 2009, the goal in language arts is for 70 percent of students to reach proficiency; the percent proficient in 2008 was 76.3 percent. In math, the goal for 2009 is for 60 percent of students to reach proficiency; in 2008, 82 percent of students had reached proficiency. The school also strives to meet the district goals, which include:

Goal one: All students will improve their problem solving skills in mathematics.

Goal two: All students will improve their reading comprehension

Goal three: All students will improve in writing across the content areas

The principal also mentioned the goal of providing all non-proficient students with a second, third, and fourth intervention to increase their chance of reaching proficiency.

Curriculum and Instructional Approach

Like all other schools in Shetland County School District, Arabian uses a balanced literacy approach to reading, which is described in more detail in the district case study. In terms of the reading portion of balanced literacy, teachers at Arabian use the following components: guided reading, reading independently, shared reading, and read aloud. The school does not use a reading series; instead, they have a guided reading library of books. These sets of books have been lexiled, or given a specific reading level which is then matched to readers.

At Arabian, teachers are trained in four of the six components of Lindamood Bell (<http://www.lindamoodbell.com/>), including LIPS, a phonetic component; Seeing Stars – also phonics but with comprehension; VV – visualizing and verbalizing (2nd grade and up), and Talkies – trying to get kids who have trouble verbalizing to talk. Teachers emphasize how helpful it is that students receive consistent messages on guided reading strategies throughout each grade, which facilitates their learning. Teachers also emphasized how different these strategies are from the ones they used years ago – students do not sit in rows anymore and are often encouraged to discuss with each other.

In teaching students to write, teachers at Arabian are trying out parts of the Lucy Calkins Step up to Writing program and teach the Six Traits of Writing, which include Word Choice, Sentence Fluency, Conventions, Ideas, Organization and Voice. To familiarize students with the expectations for each trait, rubrics are given to students in various ways at various levels. For example, in the sixth grade, the teacher uses the PAWS rubric to grade their writing so that students can see how they are doing in terms of the PAWS expectations all year long. In the second grade, the teacher gives students a handout that displays the rubric for their particular grade level to use as a reference when working on their own writing. For example, during a second grade writing lesson, the teacher began with the whole-group in a circle around an easel. She wrote the prompt: “Wonderful Writers Always Remember:” and asked students to think about it. Then she asked for volunteers to say one thing wonderful writers always remember. She listened carefully to what each student said, and if the student did not fully communicate what they were trying to say, for example, a student said “to capitalize” and when she asked what needed to be capitalized, the student didn’t know.

The teacher then suggested that he turn to his neighbor to see if he could help. The teacher was enthusiastic and engaged and used humor to keep the students focused. For example, when a student said “penmanship” she wrote penmanship on the easel and then wrote “no sloppy copies” in sloppy writing and then crossed it out. After they had compiled a list of what wonderful writers always remember, the teacher asked students to put their thinking caps on and decide which component they were going to focus on. She explained that students would be working on their personal narrative with their rubrics out and next to them while they work, and if they had chosen to work on punctuation, for

example, that would be the focus. The teacher then said “Be at your desk with your folder by the time I finish my song” and sang “Twinkle Twinkle Little Star” while they made their way back to their desks. The students were then divided into three groups according to their ability, and each group of approximately six students worked with a certified teacher.

For math, Arabian, like all the other schools in the district, uses Bridges in K-2, Everyday Math in grades 3-5, and Connected Math in grade 6. These are all part of the same series targeted to different grade levels. Connected Math is for use in grades 6-8, so when students leave Arabian, they continue to use that series at the junior high they attend. In all grades, the expectation is that teachers will be alert to where their students need more practice with a specific skill, and they supplement with many other materials, including the old textbook series, Saxon Math, a computer program that generates specific types of problems for kids, and many other examples from real life. Teachers emphasize problem-solving, which the series that the district adopted (Bridges, Everyday Math, Connected Math) facilitates.

In terms of defining essential skills, because Arabian is a single section school, it was more difficult for them to go through the collaborative process of defining these skills that other schools in the district have gone through. This year, with the district newly organized into geographical triads, teachers were able to meet with other teachers at their grade level during a meeting of the South Triad, of which the school is a member. Teachers reported that the triad arrangement and the collaboration it enabled has been very powerful, and that their version of essential skills was similar to that of other schools in the triad.

When asked to define what good instruction looks like at Arabian, the principal noted a focus on data-driven instruction and use of PLCs to facilitate that focus. When teachers were asked the same question, they talked about the staff having a general consensus that it is not programs that make for great teaching. Instead they emphasized that while they utilize the district wide, research-based curricula, masterful teachers will take bits and pieces from all types of programs that are going to be beneficial for the particular kids in their classroom in a given school year. As described in the next section, teachers use data to help them recognize what the particular needs of their students are throughout the year.

Data-Based Decision Making

The principal and teachers at Arabian Elementary School use multiple forms of student data to determine where students are vis-à-vis their goal of reaching proficiency. At the beginning of the school year, as at other schools in the district, first graders are given the CLIP (Collaborative Literacy Intervention Project – this and other test acronyms are listed in the appendix) assessment to test their reading skills and 2nd through 6th graders are given STAR to test their vocabulary and determine their lexile or reading level for use with the Accelerated Reader program. Both CLIP and STAR are used in a formative way – they give teachers information about their student’s skills which allows them to tailor instruction and interventions accordingly. All students are also given DORA (District

Oral Reading Assessment), a benchmark assessment that is administered quarterly. Students are also given a similar benchmark assessment by the district to assess their math skills quarterly, and all students' math, reading and writing skills are tested in the spring on PAWS.

In addition to these formal tests, students are given a number of teacher-created assessments throughout the school year and student progress on these tests and assignments is also tracked. For example, the sixth grade teacher keeps track of all of her students' writing assignments and graphs them on all six traits of writing. This way, both the student and the teacher can monitor their progress on all different traits, and the teacher noted that it helped students know what they could work on to improve their writing (and writing scores).

In the spring, after doing the last of the three content areas on PAWS, the PLC leadership team (described below in the section on creating professional learning communities) looks at the statistics for each grade in math, reading and writing to see where they believe the most support will be needed in the coming school year. The team then makes decisions about how to allocate staff (mainly the Title I tutors) so that they can meet the needs of as many students as possible during intervention time. As described in the next section, the PLCs also meet weekly during the school year and use the different assessments to guide their instruction and interventions throughout the year.

Professional Development

Professional development for staff has been an important factor in improving instruction at Arabian. The district generally controls the content of the six student-free professional development days, (with the exception of one at the beginning of the year which the school uses to review student data) providing what teachers described as useful learning opportunities. For example, one of the district-organized professional development days was on the six traits of writing, helping teachers understand in depth the elements of writing that meet the various rubric requirements for writing scoring. Teachers reported finding this helpful and have implemented it in their classroom as described in the section on adopting a research-based curriculum.

This implementation has been facilitated by the school's instructional facilitators, who partner with teachers to plan, model and provide feedback in their classrooms. The school has the equivalent of 1.0 instructional facilitator, but actually has four different people fulfilling three different roles. There is a technology facilitator at the school approximately one day a week, a math facilitator at the school one day a week, and two language arts facilitators each there one day per week.

The language arts facilitators have been spending much of the last year working with teachers both individually, in their classrooms, and in small groups, in PLC teams, on how to implement the new writing program, but this year for the first time at Arabian, a language arts facilitator was asked by the principal to help a teacher with classroom management. The facilitator then observed the teacher, met with her to discuss some

strategies, observed her implementing the strategies, and met with her again. The facilitator and this teacher have been through this cycle three times in the past four months, and the teacher reported finding the support very helpful.

In general, the instructional facilitators reported that the best way to promote what they can do for teachers is by word of mouth, by which she means that after she has modeled in a teacher's classroom, that teacher talking with colleagues about how helpful the modeling was is the best way to generate interest from other teachers in having the facilitator come and model in other classrooms. One facilitator mentioned that she tries to make it clear she is not an evaluator – the observation and conference forms are not shared with the principal unless the teacher chooses to share them. However, as noted in the previous paragraph and in the section on instructional leadership, the principal is taking a more active role in determining which teachers the facilitators work with.

Teachers meet weekly in their PLC (professional learning community) groups, as described in the section on professional learning communities, and they also meet in vertical teams meet once a month. During these meetings, the emphasis is on student work, student data, and matching interventions to specific student needs. Instructional facilitators often attend these meetings, helping to frame the discussion, give examples, provide resources, or assist in any way they can as a support for improving classroom practice.

In addition, during some summers, some or all teachers participate in conferences or training. For example, the teaching staff (including the title I tutors) attended the Lindamood Bell conference for six days last summer to receiving training in the strategies mentioned above, but they were not paid during that time. When some but not all teachers attend training, those who attend are expected to present what they have learned to the staff and serve as experts within the school.

School Time

At Arabian, those interviewed stated that they had tried to organize the school day to maximize the opportunities for students to master the material presented in reading, writing and mathematics. A typical day of instruction at the primary level (K-3) begins at 8:45am with a morning message, read aloud, and journal writing. Then, from 9:30-11:00am, students go to guided reading centers facilitated by either the classroom teacher or speech pathologist, depending on their particular needs. Thirty minutes of that time period is set aside for intervention, a strategy those interviewed was suggested by the DuFours where time is set aside during each school day, not for presentation of new material, but for re-teaching and/or enrichment of material presented earlier that day or the previous day. (All the primary grades do literacy at the same time so that students can be ability grouped for reading across grades.) Most instruction during this time period is in small groups rather than whole group, but that is not exclusively the case. This time period is also used to provide mini-lessons for the whole class.

Between 11:00 and 11:30am, students go to specials (art, music, P.E., etc.) while teachers either have planning time or meet with their PLC (described in the section on professional development).

After lunch, students have number corner and calendar from 12:05 to 12:25pm. On Tuesdays and Thursdays from 12:25-1:25, students have social studies/science. On Mondays and Fridays, students spend part of that time, 12:25-1:00pm in a special, and 1:00-1:25pm in either silent reading, if they are proficient readers, or in a small group for re-teaching of the day's guided reading if they are not proficient. On Wednesday, students spend 12:25-1:00 at a special and 1:00-1:25pm in mathematics problem solving and interactive writing. The time period of 2:00-3:00pm is reserved for mathematics instruction from the Bridges curriculum five days a week.

At the intermediate level (grades 4-6), a typical day begins at 8:30am with breakfast, lunch count, homework turn-in, and planner check until 8:45am. The period of time between 8:45am and 9:15am is for interventions, which can differ from day to day or it can be used to provide more practice in an identified area – for example, the 6th grade teacher uses the time to give students practice in math because as a group this is where they struggle. Intervention time is followed by daily board work (whole group instruction for literacy as described in the Shetland District case study) between 9:15 and 9:30am. Between 9:30 and 11:00am, students have specials such as art, music and P.E., and from 11:00-11:55am, they have writing, social studies and science integration. Lunch is between 11:55am-12:30pm, and is followed by an hour and a half block for reading that includes 10 minutes for read aloud, an hour of guided reading (some of which is small group and some of which is whole group instruction), 20 minutes of daily board work (whole group instruction) and language arts enrichments and correctives. Then from 2:00-3:10pm, students receive instruction in mathematics.

Extra-Help Strategies for Students

Before they even start kindergarten at Arabian, school leaders try to ensure that students get the preparation they need by housing Headstart prekindergarten in their building. Once they start kindergarten, students with lower verbal ability (which translates to less readiness for reading) are eligible for the LEEP (Language Early Enrichment Provider), in which a speech pathologist who is in the kindergarten classroom for half of the day is able to provide the level of intervention appropriate for each child either individually or in a small group.

In addition to their focus on getting students off to a great start in elementary school, school leaders at Arabian have also created a pyramid of interventions to help ensure that students get the help they need to learn the required material. Figure 3 shows this pyramid, which was created by the school. The base includes all of the programs that every child receives, and even at this level, some of these are strategies that help struggling students. For example, the K-6 special education resource teacher spends some time in regular education classrooms teaching reading to small groups of kids that include both kids with IEPs and at-risk students. Some teachers offer before school help in the

form of a “breakfast club” where they invite students to come and practice math facts while they eat their free breakfast. “Recess help” in the pyramid refers to what teachers call homework academy – if students have not finished their homework, they are not allowed to go out for recess. Intervention block, as described above, is a period of time set aside during the regular school day when no new material is taught and students are given another opportunity to learn the material or for enrichment.

The second level, Base Plus, refers to the strategies that are used to provide extra help for students who need it. These extra help strategies include:

BIT: This stands for Building Intervention Team. When a student is struggling to learn the required material in the classroom, the teacher can refer him/her to BIT, a team of regular education teachers, special education teachers and instructional facilitators who review student data to determine what type of intervention would be best for the particular student. The intervention may involve a member of BIT working with the student or the classroom teacher or another staff member.

Seeing Stars/LIPS and Visualizing/Verbalizing: Two strategies from Lindamood Bell to help students learn to read fluently.

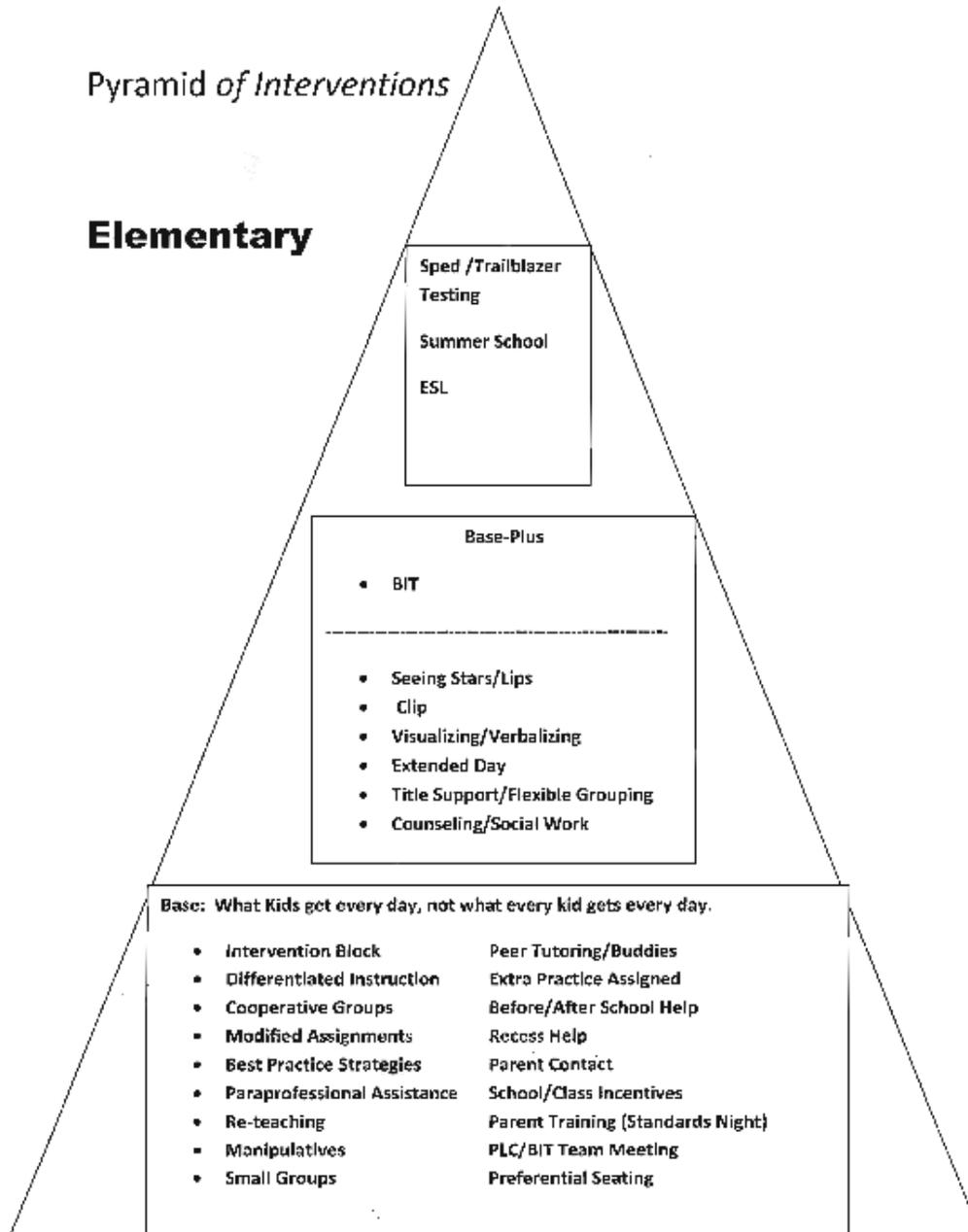
CLIP: A one-on-one, 30 minute program where a teacher works with a student to help them improve in reading.

Extended Day: Students receive extra help from a certified teacher either before or after school for 30 minutes per day as suggested by the DuFours.

Title Support/Flexible Grouping: Students are grouped by achievement level for reading and when they need extra help, they are sometimes assigned to the group taught by the special education teacher and they can also be pulled out for one-to-one work with the Title I tutor.

If these interventions fail to help students perform to the level of the benchmark, the next step is to change the interventions and see if that helps. As a last resort, the student is moved to the top level of the triangle which means they will be tested for special education or trailblazer (the gifted program), recommended for summer school (a district-run program described in the district case study), and/or put into the district’s ELL program if language is the issue.

Figure 3: Arabian Elementary School's Pyramid of Interventions



Professional Learning Communities

As described in the district case study, creating professional learning communities (PLCs) in its schools has been an ongoing initiative in Shetland County School District. To support the development of PLCs, the district has provided extensive professional development, offered resources in the form of PLC grants, and required schools to give teachers weekly in-school time to meet in their PLC groups. (Simultaneously, the district increased the number of special teachers to help make this possible). With this high degree of support and several years of implementation, PLCs at Arabian now function as intended by the DuFours, experts on the subject whom the district has brought in as a part of its professional development efforts.

In this model, teachers are often organized into PLCs by grade level, but because Arabian is a single section school, teachers are arranged in the following groups by grade: primary (K, 1, and 2); 3 and 4; and 5 and 6. Each PLC chose whether to have their weekly collaborative time be 30 or 60 minutes. The primary PLC and the fifth and sixth grade PLC chose 30 minutes; the 3rd and 4th grade chose to have 60 minutes. During this time, as envisioned by the DuFours, teachers collaborate around student work, student data and discuss instructional strategies and instructional interventions in place to help meet the students' needs.

In addition, as mentioned in the section on use of data, the school has a PLC leadership team comprised of the principal, two instructional facilitators (both language arts) and four teachers from 2nd grade, 3rd grade, 4th grade, 6th grade, and the resource (special education) teacher. This team works extensively with reviewing student data and assessing needs for both individual students and different grades based on the student achievement in each of the grades.

Instructional Leadership

When the current principal came to the school thirteen years ago, only one student in every classroom was proficient in reading. Over the next five years, the principal focused on raising achievement in reading, and once they achieved that goal, she shifted her focus to math for the next three years, focusing on problem solving. Over the past two years, the focus has been on writing. Teachers describe the principal as very data-driven, big into staff development, and unafraid of taking risks.

As at other schools in this district, the principal is expected to evaluate teachers using the Pathwise system, developed by the Educational Testing Service (ETS) and aligned with the Danielson Framework for Teaching. As shown in the district case study, principals are given lists of what to look for during classroom walk throughs, and she is expected to do these classroom visits twice a year, with a pre and post conference before and after each visit. The principal does them quarterly instead, and if she notices that a teacher needs some help with something, she asks one of the instructional facilitators to work with that teacher on it. The principal meets with the instructional facilitators once every six weeks to keep in touch with them about which teachers they are working with and

what progress they have observed. Unlike in other schools in the district, the principal at Arabian made it clear to all teachers that the expectation was that a coach would be in their classroom during that school year. To facilitate the process, she allowed teachers to choose a content area in which to work with a coach. She also told the facilitators that Arabian teachers were good at what they do, but coaching was the means by which they were going to get even better.

External Professional Knowledge

The principal consistently reviews research and engages the staff in book studies and other discussions of research to ensure that external professional knowledge is put to use in the school. For example, when the staff identified the need for a program to teach writing rather than just assess it, which is the primary focus of the six traits of writing, they began reading Lucy Calkins' book and plan to meet in their PLCs to discuss it.

District leaders have brought in a number of experts, including Jim Knight, to work with instructional facilitators and with principals on how they can support the instructional facilitators in their school. As described in the district case study, the district has also provided extensive professional development on professional learning communities (PLCs), bringing the DuFours (experts on the subject) to provide this training.

The subsections above described the many ways that Arabian supports teachers and students to continuously improve their performance. The section that follows describes the allocation of resources at Arabian, and compares them to the WY model.

ALLOCATION OF RESOURCES

This section describes the allocation of resources at Arabian Elementary School and compares those resources to the resources in Wyoming model in table format. A discussion of the alignment of resources to the model follows the table.

Table 1: Allocation of Resources at Arabian compared to WY model

Staffing Category	WY Funding Model	Actual
Enrollment	160	162
Core Academic Teachers	9.97	9
Specialist & Elective Teachers	1.99	1.5
Alternative Teachers/ Small School Teachers	0	0
LIBRARY STAFF		
- Librarian/Media Specialist (Certified)	0.55	0
- Library/Media Tech Aides (Non-Certified)	0	1
EXTRA HELP		
- Certified Teacher Tutors for English Language Learners	0.07	0
- Certified Teacher Tutors for At-Risk Students	0.99	45 min/day, 4 days/week (CLIP) 1.5 Title I
- Non-certified Tutors	0	0
- Resource Room Teachers (non-special education)		
- Resource Room Aides (non-special education)		
- Special Education Teachers		1
- Special Education Aides		2
- Gifted & Talented Teachers		
- Gifted & Talented Aides		
- Gifted & Talented Funds	\$4,491	
- Extended Day		
- Summer School		

Staffing Category	WY Funding Model	Actual
PROFESSIONAL DEVELOPMENT		
- Total # of Professional Development Days	10	6
- Instructional Facilitators	0.62*	1
- Teacher Time (Substitutes & Stipends)	\$17,965	225
- Trainer/Consultant Funds		1,125
- Materials, Equipment & Facilities		2,250
- Travel & Transportation		450
- Tuition & Conference Fees		450
- Building Substitutes & Other Substitutes	0	0
- Instructional Aides		
- Supervisory Aides	1.11	
Student Support		
- Counselors	0.99	0
- Nurses		0.4
- Social Workers		0.8
- Psychologists		0.2
- Speech/ OT/ PT		0.9
- Health Assistant	0	0

Staffing Category	WY Funding Model	Actual
Administration		
- Principal	1	1
- Assistant Principal	0	0
- Secretary	1	1
- Clerical	0.55	1

*Amount that was funded in 2008-09.

The school's allocation of resources is largely aligned with the model, with a few differences. The slightly lower number of core teachers reflects slightly higher class sizes than the model provided. As noted in section one, except for fourth grade where there are two teachers, average class sizes are approximately 21; the model provides for class sizes of 16. Slightly fewer specialists than the model provides may contribute to less than a full period of collaborative planning time for teachers – as noted some teachers have 30 minutes and some have 60, though each team was given a choice about the length of their collaborative planning period, it was not determined by the number of available specialists. The school uses an aide rather than a librarian in the library, and has less time devoted to professional development than the model suggests. The school actually has more instructional facilitator time than was funded by the model in 2008-09, and has a slightly larger student support staff and clerical staff as well.

SUMMARY

As this case study has described, the staff at Arabian Elementary school are committed to serving their neighborhood kids. For example, when a parent needed to get to work earlier than the drop-off time, a teacher volunteered to take care of the students before school. In addition to the caring and commitment of its staff, the school has implemented numerous research-based practices including collaborative planning time for teachers during the regular school day, use of multiple formative assessments to group and regroup students for guided reading and ensure that their needs are being met throughout the year, a comprehensive pyramid of interventions to help all students learn the required material, a principal who is a strong leader and a relentless pursuer of better results for students, and many others as mentioned above.

Most of the strategies mentioned in the case study that support high levels of student learning at Arabian Elementary School are funded by the model. Some exceptions include the Headstart early childhood program, which is federally funded, and LEEP (Language Early Enrichment Provider), the program for kindergarten where a half-time

speech therapist is in the classroom to help address language issues early. There are also some areas where the school has more allocated than the model suggests and some where they have less; these areas are discussed in the preceding section. Overall, though, this school is an example of research-based strategies in action to produce higher levels of student learning, most of which is paid for by the state funding model.

APPENDIX

Tests

PAWS: The Proficiency Assessment of Wyoming Students (PAWS) is a summative statewide assessment, administered between March and April to students in grades 3-8 and grade 11 in a mix of online and print formats in reading, writing, math, and recently, science.

CLIP: Collaborative Literacy Intervention Project. This program, designed in Tempe, Arizona, involves the use of certified teachers in a one-on-one program to bring up the bottom quartile of first grade to grade level. At the beginning of the year, teachers test all the students and then rank the kids, identifying and beginning with the students who need the most help. The strategy includes 60 lessons, and then the teacher moves on to another student who needs it.

DIBELS –Dynamic Indicators of Basic Early Literacy Skills (DIBELS), short (one minute) fluency measures used to regularly monitor the development of early literacy and early reading skills.

DORA: District Oral Reading Assessment administered quarterly to students in grades .

STAR: There is a math and a vocabulary portion of this test, also administered quarterly, to students in grades 2-6, which helps locate the student's skill level for use with the Accelerated Reader and Accelerated Math programs.

Quarter Elementary School: A Case Study of Instructional Improvement Efforts and Resource Use

INTRODUCTION

Quarter Elementary School serves 315 students in grades K-6. Quarter is located in Shetland County School District #1⁷, which serves approximately 13,000 students from in and around an urban area in Wyoming. Approximately 73 percent of the school's student population qualify for free or reduced price lunch, and approximately 15 percent receive special education services. The majority of students are either Caucasian (62 percent) or Hispanic (34 percent), and 19 percent are officially classified as English language learners. Quarter's class sizes for the 2008-09 school year are as follows:

- Kindergarten = 21 in one class, 20 in the other
- 1st grade = 14 in one class, 16 in another class, and 14 in a third section
- 2nd grade = 21 in one class, 20 in the other
- 3rd grade = 21 in both classes
- 4th grade = 24 in one class, 25 in the other
- 5th grade = 24 in one class, 25 in the other
- 6th grade = 22 in both classes
- Virtual students = 3

The purpose of this case study is to describe the instructional and organizational strategies that teachers and school leaders use to impact student achievement and identify how resources are allocated to support those strategies. The remainder of this introduction provides student test scores for the past seven years.

STUDENT TEST SCORES

For the 2005-2006 school year, Wyoming state officials changed the standardized test administered to students from WYCAS (Wyoming Comprehensive Assessment System) to PAWS (Proficiency Assessment for Wyoming Students). Though the tests are not directly comparable, examining the test scores for students at Quarter Elementary School over the past seven years on both tests illustrates overall achievement trends.

As shown in Figure 1, students at Quarter had a large initial gain on WYCAS between 2004 and 2005 for both reading and math. However, as shown in Figure 2, student scores fell slightly in math and more dramatically in language arts on PAWS between 2006 and 2008. (The test was administered twice during the 2006-07 school year, causing higher test scores across the state in that year, so the only the scores from 2006 and 2008 are reliable.) The remainder of this case study tells the story behind these scores, and it is divided into three major sections. The next section, section two, begins with an overall description of the educational improvement strategies that Quarter uses to and then

⁷ The district and its approach to instructional improvement is described in a separate case study.

details each of these strategies in separate subsections. Section three provides information about the allocation of resources for the strategies in use at Quarter and compares them to Wyoming model. The last section concludes the case study.

Figure 1: Percent Proficient and Advanced on the WyCAS Test, Quarter Elementary School, 2002-2005

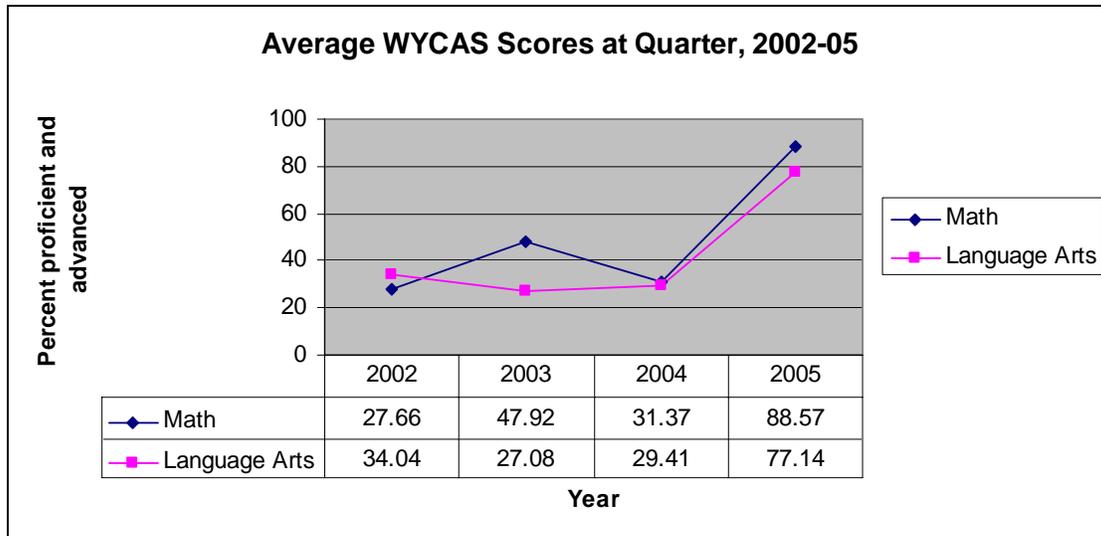
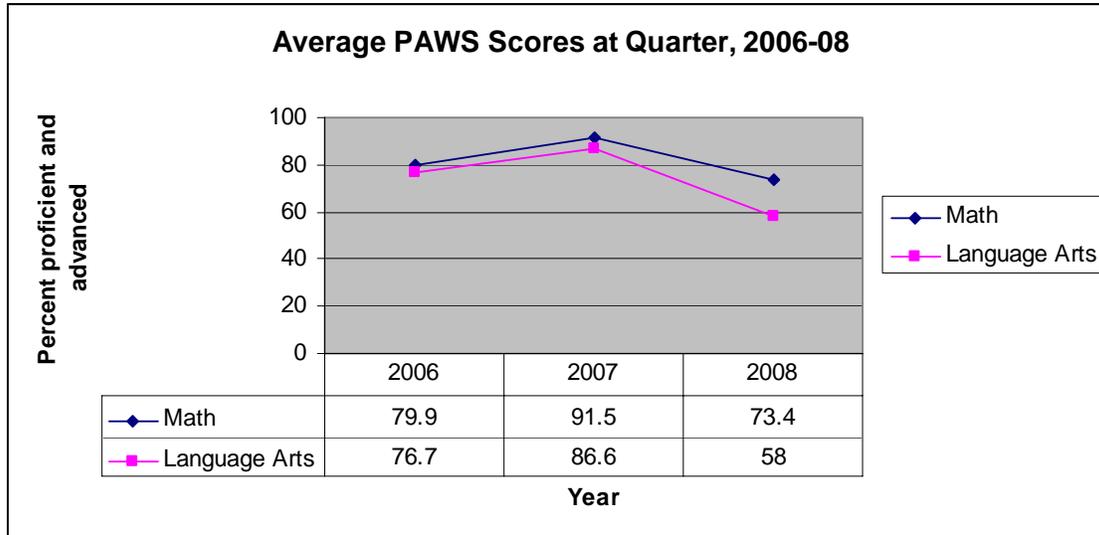


Figure 2: Percent Proficient and Advanced on the PAWS Test, Quarter Elementary School, 2002-2005



As shown in Figure 1, students at Quarter had a large initial gain on WYCAS between 2004 and 2005 for both reading and math. However, as shown in Figure 2, student scores fell slightly in math and more dramatically in language arts on PAWS between 2006 and 2008. (The test was administered twice during the 2006-07 school year, causing higher test scores across the state in that year, so the only the scores from 2006 and 2008 are reliable.) The remainder of this case study tells the story behind these scores, and it is divided into three major sections. The next section, section two, begins with an overall description of the educational improvement strategies that Quarter uses to and then details each of these strategies in separate subsections. Section three provides information about the allocation of resources for the strategies in use at Quarter and compares them to Wyoming model. The last section concludes the case study.

EDUCATIONAL IMPROVEMENT STRATEGIES

Many of the strategies for improving student performance at Quarter Elementary School involve recognizing the needs of their particular population of students: low-income and highly mobile. In the third grade, for example, through the course of the school year, out of 41 students in both classrooms, 12 students, or 29 percent, are different students from the ones with which teachers began the school year. To ensure that students receive the specific instruction they need, students are assessed frequently throughout the school year using a variety of formative and summative assessments (as described in the subsection on using data), placed in ability groups and served in small groups with a certified teacher. Breakfast is served every morning in the classroom to every student, and when

staff learned that there were students who were not eating on weekends or in the summer, the community mobilized to provide at least one meal a day for those families. Students are required to complete their homework assignments before going out to noon recess. Students who have not finished their homework stay inside to do so, and those students not performing at proficiency receive additional interventions throughout the school day and after school. The following subsections describe this extra help and other organizational and instructional strategies in more detail.

SETTING GOALS

The goals for students at Quarter Elementary School are set both at the school level and for each grade level, all written in the form of SMART goals (specific, measurable, attainable, realistic and timely) that state both a reality and the goal. The school goals for writing, reading and math, respectively, are:

Reality: Last year 44 percent of Quarter students were proficient in Writing.
Goal: This year students will increase proficiency to 60 percent.

Reality: Last year 65 percent of Quarter students were proficient in Reading.
Goal: This year students will increase proficiency to 70 percent.

Reality: Last year 72.5 percent of Quarter students were proficient in Math.
Goal: This year students will increase proficiency to 80 percent.

The grade level goals are constructed in a table format by the grade level teams (these teams are described in the section on creating professional learning communities). For example, the fifth grade goals for reading for 2008-2009 were as follows:

Reality: Last year 56 percent of 5th graders were proficient or advanced in reading as measured by PAWS.
Goal: This year 70 percent of 5th graders will be proficient or advanced in reading as measured by PAWS.

The team then records strategies and action steps, lists who is responsible for carrying out the strategies and action steps, what the timeline is, and what will be used as evidence of effectiveness. For example, one of the strategies and action steps is “Classroom teachers will introduce reading strategies and skills in a whole group setting every day for 30 minutes.” Under responsibility, the table lists the following:

- Classroom teachers will provide this instruction. They will receive ongoing coaching from the language arts instructional facilitator.
- Members of the PLC will align assessments with the content and format of district and state reading tests.

- Members of the PLC will create a series of common assessments to measure student proficiency of essential skills.

The timeline for meeting this goal is the entire year, and the evidence of effectiveness is common assessments, district assessments (DORA), STAR reading (quarterly), and PAWS.

The next section details the curriculum and instructional approach that Quarter's teachers use to teach the core content areas.

Curriculum and Instructional Approach

Like all the other schools in Shetland County School District, Quarter uses a balanced literacy approach, which is described in more detail in the district case study. For the reading components of balanced literacy, teachers use guided reading, reading independently, shared reading, and read aloud. Instead of using a reading series, the school has a guided reading library of books. These sets of books have been lexiled, or given a specific reading level which can then be matched to reader levels making it easy for students and teachers to find appropriate books. The principal remarked that she wishes they had a basal reader for the lower-level students because it was harder in guided reading to ensure that these students were getting enough practice. A teacher also remarked that guided reading was more difficult for new teachers than more prescriptive methods.

To teach writing, Quarter teachers are now in their second year of using the Lucy Calkins Step up to Writing program. They also use the Six Traits of Writing, which include Word Choice, Sentence Fluency, Conventions, Ideas, Organization and Voice, to assess student writing. In the classroom, teachers use all sorts of engaging methods to teach students how to write. For example, I observed a lesson in the 2nd grade classroom where the students juggled colorful scarves and then wrote a descriptive paragraph about what had just happened. Students were encouraged to share their writing at the end of their work time, and the teacher celebrated the use of "juicy" words. Other aspects of writing instruction at Quarter include editing, revising and publishing.

To teach math, Quarter teachers, like all other teachers in the district, use Bridges in K-2, Everyday Math in grades 3-5, and Connected Math in grade 6. These curricula emphasize problem-solving, which the district expects teachers to focus on in their teaching of mathematics. The teachers make use of the smart boards in the classroom to help engage students in mathematical problems and often use the intervention time during the school day (described in the extra help section) to give students more practice with a new skill. Teachers supplement with other materials as necessary to meet the needs of their students.

In terms of defining essential skills, the principal told the staff to use the standards and benchmarks, and then set aside the weekly staff meeting once a month to look at essential

skills and what they are doing in classrooms and develop pacing guidelines. An example of the essential outcomes document is shown in Table 1.

Table 1: 4th Grade Math Essential Learning Outcomes

<p>First Semester</p> <ol style="list-style-type: none">1. Place value to hundred thousands2. Basic facts + - *3. Add and subtract to thousands, multiply hundreds by single digit4. Symmetry (flips)5. U.S. Customary measurement to ¼”, feet and yards6. Capacity (ounces, pounds, cups, pints, quarts and gallons)7. Patterns8. Recognize commonly used fractions. <p>Second Semester</p> <ol style="list-style-type: none">1. Graphs, diagrams, tables and charts2. Identify geometric attributes (sides, edges, vertices, faces)3. Area and perimeter4. Probability5. Time
--

In terms of classroom set-up, different grades are configured in different ways. The third grade team teaches everything, breaking students up into small groups for reading, writing and math. In most classrooms, students sit in groups of 3-5, sometimes at tables and sometimes in clusters of desks facing each other, even during whole group instruction. This set up facilitates the group work and discussion that characterize much of the learning in classrooms at Quarter.

When asked about a view of good instruction, the principal emphasized the importance of connection between her staff and the students they serve, and having all the strategies in place that are necessary for the students to learn to the level of standards. When teachers were asked the same question, they mentioned being data-driven as well as engaged learning (which they described as interactive with different modes of learning) and differentiated instruction. They also said that each teacher had his or her own style of teaching and they don't force anyone to teach a certain way. Finally, they mentioned targeting students, providing multiple opportunities to learn the material and lots of help in the classroom to reduce the size of groups working with teachers on core content.

Data-Based Decision making

The principal and teachers at Quarter Elementary School use multiple forms of assessment to monitor student progress throughout the school year. In the fall, first graders are given the CLIP assessment to test their reading skills and 2nd through 6th graders are given STAR to test their vocabulary and determine their lexile or reading level for use with the Accelerated Reader program. All students are also given DORA, a

district reading assessment that is administered quarterly. Students are also tested in math using a district assessment quarterly, and students, math, reading and writing skills are all tested in the spring on PAWS. In addition to these formal tests, students are given a number of teacher-created assessments throughout the school year and student progress on these tests and assignments is also tracked. A comprehensive list of language arts assessments is shown in Table 2.

Table 2: Language Arts Assessments at Quarter in 2008-09

1st	Administration Window	X=Enter in Grade book as before	Entered on
6 Language Arts to Assessment and Grade Book All 1st grade HFW instructions have been revised	Administration Window for District and Formative Assessments - DA District Assessment - DA Formative Assessments - FS	Grade book Entry X=Enter in Grade book as before	District Assessment Page Entered on District Assessment Page
Letter ID Phonemic A has been revised Story Comprehension revised Letter Sounds Writing Day High Frequency Words	DA - District Assessment until every Quarter until student has mastered all - FS Standard – reading, writing or speaking/listening FS - Formative Assessments	X=Enter in Grade book before	54 possible Entered on District Assessment Page Every Quarter until student has mastered all-FS Make sure teacher can override score from quarter to quarter 26 possible Every Quarter until student has
Phonemic Awareness	Last 2 weeks of Sept. 2nd Quarter - FS 3rd Quarter - FS 4th Quarter - FS		36 possible September 30 -FS End of 2nd Quarter -FS End of 3rd Quarter - FS End of 4th Quarter - FS
Letter ID	Every Quarter until student has mastered all - FS	X	54 possible Enter on report card, every Quarter until student has mastered all - FS
Letter Sounds	3rd & 4th Quarter - FS		26 possible End of 3rd & 4th Quarter - FS
Concepts About Print	End of 2nd Quarter - FS May - FS	X	Rubric score End of 2nd Quarter - FS End of 4th Quarter - FS
Story Comprehension	End of 2nd Quarter - FS May - DA	X	Rubric score End of 2nd Quarter - FS End of 4th Quarter - DA
High Frequency Words 1-100	3rd & 4th Quarter - FS		100 possible End of 3rd & 4th Quarter - FS
Colors	End of every Quarter until student has mastered all - FS	X	8 possible Not entered
Writing Day	3rd week in Sept. - FS 1st week in May - DA	X	Rubric score September 30 - FS May 30 - DA
Speaking/Listening	Fall Spring		Rubric score Not entered

From my observation, staff at Quarter did not just collect student achievement data, they used it to make decisions. For example, during a late spring 2009 PLC leadership team meeting, the math instructional facilitator presented the data for the online portion of PAWS for Math. He distributed the data in a number of different ways. One way was by estimating the cut score for proficiency based on previous years, though the official cut score will not be released until after the paper portion of the test is analyzed, and then listing the percent of students at or above the cut score (65 percent) for 3rd through 6th graders at each of the four schools for which he works as an instructional facilitator. The principal and teachers agreed that it was helpful to see the results presented this way because it allowed them to see that for some grades, the percent at proficiency was high across all four schools (this was true of 3rd grade) and for others, there was more than a 20 point differential across all four schools (this was true for 4th grade).

The facilitator also distributed the results by student in each grade, ranking them all in terms of the number they got right and whether or not they had met the likely cut score for proficiency. The next day, I attended a PLC team meeting where the 3rd grade team (this included two teachers, a language arts instructional facilitator, a resource (special education teacher and the 3rd grade Title I tutor) discussed the student level results for their grade, making recommendations about possible interventions for students not making the cut off including more one-on-one help in the remainder of the school year and summer school. As described below, teachers also use their PLC time during the school year to discuss and develop lessons for whole-group instruction.

Finally, another part of the discussion at the PLC leadership team meeting was around the disappointing reading scores and what could be done to improve them in subsequent years.

Professional Development

As described in the Shetland District case study, teachers in this district have six days per year of professional development, most of which are controlled by the central office. According to the principal, for the past two years they have focused most professional development on everybody going to a national summit for PLCs, and now the focus is on sending teams to learn about RTI (Response to Intervention) and common assessments. Teachers have also had extensive professional development on how to teach from the district-adopted math curriculum emphasizing problem solving. In addition, five staff members are doing an online training for AIMSweb, which the school is considering adopting.

Other school-based professional development for teachers at Quarter includes 60 minutes of collaborative planning time each day and weekly staff meetings which are sometimes devoted to professional development. The collaborative planning time is used to meet in grade-level PLC teams at least once a week. The principal said that many PLC teams meet nearly every day – having seen the power of collaborating around data and student work and allowing this collaboration to guide their instruction in the classroom – they want to maximize the use of this strategy. Instructional facilitators, one of the most

important professional development resources at Quarter, join PLC team meetings to offer ideas or present data and also model for the entire staff at least once a month during the weekly staff meeting time.

The instructional facilitator for language arts has primarily been working with teachers on how to teach writing across the curriculum. One of the teachers reported that the language arts instructional facilitator had also been of great help to her in the past year because she had switched grades and needed help planning lessons related to the material of the grade that was new to her.

The instructional facilitator for intermediate math works with teachers on using new instructional strategies and medium in the classroom. To do this, he said that he uses the team teaching approach with some of the teachers he works with. Afterward, he conferences with the teacher, makes suggestions about follow-up and then the next time he is in the classroom, he will check up on what teacher did by asking the kids what they now understand about what he was trying to teach them in the joint lesson. He also helps teachers learn how to use the smart board and helps find resources for them. Sometimes he supplies practice tests and helps teachers know what to do with the data he has presented during their PLC team meetings. In terms of how he spends his time, on a typical day, he estimated spending 4 of 7 hours in classrooms observing or modeling, 1.5 hours meeting either one on one or with a small group of teachers, such as with PLCs, and the remainder of the time gathering data or traveling between the schools he works with.

As at all schools in the district, new teachers at Quarter are mentored using the Pathwise program (developed by the Educational Testing Service or ETS) that goes along with the evaluation system the district uses. The program is obligatory in a teacher's first year and optional in the second; the mentor with whom I spoke at Quarter said that in five years of mentoring, she had never had a teacher who declined to work with her in the second year. In the first semester, the program emphasizes creating a desirable classroom environment, knowing your students, knowing your school, what the assessment process is, and generally getting settled into the job. In the second semester, more emphasis is put on planning. (In the second year they start to discuss student work, use of formative assessment data, etc.) The mentor and mentee meet once a week (either after school or during their lunch hour) to check in about how things are going, and between these meetings and the mentor's observations in the mentee's classroom, they continually work through the cycle of plan, teach reflect, apply. Although the teacher turnover at Quarter is low, the school does get new teachers (next year there will be two brand new teachers in fourth grade, for example) and relies on the mentoring program to ensure that new teachers are acclimated as quickly and effectively as possible. In the second year, they begin to focus on student work.

The next section discusses how the school day is structured at Quarter to maximize the opportunities for student learning.

School Time

This section describes use of school time at Quarter. Rather than having scheduled time for recess during the school day in addition to the noon recess, Quarter has optional/optimal recess. This means that teachers can choose to take students outside at a time when it best assists with student learning rather than at a previously selected time. An example of a typical day follows.

For second graders, school begins at 8:20am with breakfast, a math meeting, and journals. Between 9:00 and 10:30 am students spend a half an hour in guided reading, half an hour in silent reading, and half an hour in reading interventions. Some whole group instruction takes place during this time, but much of it is in small groups. During this time, as described in the section on providing extra help to struggling students, all available certified teachers and non-certified but trained staff “flood” the classroom to work with students in small groups. From 10:30-11:30am, the emphasis is on writing. Between 11:30 and 12:10 students eat lunch, followed by spelling from 12:10-12:40pm and math from 12:40-1:35. The math time is a combination of whole group instruction and small group work. Between 1:35-2:00, students have interventions (another extra help strategy) and work places Monday through Thursday and common assessments on Fridays. The rest of the afternoon, from 2:05-3:05pm, is spent in specials classes followed by a ten minute snack period at the end of the day.

Extra-Help Strategies for Students

As described in the section on use of data, students are frequently assessed so that staff can target interventions to the specific skill or set of skills they are having difficulty mastering. The next few paragraphs describe the interventions available – some of which benefit all students – and some of which are targeted only to the students below proficiency.

Quarter uses the “flooding” strategy where as many certified teachers as possible come into the classrooms to teach guided reading groups. The three Title I teachers are used in this capacity, and even the specials teachers are expected to participate in order to maximize the number of teachers available to work with students. Each grade has a Title I tutor, most of whom are non-certified but have had the same professional development as classroom teachers, and these personnel are also used to teach small groups. These groups change frequently depending on levels of student learning. In terms of using this strategy to help struggling students, the lowest achieving group of students works with either the special education teacher or the Title I certified teacher, ensuring that they receive the instruction they need.

As mentioned in the section on use of school time, each day, students have at least 30 minutes of intervention. Intervention time is used to provide extra practice for students on material that has just been presented if it is needed; other students use this time for enrichment. This strategy increases the chance that students understand the current

material before moving on to new material, rather than waiting for the results of assessments which let the teacher know that the student did not fully grasp what was taught.

If students are struggling to learn the material even with the small group instruction and daily intervention time, a teacher can refer them to BIT (Building Intervention Team). The referral process involves filling out forms that show what they have done in the classroom and what the student's test scores are and then they have a meeting and invite the parents and sit and talk about the things they have done for the students and discuss further interventions. (Teachers noted that eventually this will turn into a RTI (response to intervention) effort.) Only after all of the interventions (some of which are described below) have been exhausted will the student be referred for testing, except in the case of speech, with which students sometimes get into services earlier.

For students requiring additional interventions, one-to-one tutoring is provided in a couple of different ways at Quarter Elementary School. Like other schools in the district, a CLIP (collaborative literacy intervention project) teacher (this school has 1.0 as shown in Table 1) is available to either provide one-to-one tutoring with a student or relieve the classroom teacher so that she or he can provide the one-to-one instruction to the student. In addition, the Title I teachers are available to work one-on-one with students, as are the non-certified Title I tutors.

The extended day program is also available four days a week for students in third to sixth grade who need extra help. The school receives a certain amount of money for it and it is limited to 55 minutes and targets kids who are not quite proficient but who they know can move up and when they've made it they no longer have to come to extended day, making room for another student needing extra help.

Summer school, provided by the district, is available for students needing additional help. Teachers can recommend that students go to summer school (ultimately it is a parental decision and sometimes students are not able to go because of transportation issues) by writing an ILP (Individual Learning Plan) that explains what the student's learning issues are, what they have tried in the classroom and in outside interventions, and what the recommendation is for summer school. See the district case for more details about summer school.

Professional Learning Communities

Teachers at Quarter talked about their colleagues as being a family. Even with such high mobility among students, teacher mobility is extremely low: many Quarter teachers have been at the school for 20 or even 30 years. During the teacher focus group I conducted and the various team meetings I attended, I noted an environment of openness, directness, and commitment to students.

As mentioned in the section on professional development, professional learning communities at Quarter function as the DuFours envisioned: teachers and facilitators

discuss student work, student assessment results, have discussions about particular students' learning such as "do you think [student] can truly decode? I am concerned that she has an extensive sight vocabulary which is why she is doing fine on our assessments but I am not sure she can decode," and discuss the instruction and interventions that are appropriate for each child. At the PLC team meeting I observed, they also discussed the need to do whole group instruction in the literacy strategy and then break up into small groups, theorizing that perhaps some kids were missing out on learning the strategy if it wasn't presented the same way in their small group.

In addition to the grade level teams, the school also has a PLC leadership team that meets once a month to discuss student data results, possible new instructional strategies, resource allocations and other related issues. The PLC leadership team is comprised of the principal and 12 teachers, either the team lead for each grade level or a representative from each grade level, plus the literacy coach. The section on Use of data describes the content of the PLC leadership team I observed in more detail.

Instructional Leadership

The principal of Quarter Elementary has been at the school for seven years. Teachers describe her as great with students and at putting students first as well as supportive of teachers, always encouraging them to continue to learn. They nominated her and she won Distinguished Principal of the Year Award in 2007.

The principal conducts walk throughs at least twice a month, more often for new teachers, and works with coaches when she recognizes that a teacher has a particular need that requires attention. In other cases, she monitors the implementation of a new strategy with the help of the instructional facilitators. For example, when the school got smart boards, the principal met with the coaches once a quarter and asked them to research interactive materials and then present it in the classroom.

The principal also sometimes attends PLC team meetings to ensure that the focus is on student data and instructional strategies. She evaluates teachers, as do all principals in the district, using the Pathwise system. She commented that one thing she likes about that evaluation system is its recognition that the most distinguished teachers involve students in their instruction and students have a say in everything.

Although she is a hands-on instructional leader, the principal is also willing to share this role with others. As described above, the PLC leadership team has rich discussions around student data and possible adoption of new assessments or instructional strategies, and each member seemed to have a voice about what the decision would be. Both the math and the language arts instructional facilitators are viewed by the teachers as instructional leaders in the school, contributing to a rich environment where there are multiple people, from the principal to veteran teachers serving as mentors to instructional facilitators, providing instructional leadership at Quarter.

In addition, both the principal and the staff view the central administration as very helpful. The principal commented that the curriculum coordinators were very helpful, reminding schools when assessments are coming up and then bringing them the data when the results come back. Teachers commented that they have the feeling the superintendent is there to support them in whatever they do – when they were feeling uneasy about a new principal coming in next year, he came to the school and settled their fears. Other teachers characterized administrators as very responsive, from a question about a math assessment to a problem with technology, the consensus among teachers is that the district is there to support them.

External Professional Knowledge

As mentioned in the district case study, central administrators are big proponents of bringing in experts to help convince their teaching staff and school administrators of the power of new instructional strategies. For example, the district has brought in the DuFours to help teachers better understand and envision how a PLC works best. Another example is bringing in Jim Knight to work with both instructional facilitators and this past year, principals, on how to use instructional facilitators to help improve student learning.

In addition, the principal and teachers at Quarter embrace all sorts of research and use it to inform their work. A couple of examples mentioned in preceding sections include highlighting the work of Lucy Calkins and the use of Marzano’s book on building vocabulary.

Other Practices Specific to this School or District

As noted in the introduction, three Quarter students are virtual school students. The district serves 27 such students using one teacher, who meets with students approximately once a week at the local library. The three students for whom Quarter is their home school, one kindergartner, one first grader and one third grader, come to Quarter to take PAWS. These students were previously homeschool students.

The next section describes the allocation of resources at Quarter and compares them to the Wyoming model.

III. Allocation of Resources

This section describes the allocation of resources at Quarter Elementary School and compares those resources to the resources in Wyoming model Table 3. A discussion of the alignment of resources to the model follows the table. (Note: special education resources are not found in the model, but the state fully reimburses for special education expenditures.)

Table 3: Allocation of Resources at Quarter compared to WY model

Staffing Category	WY Funding Model	Actual (in May)
Enrollment	314	315
Core Academic Teachers	19.64	15
Specialist & Elective Teachers	3.93	3.2
Alternative Teachers/ Small School Teachers	0	0
LIBRARY STAFF		
- Librarian/Media Specialist (Certified)	1.09	0
- Library/Media Tech Aides (Non-Certified)	0	1
EXTRA HELP		
- Certified Teacher Tutors for English Language Learners	0.33	1
- Certified Teacher Tutors for At-Risk Students (CLIP)	2.42	1.0
- Non-certified Tutors	0	6*
- Resource Room Teachers (non-special education)	0	3**
- Resource Room Aides (non-special education) (ELL)		0.5
- Special Education Teachers		2
- Special Education Aides		3
- Gifted & Talented Teachers		
- Gifted & Talented Aides		
- Gifted & Talented Funds	\$8,846	
- Extended Day		
- Summer School		

Staffing Category	WY Funding Model	Actual (in May)
PROFESSIONAL DEVELOPMENT		
- Total # of Professional Development Days	10	6
- Instructional Facilitators	1.22***	2.3
- Teacher Time (Substitutes & Stipends)	\$35,385	0
- Trainer/Consultant Funds		500
- Materials, Equipment & Facilities		800
- Travel & Transportation		4,000
- Tuition & Conference Fees		2,000
- Building Substitutes & Other Substitutes		
- Instructional Aides		1
- Supervisory Aides	2.18	1
Student Support		
- Counselors	2.42	0
- Nurses		0.6
- Social Workers		1
- Psychologists		0.3
- Speech/ OT/ PT		1.7
- Health Assistant		

Staffing Category	WY Funding Model	Actual (in May)
Administration		
- Principal	1.09	1
- Assistant Principal	0	0
- Secretary	1.09	1.5
- Clerical	1.09	1

*These Title I “tutors” are used to work both one-on-one and with small groups of students.

**These Title I teachers are also used for small group instruction in regular classrooms or in a tutoring capacity.

***Amount that was funded in 2008-09.

The table above shows the ways in which resources are allocated at Quarter Elementary school are different in some areas and similar in others to the way they are allocated by the Wyoming model. Much of this difference can be attributed to the use of federal funds for different strategies to serve their student population. For example, the school has fewer core teachers than the model allocates, which translates into slightly larger class sizes. The average across all of the grades is 20 students per class, but only one grade, 1st, has class sizes below 20 because of the use of a class size reduction teacher in that grade. Most classrooms contain 22-25 students.

However, the school has three other certified teachers who are paid through Title I (Resource Room certified teachers, non-special education in the table above), and these and other certified staff in the building are used to reduce the size of groups for reading. The school also has fewer specialist teachers than are funded by the model, but the appropriate number given the number of core teachers, and therefore are able to give teachers 60 minutes of planning time per day.

Like other schools in the district, an aide is used to staff the library rather than a certified staff member. The school has more resources allocated to ELL than the model provides, and it’s provision of tutoring is different than that suggested by the model with its use of a combination of certified and non-certified staff, mainly of whom are funded with Title I. The school spends less on gifted and talented than is allocated in the model, and provides fewer days for professional development.

It is difficult to compare the resources for professional development since many are spent at the district level and cannot be parsed out easily for a direct comparison. However, the table does show that the district provides six days of professional development rather than the 10 allocated by the model. Part of this difference comes from the fact that

teachers attend 4-5 day training in the summer in some years but not in others, so that summer training time is not included in the official count.

In part because of its LEEP (Language Early Enrichment Provider) program for kindergarteners, which places a half-time speech therapist in each kindergarten classroom, Quarter has a larger student support staff than is funded by the model. Allocations for administration and clerical are close to what the model suggests.

SUMMARY

At Quarter Elementary School, the principal and her staff are committed to the learning of their particular students, using multiple strategies from universal breakfast to one-to-one tutoring to ensure that all students get the help they need to succeed. Teachers are held to high standards but also feel supported in their work by their school leader, and have formed a tight, collaborative community in which they are free to express themselves and in which they report seeing the power of working together to improve instruction for students. As described above, staff and school leaders are working together to determine ways to make reading instruction at Quarter more effective in the years to come.

APPENDIX D

Shire County School District Case Study

Clydesdale Elementary, Junior and Senior High School: A Case Study of Instructional Improvement Efforts and Resource Use

INTRODUCTION

Clydesdale Elementary, Junior and Senior High are the only schools in Shire County School District, which serves approximately 215 students from a small town and the surrounding rural area in Wyoming. The schools and the district office are all located in one building. The superintendent and the principal share in the tasks required to run the school and converse frequently about instructional matters. An assistant principal largely handles discipline and administrative matters. The elementary school serves 85 students in grades K-6, the junior high serves 30 students in grades 7-8 and the high school serves 100 students in grades 9-12, but because of the low enrollment, many staff are shared across levels. Approximately 42 percent of the district's student population qualify for free or reduced price lunch, and approximately 15 percent receive special education services. The majority of students are Caucasian; 14 percent are members of a minority group, the largest one being Hispanic (11 percent). Nineteen percent of students have either moved in or out of the district during the past school year. None of the students are officially classified as English language learners. Clydesdale's class sizes for the 2008-09 school year are as follows:

- Kindergarten = 12
- 1st grade = 11
- 2nd grade = 16
- 3rd grade = 3
- 4th grade = 11
- 5th grade = 21
- 6th grade = 11
- 7th grade = 10
- 8th grade = 20
- 9th grade = 22
- 10th grade = 29
- 11th grade = 19
- 12th grade = 30

The fluctuations from year to year are not unusual, although the class size of 3 in third grade is so small that the third and fourth grade teacher are team teaching for much of the day and able to work with smaller groups of students as a result. The slightly larger class sizes in high school are in part a result of students from a neighboring area with an even smaller school district coming to Clydesdale for more opportunities in terms of athletics, extracurriculars and advanced courses such as Calculus.

The purpose of this case study is to describe the instructional and organizational strategies that teachers and school leaders use to help students achieve at high levels and identify how resources are allocated to support those strategies. Where it makes sense to do so, the strategies are divided into separate sections for the elementary and secondary schools). The remainder of this introduction provides student test scores for the past seven years.

STUDENT TEST SCORES

In the 2005-2006 school year, Wyoming state officials changed the standardized test administered to students from WyCAS (Wyoming Comprehensive Assessment System) to PAWS (Proficiency Assessment for Wyoming Students). The scores from these tests are not directly comparable, but looking at student performance over time helps give an indication of overall trends. The tables and graphs shown below illustrate student performance for grades 4, 8 and 11 on WYCAS and for grades 3, 4, 5, 7, 8 and 11 on PAWS over the last seven years.

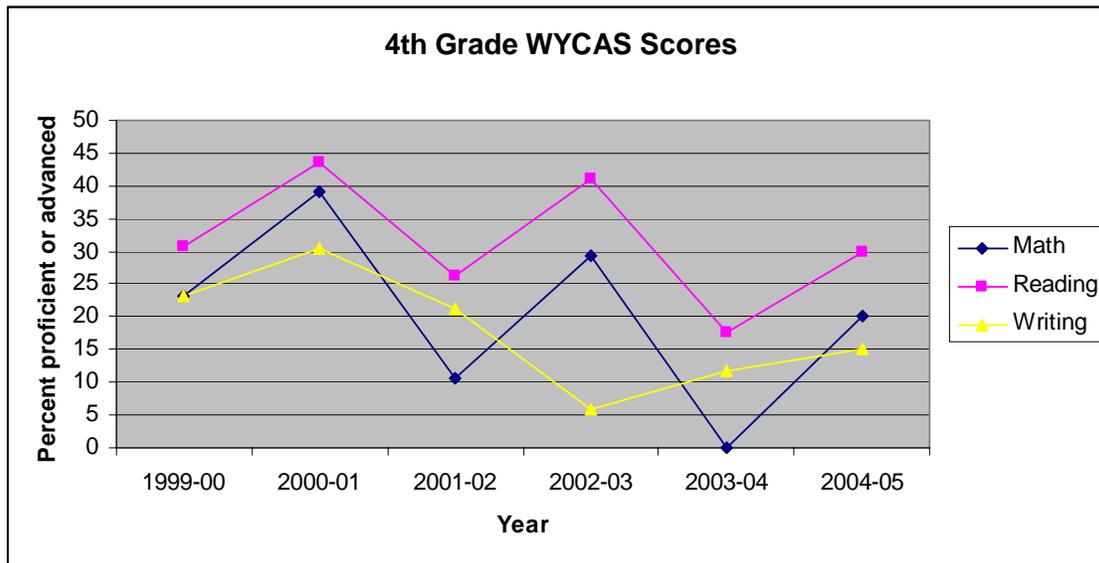
Elementary

As shown in Table 1 and Figure 1, student test scores for fourth graders on WyCAS between 1999-2005 fluctuated widely for all three subjects.

Table 1: Percent Proficient and Advanced on the 4th Grade WYCAS, 1999-2005

Subject	1999-00	2000-01	2001-02	2002-03	2003-04	2004-05
Math	21.1	36	57.9	37.5	50	28.6
Reading	31.6	38.5	47.4	25.0	27.3	21.4
Writing	42.1	42.3	68.4	41.7	59.1	39.3

Figure 1: Percent Proficient and Advanced on the 4th Grade WYCAS, 1999-2005



The PAWS data (shown in Table 2 for grades 3, 4, 5, 8 and 11) reveal another story. Barring the 2007 year when the PAWS scores were higher because of the two different administrations of the test, writing scores have increased slightly for 3rd graders and reading scores have fallen slightly. Figure 3 gives the PAWS scores for 4th graders, which, when you take out 2007, show that reading and math scores rose significantly between 2006 and 2008 – reading by 43 points and math by 38 points.

Table 2: PAWS Percent Proficient and Advanced, 2006-2008

Grade	Reading			Writing			Math		
	2006	2007	2008	2006	2007	2008	2006	2007	2008
3	64	70	55	18	70	27	91	88	91
4	20	64	63	20	46	11	30	90	68
5	52	46	78	24	46	56	48	55	80
7	64	52	61	27	26	22	45	52	52
8	41	68	62	33	59	29	56	59	57
11	81	75	44	81	68	59	69	70	57

Figure 2: 3rd Grade PAWS Percent Proficient and Advanced, 2006-2008

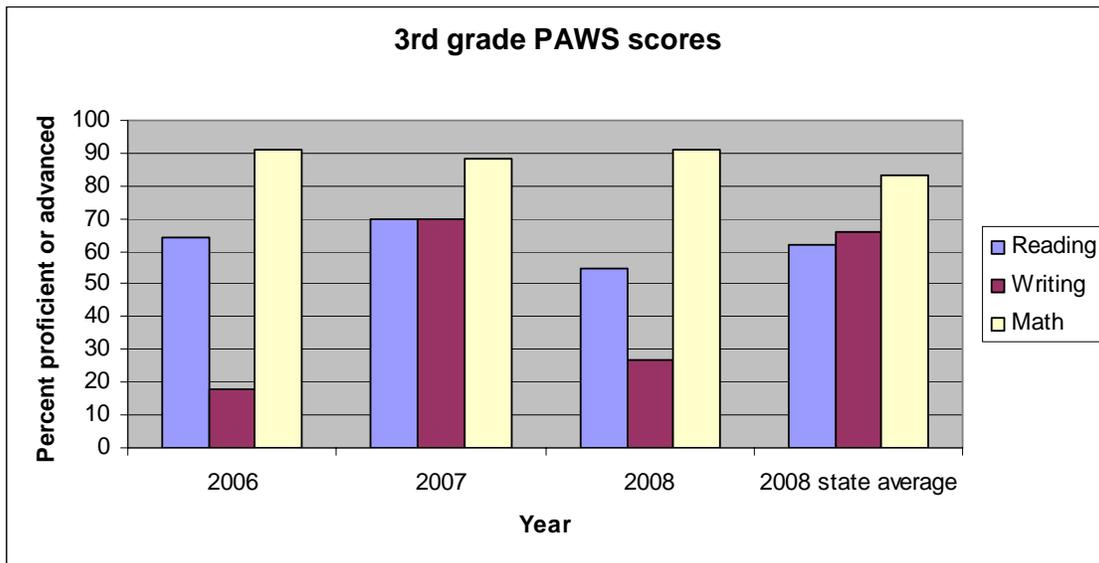


Figure 3: 4th Grade PAWS Percent Proficient and Advanced, 2006-2008

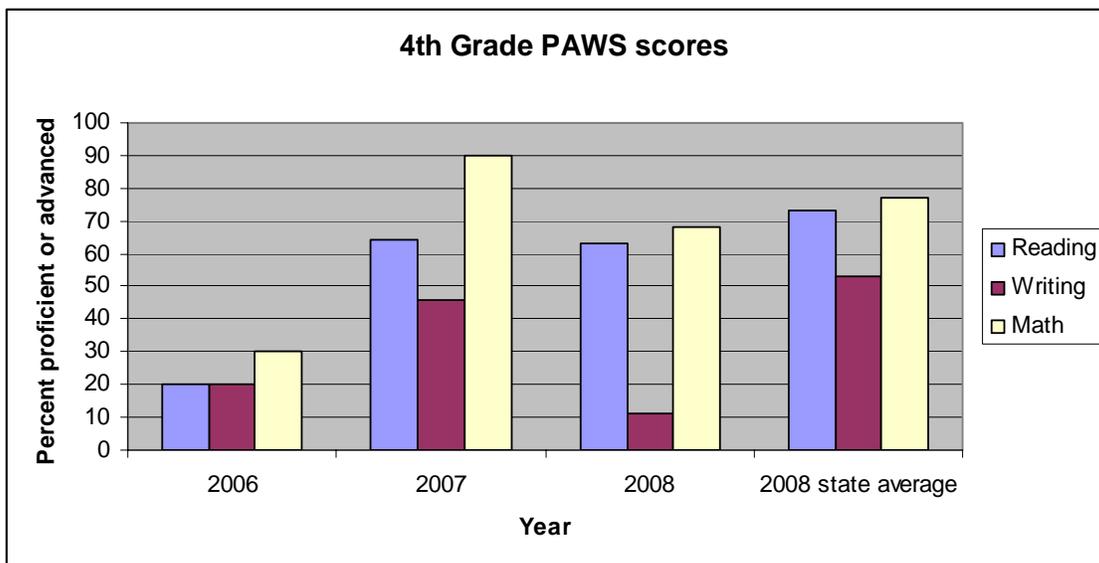


Figure 4: Fifth Grade PAWS Percent Proficient and Advanced, 2006-2008

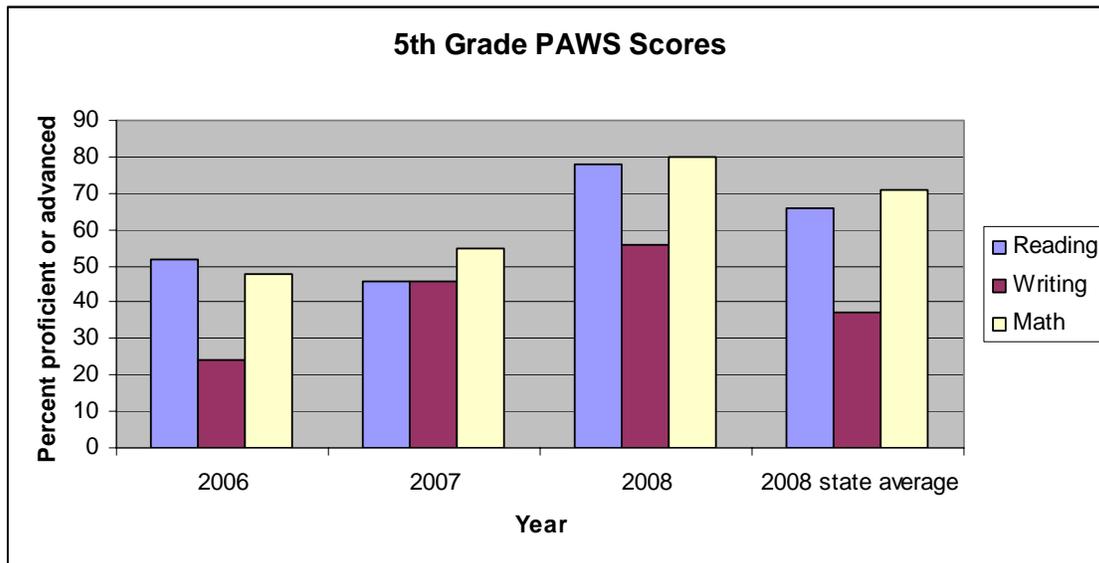


Figure 4 displays a similar phenomenon to Figures 2 and 3; between 2006 and 2008, 5th graders achievement rose in reading, mathematics and writing, and in 2008, the school scored higher than the state average in all three subjects.

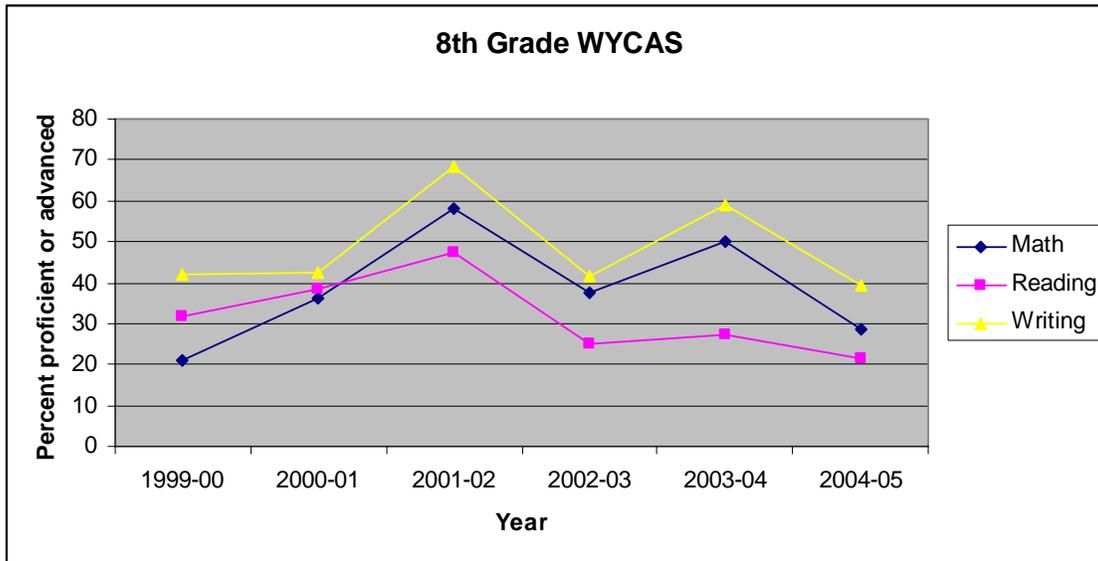
Secondary

At the junior high level on WYCAS, as illustrated with the 8th grade scores displayed in Table 3 and Figure 5, student performance went up and down during the period of time between 1999 and 2005.

Table 3: Percent Proficient and Advanced on the WYCAS for 8th graders, 1999-2005

Subject	1999-00	2000-01	2001-02	2002-03	2003-04	2004-05
Math	34.8	32.0	52.6	63.2	56.0	66.7
Reading	39.1	52.0	63.2	52.6	56.0	71.4
Writing	56.5	60.0	42.1	52.6	72.0	64.3

Figure 5: Percent Proficient and Advanced on the WYCAS for 8th graders, 1999-2005



As shown in Figures 6 and 7, there is also some movement up and down on PAWS for junior high school students, particularly 7th graders, for whom test scores were higher in math and writing in 2006 than in 2008. As Figure 7 illustrates, reading achievement for 8th graders rose considerably (21 points) between 2006 and 2008, math scores also rose slightly but scores in writing fell.

Figure 6: Percent Proficient and Advanced on the PAWS for 7th graders, 2006-2008

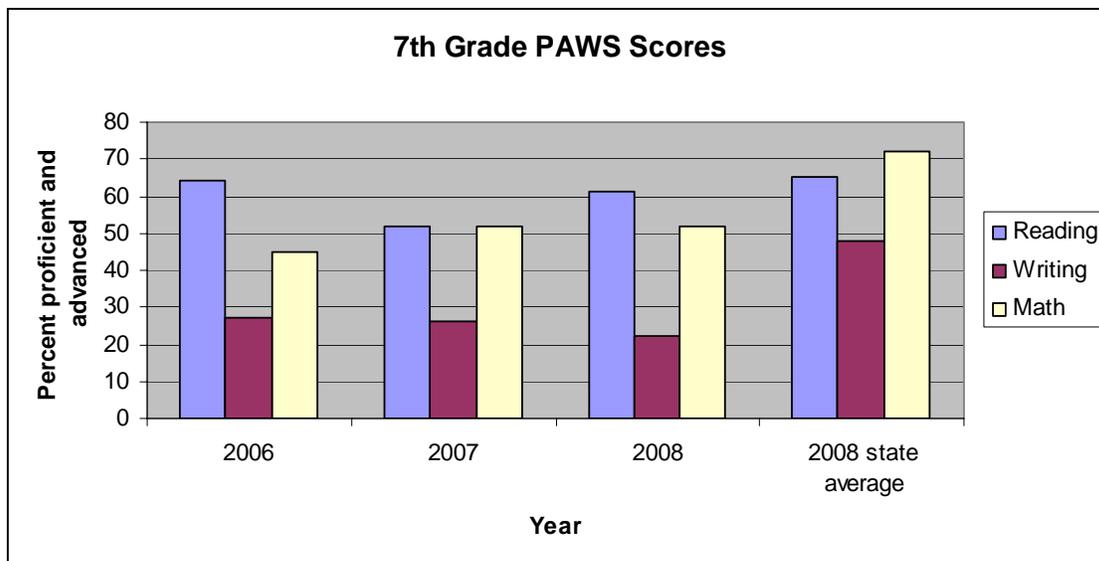
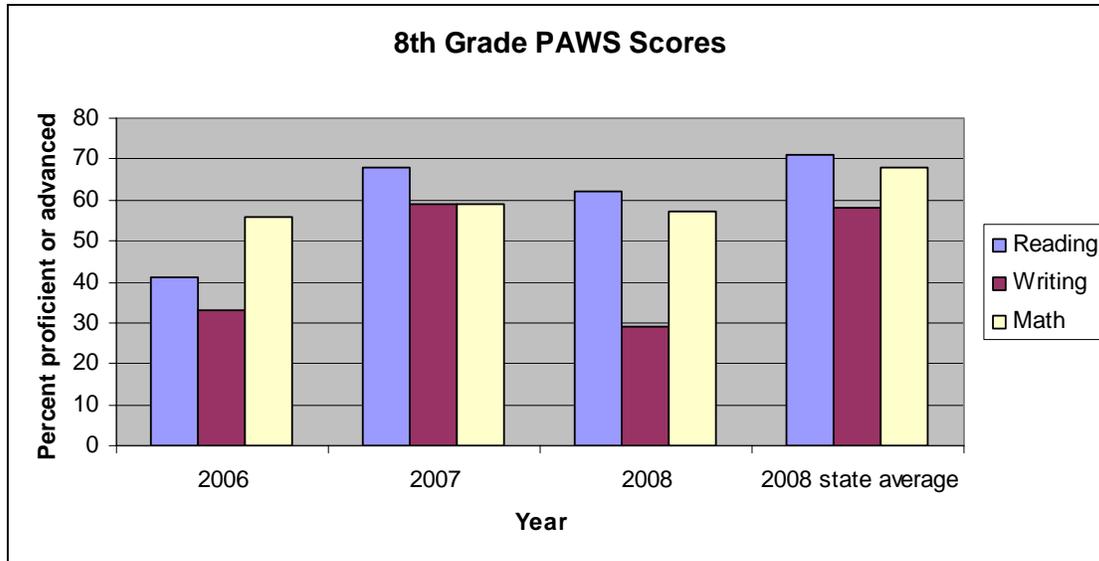


Figure 7: Percent Proficient and Advanced on the PAWS for 8th graders, 2006-2008



At the high school level, which, in terms of standardized tests, is only measured for 11th graders, student scores from 1999-2005 on WYCAS (Table 4 and Figure 8) shows more of a clear upward trend in all three subjects than the WYCAS data for grade 4 or grade 8. For elementary and junior high school students, the trend seemed to be up and down during the WYCAS years followed by growth on PAWS. For high school students, however, as Figure 9 shows, student achievement on PAWS between 2006 and 2008 (taking out 2007 because of the double administration of the test), fell significantly in all three subjects.

Table 4: Percent Proficient and Advanced on WYCAS, 11th grader, 1999-2005

Subject	1999-00	2000-01	2001-02	2002-03	2003-04	2004-05
Math	23.1	39.1	10.5	29.4	0	20
Reading	30.8	43.5	26.3	41.2	17.6	30
Writing	23.1	30.4	21.1	5.9	11.8	15

Figure 8: Percent Proficient and Advanced on WYCAS, 11th grader, 1999-2005

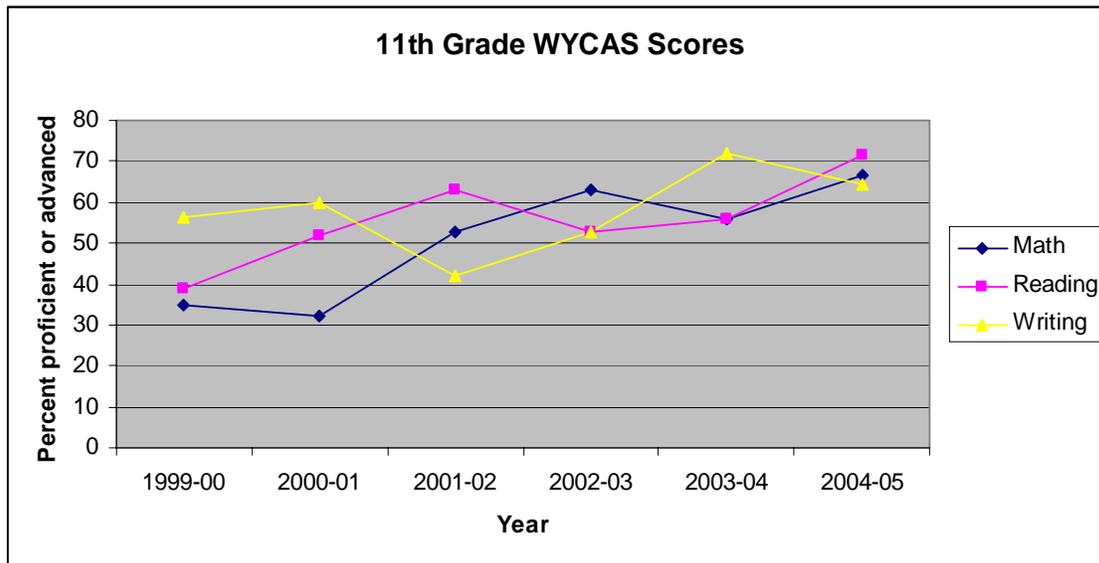
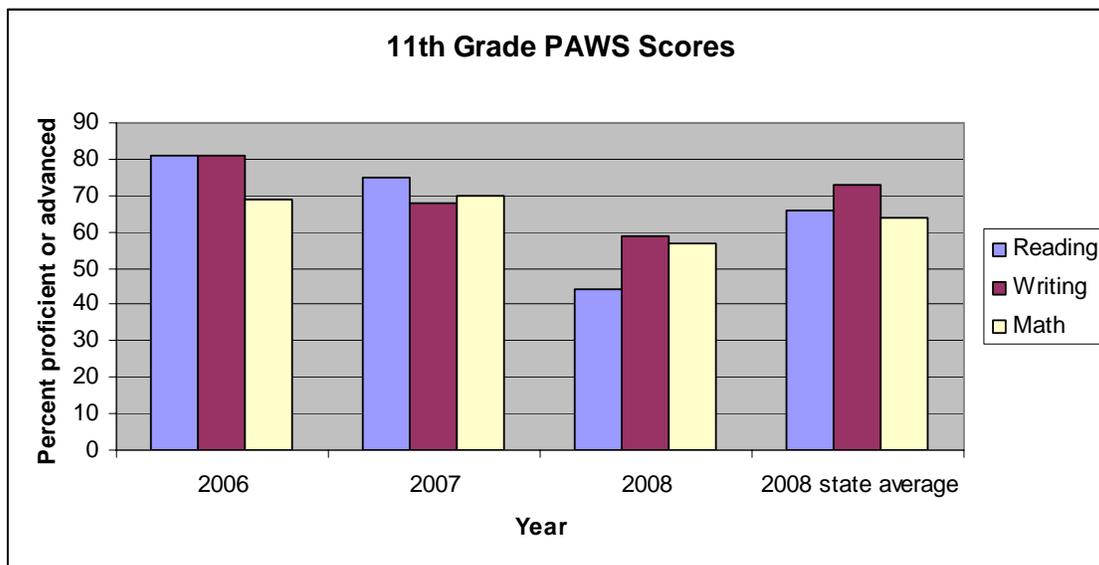


Figure 9: Percent Proficient and Advanced on PAWS, 11th Grade, 2006-2008



The remainder of this case study tells the story behind these scores, and is divided into three major sections. The next section, section two, begins with an overall description of the educational improvement strategies that Clydesdale uses to help staff and students succeed and then details each of these strategies in separate subsections. In section three,

which provides information about the allocation of resources for the strategies in use at Clydesdale and compares them to Wyoming model, the schools are considered together because resources are shared across them. The last section concludes the case study, highlighting the instructional strategies and allocation of resources that have led to improvement at Clydesdale Elementary School.

EDUCATIONAL IMPROVEMENT STRATEGIES

Clydesdale schools, like many other schools in this nation, have long been characterized by teacher autonomy, with the expectation that students will meet benchmarks and be proficient on tests. However, particularly in the primary grades, collaboration has begun to occur among teachers, and conversations about backward mapping the curriculum have also begun at the secondary level.

Multiple formative and summative assessments are administered throughout the year to give teachers a detailed picture of where each student is in their learning process and what level of instruction is appropriate for them. Clydesdale Elementary is in the first year of implementation of an RTI (Response to Intervention) model, with multiple layers of intervention in place to help students who are struggling including tier 1 practices such as having additional certified teachers come into a classroom during guided reading to work with small groups of students and tier 2 interventions such as one-to-one tutoring, extended day and summer school.

Similarly, a set of steps is in place at the secondary level to ensure that students who need extra help will receive it. These and other strategies are described in the subsections that follow. As noted above, when the strategies differ by level, the subsections are further divided by level.

Setting Goals

Setting goals is an area that the superintendent feels needs more attention. Currently, he characterized the goals as somewhat vague: to improve student performance on PAWS in math, reading and writing. The principal emphasized the goal of improving student performance in writing but said that improvement in reading and math was also important. The mission of the district and its school is: All students will achieve success through all stakeholders collaborating to provide a positive, respectful, student-centered environment.

Curriculum and Instructional Approach

Elementary

In grades K-6, teachers use the Houghton-Mifflin reading series, which, according to one of the teachers, is a great series, providing basal, grammar, phonics and writing all in one. The teacher also commented that she liked how well integrated all of the pieces of the

series are. For example, vocabulary words are introduced and then those same vocabulary words are used in the activities and stories for the rest of the week. The school uses the strategy of guided reading, and using the results of the STAR assessment (see subsection on use of data), teachers are able to help students select books to read that are appropriate to their level for the silent reading portion of their literacy time. (The subsection on use of school time gives more detailed information about when reading is taught at this school.)

In addition, the elementary teachers are beginning to supplement the Houghton Mifflin writing series with Lucy Calkins to teach writing. All classrooms are equipped with Promethean boards (similar to Smartboards) and enough computers for all (or almost all depending on the size of the class) students to use them at the same time. When introducing a writing assignment, such as a “how to do something” paragraph, the teacher will do it on the Promethean board first with the class. Then she goes over the paragraph they’ve written together and asks for suggested revisions, making the corrections on the Promethean board or asking students to come up and make the corrections.

When students get to the point where they are ready to write their own paragraphs, they do a first draft on paper and then type it up, print out two copies, and turn one in to the teacher to be corrected. After receiving feedback from the teacher, they then make additional edits on the computer and reprint it to have a revised copy. Part of the day, as mentioned in the section on use of school time, is devoted to writer’s circle, which is a time that anyone who has a finished piece of writing can read it to the rest of the class.

To teach math, elementary teachers use the McDougal Little series and supplement with a computer program called Fastmath to help ensure that students know their math facts. Teachers emphasize problem solving and use the Promethean Board and manipulatives to illustrate mathematical relationships in numerous ways.

Secondary

In junior high and high school, mathematics teachers select their own texts from which to teach. For example, one of the math teachers who teaches students ranging from 7th graders to 12th graders uses McDougal Littell for pre-algebra, Southwestern for Algebra I and Algebra II, and two different books for pre-calculus, one called College Algebra by McGraw Hill and the other Trigonometry by Addison Wesley. Though it varies from year to year depending on what courses students need, this year three teachers are teaching Algebra but they are not necessarily using the same books. Instead, they use the series with which they are most comfortable, which is acceptable to school and district leaders as long as they meet all the benchmarks.

During a classroom observation, I noted the teacher tying difficult problems to easier versions that students already understood. The teacher did some whole group instruction for about 20 minutes and then gave students an opportunity to work on problems in pairs. When students were done, they showed both their answer and their process to the teacher. When a student did not understand, the teacher helped her backtrack to find her error by working the problem through with her on the whiteboard. When I asked the teacher if he

used real-life examples to teach mathematical concepts, a student, overhearing, said: “that’s all we do!” The example the student gave was the classic “if a plane is going (a particular) speed, and a boat is going (a particular speed), and one starts at (a particular location) and the other starts (at another particular location), when and where will the two meet?”

In English, 7th and 8th graders use Harcourt Literature as well as supplementary grammar texts. Teachers use Prentiss Hall in Grades 9-12. They also use novels, including *Grapes of Wrath*, *Anne Frank Diary of a Young Girl*, *The Fountainhead*, *To Kill a Mockingbird*, *Flowers for Algernon*, and *Of Mice and Men*. In terms of teaching students to write, the principal reported that students experience expository and expressive writing across the curriculum. They write in journals every day and write to prompts throughout the year.

When asked about the view of good instruction in this district, the superintendent said they were working on developing one. He said they had looked at Danielson and found some good pieces in there and had also attempted to come up with a way to measure engagement in the classroom, which he and the principal believe is a vital component of good instruction. The principal said he believed many of the teachers knew what good instruction looks like, and said it was characterized by good starts, good stops and kids engaged in something worth doing the whole period (they have to think it is something worth doing) and able to transfer the skill they learned beyond the lesson.

In terms of defining essential skills, the staff went through a process of identifying benchmarks a number of years ago before the state had developed its own version; now teachers use the benchmarks identified by the state. Conversations have begun about backward mapping the curriculum, and the plan is to start at the high school and map backwards. This year, they began talking about the expectations for 12th grade students in literacy, and then started working backwards but have not gotten very far in the conversation. Next year they will continue this conversation and begin talking about math.

Data-Based Decision making

Students at Clydesdale take a number of tests, some formative and summative, some required by the state and others chosen by the district. The 2008-09 school year is the first full year that the district has required NWEA MAP testing in grades K-10. District and school leaders made the decision to adopt the test so that they would have a measure of student growth across the school year. In 2008-09, the test was administered three times. The superintendent said he is likely to make the winter testing time optional next year. As described below, a number of other assessments are also given and thus the school and district are in the process of determining which assessments they should keep and which might be redundant now that they have MAP. As the principal put it, Clydesdale schools are “data heavy but intervention shallow.”

Elementary

Students in the elementary grades are assessed at multiple points during the year using a number of other tests (a list of test acronyms is provided in the appendix) including:

- STAR reading (test for accelerated reader) – 4 times per year – helps ascertain student reading levels
- STAR math (accelerated math program) – 4 times per year – used to set math goals and see what class strengths and weaknesses exist
- Diebels – all students at the beginning of the year; then low students once a month for progress monitoring and to adjust instruction/intervention accordingly
- ISTEEPE – 2 minute math test administered quarterly to see if students know math facts and assign interventions if they do not know them
- AIMSWeb to test special education kids once a month and set goals

The At-risk coordinator also uses AIMSweb to keep track of all the data, but not to do the actual testing (except for special education students) since there are already so many other tests in place.

Secondary

As one of the math teachers described, to guide students into high school math courses, the teachers use the 8th grade results of PAWS, MAP and classroom grades and rank the kids so they can see some natural breaks in terms of who is ready for which class in the following year. In the upper grades, teacher administered tests are the main supplements to the two major tests that 11th graders take: PAWS and the ACT.

Professional Development

Being a single section rural school, collaborative planning is difficult and mostly occurs informally. Last year, when the teacher day was 8:00am to 4:00 pm, teachers had 30 minutes at the end of the school day during which time they could meet with colleagues. The second grade teacher reported that last year, the primary teachers (as well as support teachers such as At-risk and Title I) met during this time approximately once a month and went over student work, discussed possible interventions and instructional strategies. She reported liking this time for collaboration after school because teachers could choose to stay longer and often did meet for an hour. However, this time period proved more difficult for secondary school teachers, many of whom had coaching responsibilities, and thus district and school leaders decided to try changing the teacher workday to 7:45am to 3:45pm, hoping that teachers would use the 15-20 minute window for collaboration.

This has not been a successful effort for a variety of reasons, including some teachers not being morning people and the window of time not being long enough to really get into the kind of discussion around student work and student data that leadership intended them to have. Next year, the plan is to have a two-hour delayed start the first Wednesday every month to provide time for teachers to collaborate. Teachers also have the option to plan a half-day of collaboration; if they submit the plan to administrators and get it approved, the district will hire subs so that the collaboration can take place. However, since this is optional, not all teachers take advantage of it.

The superintendent and principal emphasized a number of cornerstones of their professional development strategy in addition to trying to find time for collaboration as cited in the previous paragraph. First, each year for two days administrators and teachers travel to a school improvement conference where they are encouraged to attend sessions about improving instruction. Second, other professional development days are devoted to whatever issues student test scores suggest need attention. In the past couple of years, this has been writing. Elementary school teachers went to training in Lucy Calkin's Step Up to Writing program, and then received support for implementation of this program from the principal (in his instructional facilitator role). Third, the superintendent and principal believe that it is important for teachers to observe other classrooms and thus require teachers to make an "out visit," which entails spending a half-day or full day at a nearby school, observing instruction, and meeting with the teachers and talking about instruction.

One teacher with whom I spoke cited these "out visits" as the most effective form of professional development he received. As part of the same strategy, they require teachers to do observations called "core visits" where they visit another teacher's classroom, observe his or her instruction, and then have a conference where they discuss what they saw and give feedback. They are guided in these observations by forms that administrators developed on the basis of Danielson.

As mentioned in the previous paragraph with regard to implementing the new method of teaching writing, instructional facilitators are another key element of Clydesdale's professional development strategy. As shown below in Table 5, the schools were allocated a total of 0.6 instructional facilitators. Three different staff members devote some of their time to instructional coaching to equal 0.6 FTE. One is the principal, who provides coaching in literacy. The second is the Spanish teacher, who provides coaching in mathematics, and the third is the 5th grade teacher, who also serves as the technology coach.

One of the teachers reported getting help from the technology coach on finding materials for the Promethean board that supplemented her mathematics instruction. Another teacher said that she had traveled to a conference with the Spanish teacher and discussed mathematics instruction in detail with her but had not had her model in her classroom. (Some staff members cited some personality issues and the fact that this teacher was not viewed as an instructional leader as reasons why they were less willing to have her come into their classrooms.) A number of teachers indicated that the principal had provided

resources and done some modeling in the classroom that had been helpful, particularly in regard to teaching writing; the principal reported that some teachers were more willing to accept the idea of coaching than others.

School Time

Elementary

School days at Clydesdale are packed with instruction in reading and math as well as special subjects. As an example, a detailed description of the schedule for 2nd graders follows (other elementary classrooms are similar):

- 8:15 am Start with lunch count and pledge of allegiance
- 8:15-8:45 Guided reading groups (students in three groups of approximately 5, two with certified teacher, one group with an instructional aide)
- 8:45-9:30 Writer's circle – whole group instruction – teacher uses both Lucy Calkins and reader/writer's workshop – begins with students reading their finished stories, then depending on what stage of the process they are in, might do whole group instruction or might have students working on stories at all stages – typing them on the computer, composing them
- 9:30-10:00 Reading (vocab, spelling) – whole group instruction – read aloud – teacher walks around to make sure students are where they need to be – the students were reading about percussion instruments, next week the kids get to go try the instruments
- 10:00-10:15 Recess
- 10:15-10:45 Accelerated Reading – independent reading with leveled readers
- 10:45-11:15 Intervention time -- 2 kids go to Title I Guided reading during this time, they alternate from day to day so that each has 30 minutes one-on-one every other day; for the other students, they might be working with Lexia (sound systems) – a computer program that works with kids on whatever skill they are missing (as identified by Diebels, STAR, classroom observations) students do this for 30 minutes once or twice a week depending on their needs and other students do word scavenger hunt or other computer work – because all students are on the computer, they don't know who is behind and who is ahead which is the way the teacher likes it.)
- Lunch
- 12:00-12:30 Math (whole group instruction)
- 12:30-1:00 Science or Social studies (whole group instruction)
- 1:00-1:30 specials
- 1:30-1:45 recess (school is out at 1:30pm on Friday)
- 1:45-2:00 Fastmath (computer program to practice math facts three days; show n tell one day)
- 2:30-3:00 Math investigations – flood for this Mrs. G and Title I teachers are both in the room – students are in small groups with certified teachers
- 3:00-3:15 Additional writer's circle for students who are prepared to read their stories (whole group)

Secondary

Student days in grades 7-12 are organized into 7 periods plus lunch. (Teachers teach 6 out of 7 periods.) The school day begins at 8:12 and ends at 3:20 (with the exception of Friday when students are released at 1:25pm), with class periods of approximately 53 minutes. (Classes before lunch are slightly shorter and classes after lunch are slightly longer.)

Extra-Help Strategies for Students

At Clydesdale, there are numerous strategies in place to serve struggling students, and a number of different designations for students who receive extra services. For the past two years, using Federal funding, the district has hired an at-risk coordinator, who, like many staff at Clydesdale, wears a number of different hats. (Her background is in mathematics and special education.) One of her roles is to identify “at-risk” students, which include any student in grades 7-12 whom teachers calculate are getting 74 percent or less in a class at any given time.

When a student is designated as at-risk, she sends a letter home to parents weekly describing the different interventions available to help the student raise his or her grade. The letters say that the first line of assistance is with the teacher of the subject they are falling behind in either before or after school. This teacher can provide one-on-one assistance to the student during one of these times to help the student catch up.

The second line of assistance is with the At-Risk Coordinator, who is available for one-on-one assistance with any kid that asks for it.

The third line of assistance is ICU, which is the afterschool homework session in the library that is staffed with a paraprofessional who can provide help in the subject.

The fourth line of assistance is an assignment sheet, which, if necessary can come home every night, listing the homework that the student is required to do.

The fifth line of assistance is the level III at-risk assignment sheet program which is where students must list all of their assignments and teachers and parents are required to sign every day to ensure that they are communicating and the student must report to ICU staff after school each day. At times, if the assignment sheet program is not producing the kind of communication necessary to ensure that the student is accountable for making some changes, the at-risk coordinator will stop by students’ houses to talk to parents on her way home. Then, during first hour every day (or before or after school or during a special class, if possible), she checks in with the kids who are on homework sheets to ensure that the work is getting done.

The at-risk coordinator also keeps track of all data on all the students using the AIMSweb system, and is involved in administered a number of the assessments listed in the section of Use of data including ISTEPE. The school has begun to implement an RTI model.

As part of a Tier 1 intervention under that model, she teaches a math class to a group of at-risk junior high students (identified by their low test scores and lack of IEP). To engage these students, she does lots of hands-on activities. For example, each month she purchased a different song from iTunes which the students rated and then used the ratings to study different mathematical concepts like mean, median and mode.

Another role for the at-risk coordinator at the elementary level, as well as for the school's Title I teacher, is flooding, or having more certified teachers come into the classroom to work with a small group of students during one of the instructional times for math. (As shown in the 2nd grade schedule above, there is also 30 minutes of whole group instruction earlier in the day.) Also part of Tier 1, with this strategy she comes into the classroom and works with the students who need the most help. When a student in one of her groups shows that he or she still requires additional help, she will pull him or her out of the classroom at another point to work with the student one on one. She also works one on one with an ELL student on vocabulary and math.

Instructional Leadership

Both the superintendent and the principal of Clydesdale provide instructional leadership in the school. One teacher said that they both are supportive, giving teachers the opportunity to make their own decisions and function as a resource, providing instructional supplements or other materials, rather than as micromanagers. The teacher also said that the superintendent had a good understanding of the students and the fact that he teaches Calculus fifth period keeps him more in touch with both students and teachers than another superintendent might be. Another teacher agreed that the principal and superintendent were supportive, providing help when they were asked, and said that the training provided to teachers was excellent. However, she expressed some frustration that although she felt they had good ideas, it would be better if they did not try everything at once, but instead chose what is working well and stuck to it. This same teacher also identified the need for the administrators to articulate the reasons why something they are asking of teachers needs to be done; she felt that they rely instead on the assumption that people are going to do what is best for kids, and not all teachers in the school (in her opinion) are going to choose to do something for that reason. She went on to say that they “don't pull the trigger” so there are no consequences if teachers do not do what administrators ask, and this creates a dynamic where some staff members are “on board” and other are just “along for the ride.”

The principal of Clydesdale schools has been at the school for 20 years. Next year, the district has hired a new principal and the current principal will be a full-time instructional facilitator. The current principal (and sometime instructional facilitator) said that he believes he will be able to impact instruction more by stepping out of the evaluative role. The evaluation system that administrators use changed in the past year. In May of 2008, the district adopted a rubric system based on Charlotte Danielson's work.

External Professional Knowledge

Both the superintendent and the principal expressed an understanding of the importance of using external professional knowledge to guide the work of the district. When the writing scores continued to be low, the principal decided to send staff to a training in the Lucy Calkin's step up to writing program. The principal also talked about a conversation he had with Dr. Goodlad at a recent meeting about how to get teachers on board that were not as willing to flow in the direction that school leaders were trying to direct them, including into greater levels of collaboration and more acceptance of instructional facilitators in their classrooms helping them improve their teaching.

The superintendent is a big fan of Gallup, and has implemented the use of the teacher perceiver and the administrator perceiver for the hiring process. (Granted, there have only been two hires using this new process.) He also had all staff take the Clifton Strengthfinder, believing that by identifying everyone's strengths, they would better be able to play to people's strengths and move forward as an organization. In addition, the principal, superintendent and one of the teachers made reference to Jim Collin's book *Good to Great*.

Other Practices Specific to this School or District

With the help of the at-risk coordinator, Clydesdale is starting to excel children by grade level when their ability level is higher than the rest of their grade-level peers. She facilitates this process by helping identify the students with greater ability and by ensuring that schedules allow it to happen – 6th and 7th graders offer math at the same time, for example.

The district also offers enrichment courses called 4-1-1 for seniors which take place twice a year, once at semester break and once after graduation (when the other students are still in session). This year, the course was on Teddy Roosevelt, and involved a trip to Medora, North Dakota to delve into the topic in more depth. In previous semesters, they have offered robotics, bottle rockets, and a trip to the Teton Institute and students get a partial credit for this class. If students are failing a class, they could also work with the at-risk coordinator during this time period to finish what is necessary for them to pass the course.

ALLOCATION OF RESOURCES

This section describes the allocation of resources at Clydesdale Elementary School and compares those resources to the resources in Wyoming model in table format. Because the schools are collocated and staff is shared across levels, all of the school's allocations are added together (for both actuals and the model) and shown in Table 5. A discussion of the alignment of resources to the model follows the table. (Note: special education resources are not found in the model, but the state fully reimburses for special education expenditures.)

Table 5: Allocation of Resources at Clydesdale compared to WY model

Staffing Category	WY Funding Model	Actual
Enrollment	239	215
Core Academic Teachers	10.66	15.1
Specialist & Elective Teachers (includ. Voc ed)	6.72	6.37
Alternative Teachers/ Small School Teachers	6.58	
LIBRARY STAFF		
- Librarian/Media Specialist (Certified)	1.24	1
- Library/Media Tech Aides (Non-Certified)	.3	1
EXTRA HELP		
- Certified Teacher Tutors for English Language Learners	.01	0
- Certified Teacher Tutors for At-Risk Students	0.7	0
- Non-certified Tutors	0	0
- Resource Room Teachers (non-special education)		1.86 (At-risk and Title I)
- Resource Room Aides (non-special education)		
- Special Education Teachers		3.0
- Special Education Aides		3.0
- Gifted & Talented Teachers		
- Gifted & Talented Aides		
- Gifted & Talented Funds	\$6,729	
- Extended Day		1 At-risk teacher 1 aide
- Summer School		3 certified teachers for 3 weeks

Staffing Category	WY Funding Model	Actual
PROFESSIONAL DEVELOPMENT (Note: The actuals here include professional development paid for with federal funds.)		
- Total # of Professional Development Days	10	7
- Instructional Facilitators	0.6	0.6
- Teacher Time (Substitutes & Stipends)	\$26,920	\$17,628
- Trainer/Consultant Funds		
- Materials, Equipment & Facilities		\$2,316
- Travel & Transportation		\$74,315 (includes registration fees)
- Tuition & Conference Fees		
- Building Substitutes & Other Substitutes		
- Instructional Aides		0.28
- Supervisory Aides	1.43	0.43
Student Support		
- Counselors	1.08	1
- Nurses		
- Social Workers		
- Psychologists		
- Speech/ OT/ PT		
- Health Assistant		

Staffing Category	WY Funding Model	Actual
Administration		
- Principal	1.9	1
- Assistant Principal	1	1
- Secretary	1.9	2
- Clerical	0.94	1

As shown in Table 5, in many respects, the allocation of resources at Clydesdale schools is quite similar to the allocations in the Wyoming model. For example, the model allocates 17.24 core teachers (including the additional teachers allocated on the basis of the small school adjustment) for 239 students. The actual enrollment across all three schools was 215 (24 fewer students and 1.5 fewer teachers), and the actual number of core teachers was 15.1. The number of specialist teachers was also similar – the model allocated 6.72 and the school had 6.37 (for slightly fewer students). Staffing for the library differed only slightly from the model allocation of 1.24 certified librarians and 0.3 media aides and actual allocation of 1.0 certified librarian and 1.0 media aide.

However, the school did not have the 0.7 certified teacher tutors allocated by the model, however, nor did the school allocate funds to gifted and talented even though the model allocated \$6,729. The actual number of professional development days for teachers is 3 less than the model allocated, though spending on professional development is significantly greater. As noted in the table, many of the resources for professional development in the actual column were paid for with federal funds. The schools employ slightly fewer aides than the model allocated and slightly fewer pupil support resources, but these allocations are also quite close to the model. Similarly, the allocations in the schools for administration and secretarial were very close to what the model suggested. The superintendent and the principal said that, as Table 5 reflects, the model currently allocates sufficient funds for their programming – the fear is that if enrollment declines as projected, that will no longer be the case.

SUMMARY

Over the last couple of year, a number of changes have taken place at Clydesdale schools. An at-risk coordinator was hired to directly address the needs of struggling students and coordinate schedules for students who needed accelerated learning. Additional assessments (NWEA-MAP) were added to give an indication of student growth over a school year. A new evaluation system for teachers was implemented. Teachers were trained in Lucy Calkin’s writing program and then given an opportunity to practice what they learned with the support of one of the school’s instructional facilitators. All of this

was accomplished with the model allocations and federal dollars. As a result, test scores have increased in many areas, and the principal emphasized the goal of students scoring better in writing. Looking forward, the schools are moving to an RTI model, starting to backward map the curriculum, and working to provide more high-quality collaborative time for teachers in hopes of continuing to raise student achievement at Clydesdale schools.

APPENDIX

Tests

PAWS: The Proficiency Assessment of Wyoming Students (PAWS) is a summative statewide assessment, administered between March and April to students in grades 3-8 and grade 11 in a mix of online and print formats in reading, writing, math, and recently, science.

ISTEEPE: System to enhance educational performance – this school uses only a two-minute math test from this system of assessments.

DIBELS –Dynamic Indicators of Basic Early Literacy Skills (DIBELS), short (one minute) fluency measures used to regularly monitor the development of early literacy and early reading skills.

AIMSweb: AIMSweb is a progress monitoring system based on direct, frequent and continuous student assessment. The results are reported to students, parents, teachers and administrators via a web-based data management and reporting system to determine response to intervention (see <http://www.aimsweb.com/>). This district uses the system to keep track of all of the data but not to actually test students.

STAR: There is a math and a vocabulary portion of this test, also administered quarterly, to students in grades 2-6, which helps locate the student's skill level for use with the Accelerated Reader and Accelerated Math programs.

APPENDIX E

Mastiff School District

Mastiff School District: A Case Study of Instructional Improvement Efforts and Resource Use

INTRODUCTION

Mastiff School District is a rural district 60 miles long and 30 miles wide in northern Wyoming serving students in Kindergarten through 12th grade. The district has schools on two ends of the district, with a larger, separate, school district in the middle. About 42% of the students in the district are eligible for free and reduced-price lunch, 3% are eligible for Title I resources, 11% for Gifted and Talented programs and 12% receive special education services. Less than 1% of Mastiff's students are identified as English language learners.

The district has operated on a four day schedule, with instruction Monday through Thursday, since 1983. The goal of the alternative schedule is "to enhance the quality of education for students by intensifying efforts district-wide on a regular basis, in the areas of curriculum development and staff development," according to the district's website. The 4-day schedule allows for professional development to be scheduled on Fridays without interrupting instructional time. In addition, there are special events for students scheduled on Fridays periodically throughout the year, such as field trips to museums, outdoor activities and cultural events. In addition, many of the district's schools hold Friday school once or twice a month for remediation to make up missing work, and in place of in school suspension (ISS) during instructional time. Interviewees also noted that the 4-day schedule minimizes disruptions from athletic events at the high school level; the schools schedule their matches on Fridays.

Instructional contact hours are slightly higher than the state-required minimums: 1,036 in elementary school compared to the state's 900, 1,110 in middle school compared to the required 1,050 and 1,122 compared to the state's 1,100. The district's teachers are slightly less experienced than the state average (10 years' experience compared to 13) but more have Masters' degrees (43% compared to a state average of 30%). The student-teacher ratio in Mastiff is 8.5:1 compared to the state average of 13:1.

Over the past several years, the district's instructional improvement strategies have been focused on improving reading and writing scores. At the district level, improvement strategies have been implemented through a variety of means: curriculum mapping, identification of essential skills and vertical alignment of the curriculum; the adoption of a new reading curriculum; the use of NWEA-MAP assessment data to set individual student growth targets; and the use of reading specialists at each school as well as instructional facilitators with literacy expertise. The purpose of this case study is to tell the story of efforts to improve student learning at Mastiff School District and to identify how the corresponding resources were allocated.

TEST SCORE DATA

During the 2005-06 school year, Wyoming implemented the new statewide Proficiency Assessment for Wyoming Students (PAWS) testing system. PAWS scores during the 2005-06 to 2007-08 school years show steady growth in most grades and subjects in the Mastiff School District, as shown in Table 1.

Table 12: Mastiff District Percent Proficient and Advanced on PAWS, 2005-06 - 2007-08

Grade	Math				Reading				Writing			
	05-06	06-07	07-08	change	05-06	06-07	07-08	change	05-06	06-07	07-08	change
3	86.0	93.7	88.6	2.6	67.0	79.4	78.6	11.6	29.0	49.2	55.7	26.7
4	82.0	92.3	92.3	10.3	75.0	87.7	87.5	12.5	49.0	46.2	65.6	16.6
5	72.0	87.5	74.3	2.3	63.0	75.0	75.7	12.7	30.0	32.4	33.8	3.8
6	82.0	81.7	91.5	9.5	71.0	77.5	80.3	9.3	55.0	45.1	45.1	-9.9
7	73.0	82.6	87	14	76.0	78.3	78.3	2.3	68.0	61.1	55.9	-12.1
8	74.0	80.8	83.8	9.8	83.0	76.7	81.1	-1.9	84.0	89.0	73	11
11	72.0	75.6	84.7	12.7	72.0	75.6	81.4	9.4	67.0	81.8	91.5	24.5

As shown in the table, gains were made in all grades in math, all grades except for 8th in reading, and all grades except for 6th and 7th in writing. The most significant gains occurred in 3rd and 11th grade writing in which the percentage of students scoring proficient or advanced rose from 29 to 55.7 and from 67 to 91.5 respectively. In addition, Mastiff's 2007-08 scores were better than the state averages in all grades in math and reading, and in 3rd, 4th, 7th, 8th and 11th grade writing. These data are shown below in Table 2.

Table 13: School, District, State Comparison –Percent Proficient or Advanced on PAWS 2007-08

Grade	Math		Reading		Writing	
	District	State	District	State	District	State
3	88.6	83.4	78.6	61	55.7	41
4	92.3	76.8	87.5	64	65.6	52.8
5	74.3	70.9	75.7	66	33.8	37.1
6	91.5	78.2	80.3	70.1	45.1	47.4
7	87	72.2	78.3	64.9	55.9	47.6
8	83.8	67.7	81.1	70.5	73	58.2
11	84.7	64.4	81.4	65.8	91.5	73

Looking at growth on PAWS scores between 2005-06 and 2007-08 shows that Mastiff had greater advances than those of the state in 4th, 6th, 7th and 11th grade math, all grades in reading except 8th, and all grades except for 6th and 7th in writing. ,

Figure 1 through 4 below show the changes in percentage of students scoring proficient or advanced on PAWS from the 2005-06 to 2007-08 school years for the district and state.

Figure 21: School, District, State Comparison – Change in Percent Proficient or Advanced on PAWS MATH Scores

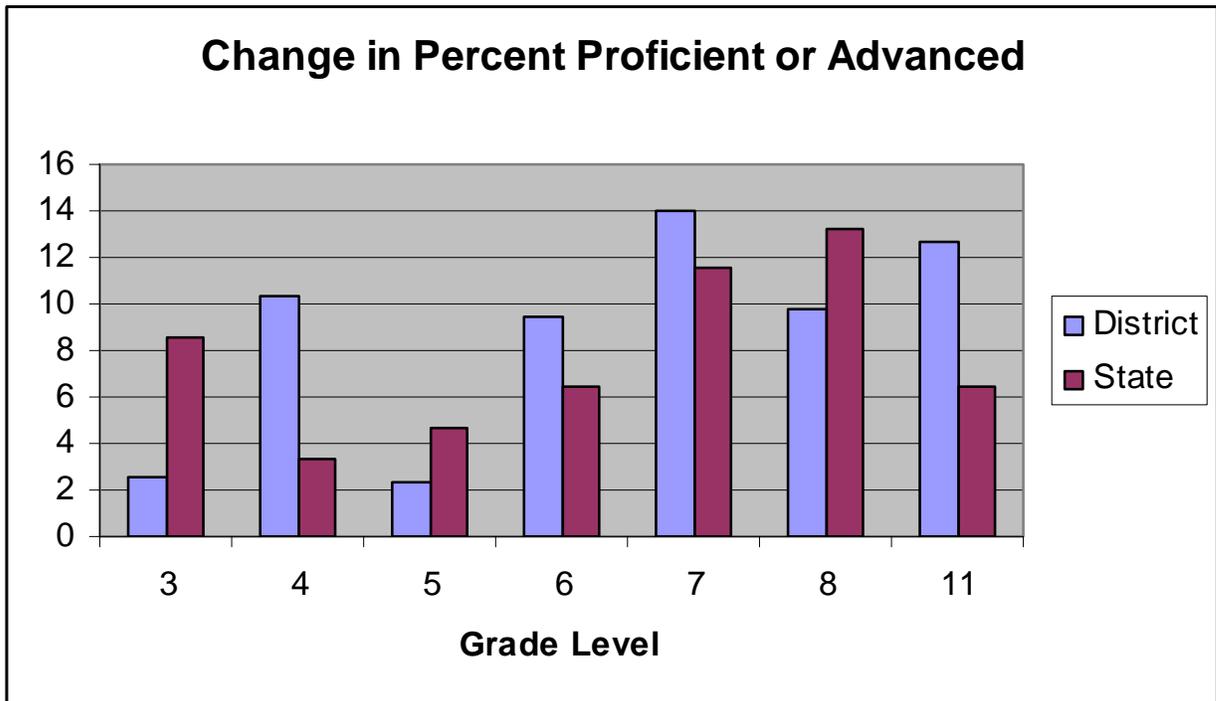


Figure 22: District and State Comparison – Change in Percent Proficient or Advanced on PAWS READING Scores

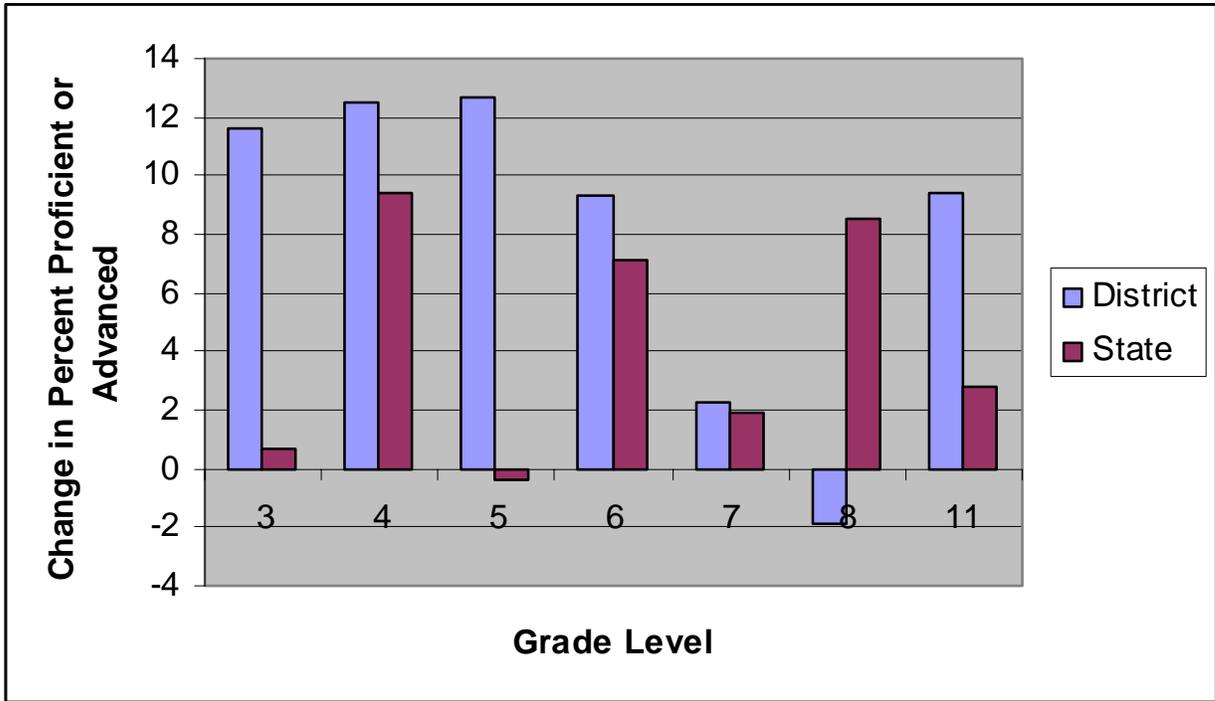
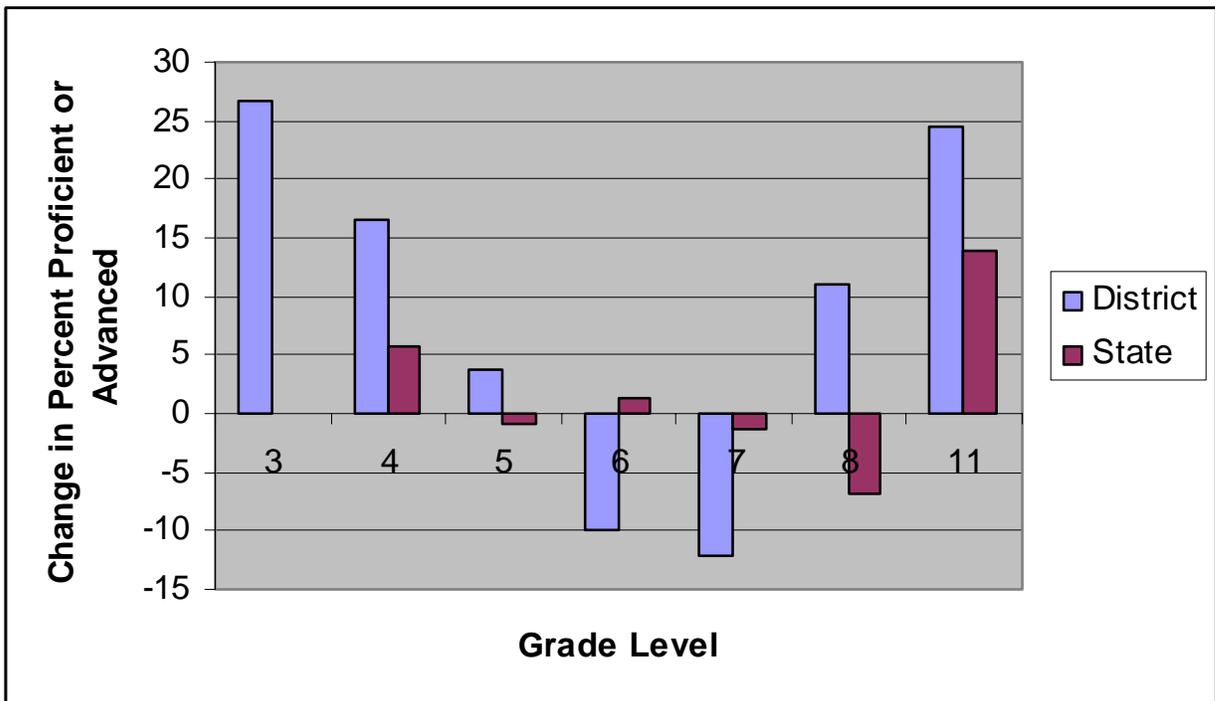


Figure 23: District and State Comparison – Change in Percent Proficient or Advanced on PAWS WRITING Scores



EDUCATIONAL IMPROVEMENT STRATEGIES

Mastiff's superintendent has been in the position for six years. She has worked in the district since 1982 as a middle school principal, Curriculum Coordinator, and Assistant Superintendent prior to becoming superintendent. She reported that the district has focused on improving students' reading and writing for the past several years. To this end, the district has focused its resources and improvement strategies predominantly in three ways. First, they have tried to make processes systematic so that there will be continuity when she retires in a few years. Second, the district has funded reading specialists in every school (1.5 to 2 in the elementary schools since "early is better" as she put it); similarly, IFs have been chosen for literacy expertise. Finally, the district has focused its professional development days on reading and writing in the content areas.

Goals

Mastiff has been focused on improving student performance in reading and writing for the past few years. Goals created by the district in collaboration with the school board are based on the idea out of the Kennewick School District in Washington of "Delivering on the Promise" of improving student performance for all students. Specifically, Mastiff's student achievement goals in reading are:

- Every 3rd grader will read at grade level;
- 80% of students will read at grade level in 5th, 8th, and 10th grade; and,
- 80% of students will meet their individual expected growth in reading as per NWEA-MAP test growth targets.

Each school creates their own goals in writing and math is not currently one of the district's goals because the schools "score high in math," according to district personnel.

District initiatives aimed at meeting these goals – and measuring whether they have been met – are discussed in the following sections.

Curriculum and Instructional Approach

Mastiff requires that a common curriculum is adopted by schools serving the same grade levels in the district in order to receive funding for materials. For example, the two elementary schools selected Houghton-Mifflin for reading instruction and the Scott Foresman-Addison Wesley *Mathematics* series for math instruction.

At the middle school level, district personnel note that the goal of language arts instruction is to "enable students to continue developing independent reading strategies and to adapt them to particular concepts and purposes for reading. Our goal is to help students become better readers." According to the district, reading instruction focuses on providing opportunities for students to:

- Use word recognition skills and hone “work attack” skills
- Build vocabulary through:
 - Direct instruction
 - Independent reading
 - Instructional level reading
 - Listening to selections read aloud
 - Guided reading instruction
- Read and comprehend a variety of genres and materials
- Select strategies appropriate to reading purpose, type of text and level of reader
- Determine the literal and inferential meaning of text, make predictions, and elaborate on meaning using prior knowledge
- Apply knowledge of story structure to analyze and interpret selections
- Demonstrate understanding of literary elements in writing and class discussions
- Use text features and text structures to answer questions, obtain information, and solve problems
- Respond to text by writing:
 - Summaries
 - Predictions
 - Comparisons
 - Note-making
 - Connections between self, world, and other texts
 - Quick writes in response to text or prompt

The district has begun the process of mapping curriculum across the grades during PD days. During the 2007-08 school year, teachers created individual curriculum maps and then “came together to agree on one version for each grade,” reported the principal, adding, “We’re still in the process of refining them.” The district has identified essential skills and conducted vertical mapping by asking teachers to chart answers to the questions, “What could your students do really well at the beginning of the year?” and, “What couldn’t they do?”

The Mastiff Superintendent reported that the district “isn’t there yet” in terms of defining what good instruction looks like. The district’s administrative team made up of each school’s principal is currently looking at three models – Danielson, Marzano, and the University of Washington’s “Five Dimensions” – and will select one to implement in the district. In the meantime, the district stresses that schools, and teachers, ask four key questions as they prepare for and evaluate instruction:

- 1) What do you want students to know or be able to do?
- 2) How do you know if they know it?
- 3) What do you do if they can’t do it?
- 4) What do you do if they can?

Data Collection and Use

Mastiff uses a variety of student assessments to provide data on student performance, described below:

- PAWS: The Proficiency Assessment of Wyoming Students (PAWS) is a summative statewide assessment, administered each spring to 3rd through 8th and 11th graders in a mix of online and print formats in reading, writing, math, and recently, science. PAWS data are used for Adequate Yearly Progress reporting and provide a picture of overall progress of the schools as well as identifying subgroup performance. Mastiff district personnel reported that they don't find PAWS scores as useful as NWEA-MAP since PAWS data is only available at the end of the year.
- NWEA-MAP: Mastiff uses the Northwest Evaluation Association Measures of Academic Progress (NWEA-MAP), state-aligned computerized adaptive assessments in language arts and math, three times a year to create benchmarks and growth targets for each student.
- Fluency Screeners: Mastiff uses Dynamic Indicators of Basic Early Literacy Skills (DIBELS), short (one minute) fluency measures (see www.dibels.org) at the elementary level to identify students needing extra help; at the middle and high school level, schools use 6 Minute Plus and Timed Reading Plus fluency screeners.
- ACT: The ACT multiple-choice tests covers four skill areas, English, mathematics, reading, and science, as well as an optional writing test. ACT results are used for college entrance and provide the district information on 11th grade performance.
- District assessments are used to compare performance between the two elementary, middle, and high schools in the district.

The Superintendent reported using test score data from all of the above-mentioned tests to “identify areas of progress and areas for improvement.” Both district-side results and disaggregated results are examined and data are shared with parents at parent-teacher conferences and sent home by grade level as well as appearing on building report cards.

Professional Development

Mastiff School District has ten professional development (PD) days built in to the schedule, six of which are scheduled on Fridays and four of which occur prior to the start of the school year. Four PD days are district days, in which all of the teachers from the district convene and break into “cohort groups” of grade level teachers. In the past, Ellen Hunter was brought in to work with the elementary school teachers on reading instruction; the middle and high school teachers focused on reading in the content areas.

Topics covered during the four district days for the 2008-09 school year follow a sequence of creating quarterly assessments, revising them, administering them, then reviewing the results, shown below in Table 14.

Table 14: 2008-09 District Education Days topics

August	September	November	January
District assessment matrix	Revise Quarter 1 draft assessments	Revise Quarter 2 draft assessments	Revise Quarter 3 draft assessments
Where we are now	Determine proficiency levels	Determine proficiency levels	Determine proficiency levels
What needs to be accomplished this year	Review scoring procedures	Review scoring procedures	Review scoring procedures
Process to be followed for assessment writing	Review administration procedures	Review administration procedures	Review administration procedures
Format for assessments (student directions, teacher directions, scoring guides)	Begin construction Quarter 2 assessments	Begin construction Quarter 3 assessments	Begin construction Quarter 4 assessments
Summative and formative assessments	Review learning targets, group	Review learning targets, group	Review learning targets, group
Assign roles in each group	Feedback to kids	Look at student work from Quarter 1	Look at student work from Quarter 2
Begin construction Quarter 1 assessments		Do data display from Quarter 1 assessments	Do data display from Quarter 2 assessments
Review learning targets; prioritize, group		Involving kids in the process	Communicating with parents/kids

The district’s CHAOS (Cohorts Helping Analyze and Organize Stuff) Committee is comprised of a teacher from each grade level and works with staff to develop standards, units, and assessments to meet state mandates. The Superintendent noted that CHAOS provides leadership opportunities for teachers. During one CHAOS professional development day in fall of 2008, the cohort worked on common district assessments, middle school language arts materials adoption, K-5 reading series implementation, writing, and essential maps. Groups discussed questions such as, “Decide what assessments you will use to measure student performance in reading, writing, and math. These should be the same across the district,” “The Pacing Guide – How is everyone making it work,” and, “How do you give your students descriptive feedback to improve their writing.”

New teachers undergo a three-year induction program at the district level. During their first two years, the induction program meets once a month for ½ day. Topics covered during Year 1 are:

- Organizing content
- Setting instructional outcomes
- Knowledge of resources
- Designing instruction
- Managing classroom procedures
- Organizing physical space
- Step Up and 6 Traits
- Engaging students in learning
- Classroom management
- Formative and summative assessments
- Checking for understanding
- Analyzing student work
- Using assessment in instruction
- Professional growth plans
- Review of student performance data

During Year 2, the cohorts discuss:

- Establishing a culture for learning
- Step Up and 6 Traits
- Writing across the curriculum
- School improvement goals
- Data management
- Knowledge of students
- Classroom management
- Designing instruction
- Organizing content
- Setting instructional outcomes
- Knowledge of resources
- Reading and writing in the content areas
- Marzano’s instructional strategies
- Using formative assessment
- Using formative assessment to plan next steps in instruction
- Professional growth plans
- Review of student performance data

During their third year of teaching in the district, the induction program requires teachers to work with their building principals to develop a plan for their own professional growth. The district’s Curriculum director monitors the work and “provides assistance for teachers in meeting their goals.”

In addition to participating in mandatory professional development days at the district and building level, Mastiff offers teachers the option of conducting up to three Professional Development Projects (PDPs) per year in which they work collaboratively on a topic of interest that aligns with district, school or individual goals to increase student learning. Objectives of the PDPs are:

1. To promote collegiality among district personnel as they engage in collaborative work that supports the Building and/or District Professional Development Plans.
2. To provide educators with supports and assistance as they implement concepts and strategies they have learned in a professional development experience related to Building and/or District Professional Development Plans.

PDP requirements, devised by the district, specify that teachers spend a minimum of 15 hours “outside the regular contract hours” and at least 10 hours implementing strategies in the classroom; the principal is expected to observe implementation of the PDP. Teachers are paid \$500 upon completion of a PDP. For one PDP, a group of teachers staff created common writing prompts to be used in each grade at the school.

In addition to PD days and optional PDPs, Mastiff utilizes Instructional Facilitators to promote teacher growth. The district’s job description for IFs specifies that their role is “to be a resource to classroom teachers for the improvement of student learning. The Instructional Facilitator will work with classroom teachers to provide quality instruction and interventions consistent with Wyoming State Standards, Mastiff County School District curriculum maps, building and district initiatives and best practices in instruction.” The Superintendent noted that IFs work with teachers as “job-embedded professional development” and are not intended to provide direct student support, such as working with a pullout group of students on reading, but are rather supposed to provide “indirect student support by collaborating with teachers.” Specifically, Mastiff has identified three “essential functions” for IFs:

- Leading change at the school level
 - Apply theory and practice of organizational and individual change
 - Collaborate with staff to write school improvement goals
 - Align programs and practices to identified school improvement goals
 - Use data to promote conversations that lead to a higher level of thinking regarding programs, materials, and professional development at the building level
 - Seek out opportunities to collaborate with teachers to improve instruction
 - Facilitate groups consistent with norms of collaboration
- Analyzing data at the classroom level

- Collaborate with teachers to analyze screening results to determine students in need of further diagnostic evaluation
 - Collaborate with teachers to analyze and interpret data to develop student achievement goals based diagnostic results
 - Collaborate with teachers to choose appropriate assessment to monitor student progress
 - Conduct workshops for staff on how to access and interpret data
 - Prepare data from selected sources for teachers to analyze
- Professional Responsibilities
 - Remain current in research and best practices in literacy instruction
 - Support teachers through a classroom coaching model
 - Employ best practices strategies to improve classroom instruction
 - Support school and district initiatives
 - Demonstrate appropriate time management for planning and completing all tasks and duties
 - Develop positive, trusting relationships with students, colleagues, and families
 - Maintain and respect confidentiality and rights to privacy of students, families, and colleagues

Instructional Facilitators are required to have five years of teaching experience, a Master’s Degree or National Board Certification, and “demonstrated leadership and communication skills.”

Instructional Facilitators are required to submit weekly “time and effort logs” at the end of the school year describing “who we worked with and what we did” as district personnel put it. For example, excerpts from one IF’s time and effort log listed the following:

Date (Week of)	Teacher collaboration/training
September 2	Attended IF conference in Casper. Planning with XX for reading classes possibility.
September 22	Middle School improvement meeting with other IF to plan and create presentation; double score with XX; Middle School rubric with XX and XX. Plan and prepare for coaching Middle School scoring. Met with XX re: writing prompt requirements.
November 10	Problem-solution prompt preparation; staff meeting; observation of four teachers.

In addition, IFs are evaluated annually according to a rubric that identifies whether an IF is exemplary, effective, or has areas for growth in the following domains:

- 1) Leading change at the school level
- 2) Analyzing data at the classroom level

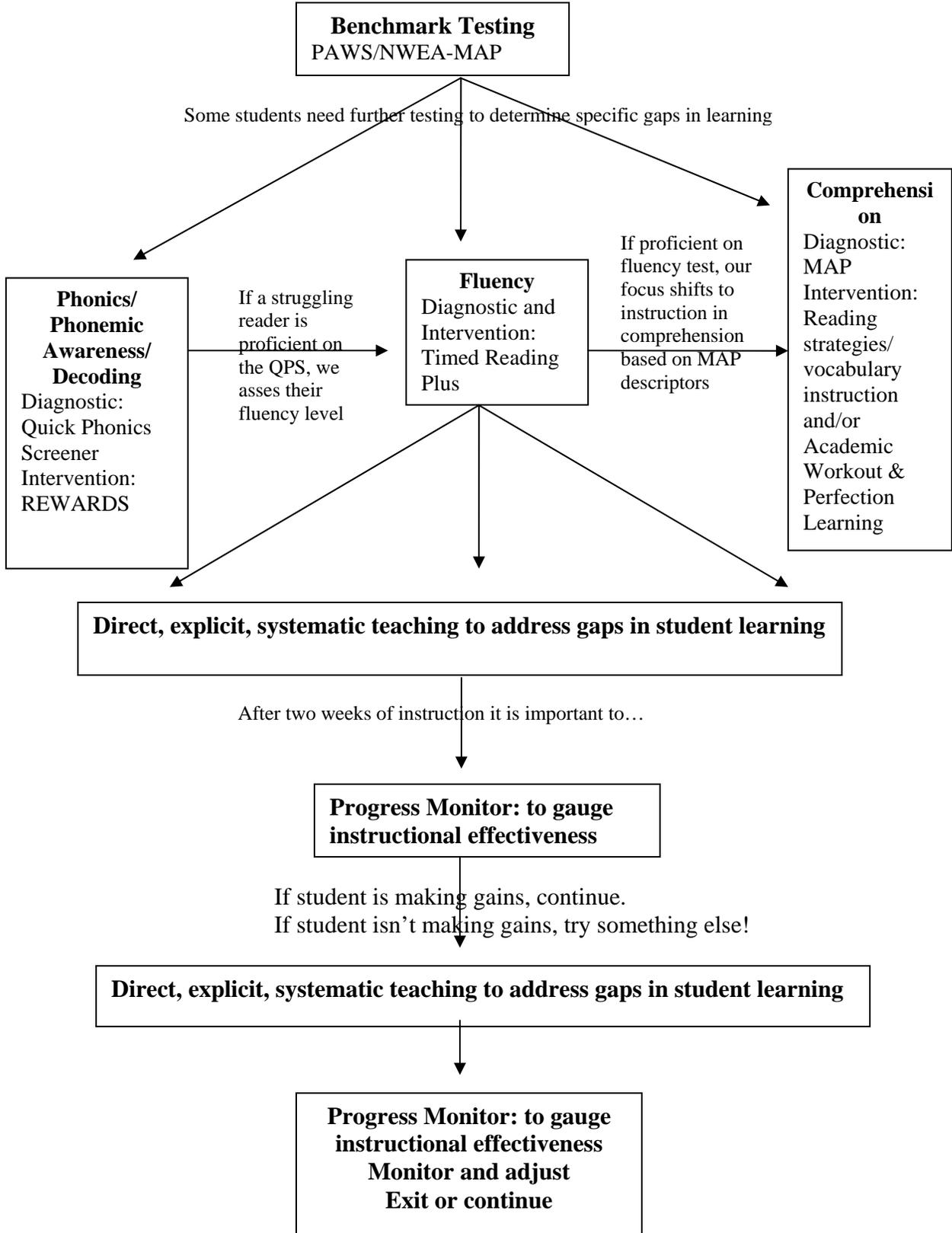
- 3) Professional responsibilities
- 4) Effective implementation of school/district initiatives

The IF is asked to write “reflective comments” on each area as is the building administrator, who also recommends whether the IF be retained, retained with improvement required, or not renewed.

Interventions for Struggling Students

Mastiff uses data from PAWS and NWEA-MAP to identify student needs and to provide strategies and interventions to help struggling students. The district follows a process for identifying students for extra help, providing extra help, and monitoring their progress; the superintendent noted that it is “kind of a Response to Intervention” approach, but not explicitly so. For example, small reading groups are used for the lowest achieving students. If that doesn’t work, teachers are expected to try using different materials to teach the skills: for example, using short passages for reading instead of novels. An example of the district’s approach for figuring out whether to provide extra-help in reading is shown below in Figure 4.

Figure 24: Identifying and providing extra help



Instructional Leadership

The Superintendent meets quarterly with each building administrator to review progress on meeting school goals. She asks them, “What have you done toward making progress on your school improvement plans?” In addition, the superintendent attends at least one staff meeting per year at each school and one building professional development day. If an administrator is underperforming, the superintendent works with him or her to create a “plan of assistance” for the next few months and they have regular meetings to monitor progress. The Superintendent said she has an “open door/open phone policy for principals to contact me, and they do!”

RESOURCE ALLOCATION

The following table compares the actual resource allocation to Mastiff School District for the 2008-09 school year to that provided in the Wyoming Funding Model. District personnel reported that they have provided additional core academic teachers, specialist teachers and tutors, and have provided fewer administered positions than those generated by the model, as shown in the table.

Table 4. Mastiff School District Resource Allocation (FTEs and Dollars)

Staffing Category	2008-09	
	WY Funding Model	Actual
Core Academic Teachers	51.31	52.57
Specialist & Elective Teachers	16.39	21.16
Alternative Teachers/ Small School Teachers		
LIBRARY STAFF		
- Librarian/Media Specialist (Certified)	5.41	5
- Library/Media Tech Aides (Non-Certified)	1.65	2
EXTRA HELP		
- Certified ELL Teachers	0.16	0
- Certified Teacher Tutors for English Language Learners		
- Certified Teacher Tutors for At-Risk Students	3.08	4.44
- Non-certified Tutors		
- Resource Room Teachers		13.46
- Special Education Teachers (inclusion)		
- Special Education Teachers (self-contained)		
- Special Education Aides (self-contained)		11.5
- Resource Room Aides		
-Special Education Aides (inclusion)		
- Gifted & Talented Teachers		
- Gifted & Talented Aides		
- Gifted & Talented Funds		
- Extended Day (teachers and classified staff)		
- Summer School		
- Title I teachers		2
- Title II teachers		1.52
PROFESSIONAL DEVELOPMENT		
- Total # of Professional Development Days		
- Instructional Facilitators		3.71
- Teacher Time (Substitutes & Stipends)		
- Trainer/Consultant Funds		
- Materials, Equipment & Facilities		
- Travel & Transportation		
- Tuition & Conference Fees		

Staffing Category	2008-09	
	WY Funding Model	Actual
Other Instructional Staff		
- Building Substitutes & Other Substitutes		
- Instructional Aides		
- Supervisory Aides (non-teaching aides)	6.63	4
Student Support		
- Counselors	5.19	6
- Nurses		
- Social Workers		
- Psychologists		
- Speech/ OT/ PT		
- Health Assistant		
Administration		
- Principal	10.87	8.48
- Assistant Principal		
- Other Administrator	0	0.57
- Secretary	9.87	9.5
- Clerical	4.04	4

District personnel noted that Special Education teachers and aides, Title I and II teachers, and Instructional Facilitators fall “outside the funding model” so did not have corresponding numbers for allocations in these positions.

FUTURE IMPLICATIONS AND CONCLUSIONS

District personnel felt the schools would benefit from having a full-time IF at each school. In addition, increasing the number of professional development would provide more opportunity to focus on instructional strategies and money to implement Professional Learning Communities would be beneficial.

District personnel felt that the biggest need in the district was adequate funding for core teachers. For example, the superintendent noted that one of the high schools has an average of 36 students per grade level, which generates 1.5 teachers per core subject, but the district “can’t find half time teachers” and the geographic spread of the district prevents sharing core staff at the two high schools, so the district funds two FTEs in each core subject. She worries that if enrolment declines, it will create a “huge problem for funding the needed positions.”

Border Collie Middle and High School: A Case Study of Instructional Improvement Efforts and Resource Use

INTRODUCTION

Border Collie is made up of two schools, a sixth through eighth grade middle school and a ninth through twelve grade high school housed in the same building and headed by one principal. The combined school serves approximately 260 students in a rural district of Wyoming. The district educates approximately 1,000 students in Kindergarten through 12th grade. About 16% of the students at Border Collie Middle and High are eligible for free and reduced-price and a little under 10% receive special education services. None of Border Collie’s student population is identified as an English language learner.

Over the past five years, Border Collie’s instructional improvement strategies have been implemented through providing ongoing professional development for teachers, working toward whole school responsibility for teaching reading and writing, and supporting teacher growth through the use of instructional facilitators. The purpose of this case study is to tell the story of improvement in student learning at Border Collie Middle and High School and to identify how the corresponding resources were allocated.

TEST SCORE DATA

Border Collie Middle and High had mixed test results between the 1999-2000 and 2004-05 school years under the Wyoming Comprehensive Assessment System (WyCAS). The percentage of 8th grade students scoring proficient or advanced during this five-year period increased by 21.8 in math, 7 in reading, and 13.5 in writing, while the percentage of 11th graders increased by 7.3 in math, but decreased 10.2 in reading and by 9.5 in writing. These gains and declines are shown below in Tables 1 and 2.

Table 1. Border Collie 8th Grade WyCAS Percent Proficient and Advanced Scores

SUBJECT	1999-00	2000-01	2001-02	2002-03	2003-04	2004-05
Reading	60.6	62.2	64.7	58.1	64.3	67.6
Writing	57.6	75.7	67.6	41.9	69.0	71.1
Math	48.5	48.6	82.4	74.2	69.0	70.3

Table 2. Border Collie 11th Grade WyCAS Percent Proficient and Advanced Scores

SUBJECT	1999-00	2000-01	2001-02	2002-03	2003-04	2004-05
Reading	78.1	63.9	84.4	56.4	77.5	67.9
Writing	77.4	77.8	78.1	71.8	87.5	67.9
Math	67.7	61.1	78.1	61.5	62.5	75.0

Fluctuations occurred over this six year period; most notably, the percentage of students scoring proficient or advanced in 8th grade math nearly doubled between 2000-01 and 2001-02, but then declined steadily for the remaining 3 years the test was used. The changes in performance throughout this period can be seen in Figures 1 and 2 below.

Figure 1: Percentage of 8th Grade Border Collie Students Scoring Proficient or Advanced on WyCAS, 1999-00 through 2004-05

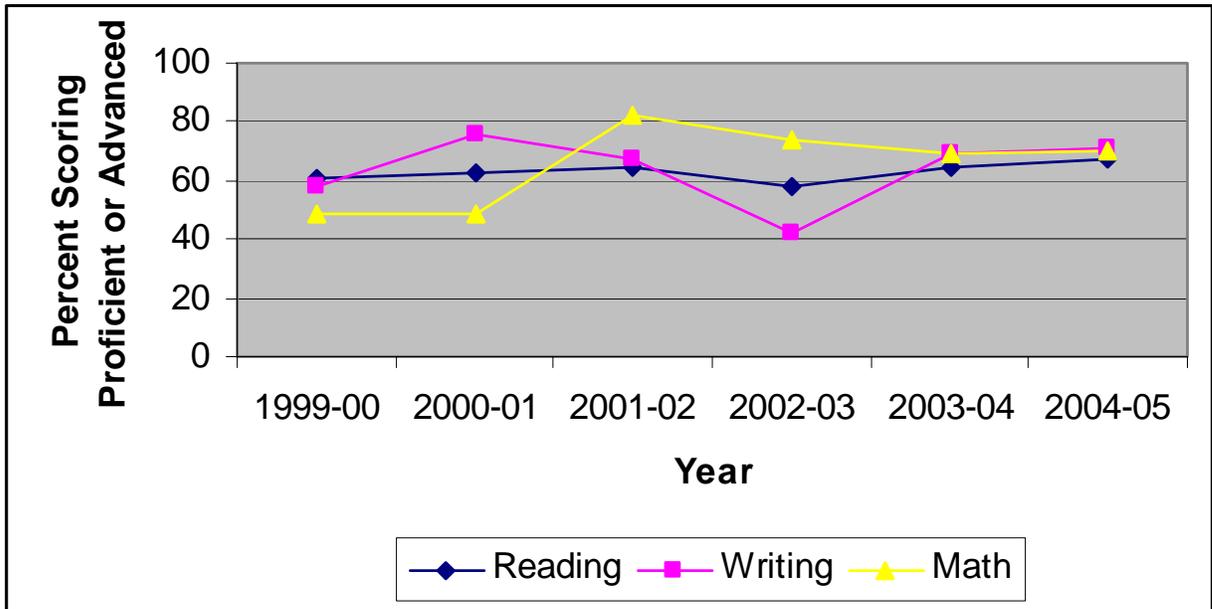
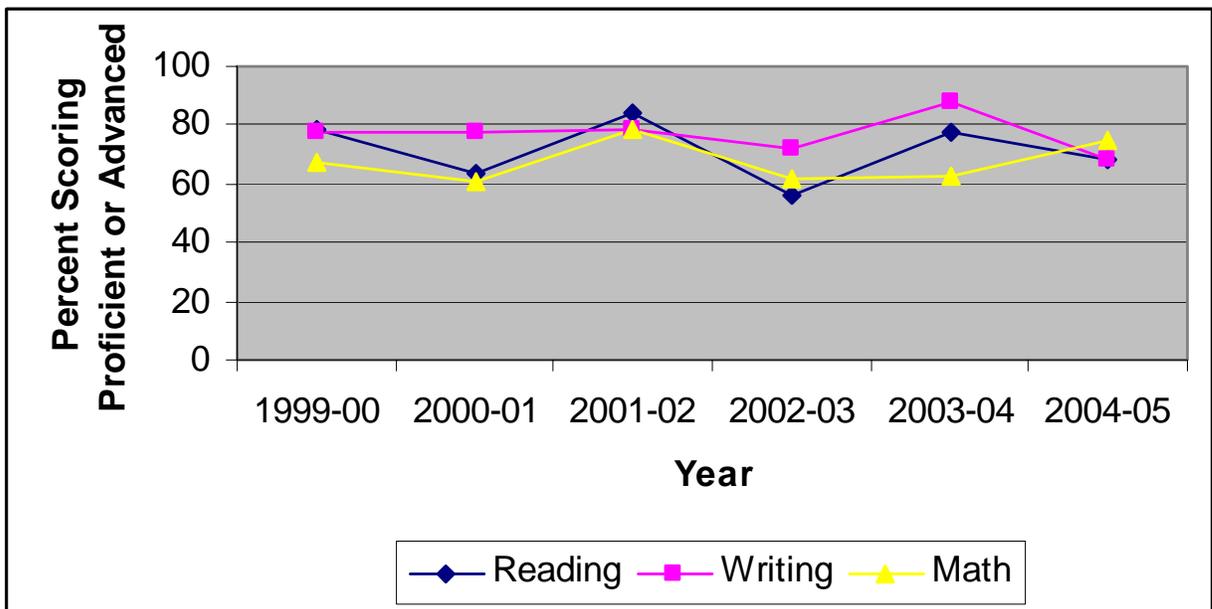


Figure 2: Percentage of 11th Grade Border Collie Students Scoring Proficient or Advanced on WyCAS, 1999-00 through 2004-05



During the 2005-06 school year, Wyoming implemented the new statewide Proficiency Assessment for Wyoming Students (PAWS) testing system. Although not directly comparable to WyCAS, PAWS scores from during the 2005-06 to 2007-08 school years show mixed (at best) results in student achievement at Border Collie, with significant drops in 6th, 7th, and 8th grade writing, as shown in Table 3.

Table 3. Border Collie Middle/High School Percent Proficient and Advanced PAWS Scores

Grade	Math				Reading				Writing			
	05-06	06-07	07-08	change	05-06	06-07	07-08	change	05-06	06-07	07-08	change
6	90	79	92	2	86	76	84	-2	63	37	19	-44
7	68	82	92	24	78	77	76	-2	58	56	43	-15
8	87	79	89	2	89	68	83	-6	87	92	75	-12
11	89	86	89	0	90	89	89	-1	89	88	91	2

Specifically, Border Collie’s percentage of students receiving proficient or advanced scores in writing decreased slightly in reading in all grades and decreased significantly in writing in grades 6-8, with a drastic decline in 6th grade from 63% proficient or advanced to just 19%. Scores were flat in 11th grade math, with slight increases in 6th and 8th grades and a notable jump in 7th grade.

Despite these seemingly lackluster results, a comparison with district and state averages in 2007-08 show that Border Collie outperformed the district and state in all grades in math, as well as in 6th, 8th, and 11th grade reading and 8th grade writing. These data are shown below in Table 4.

Table 4: School, District, State Comparison –Percent Proficient or Advanced on PAWS 2007-08

Grade	Math			Reading			Writing		
	School	District	State	School	District	State	School	District	State
6	92.0	91.5	78.2	84.0	80.3	70.1	19.0	45.1	47.4
7	92.0	87.0	72.2	76.0	78.3	64.9	43.0	55.9	47.6
8	89.0	83.8	67.7	83.0	81.1	70.5	75.0	73.0	58.2
11	89.0	84.7	64.4	89.0	81.4	65.8	91.0	91.5	73.0

Looking at growth on PAWS scores between 2005-06 and 2007-08 shows that the district and state had greater advances than those of the school in all grades and subjects except for 7th grade math. Figures 3, 4 and 5 ,

Figure 1 show the changes in percentage of students scoring proficient or advanced on PAWS from the 2005-06 to 2007-08 school years for the school compared with the district and state.

Figure 3: School, District, State Comparison – Change in Percent Proficient or Advanced on PAWS MATH Scores

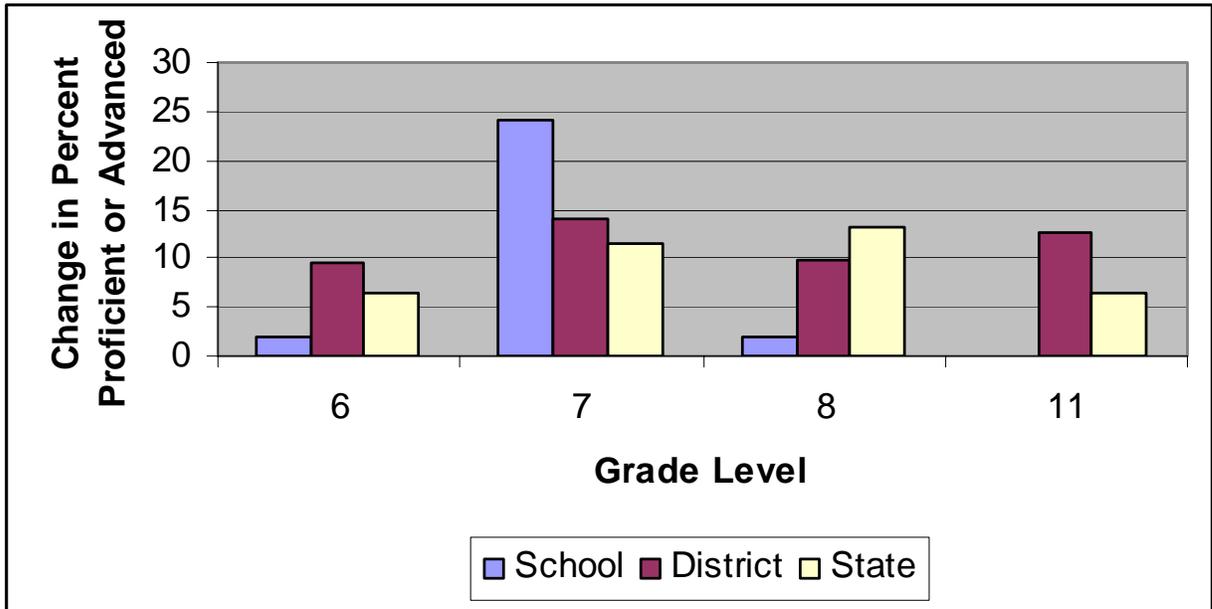


Figure 4: School and State Comparison – Change in Percent Proficient or Advanced on PAWS READING Scores

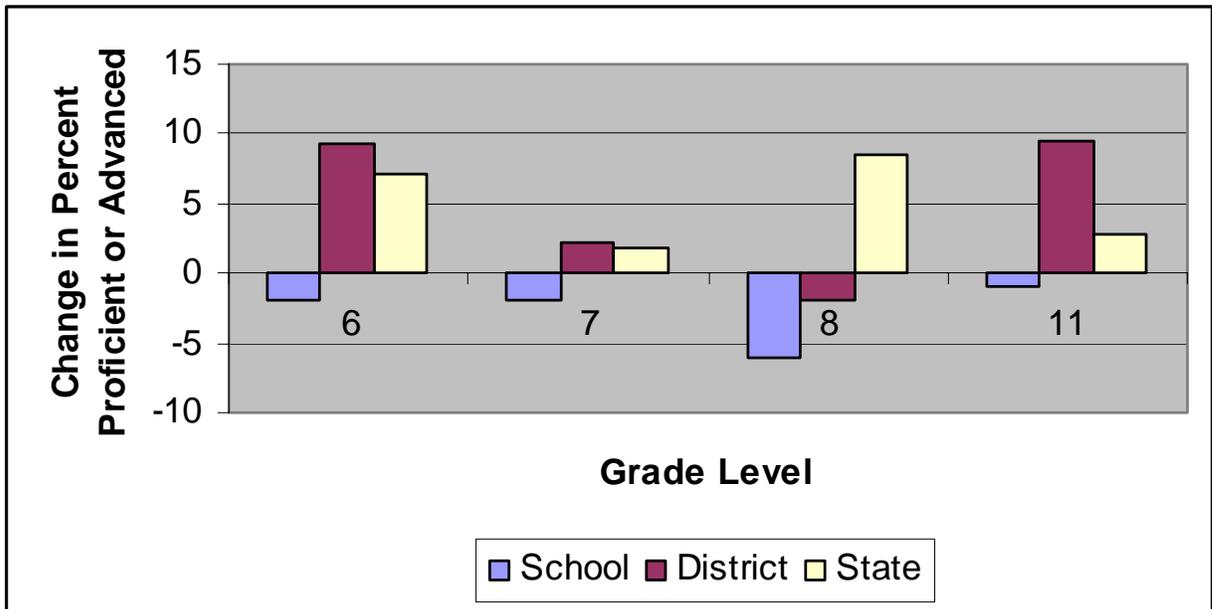
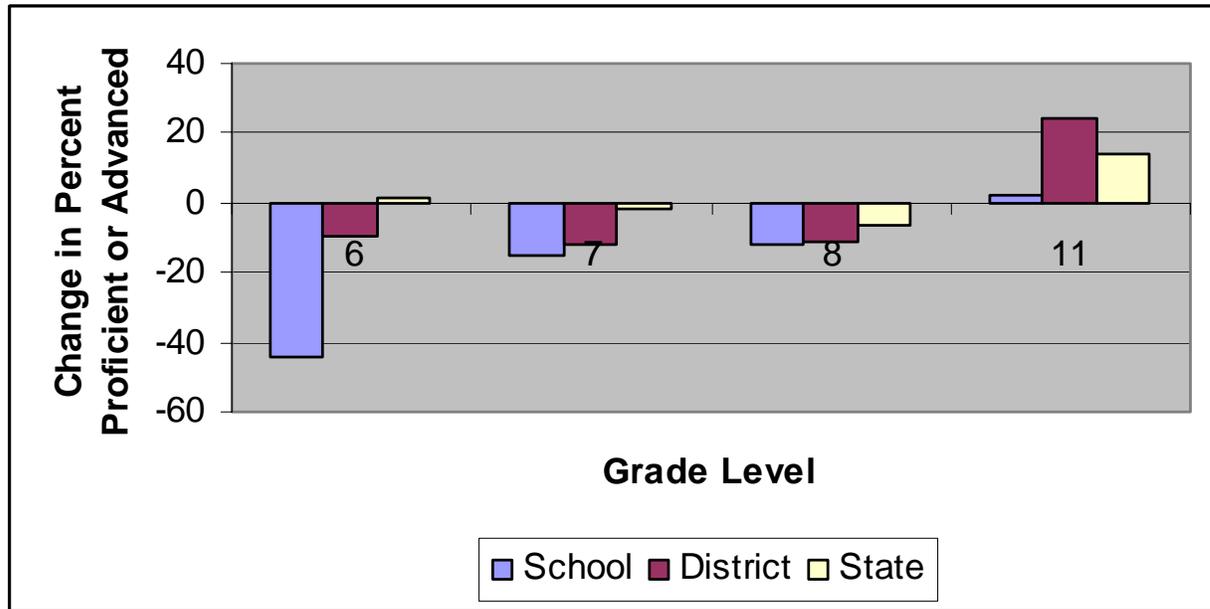


Figure 5: School and State Comparison – Change in Percent Proficient or Advanced on PAWS WRITING Scores



EDUCATIONAL IMPROVEMENT STRATEGIES

The principal at Border Collie Middle and High School has been in that position for the past five years. He was the principal in another district in the state for three years prior to joining Border Collie. Over the past several years, the primary focus of Border Collie’s educational improvement strategy has been on improving student performance in reading and writing. To this end, the school has focused its resources and improvement strategies predominantly in three ways. First, they have provided training for teachers in reading in the content areas. Second, common writing prompts are given to students once a quarter, and double-scored using Step Up to Writing rubrics. Finally, middle and high school students are grouped in reading groups based on NWEA-MAP scores for small group instruction.

Goals

Border Collie identified the following goals for the 2008-09 school years, with accompanying intervention plans:

- All students will improve reading comprehension
 - Intervention: Students will be expected to demonstrate knowledge of academic vocabulary by using words in context.

- All students will learn and practice reading strategies specific to expository texts.
- All students will improve their writing in the areas of organization, content and mechanics.
 - Intervention: Border Collie staff will investigate data to determine student writing needs.
 - Intervention: Student writing samples will be assessed using the Step Up Rubric for Paragraph, Report, and Essay Writing.

These and other school wide approaches are discussed in the following sections.

Curriculum and Instructional Approach

In line with their school improvement goals, Border Collie has focused its instructional approach on teaching students reading strategies, with a particular emphasis on reading expository texts. To this end, the principal reported that teachers in all content areas, with guidance from the IF, are expected to work with students on the following reading skills: predicting, activating prior knowledge, making connections, making inferences, and understanding main ideas. A second area of focus has been on teaching writing across the curriculum (see the “Investing in extensive, long-term professional development” section). As one teacher noted, in prior years, “writing was seen as the language arts teachers’ responsibility, now it’s seen as everyone’s responsibility.”

In class, teachers use a variety of instructional strategies. In an 11th grade English class, the teacher quickly discovered that students were having trouble keeping the characters straight in the novel they had recently begun reading, *One Flew Over the Cuckoo’s Nest*, so she stopped the lesson and had students work in pairs to create a list of characters with brief descriptions of who they were. In a 6th grade language arts class, the teacher introduced the students to how to write a five paragraph persuasive essay by modeling on the whiteboard. The teacher began by listing positive attributes of the topic (why fishing is a rewarding hobby) in a graphic organizer, a copy of which the students were given to create their own notes on their topics. The graphic organizer included spaces to list the arguments as well as places to “jot down words, phrases and transitions to use in your essay,” the teacher explained. He stressed the point that students could select a topic of their choice and that it should be something they were “passionate about, so you don’t have to research arguments in favor of it.” After about 20 minutes, the teacher had the students start outlining their essays on their graphic organizers, and he circulated around the room to check on students’ progress, offer ideas, and answer questions.

In a trigonometry class, the teacher’s lecture style was to pose questions and let students come up with the answer (e.g., “Why is this the right formula to use to solve this problem?”). At one point, when several different answers were given and no consensus was reached, the teacher instructed the students to read back through the chapter until they could come to an agreement about the correct answer. In a 7th grade math class, the teacher used a Smart Board to go through the previous night’s homework. Students asked

her to explain questions they had trouble with and then the students corrected their work as the teacher wrote the solutions on the Smart Board.

Data Collection and Use

Border Collie uses a variety of student assessments to provide summative, formative, and diagnostic data on student performance, described below:

- PAWS: The Proficiency Assessment of Wyoming Students (PAWS) is a summative statewide assessment, administered (at the middle and high school level) to 6th, 7th, 8th and 11th graders in a mix of online and print formats in reading, writing, math, and recently, science. PAWS data is used for Adequate Yearly Progress reporting and provides a picture of overall progress at the school as well as tracking subgroup performance.
- NWEA: The school has used the Northwest Evaluation Association (NWEA) computerized adaptive assessment in the fall and spring in language arts and math.
- NWEA data are used to group students into reading groups based on areas of need.
- PLAN test: Border Collie administers the PLAN test to 10th grade students as a “pre-ACT” test to help predict success on the ACT and plan for interventions.
- A formative vocabulary “pre-test” was administered in the fall of 2008 to assess current knowledge levels; language arts teachers were then expected to create a “focused vocabulary study” based on the pre-test results.
- During the 2008-09 school year, Border Collie implemented a common writing prompt for students to complete every quarter. The teachers double-score the students’ writing using the Step Up to Writing rubric in the areas of content, organization, and mechanics.

Professional Development

Twelve professional development days are split between district-run days and building-specific days, according to the principal. The focus of the district days this year has been on “creating common assessments,” as one teacher reported, “to make sure the schools on each side of the district are covering the same material.” Teachers reported finding the district-run PD days “less useful than building days” because “the two sides of the district have very different environments and cultures, making coordination difficult.” Another teacher reported that district PD days get spent “creating rubrics, rather than developing skills” and felt that building days are more relevant; for example, during one building PD

day, the school brought in a “technology guru who helped us design ways to integrate technology.” This led a group of teachers to complete a Professional Development Projects (PDPs) on technology integration. PDPs are structured such that teachers work collaboratively on a topic of interest that aligns with district, school or individual goals to increase student learning. PDP requirements, devised by the district, specify that teachers spend a minimum of 15 hours “outside the regular contract hours” and at least 10 hours implementing strategies in the classroom; the principal is expected to observe implementation of the PDP. Teachers are paid \$500 upon completion of a PDP.

The principal reported that in line with the school’s writing goals, teachers received additional training in Step Up to Writing. Some of this was done at the district level and the school extended the district training on building days by practicing using the scoring rubric and discussing how to be consistent in assessing the quality of a student’s work in the three focus areas: content, organization and mechanics. This topic was revisited throughout the year during staff meetings led by the IF. In one such meeting, the IF presented data from the last doubled-scored writing assessment, pointing out that “there’s a chunk of juniors whose scores have declined.” Staff discussed whether “it’s an effort thing or a skill thing” and ways to combat the downward trend at the end of the school year. A teacher noted after the meeting that it is very valuable to have the IFs present data because it “leads us to think about next steps for working with the students.” Another echoed this, saying, “The IFs’ focus on data forces the issue and forces the action.”

In addition to district and building-wide professional development, the school splits into middle and high school staff “reading groups” to discuss strategies for teaching reading across the curriculum. A teacher reported that these weekly meetings involve the district’s curriculum specialist, who has “brought in a lot of new ideas for us to use.” Teacher cohorts have common planning time twice a week, but some teachers felt that this time “just becomes individual planning time because no one leads it.”

The principal reported that about four years ago the school added a literacy coach to help teachers implement language arts content; this position “evolved” into that of the IFs, which he described as being “data-driven, focusing on strategies rather than content.” The IF job description outlines three major responsibilities: leading change at the school level, analyzing data at the classroom level, and a number of “professional responsibilities” such as remaining “current in research and best practices” and “supporting school and district initiatives.” The IFs reported that having their job responsibilities spelled out in this way helped them focus their efforts and know what was expected of their roles. One of the IFs noted that they have split their focus so that one of them works on school improvement goals (analyzing data with staff, devising interventions) and the other on instructional strategies.

A science teacher reported working with one of the IFs on strategies to explain complex science concepts to his 7th graders. They discussed approaches in advance and then the IF modeled the lesson to one class after which the teacher taught the same lesson to his next class. They debriefed afterwards, discussing what they felt “worked” and what should be changed the next time the lesson was taught. In another case, the IF worked with a

teacher one-on-one on double-scoring essays. The coaching session, initiated by the teacher, discussed how to use the scoring rubric to make decisions about a student’s work. The teacher stressed that each criterion was to be treated separately; for example, the “organization” criterion was to be judged independent of content.

The IFs’ estimate of how they spend their time is shown below in Table 4:

Table 15: Percentage of time IFs spend on different tasks

IF’s tasks	Percentage of time spent on each task	
	IF 1	IF 2
Researching and analyzing data and presenting data to staff	50	25
Modeling instruction or observing teachers	25	25
Preparing instructional strategies for teachers to use	25	50

The IFs reported receiving a range of training to help them implement their role. They attended a state training on the role of coaches at the start of the year and meet with the district’s other IFs during district PD days. They reported meeting with the principal regularly, at least once a week, to discuss ideas and get guidance on focus areas.

Structure of School Day

The Border Collie principal is implementing a schedule change for the 2009-10 school year in order to create a 24 minute intervention/enrichment period. This will be accomplished by reducing the core class periods from 55 to 43 minutes. The intervention period will be based on “daily needs” as the principal put it; for example, if a teacher sees that a group of students “don’t get it during class, they’ll get pulled in for extra help during the re-teach period.”

The principal felt that this change was necessary to be able to incorporate interventions into the regular school day, as students can’t be required to attend an after school extra help session or Friday school. Teachers had not fully bought into the idea of the remediation period at this point, expressing uncertainty as to how it would be structured and whether the desired outcomes could be achieved. As one teacher noted, the principal would like to implement a Professional Learning Community at the school, but did not consult teachers before making the scheduling change, something she felt could have been the “perfect opportunity to try out the PLC idea of group decision-making.”

Interventions for Struggling Students

Teachers reported that about four years ago, the school created small reading groups for both the middle and high school level of between 5 and 12 students in an effort to meet

their school improvement goals in reading. NWEA-MAP data are used to create groups that need work on specific skills and reading across the content areas is stressed. To this end, the content area teachers worked with the reading specialist (a position that has since evolved into the IF role) to identify strategies to use in the reading groups. The school moved away from using novel study in these reading groups to “informational texts.” As one teacher noted, “we are trying to get students to see that reading is valuable for a range of purposes, even if all we do is motivate students to get interested in reading.”

Teachers have elected to make themselves available for 30 minutes after school three times a week; teachers can suggest that a student comes to see them during this time, or students can choose to seek extra help. Teachers reported that in addition to this time after school, most teachers are available before school for 30 minutes as well as during lunch. “Student concern lists” are generated by the secretary based on the computerized reporting system and sent to teachers twice a week so that teachers can follow-up with students in a timely fashion. Teachers reported that other than notifying teachers about which students have fallen behind, there is not a school-wide process for getting them help once they are identified. “We don’t have an RtI model,” one teacher noted, “so it’s left up to individual teachers to help struggling students.”

In addition, Border Collie holds “Friday school” one to two Fridays a month (the regular school week is from Monday to Thursday), staffed by a rotation of two teachers, one middle and one high school. One teacher noted that an average of 20-30 students attend Friday school, which provides them an opportunity to catch up on incomplete work and also for teachers to work with students on material they are struggling with. However, this teacher noted that because the staffing rotates, it can be difficult at the high school level for the teacher to help with work outside of his or her content area.

Instructional Leadership

The principal identified himself as a strong instructional leader, and while this was echoed by teachers, many thought that his style is too top-down. As one teacher noted, the teachers refer to the principal as “the decider” and feel he often makes decisions that affect their jobs without their input, such as the schedule change mentioned above. Acknowledging this allegation, the principal noted that he has an “open door policy. They can come talk to me if they have a problem, but it’s not my job to go ask their permission every time I need to make a decision.”

Teachers noted that the principal has delegated some leadership authority to the two IFs. The staff have weekly staff meetings, one or two of which the IFs lead each month. The IFs noted that the principal’s support “has been crucial” in their ability to gain respect and buy-in from the teachers, especially since both IFs were hired from “outside” of the school, creating some skepticism that they were suited to make judgments about the best way to approach instruction for the school’s students. One of the IFs reported, “The teachers very quickly knew that they were supposed to work with us, because the principal was relentless in praising our expertise.”

RESOURCE ALLOCATION

Table 5 compares the actual resource allocation at Border Collie to that provided in the Wyoming Funding Model. Although Border Collie has one principal and shares many other staff as well as being housed in a single building, the two schools operate independently for budget purposes, so data are reported here separately for the middle school (6th-8th grade) and high school (9th-12th grade). Middle school data were only available for the 2008-09 school year; high school data were available for the 2007-08 school year as well.

Table 5. Border Collie Middle School Resource Allocation (FTEs and Dollars)

Staffing Category	2008-09	
	WY Funding Model	Actual
Core Academic Teachers	5.3	6
Specialist & Elective Teachers	2.7	3.5
Alternative Teachers/ Small School Teachers		
LIBRARY STAFF		
- Librarian/Media Specialist (Certified)	1	
- Library/Media Tech Aides (Non-Certified)	0.35	0.5
EXTRA HELP		
- Certified ELL Teachers		
- Certified Teacher Tutors for English Language Learners		
- Certified Teacher Tutors for At-Risk Students	0.35	
- Certified Teacher Tutors who Work with Small Groups		
- Non-certified Tutors		
- Resource Room Teachers		2
- Resource Room Aides		1
- Special Education Teachers (self-contained)		
- Special Education Aides (self-contained)		
-Special Education Teachers (inclusion)		
-Special Education Aides (inclusion)		
- Gifted & Talented Teachers		0.3
- Gifted & Talented Aides		
- Gifted & Talented Funds	\$3,134	
- Extended Day (teachers and classified staff)		
- Summer School		
PROFESSIONAL DEVELOPMENT		
- Total # of Professional Development Days		12
- Instructional Facilitators		0.37
- Teacher Time (Substitutes & Stipends)	\$12,537	
- Trainer/Consultant Funds		
- Materials, Equipment & Facilities		1,000
- Travel & Transportation		6,500
- Tuition & Conference Fees		1,000

Staffing Category	2008-09	
	WY Funding Model	Actual
Other Instructional Staff		
- Building Substitutes & Other Substitutes		
- Instructional Aides		
- Supervisory Aides (non-teaching aides)	0.71	
Student Support		
- Counselors	0.8	1
- Nurses		0.33
- Social Workers		
- Psychologists		
- Speech/ OT/ PT		0.33
- Health Assistant		
Administration		
- Principal	1	0.5
- Assistant Principal		0.25
-Other Administrator		
- Secretary	1	0.5
- Clerical	0.35	0.5

FUTURE IMPLICATIONS AND CONCLUSIONS

In order for Border Collie staff to continue and expand efforts to increase student achievement, the principal noted that current funding levels would need to be maintained. He stressed that although the funding model provides for 5.3 core teachers at the middle school and just under seven core teachers at the high school, the district has staffed the middle school at six and the high school at eight core teachers. Several teachers echoed the sentiment of one who said that although they are paid “nearly \$9,000 less than teachers in [the neighboring district],” they are happier working at Border Collie than in the neighboring district “as long as we don’t lose any staff,” expressing the concern that if staffing is reduced to the numbers generated by the model, class size would be increased greatly.

In addition to maintaining staffing levels, the principal felt the school would benefit from the ability to have two full time Instructional Facilitators so that they could “really delve into data-based decision-making.” A teacher noted that rather than having the two IFs work with the whole school, it would be valuable to have an IF “dedicated to the middle school teachers” since he felt that effective middle school strategies are different from those used at the high school since the students are younger and need more guidance from teachers.

Labrador Middle School: A Case Study of Instructional Improvement Efforts and Resource Use

INTRODUCTION

Labrador Middle School is a sixth through eighth grade school with just over 100 students in a rural district of Wyoming. The district educates approximately 1,000 students in Kindergarten through 12th grade. About 30% of the students at Labrador are eligible for free and reduced-price lunch and a little over 15% receive special education services. None of Labrador's student population is identified as an English language learner.

Over the past several years, Labrador has implemented instructional improvement strategies through using student assessment data to group students for small group instruction, providing renewed professional development for teachers, and supporting teacher growth through the use of instructional facilitators. The purpose of this case study is to tell the story of improvement in student learning at Labrador Middle School and to identify how the corresponding resources were allocated.

TEST SCORE DATA

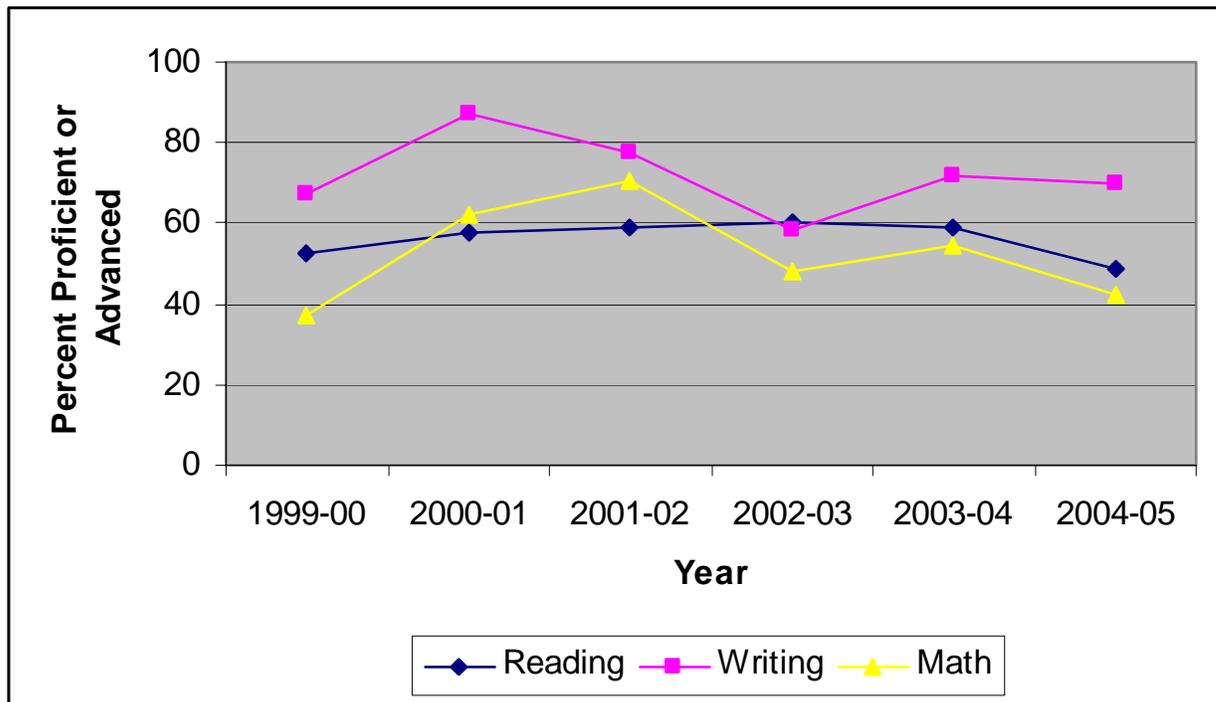
Labrador Middle School had mixed test results between the 1999-2000 and 2004-05 school years under the Wyoming Comprehensive Assessment System (WyCAS). The percentage of students scoring proficient or advanced during this five-year period increased by 4.9 in math and 2.2 in writing and decreased by 4 in reading, as shown in Table 1.

Table 1. Labrador 8th Grade WyCAS Proficient and Advanced Scores

SUBJECT	1999-00	2000-01	2001-02	2002-03	2003-04	2004-05
Reading	52.5	57.5	59.1	60.4	58.7	48.5
Writing	67.5	87.5	77.3	58.3	71.7	69.7
Math	37.5	62.5	70.5	47.9	54.3	42.4

These modest gains and losses over this six year period included fluctuations in each content area, with peaks in reading in 2002-03, in 2000-01 in writing, and in 2001-02 in math. The changes in performance throughout this period can be seen in Figure 1 below.

Figure 1: Percentage of 8th Grade Labrador Students Scoring Proficient or Advanced on WyCAS, 1999-00 through 2004-05



During the 2005-06 school year, Wyoming implemented the new statewide Proficiency Assessment for Wyoming Students (PAWS) testing system. Although not directly comparable to WyCAS, PAWS scores from the 2005-06 to 2007-08 school years show growth in student achievement at Labrador overall, with losses in 7th and 8th grade writing but gains in all other subjects and grades. Especially notable are 6th grade scores, with jumps from 74% proficient or advanced in math to 91%, 55% to 77% in reading, and 47% to 74% in writing, as shown in Table 2.

Table 2. Labrador Middle School Percent Proficient and Advanced on PAWS

Grade	Math				Reading				Writing			
	05-06	06-07	07-08	change	05-06	06-07	07-08	change	05-06	06-07	07-08	change
6	74	85	91	17	56	79	77	21	47	55	74	27
7	79	83	81	2	74	80	81	7	79	61	71	-8
8	63	83	79	16	77	86	79	2	81	86	71	-10

Comparing Labrador's 2007-08 scores with district and state averages reveal that Labrador outperformed the state in all grades and subject areas and outperformed the district in 7th grade reading and 6th and 7th grade writing. These data are shown below in Table 3.

Table 3: School, District, State Comparison – Percent Proficient or Advanced on PAWS, 2007-08

Grade	Math			Reading			Writing		
	School	District	State	School	District	State	School	District	State
6	91.0	91.5	78.2	77.0	80.3	70.1	74.0	45.1	47.4
7	81.0	87.0	72.2	81.0	78.3	64.9	71.0	55.9	47.6
8	79.0	83.8	67.7	79.0	81.1	70.5	71.0	73.0	58.2

Looking at growth on PAWS scores between 2005-06 and 2007-08 shows that Labrador had greater advances than those of the district or state in 6th and 8th grade math, 6th and 7th grade reading, and 6th grade writing, as shown in Figures 2 through 4.

Figure 2: School, District, State Comparison – Change in Percent Proficient or Advanced on PAWS MATH Scores

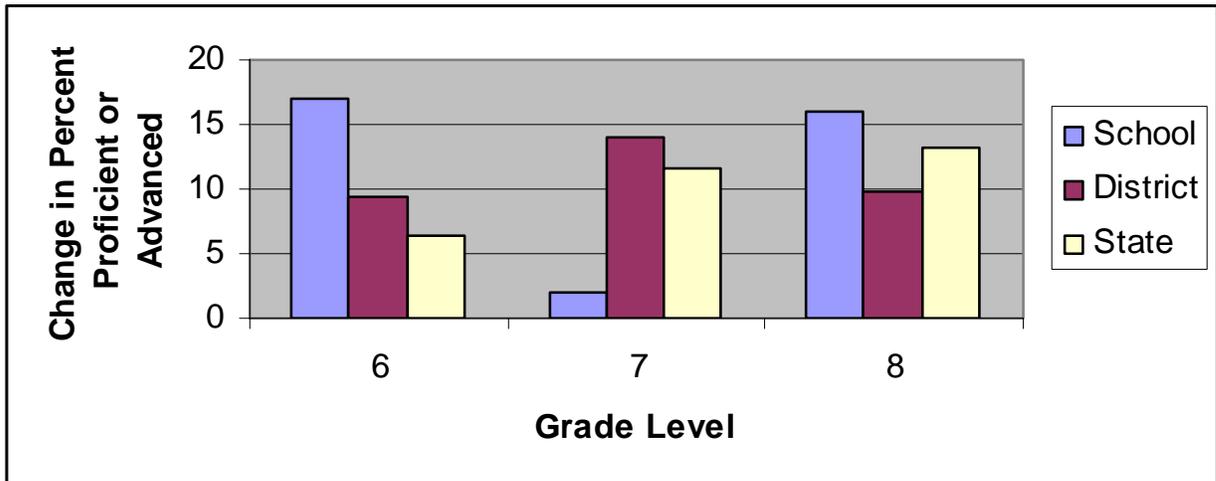


Figure 3: School, District, State Comparison – Change in Percent Proficient or Advanced on PAWS READING Scores

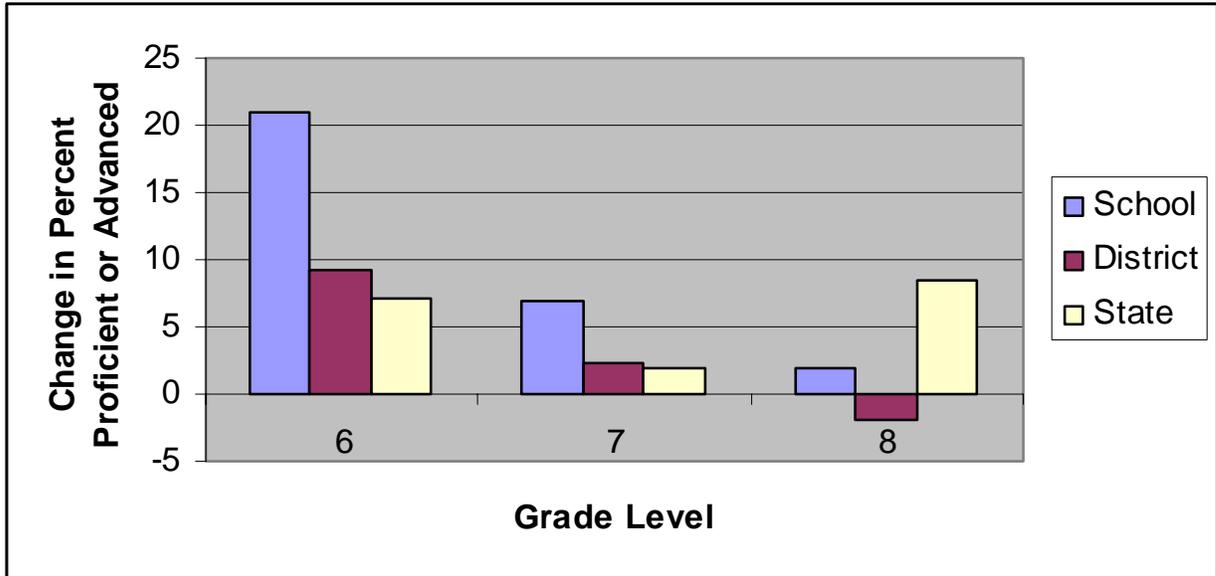
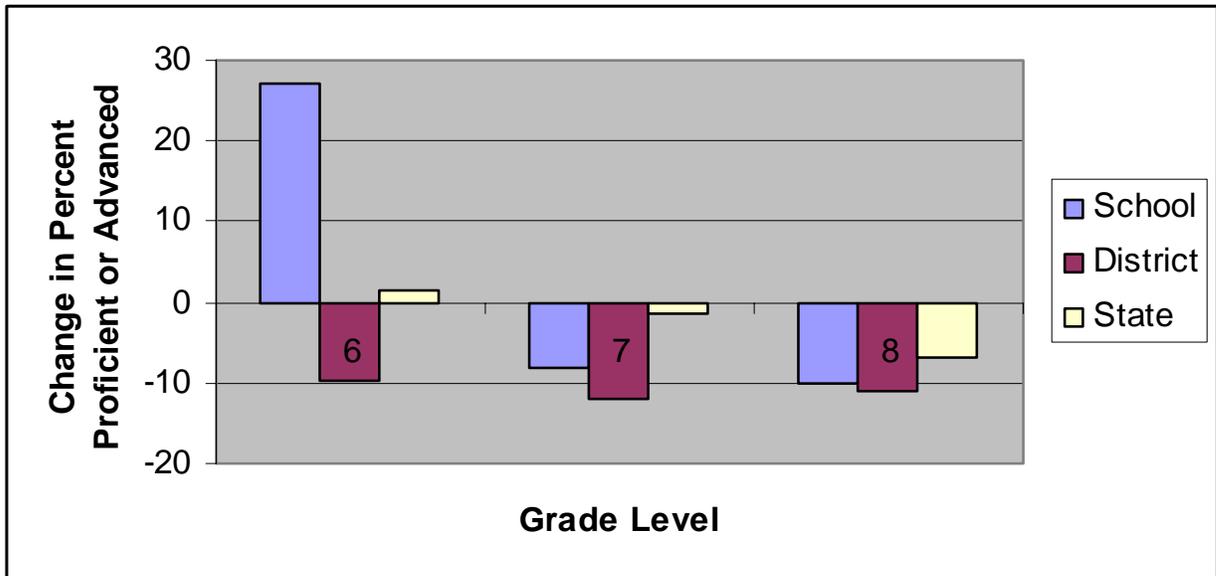


Figure 4: School, District, State Comparison – Change in Percent Proficient or Advanced on PAWS WRITING Scores



EDUCATIONAL IMPROVEMENT STRATEGIES

Labrador has had consistent leadership, with the current principal in his 9th year in the role; prior to becoming principal, he was a teacher elsewhere in the state. Over the past several years, the primary focus of Labrador’s educational improvement strategy has been first on reading and then reading and writing. To this end, the school has focused its

resources and improvement strategies predominantly in three ways. First, all staff attended a Teton Institute professional development training in the summer of 2006 on implementing a Response to Intervention model as well as student behavior strategies. Second, the school started assigning reading groups based on NWEA-MAP scores in order to “focus our efforts on specific student needs” according to the principal. Finally, Labrador “updated” their 6 Traits of Writing training and decided to focus on one area, paragraph writing, instead of “trying to do everything all at once,” as the principal put it. Finally, the school implemented a “walk to read” approach of grouping all students for additional reading instruction based on fall, winter and spring NWEA-MAP scores.

Needs Assessment

The school did not make AYP in Reading in 2004, so they initially focused their school improvement efforts on reading, adding writing three years ago when the district made both reading and writing district improvement goals.

Goals

Labrador identified the following goals for the 2006-07 through 2008-09 school years, with accompanying intervention plans:

- All Labrador students will improve their reading skills
 - Intervention: All students will be taught pre, during, and post reading strategies.
 - Intervention: All Labrador students not proficient in reading will have access to RTI classes for focused instruction.

- All Labrador students will improve their writing skills.
 - Intervention: All Labrador students will produce a summary paragraph applying the elements of Step-Up to Writing and 6 Traits.
 - Intervention: All Labrador students not proficient in writing will have access to RTI classes for focused instruction.

These and other school wide approaches are discussed in the following sections.

Curriculum and Instructional Approach

Curriculum maps were created as a district initiative; the principal reported that he monitors fidelity to the curriculum maps by having teachers submit periodic updates of what they have covered in class that corresponds to the expectation on the curriculum maps. In addition, the principal conducts regular classroom observations during which he looks for “student engagement, teachers’ use of questioning techniques, and teachers take advantage of opportunities to focus on vocabulary” as that is an area of weakness revealed by NWEA-MAP.

Labrador has not adopted a new curriculum; they use the Holt series for language arts and math. Instead, they have focused their school improvement efforts on implementing a Response to Intervention (RtI) model aimed at providing a range of extra help strategies both within the classroom and outside, if needed, to meet student needs. One such strategy has been the creation of reading groups, determined by NWEA-MAP scores in different areas (see “Providing multiple extra-help strategies for struggling students” section).

In addition to RtI, the school participated in the district’s 6 Traits of Writing training. Although the school had received training in 6 Traits before, the principal reported that the training “rejuvenated the staff” and picking one area to focus on for the 2008-09 school year, paragraph writing, has helped prevent burn out after their initial enthusiasm. He noted that when they focused on improving reading, “everyone bought on to being a reading teacher and now we’re getting there in terms of everyone being a writing teacher.”

The principal reported that his philosophy of good instruction is to have students “engaged, not just compliant.” This is something that he has tried to impress upon teachers, but has found that “it’s not always put into practice.” One hindrance has been that they lost both of their 6th grade teachers last year, so the new 6th grade teachers do not have a peer to help them implement the curriculum in line with the principal’s vision. Therefore, the IF will be working intently with one of the 6th grade teachers the following year. She has been assigned to work with the teacher for two periods a day, one to plan and evaluate lessons, and one to co-teach. The IF noted that her efforts to model instruction “haven’t worked, because the teacher just sits and does other work while I teach, so doesn’t learn anything.”

In class, teachers use a variety of instructional strategies. In a 6th grade class, a language arts lesson involved review of Latin roots. After a brief (10 minutes) lesson in which the teacher wrote the Latin roots the students have been studying on the board, students worked in pairs to create pictures to help conjure up the meaning of the roots. In a 7th grade math class, the first 25 minutes were spent on independent work while the teacher called students up to her desk one at a time to look at the online grade book to see what assignments needed to be completed before the end of the year. This was followed by a brief lecture (10 minutes) in which the teacher reviewed the concept of measurement on the board, followed by students working independently on measurement problems for the remainder of the period (about 20 minutes) while the teacher provides one-on-one assistance as needed.

Data Collection and Use

Labrador uses a variety of student assessments to provide data on student performance, described below:

- PAWS: The Proficiency Assessment of Wyoming Students (PAWS) is a summative statewide assessment, administered (at the middle school level) to 6th – 8th graders in a mix of online and print formats in reading, writing, math, and recently, science. PAWS data is used for Adequate Yearly Progress reporting and provides a picture of overall progress at the school as well as identifying subgroup performance. The Labrador principal felt that PAWS language arts data is not as good as giving information about students’ areas of weakness as the NWEA-MAP tests (see below).
- NWEA-MAP: The school uses the Northwest Evaluation Association Measures of Academic Progress (NWEA-MAP) computerized adaptive assessment three times a year in the fall, winter and spring to assign students to reading groups based on identified needs.
- DIBELS – Labrador uses Dynamic Indicators of Basic Early Literacy Skills (DIBELS), short (one minute) fluency measures (see www.dibels.org) to diagnose students for special education placements. These students receive one on one and small group instruction in the school’s resource room.
- During the 2008-09 school year, Labrador implemented a common writing prompt for students to complete every quarter. The teachers double-score the students’ writing and the IF keeps track of each student’s progress. The principal reported that as they are just beginning to use 6 Traits of Writing strategies more fully, he asked teachers to each select 2-3 writing strategies and interventions during their most recent professional development so they can begin to address identified student needs in a systematic fashion.

Professional Development

The principal reported that there are 10 professional development days built into the calendar: four district days and four building days that take place on Fridays (the school runs on a Monday – Thursday schedule), and two personal days at the start of the year. This year, district PD days focused on creating common assessments with teachers from the other middle school in the district; building days covered review of the school improvement plan, double-scoring common writing assessments, and a discussion of the RtI and behavior programs put in place after the Teton Institute training.

To help teachers implement the reading strategies, Labrador hired an Instructional Facilitator four years ago with reading expertise who had previously taught at the school. The principal structured the schedule such that teachers had collaborative planning time during which they met with the IF to discuss reading strategies. During a meeting to double-score student writing, the Instructional Facilitator hands out folders with student work for each teacher to score. The time is spent mostly with teachers reading and scoring the writing silently, with a few questions such as “What do you guys think this one deserves?” and at one point, a teacher reads a student’s work aloud to show what she considers to be a “4” paper (the highest mark). The IF reported later that once they finish

double-scoring, the teachers will be given their students' work so that they can "conference" with each student about the grade and comments given by the other teachers.

In addition to working with teacher cohorts, the IF work with individual teachers. The principal reported that "sometimes, teachers ask her to come into their classroom; other times, she identifies a need and initiates working with a teacher." He reported that although "we have some very veteran teachers," the IF works with most teachers at some point during the year. In one meeting between the IF and a 7th/8th grade language arts teacher, the two discussed the creation of scope and sequences for the RtI reading groups so that non-language arts teachers would have a better sense of the learning targets for each group. They used documents created by the district's other middle school as a template, revising it for their school's areas of weaknesses based on NWEA-MAP data. The IF and teacher have been working together to create these since the start of the school year at the principal's suggestion "because he knows we work so well together," reported the IF.

The IF's estimate of how she spends her time is shown below in Table 4:

Table 4: Percentage of time IF spends on different tasks

IF's tasks	Percentage of time spent on each task
Researching and analyzing data and presenting data to staff	50
Modeling instruction or observing teachers	20
Meeting with teachers in groups	30

The IF has received a range of training to help her define and implement her role. For example, she attended training by Jan Hasbrouck on literacy coaching techniques and has participated in the district's training on 6 Traits of Writing and the Teton Institute RtI training with the rest of the Labrador staff. The IF reported meeting with the other middle school IF in the district several times a year and working with the rest of the district IFs during district PD days.

Structure of School Day

As note earlier, the principal reported that during the 2006-07 school year, the schedule was structured such that teachers had collaborative planning time and a full time IF who worked with teacher teams during that time. However, when the school adopted an RtI period, they lost that collaborative time; similarly, they changed the full time IF to be .38 time IF and .62 time reading teacher to work with students in RtI groups. The principal reported that they will be re-adjusting the schedule to reincorporate common planning times in which he IF can work with teacher cohorts.

Interventions for Struggling Students

The school has defined the RtI approach to provide a period for remediation and enrichment in language arts; all students receive small group instruction during this period. In one RtI class observed, the teacher had students take turn reading a passage aloud and then discussed the passage before having students complete written answers to questions about the text. In another RtI class, held in a lounge with comfortable chairs and sofas positioned around a table in the center of the room, students selected “picture books” (in this case, focused on historical events such as the tearing down of the Berlin wall) and used butchers’ paper to create posters about the books, identifying the title and author, three vocabulary words, three facts, the time period in which the book is set, and an image that stood out.

Labrador has a “homework club” two days a week after school for 1 hour and two Fridays a month. Students are referred to these opportunities for remediation but cannot be required to attend, noted the principal.

Students who are deemed to need extra help beyond regular classroom instruction and RtI reading groups (as per DIBELS diagnoses) receive one-on-one and small group instruction in the school’s resource room.

Instructional Leadership

Teachers reported that the principal is a very hands-on leader. As noted earlier, he monitors teachers’ adherence to curriculum maps and conducts classroom observations in which he “expects to see us doing certain things, like working on vocabulary words,” reported one teacher. The district superintendent was also seen as a strong instructional leader; teacher reported that she has worked on creating consistency across the district in both curriculum and instructional strategies.

RESOURCE ALLOCATION

The following table compares the actual resource allocation in Labrador Middle School to that provided in the Wyoming Funding Model and compares resource allocation in the 2006-07 and 2008-09 school years.

Table 5. Labrador Middle School Resource Allocation (FTEs and Dollars)

Staffing Category	2008-09	
	WY Funding Model	Actual
Core Academic Teachers	5.09	6
Specialist & Elective Teachers	2.91	3.38
Alternative Teachers/ Small School Teachers		
LIBRARY STAFF		
- Librarian/Media Specialist (Certified)	1	0.25
- Library/Media Tech Aides (Non-Certified)	0.34	
EXTRA HELP		
- Certified ELL Teachers	0.04	
- Certified Teacher Tutors for English Language Learners		
- Certified Teacher Tutors for At-Risk Students	0.35	
- Non-certified Tutors		
- Resource Room Teachers		
- Resource Room Aides		1
- Special Education Teachers (self-contained)		
- Special Education Aides (self-contained)		
-Special Education Teachers (inclusion)		1
-Special Education Aides (inclusion)		
- Gifted & Talented Teachers		
- Gifted & Talented Aides		
- Gifted & Talented Funds		
- Extended Day (teachers and classified staff)		0.18
- Summer School		
PROFESSIONAL DEVELOPMENT		
- Total # of Professional Development Days		10
- Instructional Facilitators		0.38
- Teacher Time (Substitutes & Stipends)		
- Trainer/Consultant Funds		
- Materials, Equipment & Facilities		
- Travel & Transportation		
- Tuition & Conference Fees		

Staffing Category	2008-09	
	WY Funding Model	Actual
Other Instructional Staff		
- Building Substitutes & Other Substitutes		
- Instructional Aides		
- Supervisory Aides (non-teaching aides)	.68	
- Counselors	.78	.5
- Nurses		.25
- Social Workers		
- Psychologists		
- Speech/ OT/ PT		
- Health Assistant		
Administration		
- Principal	1	1
- Assistant Principal		
-Other Administrator		
- Secretary	1	1
- Clerical	.34	.86

It is important to note that the district funds core and specialist teachers above the funding model allocation so that there can be two sections per grade.

FUTURE IMPLICATIONS AND CONCLUSIONS

In order for Labrador Middle School staff to continue and expand efforts to increase student achievement, the principal reported that it would be helpful to have fewer shared staff, which “confines and complicates the schedule.” The IF felt that additional professional development opportunities would benefit the school, in particular, release time for teachers to attend state and national conferences rather than just district or building level trainings. She felt that the staff benefited greatly from the Teton Institute that they all attended one summer, but said that further requests for the entire staff to participate in such opportunities have been denied.

Schnauzer High School: A Case Study of Instructional Improvement Efforts and Resource Use

INTRODUCTION

Schnauzer High School is a ninth through twelfth grade school with just under 150 students in a rural district of Wyoming. The district educates approximately 1,000 students in Kindergarten through 12th grade. About 20% of the students at Schnauzer High are eligible for free and reduced-price and just under 15% receive special education services. One of Schnauzer's students is identified as an English language learner.

Over the past several years, Schnauzer's school improvement efforts have been implemented through adopting a school-wide emphasis on teaching reading, providing professional development for teachers in teaching and assessing reading and writing and supporting teacher growth through the use of instructional facilitators. The purpose of this case study is to tell the story of efforts to improve student learning at Schnauzer High School and to identify how the corresponding resources were allocated.

TEST SCORE DATA

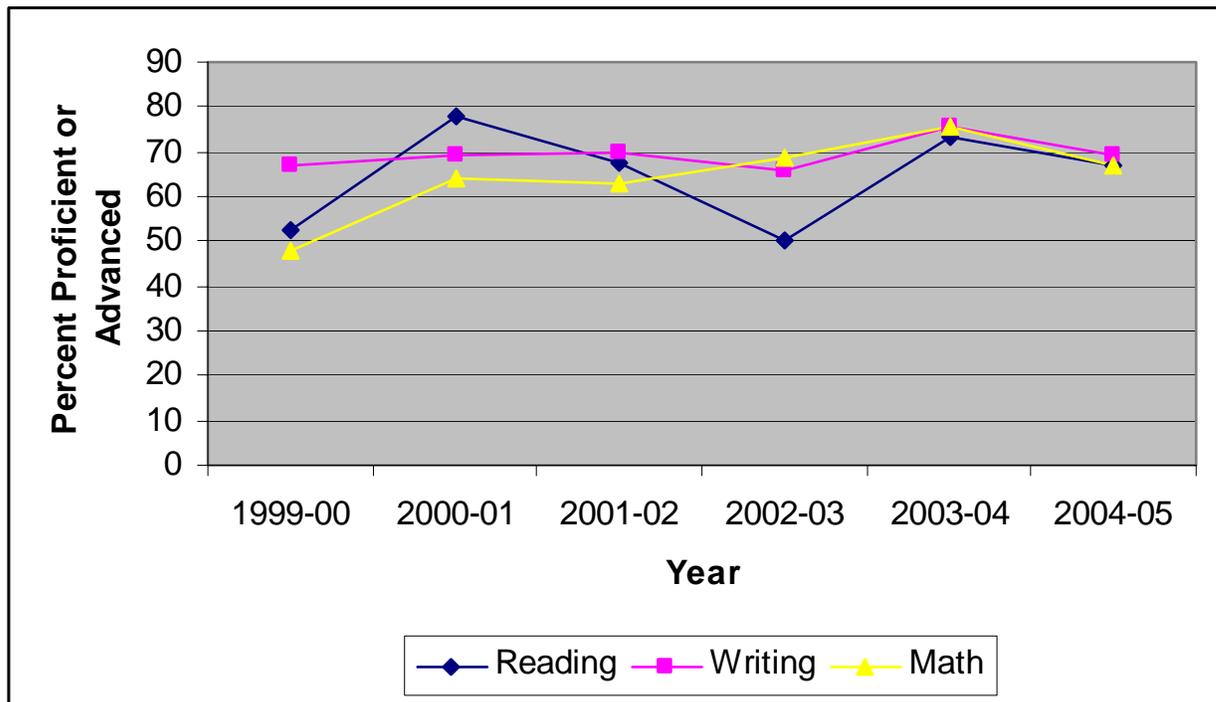
Schnauzer High School had positive test results between the 1999-2000 and 2004-05 school years under the Wyoming Comprehensive Assessment System (WyCAS). The percentage of students scoring proficient or advanced during this five-year period increased by 19.1 in math, 14.3 in reading, and 2.5 in writing, as shown in Table 4Table 1.

Table 1. Schnauzer 11th Grade WyCAS Proficient and Advanced Scores

SUBJECT	1999-00	2000-01	2001-02	2002-03	2003-04	2004-05
Reading	52.4	77.8	67.4	50.0	73.0	66.7
Writing	66.7	69.4	69.8	65.7	75.7	69.2
Math	47.6	63.9	62.8	68.6	75.7	66.7

The growth over this six year period included fluctuations in each content area, with peaks in reading in 2000-01, and in 2003-04 in writing and math. The changes in performance throughout this period can be seen in Figure 1 below.

Figure 1: Percentage of 11th Grade Schnauzer Students Scoring Proficient or Advanced on WyCAS, 1999-00 through 2004-05



During the 2005-06 school year, Wyoming implemented the new statewide Proficiency Assessment for Wyoming Students (PAWS) testing system. Although not directly comparable to WyCAS, PAWS scores from the 2005-06 to 2007-08 school years show continued growth in student achievement at Schnauzer, especially in writing, in which the percentage of students scoring proficient or advanced nearly doubled, as shown in Table 2.

Table 2. Schnauzer 11th Grade Percent Proficient and Advanced PAWS Scores

Math				Reading				Writing			
05-06	06-07	07-08	change	05-06	06-07	07-08	change	05-06	06-07	07-08	change
62.0	67.0	79.0	17.0	60.0	65.0	71.0	11.0	52.0	77.0	92.0	40.0

Specifically, Schnauzer’s percentage of 11th grade students receiving proficient or advanced scores on PAWS increased by 11 in Reading, 40 in Writing, and 17 in Math between the 2005-06 to 2007-08 school years. Schnauzer’s 2007-08 scores in all three subjects were better than the state averages; however, the district outperformed the school in math and reading. These data are shown below in Table 3.

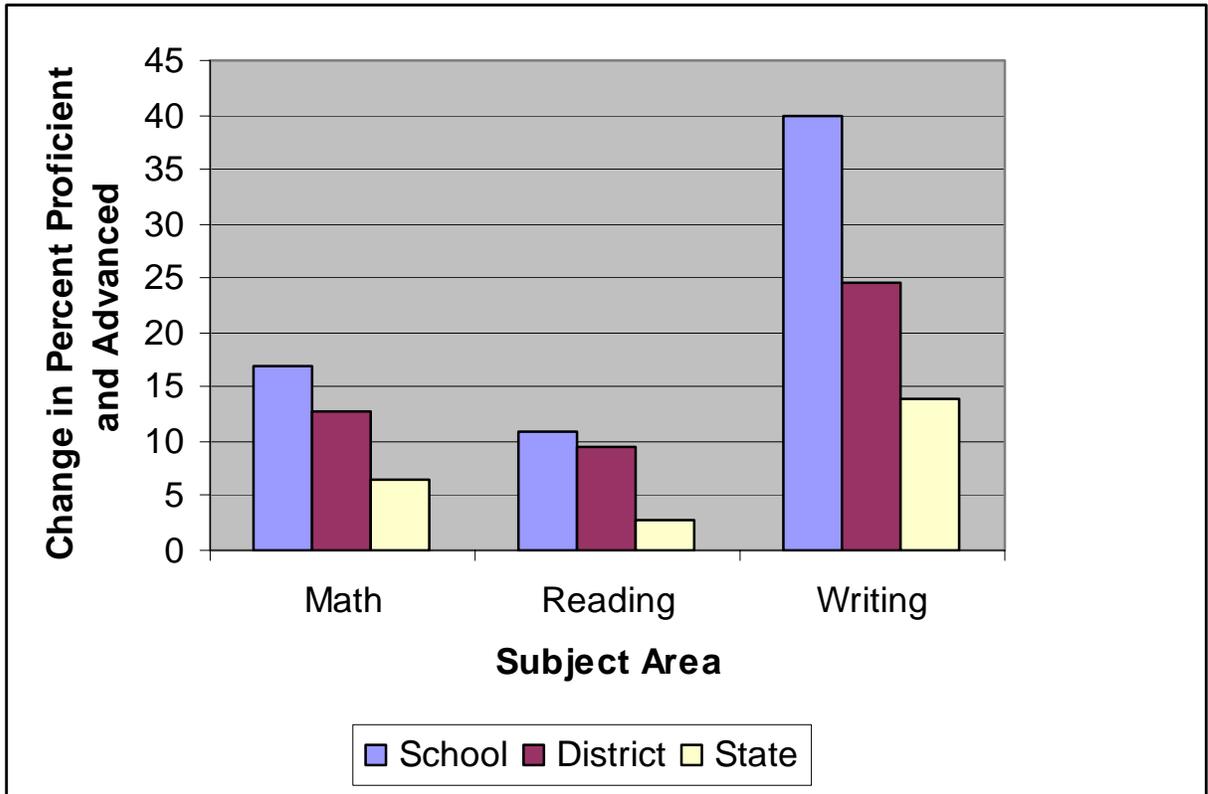
Table 3: School, District, State Comparison – 11th Grade Percent Proficient or Advanced on PAWS, 2007-08

	School	District	State
Math	79.0	84.7	64.4
Reading	71.0	81.4	65.8
Writing	92.0	91.5	73.0

Looking at growth on PAWS scores between 2005-06 and 2007-08 shows that Greyhound 11th graders had greater advances than those of the district or state in all subjects, as shown in ,

Figure 1Figure 2.

Figure 2: School, District, State Comparison – Change in 11th Grade Percent Proficient or Advanced on PAWS, 2005-06 to 2007-08



EDUCATIONAL IMPROVEMENT STRATEGIES

Schnauzer High School has had consistent leadership: the current principal has been there for seven years, prior to which he was the principal at another school in the state. In line with the district's focus on improving student achievement in reading and writing, the school has chosen those two areas for their school improvement goals. To this end, the school has focused its resources and improvement strategies predominantly in two ways. First, they engaged in in-service training on reading strategies and reading across the curriculum as well as participating in the district's training on using Step Up to Writing and 6 Traits of Writing. Secondly, Schnauzer implemented a "Basic English" class for incoming 9th graders whose NWEA-MAP scores showed them performing at below grade level. This class has fewer students than the regular 9th grade English classes and focuses on skill-building.

Needs Assessment

The principal reported that when they reviewed NWEA-MAP data in the spring of 2005, they found "about a quarter of the incoming 9th graders were reading below grade level" and that this trend continued into the upper grades. Therefore, their school improvement efforts have been focused on improving reading instruction in all content areas. When the district adopted reading and writing as district improvement goals, Schnauzer added writing to its goals.

Goals

Schnauzer identified the following two-years goals on their School improvement Plan in reading, writing and math for the 2007-08 and 2008-09 school years, with the accompanying interventions:

- All students at Schnauzer High School will improve their reading skills
 - Intervention: Provide students with more opportunities to practice reading strategies
 - Intervention: All students at Schnauzer High School will be taught reading in the content areas
- All students at Schnauzer High School will improve their writing skills
 - Intervention: All students at Schnauzer High School will write two perfect summary paragraphs each quarter for every content area teacher

These and other school wide approaches are discussed in the following sections.

Curriculum and Instructional Approach

The principal reported that while Schnauzer has not adopted a new curriculum, they have focused efforts on strategies to implement the curriculum, with particular attention to reading strategies and reading across the curriculum. Through professional development

training, teachers have learned to do “pre-reading” with students to introduce a new topic. A teacher noted that the school is working on having students write “structured paragraphs” in all content areas; the expectation is that each teacher will do one structured paragraph assignment with each class per quarter. In addition, the school participated in the district’s training on using Step Up to Writing and 6 Traits of Writing to move toward greater consistency in teachers’ methods of teaching writing.

In line with seeking greater consistency in teaching strategies, the district has focused professional development over the past several years on writing summative and formative district assessments to align to the curriculum and by extension, to state standards, according to the principal. The district has engaged in “course mapping” during “cohort” professional development days, during which subject area teachers from the two high schools in the district collaborate to identify essential skills in each subject and grade.

The principal reported that they have had difficulty establishing a common vision of good instruction, noting that “high school teachers are more resistant to being told what to do.” He did note, though, that the emphasis on reading strategies and the training in Step Up to Writing and 6 Traits of Writing has provided teachers with a “common language” in which to discuss instructional strategies in these areas.

In class, teachers use a variety of strategies. Classes tend to be small, with around 12-15 students, so teachers are able to provide individualized attention more easily than in larger classes. Teachers reported that a common approach is to lecture for the first 15-20 minutes of class, followed by individual or small group work. During this time, the teacher can monitor understanding and provide assistance as needed. In a trigonometry class, students reviewed material in pairs in preparation of their upcoming final exam. When students had questions, the teacher either worked with the pair at their table or solved the problem on the Smart Board if other students were also struggling with that question. Teachers reported holding students accountable for their own learning. As one teacher put it, “if a student here doesn’t get a good education, it’s not because the school hasn’t tried. The opportunity to learn is definitely there.”

Data Collection and Use

Schnauzer uses a variety of student assessments throughout the year, described below:

- PAWS: The Proficiency Assessment of Wyoming Students (PAWS) is a summative statewide assessment, administered (at the high school level) to 11th graders in a mix of online and print formats in reading, writing, math, and recently, science. PAWS data is used for Adequate Yearly Progress reporting and provides a picture of overall progress at the school as well as identifying subgroup performance. One teacher noted that PAWS scores “don’t guide what I teach,” noting that the curriculum maps created a few years ago define the areas she covers in class. Rather, she uses PAWS data “as a self-evaluation of my teaching.”

- NWEA-MAP: Greyhound uses the data from the Northwest Evaluation Association Measures of Academic Progress (NWEA-MAP), state-aligned computerized adaptive assessments in language arts and math to place incoming 9th graders in extra-help English classes as needed (see “Providing multiple extra-help strategies for struggling students” section below). NWEA-MAP is administered twice a year for 9th and 10th graders to monitor progress and determine needed interventions.
- PLAN: Schnauzer administers the PLAN test to 10th grade students as a “pre-ACT” test to help them prepare for the ACT test given in 11th grade.
- District common assessments in all core subjects are used to compare Schnauzer’s progress with that of the other high school in the district.

When asked about the significant gains on PAWS in 11th grade writing, Schnauzer staff seemed unsure of what to credit for these gains, and some were surprised by the information, as they mainly focus on NWEA-MAP scores, which reports reading and math scores, not writing. Further, one teacher noted that the gains in writing were surprising given that “our last IF was focused on reading, not writing.”

Professional Development

Twelve professional development days are “split 50-50” between district-run days and building-specific days, according to the principal. The focus of the district days this year has been on “building good assessments,” noted the principal. Teachers reported valuing the building days more than the district-run days because they could work on individual or school goals during that time.

Teachers reported that because the school is small, with about 150 students, there is only one teacher per subject area. For example, the two math teachers teach different grades and subjects. This means that the only collaboration that occurs is on district professional development days when the teachers from Schnauzer work with the teachers from the district’s other high school.

Schnauzer hired a new Instructional Facilitator (0.43 FTE) for the 2008-09 school year to focus on integrating technology into the curriculum. In prior years, the school had an Instructional Facilitator with expertise in reading to help with the school’s focus on implementing reading strategies and reading across the curriculum. The current IF’s main role is to “collaborate with teachers on how to use technology to increase student learning,” according to the principal. The principal reported that although the school moved into a new building this spring that is equipped with Smart Boards in most rooms, only a handful of teachers “have taken full advantage of that technology.”

The IF defined her role as “very broad, responding to whatever teachers are interested in, not tied to content or instructional strategies.” In this role, she has lead building professional development on technology use and has worked on an individual basis with

teachers implementing technology in their classes. In one case, a math teacher approached the IF about recording “Podcasts” of her lectures for students to watch at home when she found students were not completing more traditional homework assignments. By watching the lecture ahead of time at home, the teacher reported spending less time lecturing during class, freeing her up to spend more time working with students on math problems in a whole class as well as one-on-one basis. The IF estimated that she’s worked with about a third of the teachers thus far. One teacher who has not worked with the IF on an individual basis reported that he considers himself “a good teacher, so I don’t really need to go to the IF.”

The IF reported that before becoming an IF, she was the school’s technology specialist. In this role, she “mostly fixed people’s computer problems,” so as IF, she’s had to clarify that this is no longer her role. For example, she’s declined request from teachers “to run data reports for them,” but she will “show them where to look to see what areas students did and didn’t do well on.”

The IF has received a range of training to help her define and implement her role. She attended a state training on the role of coaches this past summer as well as a conference put on by the International Society for Technology in Education that provided her with “a lot of ideas about how to integrate technology in the classroom.”

Interventions for Struggling Students

As noted above, Schnauzer uses the spring NWEA-MAP test scores to place incoming freshmen into English classes: regular 9th grade English for those meeting grade level benchmarks and “Basic English” for those below grade level. The “Basic English” class is smaller than the regular English class and focuses on skill-building. For example, in a Basic English class, the teacher demonstrated how to create a bibliography using “Google notes” and then spent the rest of the period working individually with students to create their own bibliographies. In comparison, this teacher said in a regular 9th grade English class, he would have demonstrated how to create a bibliography and then asked students to do their own for homework. Students identified as special education are given additional support by special education teachers in a resource room.

Within class, teachers reported providing students multiple opportunities to succeed. For example, one teacher noted that she lets students retake tests if needed, and that she monitors student progress regularly to make sure everyone is keeping up with their homework. She felt that because class sizes are small, with around 12-15 students generally, she is able to provide one-on-one assistance as needed. Additional small group help is provided by certified teacher tutors.

Although they do not have an extended day program, there is a 30 minute “study lab” built in to school day after lunch during which students can catch up on incomplete assignments. In addition, since the school operates on the district’s 4 day schedule (Monday-Thursday), the principal reported that he and one of the instructional aides staff

a “Friday school” once or twice a month for students to get extra help and make up missed work.

While the district does not have a formal summer school program at the high school level, Schnauzer offers “credit recovery” during the summer. This may include online work, or teachers can create an individual program of what is needed by a specific student to receive credit for a course in which they received an incomplete.

Instructional Leadership

Teachers reported that the principal’s leadership style is to be accessible, but “hands-off.” He “doesn’t micromanage” the teachers, but does ensure the school implements district guidelines about new requirements and initiatives. The principal noted that the superintendent plays a role as an instructional leader, convening monthly “A-Team” meetings made up of each school’s administration “to make sure we’re all on the same page.”

RESOURCE ALLOCATION

The following table compares the actual resource allocation in Schnauzer High School to that provided in the Wyoming Funding Model and compares resource allocation in the 2008-09 and 2007-08 school years.

Table 5. Schnauzer High School Resource Allocation (FTEs and Dollars)

Staffing Category	2008-09	
	WY Funding Model	Actual
Core Academic Teachers	7.57	9
Specialist & Elective Teachers	2.66	4
Alternative Teachers/ Small School Teachers		
LIBRARY STAFF		
- Librarian/Media Specialist (Certified)	1	
- Library/Media Tech Aides (Non-Certified)	0.5	1
EXTRA HELP		
- Certified ELL Teachers	0.03	
- Certified Teacher Tutors for English Language Learners	0.51	
- Certified Teacher Tutors for At-Risk Students		
- Certified Teacher Tutors who Work with Small Groups		0.14
- Non-certified Tutors		
- Resource Room Teachers		2
- Resource Room Aides		2
- Special Education Teachers (self-contained)		
- Special Education Aides (self-contained)		
-Special Education Teachers (inclusion)		
-Special Education Aides (inclusion)		
- Gifted & Talented Teachers		
- Gifted & Talented Aides		
- Gifted & Talented Funds		
- Extended Day (teachers and classified staff)		
- Summer School		
PROFESSIONAL DEVELOPMENT		
- Total # of Professional Development Days		12
- Instructional Facilitators		0.43
- Teacher Time (Substitutes & Stipends)		
- Trainer/Consultant Funds		\$8,500
- Materials, Equipment & Facilities		
- Travel & Transportation		
- Tuition & Conference Fees		

Staffing Category	2008-09	
	WY Funding Model	Actual
Other Instructional Staff		
- Building Substitutes & Other Substitutes		
- Instructional Aides		
- Supervisory Aides (non-teaching aides)	1.26	
- Counselors	1.15	1
- Nurses		0.125
- Social Workers		
- Psychologists		
- Speech/ OT/ PT		
- Health Assistant		
Administration		
- Principal	1	1
- Assistant Principal		
-Other Administrator		
- Secretary	1	2
- Clerical	1.01	

FUTURE IMPLICATIONS AND CONCLUSIONS

In order for Schnauzer High School staff to continue and expand efforts to increase student achievement, the principal noted that current funding levels would need to be maintained. He stressed that although the funding model provides for 7.5 core teachers, the district has “made up the difference” and staffed the school at nine core teachers; similarly, while funded for 2.66 elective teachers, the school receives funding for 4. One way they have accomplished this is by offering reduced salaries, something the principal noted is unsustainable if budget cuts are severe.

In addition to maintaining staffing levels, the principal felt the school would benefit from “more site-based decision-making” to enable them to meet the needs of their students. Although a small district, it is geographically dispersed, and the principal felt it was sometimes a disservice to adopt a district-wide approach when the student backgrounds vary from one side of the district to the other.

Dalmatian Elementary School: A Case Study of Instructional Improvement Efforts and Resource Use

INTRODUCTION

Dalmatian Elementary School is a Kindergarten through 5th grade school with just over 200 students in rural district of Wyoming. The district educates approximately 1,000 students in kindergarten through 12th grade. About 18% of the students at Dalmatian Elementary are eligible for free and reduced-price lunch and 14% receive special education services. None of Dalmatian's students is identified as an English language learner. Dalmatian's class sizes for the 2008-09 school year were as follows:

- Kindergarten = 16 in one class, 17 in the other
- 1st grade = 14 in one class, 15 in the other
- 2nd grade = 14 in one class, 15 in the other
- 3rd grade = 20 in both classes
- 4th grade = 19 in both classes
- 5th grade = 20 in both classes

The Dalmatian principal noted that although the school accepts inter-district transfers in the upper grades, they do not accept such transfers in K-2 unless there is a sibling already enrolled in a higher grade. The effort to keep K-2 classes small helps the students “get an early start” as the principal put it. The school's instructional improvement strategies have been implemented through a variety of means: curriculum mapping, identification of essential skills and vertical alignment of the curriculum; the adoption of a new reading curriculum; the use of NWEA-MAP assessment data to set individual student growth targets; a renewed commitment to using 6 Traits of Writing and Step up to Writing; and use of an instructional facilitator to facilitate collaborative meetings to examine data. The purpose of this case study is to tell the story of improvement in student learning at Dalmatian Elementary School and to identify how the corresponding resources were allocated.

TEST SCORE DATA

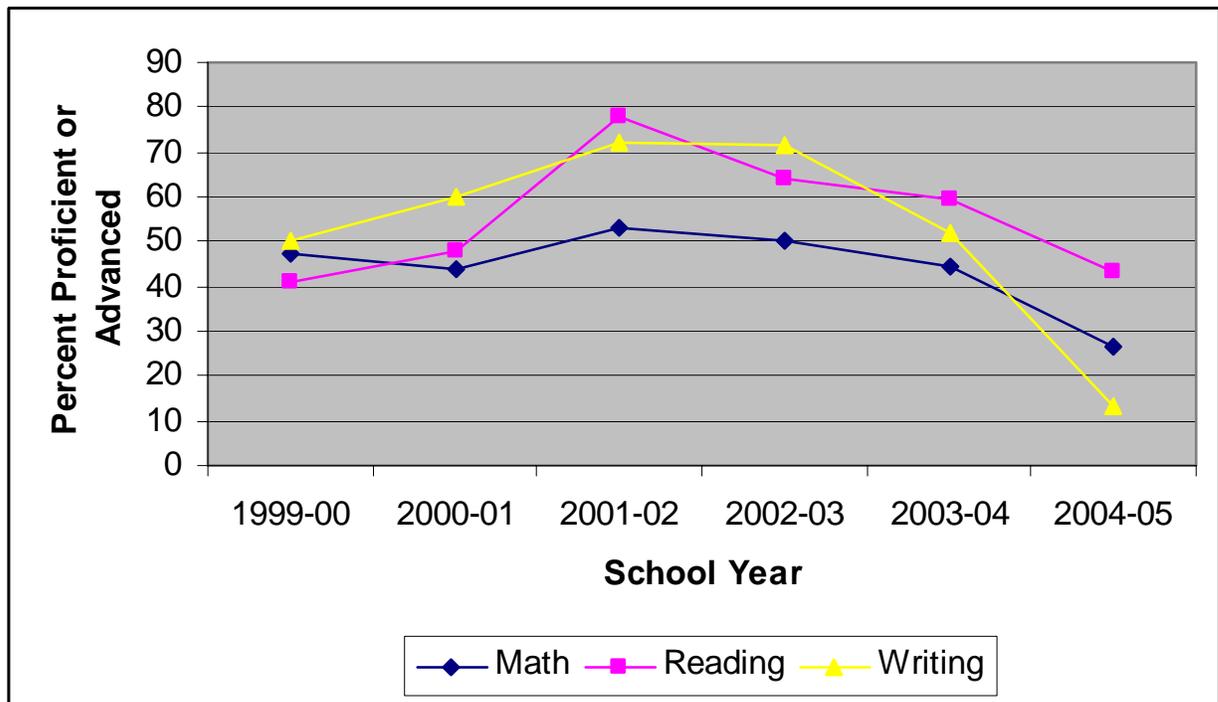
Dalmatian Elementary School's student test scores declined in all subjects between the 1999-2000 and 2004-05 school years under the Wyoming Comprehensive Assessment System (WyCAS). The percentage of students scoring proficient or advanced during this five-year period decreased by 20.4 in math, 2.1 in reading, and 36.7 in writing. However, tracking the scores for each year show great fluctuation, with modest drops and some marked gains in the intervening years, as shown in Table 1.

Table 1: Dalmatian Elementary 4th Grade Percent Proficient and Advanced on WyCAS

	1999-00	2000-01	2001-02	2002-03	2003-04	2004-05
Math	47.1	44.0	53.1	50.0	44.4	26.7
Reading	41.2	48.0	78.1	64.3	59.3	43.3
Writing	50.0	60.0	71.9	71.4	51.9	13.3

As shown in the table, performance peaked in all three subjects in 2001-02 with gradual drops the next two years followed by a steep decline in the final year of WyCAS testing. The changes in performance throughout this period can be seen in 1 below.

Figure 1: Percentage of Dalmatian Elementary Students Scoring Proficient or Advanced on WyCAS, 1999-00 through 2004-05



During the 2005-06 school year, Wyoming implemented the new statewide Proficiency Assessment for Wyoming Students (PAWS) testing system. Although not directly comparable to WyCAS, PAWS scores during the 2005-06 to 2007-08 school years show significant growth in 3rd and 5th grade reading and writing at Dalmatian, as shown in Table 2.

Table 2: Dalmatian Elementary Percent Proficient and Advanced on PAWS, 2005-06 - 2007-08

Grade	Math				Reading				Writing			
	05-06	06-07	07-08	change	05-06	06-07	07-08	change	05-06	06-07	07-08	change
3	85	94	93	8	70	81	83	13	24	52	63	39
4	95	95	94	-1	84	94	91	7	63	44	70	7
5	78	94	80	2	67	79	80	13	17	32	34	17

In addition to significant gains in 3rd and 5th grade reading and writing, Dalmatian’s percentage of students achieving proficient or advanced scores on PAWS increased in 4th grade in both subjects between the 2005-06 and 2007-08 school years. While math scores showed smaller gains in 3rd and 5th grade, and a small drop in 4th grade, it is important to note that their math scores started out higher than reading and much higher than writing. In addition, Dalmatian’s 2007-08 scores in all subjects and all grades were better than the district’s, which in turn were better than the state’s, with an exception in 5th grade writing in which the school outperformed the district, but both were lower than the state. These data are shown below in Table 3.

Table 3: School, District, State Comparison –Percent Proficient or Advanced on PAWS 2007-08

Grade	Math			Reading			Writing		
	School	District	State	School	District	State	School	District	State
3	93.0	88.6	83.4	83.0	78.6	61.0	63.0	55.7	41.0
4	94.0	92.3	76.8	91.0	87.5	64.0	70.0	65.6	52.8
5	80.0	74.3	70.9	80.0	75.7	66.0	34.0	33.8	37.1

Looking at growth on PAWS scores between 2005-06 and 2007-08 shows that Dalmatian had greater advances than those of the district or state in 3rd and 5th grade reading and writing and less pronounced than the state in math at all grades and reading in 4th grade and less than the district in 4th and 5th grade math, 4th grade reading and 4th grade writing. Figures 2 through 4 below show the changes in percentage of students scoring proficient or advanced on PAWS from the 2005-06 to 2007-08 school years for the school compared with the state. These findings are not surprising given the school’s high math scores in the initial year of PAWS.

Figure 2: School, District, State Comparison – Change in Percent Proficient or Advanced on PAWS MATH Scores

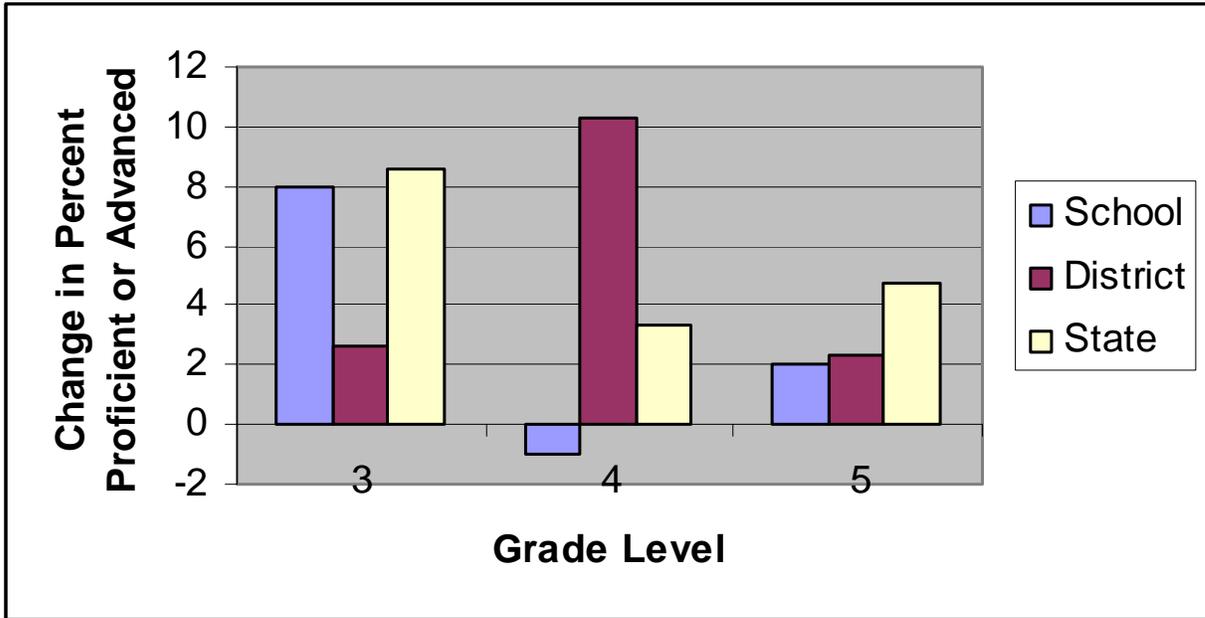


Figure 3: School and State Comparison – Change in Percent Proficient or Advanced on PAWS READING Scores

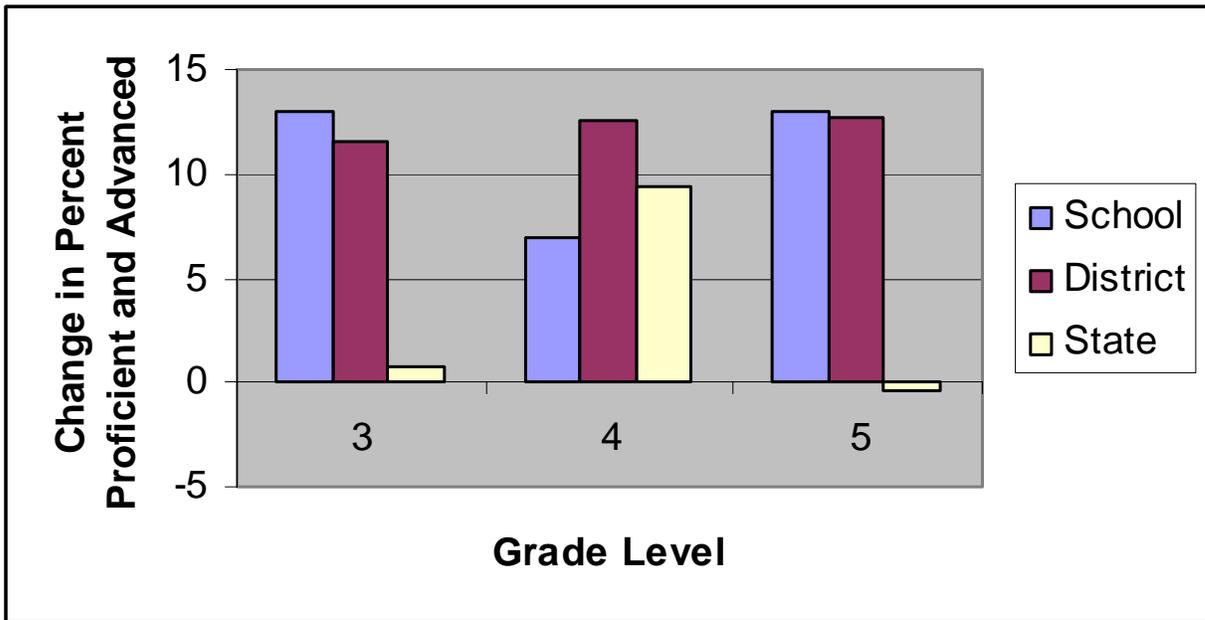
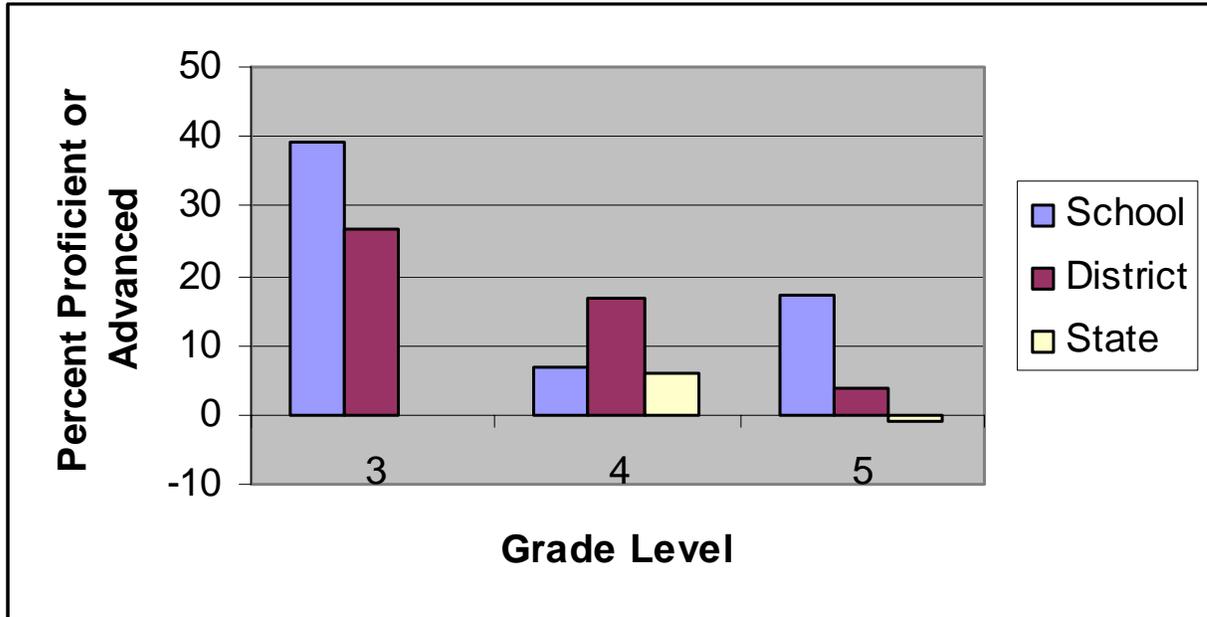


Figure 4: School and State Comparison – Change in Percent Proficient or Advanced on PAWS WRITING Scores



EDUCATIONAL IMPROVEMENT STRATEGIES

Dalmatian has had steady principal leadership, with the current principal in his role for the past 10 years. Prior to his current job, the principal was a teacher in Colorado. Over the past several years, the school has become more systematic in its reform efforts; something noted by the principal and numerous staff at the school and echoed by district personnel’s description of the district’s reform efforts. A teacher noted that their heightened efforts to improve student achievement coincided with the transition from WyCAS to PAWS, at which point the school “realigned our goals and what it would take to meet those goals.” To this end, the school has focused its resources and improvement strategies predominantly in two ways. First, they adopted a new reading curriculum that they felt would better prepare their students for the PAWS exam. Second, the school has “renewed our commitment,” as the principal put it, to 6 Traits of Writing and Step Up to Writing by re-training teachers, partially through building and district PD days, and partly through the completion of PDPs (see “Investing in extensive, long-term professional development” section below) focused on effective writing instruction.

Needs Assessment

NWEA MAP scores, PAWS results, building assessments and district assessments are used to assess areas of focus for improvement. The principal reported that two years of NWEA-MAP data showed “holes” in phonics and fluency, so when the district offered a new adoption, the school, in conjunction with the district’s other elementary school, selected a core reading curriculum (see below) that they felt addressed these areas in a systematic fashion.

Goals

Dalmatian has been focused on reading and writing for the past few years in an effort to increase students' scores – PAWS data showed their math scores were higher than the other two core areas tested so math improvement is not a focus area. Their long term goal extends the district's goal of having 90% of students reach the PAWS designation of proficient or above in reading by 3rd grade by aiming for 75% of students in 3rd, 4th and 5th grade to make their individual expected growth forecasted by NWEA-MAP. In addition, although the district mandates use of the NWEA-MAP tests for 3rd-5th grade, the school as opted to add the primary MAP assessment for grades K-2.

General reading and writing school goals for the past few years and the specific interventions aimed at meeting those goals were:

- Goal: All students at Dalmatian Elementary will improve their reading comprehension.
 - Intervention: All students at Dalmatian Elementary will learn and apply phonemic awareness skills through explicit phonics instruction.
 - Intervention: All students at Dalmatian Elementary will learn and apply fluency skills through repeated readings.
- All students at Dalmatian Elementary will improve their writing skills.
 - All students at Dalmatian Elementary will learn and apply the elements of the Six Traits of Writing model.
 - All students at Dalmatian Elementary will learn and apply the elements of the Step-Up to Writing strategies

Approaches to meeting these goals – and measuring whether they have been met – are discussed in the following sections.

Curriculum and Instructional Approach

As mentioned earlier, Dalmatian adopted a new reading curriculum in the 2007-08 school year. The principal reported that the school had previously focused on providing interventions based on test results (primarily NWEA-MAP), but when they discovered that they were providing interventions for nearly half of the students, they decided a better course of action would be to adopt a new curriculum. The school identified essential skills at each grade level and identified areas of weakness based on NWEA-MAP test data, so when the district gave them the opportunity to adopt a new curriculum in 2007-08, as long as both elementary schools in the district agreed on the same program, they chose Houghton-Mifflin because they felt it both matched the identified essential skills and addressed their performance gaps.

Fifteen Dalmatian staff members completed a PDP on implementing the curriculum “to fidelity” (see “Investing in extensive, long-term professional development below”). In addition, after the first year of implementation, the staff met and decided to use the short end of unit skills tests included within the textbook to assess student learning rather than spend the two days required to complete the lengthy end of unit tests as they felt the shorter tests provide the needed information without cutting into instructional time as much. Further, after reviewing NWEA-MAP scores collected after implementing the new curriculum, staff decided that they would use parts of their prior curriculum, SRA/McGraw Hill, to supplement spelling instruction.

Dalmatian has used the Scott Foresman-Addison Wesley *Mathematics* series since before the current principal came to the school. The principal reported that a few years ago, the district gave the two elementary schools in the district the option to adopt a new curriculum, but the schools agreed that the existing curriculum “was working,” as evidenced by high math scores on PAWS. Although they have high PAWS scores and like the current math curriculum, the principal noted that it “lacks systematic interventions and enrichment.” When NWEA-MAP scores showed “basic operations” as the strand on which students performed least well, the school decided to focus their improvement efforts on the expected growth NWEA-MAP generates for each student. The core curriculum in math is supplemented with the Investigations Series for teaching problem-solving skills.

Dalmatian staff reported that a common vision of effective instruction exists at the school based on district expectations. According to Dalmatian staff, the superintendent defined good instruction as asking “four big questions” as you teach:

- 1) What do you want students to know and be able to do?
- 2) How are you going to determine whether they know this?
- 3) What are you going to do if they show they do know it?
- 4) What are you going to do if they show they don’t know it?

One teacher noted that using this questioning approach has resulted in the school seeing not just increases in the percentage of students reaching proficient on PAWS, but also on increasing the number of students scoring advanced. She stressed that in the past, the school just focused on question 4; adding an emphasis on enrichment as well as intervention has resulted in student gains across the board, just not among the struggling students, this teacher reported.

Apart from these questions, Dalmatian teachers reported that the actual teaching strategies to achieve “good instruction” are predominantly left up to the individual teacher, but that with the renewed focus on the 6 Trait of Writing and Step Up to Writing strategies, there is beginning to be a common approach to writing instruction and assessment across teachers. As one teacher noted, “We are collaborating our efforts to have a more systematic approach.”

In class, teachers' use of the new reading curriculum was evident in a variety of strategies used to actively engage students. Lessons feature a lot of student movement, such as in a 1st grade classroom that started the lesson with a 10-minute word exercise game in which students cycled through two lines practicing vocabulary words. In another 1st grade class, the students practiced linguistics through actions: with everyone standing, the teacher said commands such as, "say grin", the students said the word ("grin," in this case) and then the teacher and students recited in unison a rhyme that included a body part, in this case, "now find your chin," placing their hands on their chins.

Data Collection and Use

Dalmatian uses a variety of student assessments to provide data on student performance, described below:

- PAWS: The Proficiency Assessment of Wyoming Students (PAWS) is a summative statewide assessment, administered (at the Elementary school level) to 3rd through 6th graders in a mix of online and print formats in reading, writing, math, and recently, science. PAWS data are used for Adequate Yearly Progress reporting and provide a picture of overall progress at the school as well as identifying subgroup performance. Dalmatian staff reported that they don't find PAWS as useful as NWEA-MAP since PAWS is only used once a year and doesn't give as detailed a report of each student's specific skills as NWEA-MAP.
- NWEA-MAP: Dalmatian uses the Northwest Evaluation Association Measures of Academic Progress (NWEA-MAP), state-aligned computerized adaptive assessments in language arts and math, as benchmark tests three times a year, in September, January, and May. The principal reported that the May test is used to generate growth targets for each student; the September and January data are used to monitor progress toward the following May's goals and determine whether any interventions are required.
- DIBELS – Dalmatian uses Dynamic Indicators of Basic Early Literacy Skills (DIBELS), short (one minute) fluency measures (see www.dibels.org) three times a year as part of a school-wide diagnostic screening. The progress of students deemed to need interventions is monitored more regularly: students scoring less than one grade level below are monitored every 2-3 weeks while students scoring more than one grade level below are monitored every 1-2 weeks to assess whether further interventions are needed.
- District assessments are used to compare Dalmatian's progress with that of the other elementary school in the district.

The IF reported that Dalmatian established an assessment team to "create an effective and efficient means of assessing students." The team, comprised of the IF, speech specialist, special education teacher and two reading specialists, use NWEA-MAP data to progress-

monitor students three times a year as well as monitoring students through the DIBELS testing mentioned above.

Professional Development

The Dalmatian principal reported that the school has 14 professional development (PD) days included in the schedule. Of these, six are “building days,” in which the topic is determined by the school, four are district days, in which all of the schools in the district participate together, and four are “flexible Fridays,” days structured by each individual teacher. As one teacher noted, the district days “help us focus on the big picture” whereas the building days lets them discuss “what we can do as a building to support student learning” and teacher-directed days allow teachers to focus individually on the needs of their specific students.

In addition to these 14 PD days, teachers have the option of conducting up to three Professional Development Projects (PDPs) per year in which they work collaboratively on a topic of interest that aligns with district, school or individual goals to increase student learning. PDP requirements, devised by the district, specify that teachers spend a minimum of 15 hours “outside the regular contract hours” and at least 10 hours implementing strategies in the classroom; the principal is expected to observe implementation of the PDP. Teachers are paid \$500 upon completion of a PDP. For example, a group of 15 Dalmatian staff completed a PDP on implementation of the new core reading program; the teachers created a scope and sequence for the program and then the principal observed each teacher’s use of the program.

Grade level teachers have collaborative time to meet during the school day. One teacher reported that although technically she and the other teacher at her grade level have their prep period every day for 45 minutes, they tend to actually meet once a week to “share ideas, plan, go over data, talk about assessments” opting to use the other three days to plan on their own.

In addition to PD days, PDPs and collaborative time, Dalmatian utilizes an Instructional Facilitator to promote teacher growth. Dalmatian had one full time IF during the 2008-09 school year; for the past two years, the school had two 0.5 IFs, one of whom was a 0.5 reading specialist, a designation that indicated certification in reading instruction. The 0.5 IF left the school at the end of the 2007-08 school year, so the school turned the remaining IF into a full time position and hired a new reading specialist rather than looking for another 0.5 IF. The Dalmatian principal reported that although the funding model only provides 0.67 Instructional Facilitators, the district school board “made a commitment” to improve student performance and has thus provided funds for a full time IF as well as a 0.5 reading specialist.

The principal reported that the IFs’ primary role is to “facilitate collaborative meetings to look at data.” He noted that through this, she has “back-doored” into discussing instructional strategies. For example, when they sat down to discuss NWEA-MAP data, the IF identified 4th and 5th grade reading comprehension as a weakness, and used this

opportunity to introduce teachers to the strategy of keeping Developmental Reading Assessments, running records, on students “who test ‘borderline’ for needing interventions.”

Not much of the IF’s time is spent working with individual teachers in classrooms. The principal reported that the IF will do this “as requested” by teachers and also when there is a teacher “on notice” for needing support; these teachers are asked by the principal to go to the IF for help with modeling lessons, observing them teach, and team-teaching.

Another task allocated to the IF is to conduct Kindergarten screenings. In the past, the data from these screenings were not really used, so the principal decided that since they are required to conduct the screenings, they might as well use the data they generate. To this end, the IF uses the screening tools to identify students for a summer “jump start” program before they enter Kindergarten. A teacher who had not worked one-on-one with the IF reported that she sees the IF’s role as “maintaining the focus on students by leading literacy meetings, organizing data, and facilitating transitional meetings.” One such meeting involving 1st and 2nd grade teachers was held during the teachers’ prep time was used to discuss student data as the students get ready to transition from 1st to 2nd grade. The IF created an agenda and lead the meeting, but the 1st grade teachers did most of the talking, describing areas of weakness for students currently receiving interventions as well as “what’s worked well” for each student. 2nd grade teachers took notes and asked clarifying questions.

The IF’s estimate of how she spends her time is shown below in Table 4.

Table 4: Percentage of time IFs spend on different tasks

IF’s tasks	Percentage of time spent on each task
Conducting student screenings	5
In classrooms modeling instruction or observing teachers	10
Meeting with teachers in groups	20
Researching and analyzing data	60
Working with other IFs	3
Completing administrative tasks	2

The IF has received various training to help her define and implement her role. She attended a state-run Jim Knight training as well as district and state Professional Learning Community workshops to prepare her to take a lead role in implementing a school-wide PLC next year. The IF reported “trading notes” with the other elementary school IF in the district and working with the rest of the district IFs during district PD days. In addition, she and the principal meet weekly to “discuss the best ways to help teachers,” the IF reported.

Structure of School Day

Dalmatian is on a 4 day week (Monday through Thursday) in line with the rest of the district. The school utilizes 90 minute uninterrupted reading block for Kindergarten and a 105 minute block for grades 1-5. In addition, there is a 30 minute “intervention” period in Kindergarten; 1st through 5th have 45 minutes (see below for description of intervention period).

Interventions for Struggling Students

In the 2008-09 school year, Dalmatian piloted a 3rd grade reading intervention catered to the students’ specific areas of weakness – phonemic awareness, phonics, vocabulary, comprehension, and fluency – identified by the NWEA-MAP tests. During a dedicated reading intervention time, students were grouped according to strengths and weaknesses for differentiated instruction. The school’s two reading specialists, the speech teacher, the Gifted and Talented teacher, the principal and the two classroom teachers broke the 35 3rd graders into seven groups that focused on a specific area. The principal reported that this approach has been “the most powerful intervention we’ve tried because it doesn’t overlap with the core instruction, it doesn’t pull students out of core instructional time.” The school will use this approach in all grade levels in the coming school year.

In math, the principal reported a “lack of systematic interventions since our test scores are high.” However, many teachers dedicate the end of the day to a “re-teach” time in which they can spend time with students who need extra help in math. In addition, the principal noted that the two teachers from each grade level are working together to devise enrichment activities as well as interventions, noting that although their scores are relatively high, they still have some students who struggle and at the opposite end, they would like to see more students who have scored proficient make growth targets generated by NWEA-MAP.

Instructional Leadership

Dalmatian staff felt that decision-making at the school has been “mainly top down” with a number of committees that provide recommendations that they bring to the principal for his approval. One teacher noted that the school will be introducing a Professional Learning Community next year that should increase teachers’ voice.

RESOURCE ALLOCATION

The following table compares the actual resource allocation in Dalmatian Elementary School to that provided in the Wyoming Funding Model for the 2008-09 school year.

Table 5. Dalmatian Elementary School Resource Allocation (FTEs and Dollars)

Staffing Category	2008-09	
	WY Funding Model	Actual
Core Academic Teachers	12.3	12
Specialist & Elective Teachers	2.46	3
Alternative Teachers/ Small School Teachers	N/A	N/A
LIBRARY STAFF		
- Librarian/Media Specialist (Certified)	0.68	0.5
- Library/Media Tech Aides (Non-Certified)		
EXTRA HELP		
- Certified ELL Teachers		
- Certified Teacher Tutors for English Language Learners		
- Certified Teacher Tutors for At-Risk Students	0.68	
Certified Teacher Tutors who Work with Small Groups		1.5
- Non-certified Tutors		
- Resource Room Teachers		1
- Resource Room Aides		3
- Special Education Teachers (self-contained)		
- Special Education Aides (self-contained)		
-Special Education Teachers (inclusion)		
-Special Education Aides (inclusion)		
- Gifted & Talented Teachers	\$5,546	0.7
- Gifted & Talented Aides		
- Gifted & Talented Funds		
- Extended Day (teachers and classified staff)		
- Summer School		
PROFESSIONAL DEVELOPMENT		
- Total # of Professional Development Days		14
- Instructional Facilitators		1
- Teacher Time (Substitutes & Stipends)	\$22,182	
- Trainer/Consultant Funds		
- Materials, Equipment & Facilities		\$4,000
- Travel & Transportation		
- Tuition & Conference Fees		

Staffing Category	2008-09	
	WY Funding Model	Actual
Other Instructional Staff		
- Building Substitutes & Other Substitutes		
- Instructional Aides		1
- Supervisory Aides (non-teaching aides)	1.37	
Administration		
- Counselors	0.68	0.75
- Nurses		0.25
- Social Workers		
- Psychologists		
- Speech/ OT/ PT		0.75
- Health Assistant		
- Principal	1	1
- Assistant Principal		
-Other Administrator		
- Secretary	1	2
- Clerical	0.68	

FUTURE IMPLICATIONS AND CONCLUSIONS

In order for Dalmatian Elementary School staff to continue and expand efforts to increase student achievement, the IF felt that additional on-site professional development time would be beneficial in which the school could bring in consultants “because some teachers have taken advantage of all opportunities, like the PDPs, but others haven’t.”

Greyhound Elementary School: A Case Study of Instructional Improvement Efforts and Resource Use

INTRODUCTION

Greyhound Elementary School is a Kindergarten through 5th grade school with approximately 215 students in a rural district of Wyoming. The district educates approximately 1,000 students in Kindergarten through 12th grade. About 38% of the students at Greyhound Elementary are eligible for free and reduced-price lunch and 13% receive special education services. None of Greyhound's students is identified as an English language learner. Greyhound's class sizes for the 2008-09 school year were as follows:

- Kindergarten = 18 in both classes
- 1st grade = 19 in one class, 18 in the other
- 2nd grade = 15 in both classes
- 3rd grade = 16 in both classes
- 4th grade = 16 in both classes
- 5th grade = 19 in one class, 18 in the other

The school's instructional improvement strategies have been implemented through a variety of means: the adoption of a new reading curriculum; the use of NWEA-MAP assessment data to group students for small group language arts instruction; and use of an instructional facilitator to implement a "whole school approach" to using data. The purpose of this case study is to tell the story of efforts to improve student learning at Greyhound Elementary School and to identify how the corresponding resources were allocated.

TEST SCORE DATA

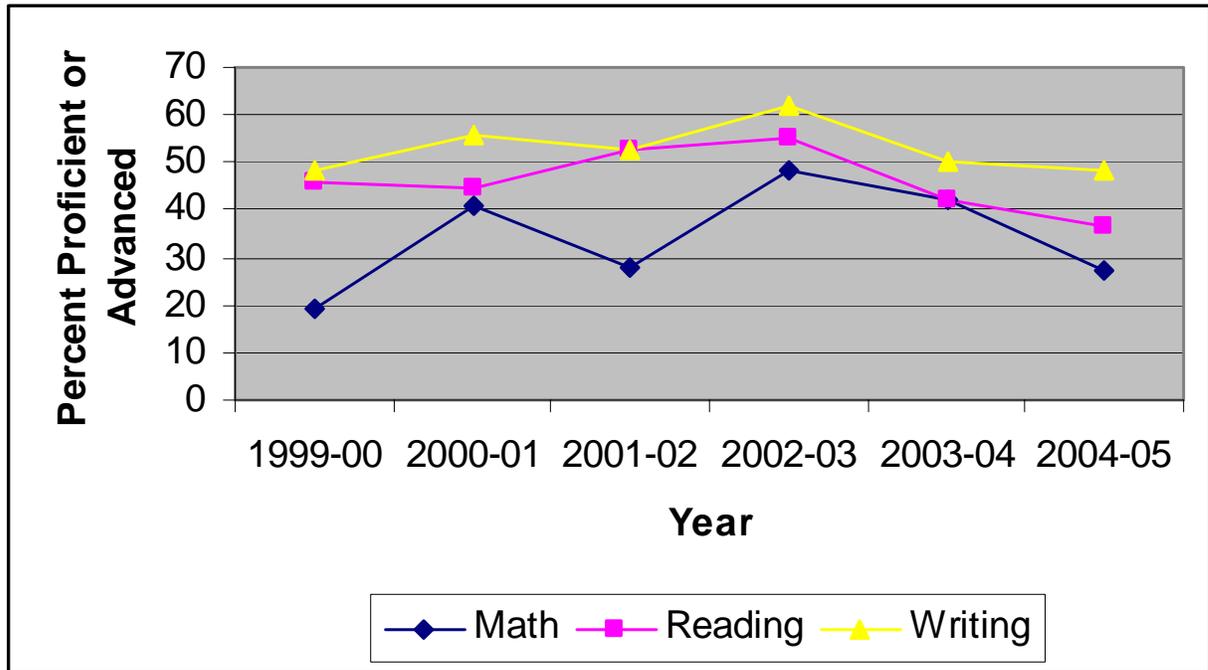
Greyhound Elementary School had mixed test results between the 1999-2000 and 2004-05 school years under the Wyoming Comprehensive Assessment System (WyCAS). The percentage of students scoring proficient or advanced during this five-year period increased by 8.4 in math, decreased by 9.5 in reading, and ended up 0.1 lower in writing after a steady climb from 1999-00 to 2002-03, as shown in Table 4.

Table 16: Greyhound Elementary 4th Grade Percent Proficient and Advanced on WyCAS

	1999-00	2000-01	2001-02	2002-03	2003-04	2004-05
Math	18.9	40.7	27.8	48.3	42.3	27.3
Reading	45.9	44.4	52.8	55.2	42.3	36.4
Writing	48.6	55.6	52.8	62.1	50.0	48.5

As shown in the table, performance peaked in all three subjects in 2002-03 with drops in all subjects during the final two years of WyCAS testing. The changes in performance throughout this period can be seen in Figure 8 below.

Figure 25: Percentage of Greyhound Elementary Students Scoring Proficient or Advanced on WyCAS, 1999-00 through 2004-05



During the 2005-06 school year, Wyoming implemented the new statewide Proficiency Assessment for Wyoming Students (PAWS) testing system. Although not directly comparable to WyCAS, PAWS scores during the 2005-06 to 2007-08 school years show steady growth in most grades and subjects at Greyhound, as shown in Table 1.

Table 17: Greyhound Elementary Percent Proficient and Advanced on PAWS, 2005-06 - 2007-08

Grade	Math				Reading				Writing			
	05-06	06-07	07-08	change	05-06	06-07	07-08	change	05-06	06-07	07-08	change
3	87	94	83	-4	61	78	72	11	32	47	45	13
4	69	87	90	21	66	81	83	17	37	48	60	23
5	66	82	69	3	60	71	72	12	43	21	33	-10

As shown in the table, the most significant gains occurred in 4th grade math, reading and writing. A small loss was seen in 3rd grade math and a larger loss in 5th grade writing. Greyhound's 2007-08 scores were better than the state average in 4th grade math, 3rd, 4th

and 5th grade reading, and 4th grade writing. However, the district averages were higher than the school's in all subjects and all grades. These data are shown below in Table 2.

Table 18: School, District, State Comparison –Percent Proficient or Advanced on PAWS 2007-08

Grade	Math			Reading			Writing		
	School	District	State	School	District	State	School	District	State
3	83.0	88.6	83.4	72.0	78.6	61.0	45.0	55.7	41.0
4	90.0	92.3	76.8	83.0	87.5	64.0	60.0	65.6	52.8
5	69.0	74.3	70.9	72.0	75.7	66.0	33.0	33.8	37.1

Looking at growth on PAWS scores between 2005-06 and 2007-08 shows that Greyhound had greater advances than those of the district or state in all subjects for 4th grade. The school's 3rd grade reading and writing scores grew more than the state's but less than the district's; 3rd grade math decreased at the school but increased at the district and state levels. 5th grade offers a mixed picture: the school had greater growth than the district in math, but less than the state, the reverse was true in reading (less growth than the district but more than the state), and less than both the district and state in writing. ,

Figure 1 through 4 below show the changes in percentage of students scoring proficient or advanced on PAWS from the 2005-06 to 2007-08 school years for the school compared with the district and state.

Figure 26: School, District, State Comparison – Change in Percent Proficient or Advanced on PAWS MATH Scores

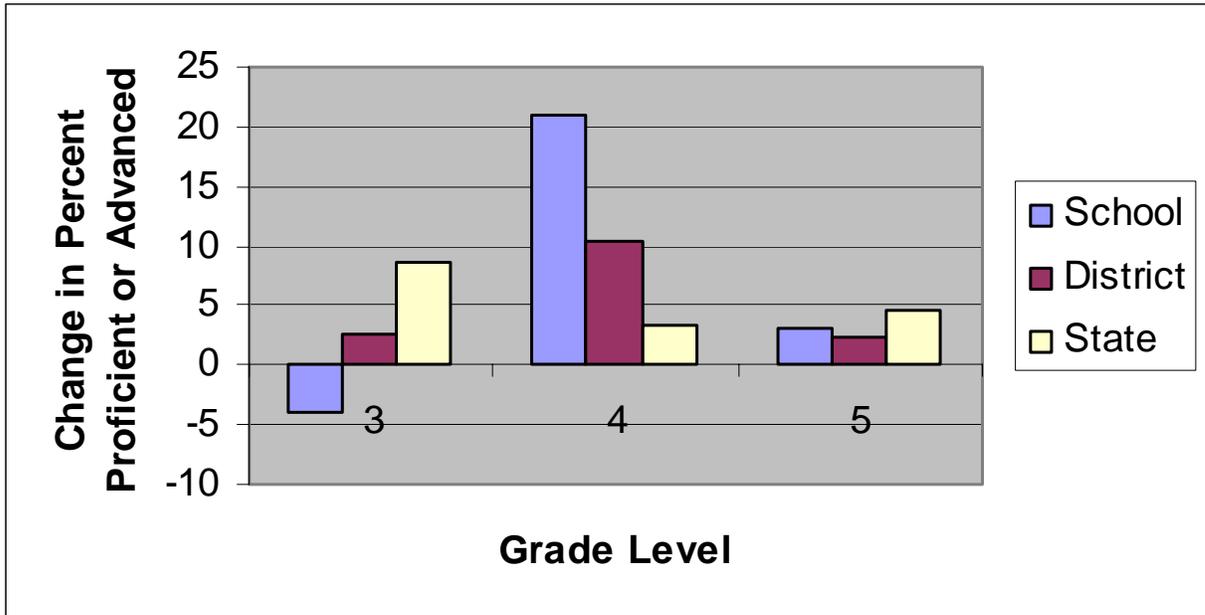


Figure 3: School and State Comparison – Change in Percent Proficient or Advanced on PAWS READING Scores

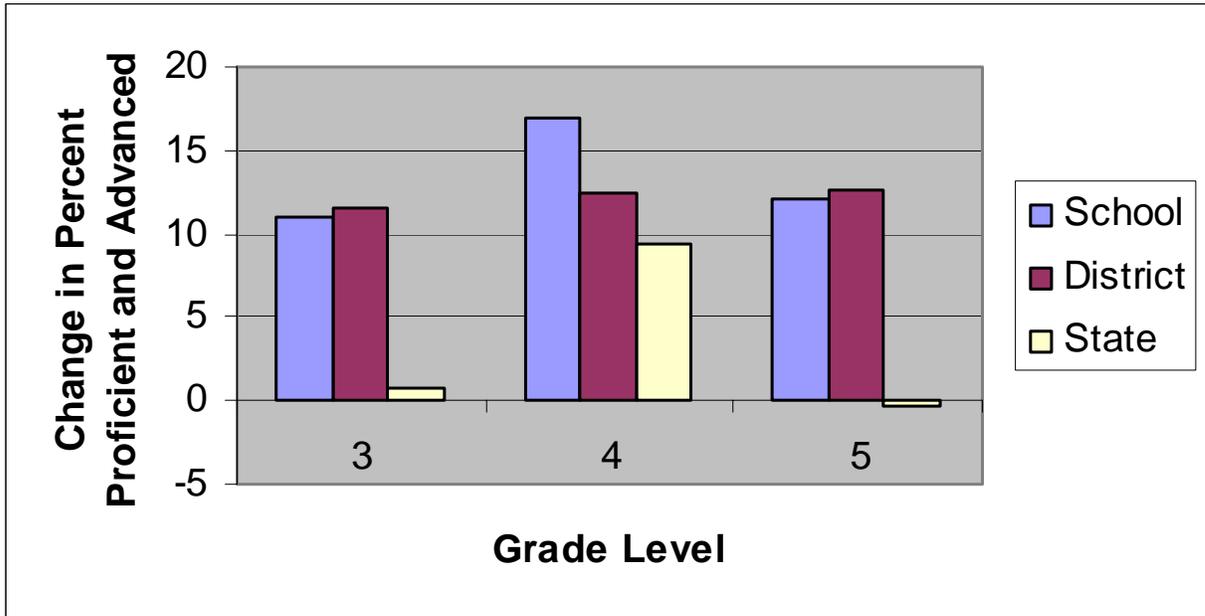
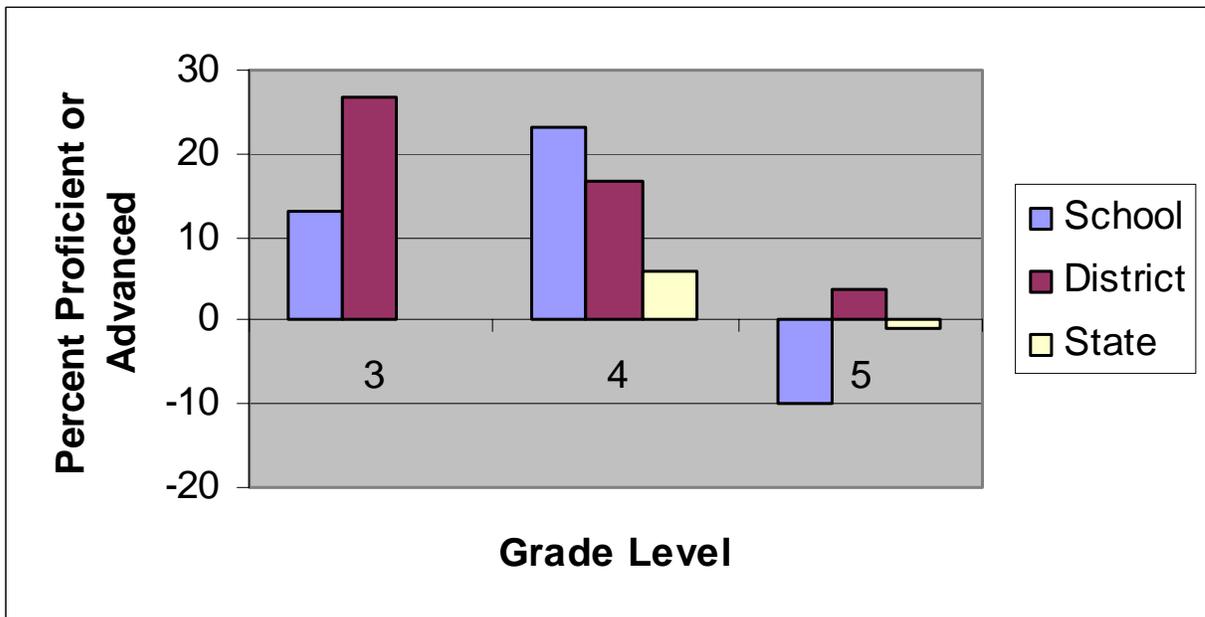


Figure 27: School and State Comparison – Change in Percent Proficient or Advanced on PAWS WRITING Scores



EDUCATIONAL IMPROVEMENT STRATEGIES

Greyhound hired a new principal in the 2008-09 school year; the person selected had taught 2nd and 3rd grade at the school for the previous 25 years. Therefore, although new to this position, the principal has a long history with the school. She reported that they had been focusing on math improvement under the WyCAS testing system, as it was the area in which the fewest number of students achieved proficiency. When WyCAS was replaced by PAWS, math became the area in which they performed the best both as a school and as a district; the district adopted reading and writing goals and the school followed suit. To this end, the school has focused its resources and improvement strategies predominantly in three ways. First, they focused efforts on adopting the district's new reading curriculum with fidelity. Second, the school participated in "intensive teacher training" at the district and school level in 6 Traits of Writing and Step Up to Writing. Finally, the school implemented a "walk to read" approach of grouping all students for additional reading instruction based on fall, winter and spring NWEA-MAP scores.

Goals

Greyhound has been focused on reading and writing for the past few years in line with the district's emphasis on improving test scores in these two areas. General reading and writing school goals for the past few years and the specific interventions aimed at meeting those goals were:

- Goal: All students will improve reading comprehension across the curriculum.
 - Intervention: All students will improve their skills in these critical areas of reading: phonemic awareness, phonics, vocabulary, fluency, and comprehension.

- All students will improve their writing skills.
 - Intervention #1: To investigate data to determine student writing needs
 - Intervention #2: Staff will use data to develop a writing curriculum that will increase the quality of student writing and assess progress using the 6 Traits Assessment model.

Approaches to meeting these goals – and measuring whether they have been met – are discussed in the following sections.

Curriculum and Instructional Approach

Greyhound adopted Houghton-Mifflin for reading instruction during the 2008-09 school year in line with the district's adoption. One teacher reported that the other elementary school in the district advocated the adoption of that particular curriculum, and at Greyhound, teachers felt that it was strong in providing literacy instruction for Kindergarten through 3rd grade, "so 4th and 5th teachers agreed to go along." Teachers received training prior to implementing the curriculum: the district brought in Houghton-

Mifflin consultants to work with teachers during district PD days. Single grade and multi-grade cohorts have since met to “follow-up” after initial implementation.

Greyhound uses the Scott Foresman-Addison Wesley *Mathematics* series for math instruction. One of the teachers reported that each grade level selects how to supplement the core text: for example, the 3rd grade teachers decided to purchase manipulatives rather than supplemental texts.

The Greyhound principal reported that staff share the idea that instruction should be “child-centered,” saying, “We believe the more fun, the better” and noting that they believe “hands-on learning is better than ‘stand and deliver’ type teaching” but stressed that this occurs “within the framework of a prescribed, standards-based curriculum.” She noted that there has been little staff turnover in the more than 25 years she has been at the school, resulting in a sense of shared responsibility for the students’ success.

In class, teachers’ use a variety of instructional strategies. Repetitive questioning was used to start a 1st grade language arts lesson: the teacher held up flashcards and asked students questions like “How many syllables?” The students would answer in unison, “One,” followed by the teacher asking, “How many letters,” and the students answering, “Three.” During another part of the lesson, the teacher read sentences and students copied them down in their notebooks. Student understanding was not verified: it seemed clear that students did not know the word “mast” in the sentence, “The mast fell on the ship” but the teacher did not explain the word to the students.

In a 5th grade math class, students used “geo boards” and rubber bands to create different sized right triangles based on the teacher’s instructions (e.g., a triangle with a length of 3 and a height of 4). After the students created each triangle, the teacher called on one student to say what the area of the given triangle was; the teacher then explained how to get the answer. At one point, the teacher worked with a student one-on-one who was having difficulty understanding how to create the triangles on the geo boards; the rest of the students were not asked to do anything during this time and immediately started chatting with their friends.

Data Collection and Use

Greyhound uses a variety of student assessments, described below:

- PAWS: The Proficiency Assessment of Wyoming Students (PAWS) is a summative statewide assessment, administered (at the Elementary school level) to 3rd through 5th graders in a mix of online and print formats in reading, writing, math, and recently, science. PAWS data are used for Adequate Yearly Progress reporting and provide a picture of overall progress at the school as well as identifying subgroup performance. Greyhound staff reported that they don’t find PAWS as useful as NWEA-MAP since PAWS data is only available at the end of the year.

- NWEA-MAP: Greyhound uses the Northwest Evaluation Association Measures of Academic Progress (NWEA-MAP), state-aligned computerized adaptive assessments in language arts and math, three times a year. Individual student scores on the fall and winter tests help the school create groups for “Walk to Read” (see the “Interventions for struggling students” section below), and the spring test results are used to determine placement in summer school.
- DIBELS – Greyhound uses Dynamic Indicators of Basic Early Literacy Skills (DIBELS), short (one minute) fluency measures (see www.dibels.org) three times a year “to provide group benchmarks as well as benchmarks for individual students,” noted the principal, who added that DIBELS is also used as a diagnostic tool “to make recommendations to the BIT [Building Intervention Team].” The progress of students deemed by the BIT to need interventions is monitored more regularly, approximately every two weeks.
- District assessments are used to compare Greyhound’s progress with that of the other elementary school in the district.

The IF reported that Greyhound established an assessment team to “create an effective and efficient means of assessing students.” The team, comprised of the IF, speech specialist, special education teacher and two reading specialists, use NWEA-MAP data to progress-monitor students three times a year as well as monitoring students through the DIBELS testing mentioned above.

Professional Development

The Greyhound principal reported that the school has 12 professional development (PD) days built in to the schedule. Since the district runs on a 4 day week, with longer school days Monday-Thursday equaling the hours in a traditional five day week, eight of these days are scheduled on Fridays, with the other four occurring before school starts in August. Of the 12 days, five are “building days,” in which the topic is determined by the school, three are district days, in which all of the schools in the district participate together, and four are days structured by each individual teacher. One teacher noted that the district days are less useful to them than building days because “we have a lot of veteran teachers, who have different needs than teachers new to the district.”

In addition to these 12 PD days, teachers have the option of conducting Professional Development Projects (PDPs) in which they work collaboratively on a topic of interest that aligns with district, school or individual goals to increase student learning. PDP requirements, devised by the district, specify that teachers spend a minimum of 15 hours “outside the regular contract hours” and at least 10 hours implementing strategies in the classroom; the principal is expected to observe implementation of the PDP. Teachers are paid \$500 upon completion of a PDP. For example, a group of Greyhound staff completed a PDP on common writing prompts to be used in each grade.

Grade level teachers have collaborative time twice a day for 30 minutes, while their students are at art, music, or PE. The principal reported that teachers can “use this time the way they chose to”; they are not required to work together during this time. There are periodic meetings after school for teachers to conduct “double scoring” of written assessments. The teachers split into two groups – K-2nd and 3rd-5th – to work together during this time. The principal reported that she and the IF will “come to some of the meetings” but not as the “leader” as this “changes the dynamic” of the meetings.

In addition to PD days, PDPs and collaborative time, Greyhound utilizes an Instructional Facilitator to promote teacher growth. Greyhound had one full time IF during the 2008-09 school year. The principal noted that about 5 years ago, the district first introduced the idea of a support person to help staff implement the curriculum, called a “teacher on special assignment” at the time, but the principal felt that this “didn’t work” because the person traveled to different buildings. With the introduction of the IF position, the concept was transformed to focus more on instructional strategies than content and each school was allocated their own IF. Initially, the school used the position as part time IF and part time reading instructor “until the district tightened the rules about IFs not working in isolation with students.” The IF reported that when she joined the school, about half of the staff were veteran teachers, many of whom were resistant to having her come into their classrooms “since they felt they know what they’re doing” as the IF put it. As such, she focused her efforts on “whole school improvement”; for example, she implemented the DIBELS diagnostic testing program at the school. One teacher reported that the IF has been helpful in analyzing data: the IF created graphs showing each student’s growth on MWEA-MAP “so that I could show them to parents during conferences.”

The principal reported that this year, the IFs’ primary role has been to “help with data so it is used, not just filed,” to model instruction, and to provide opportunities for teachers to observe each others’ classes” by subbing. At times, the principal requests that the IF work with an individual teacher to model instruction, and other times, teachers approach the IF themselves or the IF approaches teachers. For example, one 1st grade teacher noted that she had requested the IF’s help in teaching phonemic awareness, so the IF modeled a lesson for her. The IF then approached the other teacher at that grade level to volunteer to model the lesson for her. Observing that lesson, it appeared that this second teacher, not having initiated the coaching, saw the lesson not as modeling so that she could teach the same lesson next year, but as an opportunity to attend to other matters while the IF taught the class (the teacher sat at her desk away from the instruction taking place on the floor).

The IF’s estimate of how she spends her time is shown below in Table 11:

Table 19: Percentage of time IFs spend on different tasks

IF's tasks	Percentage of time spent on each task
Researching and analyzing data	33
Modeling instruction or observing teachers	33
Meeting with teachers in groups	33
Working with other IFs	
Completing administrative tasks	
Subbing so that teachers can observe each others' classes	

The IF has received a range of training to help her define and implement her role. Initially, she attended training by Jan Hasbrouck on “side-by-side” coaching techniques and has since received a variety of district trainings, including one on implementing a “whole school approach to data” in which data is seen as the impetus to improve instructional strategies; she and the principal are slated to attend the state-offered Jim Knight training this coming summer. The IF reported meeting with the other elementary school IF in the district several times a year and working with the rest of the district IFs during district PD days.

Interventions for Struggling Students

NWEA-MAP language arts results are used to group students by ability level for daily small group instruction. Called, “Walk to Read” because the students go to a variety of classrooms for this instruction, the groups vary in size with the lowest and highest students placed in smaller groups (5-7 students) and those “just at proficiency” in larger groups (10-12 students). The Title I and Gifted and Talented teachers take reading groups, as well as the two classroom teachers per grade, enabling the smaller sizes.

Greyhound utilizes a Building Intervention Team (BIT) to determine reading groups as well as to identify students needing additional help. The BIT consists of the principal, nurse, Title I reading and math specialists, speech therapist, counselor, and one teacher who teaches K-1st, one from 2nd-3rd, and one from 4th -5th. Each Monday, teachers are given the opportunity to complete a BIT referral. The team then contacts the parents of students identified and lets them know that they will be discussing their child’s progress Wednesday morning; parents are invited to attend these meetings.

Students who are identified by the BIT as needing extra help outside of the classroom instruction work with Title I teachers for small group instruction during the school day. For example, one teacher reported that several of her students meet with the Title I teacher for “pre-teaching” prior to receiving whole class instruction and return to the Title I teacher as needed during independent work time; sometimes the Title I teacher works with students in the classroom rather than pulling them out.

A homework club is offered after school for 3rd-5th grade students identified as needing extra help. This hour long program is staffed by a paraprofessional and is broken down into three segments: 15 minutes of recess, 25 minutes of reading instruction, and 20 minutes to receive assistance completing any homework.

Greyhound holds a 4-week summer school program for identified students (generally about 10 per grade) that offers remediation in the mornings and enrichment activities in the afternoons. An additional 2 week enrichment-only program is offered to all students; about 42 attended during the 2008 summer.

Instructional Leadership

Greyhound staff felt that the principal plays a “big role” in providing instructional leadership. One teacher described the principal as “a strong force on the staff,” saying that she is able to “rally people to give new ideas a try.” Another teacher noted that the principal “keeps a tab on school wide issues but is also very involved at the individual classroom level.” In line with this, the principal reported that she tries to be in classrooms for about 2 hours a day. She may spend more time in some classrooms on some days than others, but she makes an effort “to be in every room every day.” During her observations, she takes notes on what she has observed. She shares her notes with teachers if they request it; otherwise, she will leave them notes in the mailboxes “every so often” in which she tries to highlight something positive she saw as well as any areas for improvement.

The principal reported that the district superintendent has a role as an instructional leader, made stronger by the fact that she “started as a teacher, which grounds her in the idea of putting students first,” as the principal put it. She reported that the superintendent “encourages variety in teaching styles” and “is very visible without micromanaging.” She noted that the superintendent regularly attends school events, makes herself accessible to parents, staff, and students, and knows about 95% of the school’s students by name.

RESOURCE ALLOCATION

The following table compares the actual resource allocation in Greyhound Elementary School to that provided in the Wyoming Funding Model for the 2007-08 and 2008-09 school years.

Table 5. Greyhound Elementary School Resource Allocation (FTEs and Dollars)

Staffing Category	2008-09	
	WY Funding Model	Actual
Core Academic Teachers	13.08	12
Specialist & Elective Teachers	2.62	2.5
Alternative Teachers/ Small School Teachers	N/A	N/A
LIBRARY STAFF		
- Librarian/Media Specialist (Certified)	0.73	0.5
- Library/Media Tech Aides (Non-Certified)		0.5
EXTRA HELP		
- Certified ELL Teachers	0.09	
- Certified Teacher Tutors for English Language Learners		
- Certified Teacher Tutors for At-Risk Students	0.73	
- Certified Teacher Tutors who Work with Small Groups		1.66
- Title I teachers (federally funded)		2
- Non-certified Tutors		
- Resource Room Teachers		1
- Resource Room Aides		1
- Special Education Teachers (self-contained)		
- Special Education Aides (self-contained)		
-Special Education Teachers (inclusion)		1
-Special Education Aides (inclusion)		1
- Gifted & Talented Teachers		0.33
- Gifted & Talented Aides	\$5,889	
- Gifted & Talented Funds		
- Extended Day (teachers and classified staff)		0.6
- Summer School		
PROFESSIONAL DEVELOPMENT		
- Total # of Professional Development Days		12
- Instructional Facilitators		1
- Teacher Time (Substitutes & Stipends)	\$23,557	
- Trainer/Consultant Funds		
- Materials, Equipment & Facilities		\$2,500
- Travel & Transportation		
- Tuition & Conference Fees		\$2,500

Staffing Category	2008-09	
	WY Funding Model	Actual
Other Instructional Staff		
- Building Substitutes & Other Substitutes		
- Instructional Aides		2
- Supervisory Aides (non-teaching aides)	1.45	
- Counselors	0.73	0.5
- Nurses		0.33
- Social Workers		
- Psychologists		
- Speech/ OT/ PT		0.33
- Health Assistant		
Administration		
- Principal	1	1
- Assistant Principal		
-Other Administrator		
- Secretary	1	1
- Clerical	0.73	1

FUTURE IMPLICATIONS AND CONCLUSIONS

The principal felt that the staffing levels at the school “are perfect right now” but that she is worried that state budget cuts will result in them losing positions such as art and music or the media/technology specialist.