Design Principles for Learner-Centered Schools:

Promising Approaches to Data Based Decision Making to Improve Student Learning

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Study Guides for Designing Learner-Centered Schools on CD-ROM

I. Introduction

In this new edition of *Design Principles for Learner-Centered Schools,* we have situated the original edition's design principles in the framework put forth in *Leading for Learning.* In our discussions we continue to show that learner–centered schools have particular organizational structures and cultures that promote student learning, and offer suggestions for actions that principles and teachers can take to design learner centered schools. Our descriptions of research-based evidence of practices that make a difference in student learning are supported by suggested websites and staff development activities that complement each design principle. In this edition we are pleased to include a new support for educators seeking create learner-centered schools: we have created four appendices presented in the CD-ROM version of the report. In the CD-ROM we present case studies of schools where principals report promising strategies in using data based decision making to improve student learning. We also present summaries of approaches to professional development that can be effective tools for developing professional learning communities. In CD-ROM Appendix A we present seven case studies. Appendix B describes professional learning communities. Appendix C describes the learner-centered principles. Appendix D presents five strategies for professional development: Critical Friends, Lesson Study, Friday Forums, Study Groups, Action Research. Each is accompanied by useful website resources

From Principles to Practices

Our unique focus in this edition is on promising practices in data based decision making to improve student learning. In this report have featured strategies that that principals in Frederick County Public Schools, Harford County Public Schools, Montgomery County Public Schools and St. Mary's County Public Schools are using in turning from principles to practices in this report. We report on the approaches that principals of seven Maryland Schools have developed to provide evidence-based education to improve student learning. The work that they are doing is not unlike the work underway in schools across the United States- it is challenging but critically important to achieving the goal that all children have opportunities to achieve to their full potential. We have reported their insights on developing and sustaining evidence based approaches to educating our students in two forms. In the main body of our report, descriptions of their strategies are presented as examples of moving from principles to practices to support the research-based design principles for learner centered schools. We have also prepared case study reports of each school and present these in Appendix A of the CD-ROM version of the report.

II. Our Featured Schools

> ### *Bel Air Middle School,* *Harford County Public Schools*
> #### *Nancy Reynolds, Principal*
> Case Study Prepared by *Darrin A. Slade*
>
> Bel Air Middle School is a large educational center in Harford County Public Schools. The school currently has 1,463 students enrolled in grades 6-8. The school has been recognized throughout the county and state for the dramatic advancements made in the area of student achievement in recent years. Mrs. Nancy Reynolds has been the principal of Bel Air Middle School for the last six years and under her leadership the entire faculty and staff has grown accustomed to utilizing data sources to guide the process of instructional decision making. The school has been recognized as a National Blue Ribbon School of Excellence during Mrs. Reynold's extraordinary tenure as principal.
>
> **Contact Information:**
> Email: Nancy.Reynolds@hcps.org
> School website: **www.belairmiddle.net/**

Broad Acres Elementary School, Montgomery County Public Schools
Jody Leleck, Principal
Case Study Prepared by *Jane Lai Woodburn*

Board Acres Elementary School serves a very diverse student population in Montgomery County Public Schools. A large percent of the students receive FARMs. Principal Jody Leleck comments,

> "*The really great thing about this staff is that they get it*. Initially, four years ago when I started this spreadsheet to enter…we started with reading data. It was an activity, and what we've been able to really move to is that teachers use this data in two-week planning sessions…so that teachers know what needs to happen based on indicators that have been taught. Who got it, who didn't get it, what needs to be retaught for whom.

Contact Information:
School website: *www.mcps.k12.us/schools/broadacreses/*
Phone: 301-431-7616

Green Holly Elementary, *St. Mary's County Public Schools*
Jill A. Mills, Principal
Case Study Prepared by: *Sun Kim*

A part of the St. Mary's County Public School System, Green Holly Elementary School is located in Southern Maryland. Along with being a regular education elementary school, the schoolhouses a Judith P. Hoyer Early Childhood Center, is identified as the cluster site for special education, and is classified as a Title I school because the free-and-reduced meals (FARM) percentage exceeds fifty percent. Jill Mills has been the principal of Green Holly for the past eight years. She draws from her preparation in Elementary Education and Special Education, in addressing the many needs of the 700 students served by the school. Ms. Mills says

> "I think the best thing that has happened for Green Holly, for the teachers and the students, is we have evolved into a community of learners. The students have learned to become learners and to want to continue to do well. The teachers are learning how to share their information to grow professionally, and I think we're constantly challenging not only our students, but ourselves as well. And I see that as really taking us to the next step.

Contact Information:
Email: jmills@mail.smcps.k12.md.us
School website: www.smcps.k12.md.us (go to schools)
Phone: 301-863-4064

Havre De Grace High School, *Harford County Public Schools*
   Wayne Thibeault, Principal
      Case Study Prepared by: *Myriam Agnant Cornish*

Havre de Grace High School is a four-year comprehensive high school located in Harford County Public Schools. 684 students and 55 faculty members walk through the halls of this spacious building on a daily basis. The school is accredited by the Maryland Accreditation Association of Schools and Colleges, and in 1991, was identified as a National School of Excellence
   Wayne Thibeault is the newly appointed principal of Havre de Grace High School. He has 32 years experience in education and is an avid proponent of databased decision making. He is innovative and on the cutting edge of education. As the top building administrator, he is highly visible and knows his "kids". On most days. Wayne Thibeault visits all of the classrooms in the building. He expects two key elements in every lesson: 1. what the students will be able to do (objective) and 2:how they will be able to show that they know it (assessment). Wayne Thibeault expects "substance" in every lesson that students receive at Havre De Grace High School.
Contact Information:
Email: wayne.thibeault@hcps.org
School website: www.hcps.org (go to schools)
Phone: (410) 939-6600

Magnolia Elementary School, *Harford County Public Schools*
   Barbara Douglas, Principal
      Case Study Prepared by: *Hanne Mawhinney, PhD*
Magnolia Elementary is located in Joppa MD in Harford County Public Schools. The majority of students live in a densely populated area of town homes and apartments. Magnolia is a Title I "School Wide Program," all 589 students are eligible to receive the benefits that Title I provides. The school has more materials, programs and personnel because of those funds. Barbara Douglas has been principal of Magnolia for one year. Previously she was principal of another Harford County Public School. She began her career as a teacher in Baltimore City. Mrs. Douglas sums up her philosophy of leadership in this way:

> I am very passionate about education, intensely so. I am one who is very much at home being a teacher, vain enough to think that I was born to teach, and comfortable enough to recognize that the only people who truly make a difference in this business are the teachers, not the administrators supervisors or whomever, but wise enough to recognize that in order to make the greatest impact on student achievement teachers need to be comfortable with their own level of confidence and competence and I think that it is crucial that the head cheerleader, meaning myself, keeps that in the front of all considerations.

Contact Information:
Email: Barbara.Douglas@hcps.org
School website: www.magnoliaelementary.com
Phone: (410) 612-1553

New Market Middle School, *Frederick County Public Schools*
Carolyn Kimberlin, Principal
Case Study Prepared by: *Steve Lockard*

New Market Middle School, a Frederick County Public School, was built in 1979. It currently has a total enrolment of 958 students. Carolyn Kimberlin, Principal of New Market Middle School shared her thoughts on promising strategies to improve student learning, by observing that,

> One of the things we have worked on is when I first came here; I noticed that the bar, the educational bar, really was not where it needed to be because they said they can't do that. It was a mindset that we had to break. They were not doing it because they didn't have the expectations – they didn't want to put additional stress on these children by holding them accountable like some of the other influential schools. You know, the children walk in, they're handed these things and they're expected to do it."

Contact Information:
Email: Carolyn.Kimberlin@Fcps.org
School website: www.fcps.org (go to schools)
Phone: (240) 236-4600

Westland Lake Middle School, *Montgomery County Public Schools*
Dr. Ursula Hermann Principal
Case Study Prepared by: *Myriam Cornish Agnant*

Dr. Ursula Hermann is the principal of Westland Middle School in Bethesda, Maryland. More than 950 sixth, seventh and eighth graders in Montgomery County Public Schools attend Westland. During Dr. Hermann's four-year tenure at Westland, she has brought the process of data-based decision making to the forefront. The staff work hard to ensure that student data drive the school improvement process. Major decisions are always focused on what is best for all students. Dr. Hermann urges her teachers to disaggregate the data and base their instructional decisions on it. She consistently demonstrates a positive attitude towards the use of data in her school. She understands that the use of data is intimidating to some and she respects that. Dr. Hermann provides her staff with time and support to help them engage in the process of data-based decision making in a professional learning community.
Contact Information:
Email: Ursula_A_Hermann@fc.mcps.k12.md.us
School website: www.mcps.k12.md.us/schools/westlandms/
Phone: (301) 320-6515

III. Why Educators are Interested in the Achievement Gap

At various times in our nation's history, schools have been called upon to further broad social goals. These goals include educating children to participate in a democracy, equipping them with job skills, and preparing them to participate in the American Dream of rising from rags to riches. But schools and society have worked for some children and against others. Consider this information:

- The rate of minority voting in federal elections is less that the rate of white voting, and only twelve percent of the US Congress are members of racial and ethnic minorities (US Census Bureau);

- minority adults fill a disproportionate number of low pay jobs (US Census Bureau); and

- minority adults are less likely than whites to rise from poverty to wealth in their lifetimes (Rank & Hirschel, 652).

The American adage holds that with talent and determination, one can advance in political, economic, and social power. Perhaps. But this ideal assumes a level playing field on which all Americans compete for advantage. With the current gap between rich and poor as high as it was at the start of the Great Depression, schools must act with redoubled vigor to ensure that all children are given an excellent education and a chance to succeed in American society. This is our imperative.

Closing the Gap
During the 1990s, Texas and North Carolina made steady progress in closing the achievement gap. Latino eighth graders in Texas are 25 points, or the rough equivalent of two and one-half years worth of learning, ahead of similar students in Minnesota on the NAEP writing test. In mathematics. African American eighth graders from North Carolina are 17 points, or nearly two years, ahead of similar students from Michigan (North Central Regional

IV. The Importance of Data

"In the effective school, pupil progress . . . [is] measured frequently, monitored frequently, and the results of these assessments are used to improve the individual student behaviors and performances, as well as to improve the curriculum as a whole." (Lezotte, 2002)

If schools are serious about closing the achievement gap, they must analyze data when planning and implementing programs and policies aimed at closing the gap. There are three reasons why data is invaluable to this type of decision-making:

- it allows schools to rely on objective information, rather than anecdotal evidence;

- it enables schools to examine where student learning is vis-à-vis where it should be; and
- it illuminates the paths of future improvement efforts.

Members of the 107 Congress saw the value of data analysis, and in the *No Child Left Behind* legislation, they codified the concept that data collection and analysis is necessary for school improvement. While compliance with No Child Left Behind is measured by students' standardized test scores, schools should not limit their scrutiny to test scores alone; other types of data shed light on schools' strengths and weaknesses and can be used to refine the focus of school improvement efforts. These types of data include:
- Data about student attitudes and perceptions;
- Data about parental and community attitudes and perceptions;
- Data about school staff attitudes and perceptions; and
- Data on economic, demographic, and political trends in the community.

For a discussion of how to manage large amounts of data see: Carnahan, D. and Fitzpatrick, M. "Don't Get Buried under a Mountain of Research." *Journal of Staff Development*, Spring 2003 (Vol. 24, No. 2). https://www.nsdc.org/educatorindex.htm

V. Learner-Centered School Model

> ***What is a Learner-Centered School?***
> *A Learner-Centered School is a professional learning community that uses data to enact the five Leading for Learning principles.*

> **From Principle to Practice**
> It is important to help teachers recognize that we need to look at as many different pieces of data as we can in a meaningful way so that we get a total picture, so that we are not just looking at what does the MSA telling us, what is SRI telling us, but what about anecdotal records, what about parents conferences, what about kid watching, all of those things are important in terms of improving instructional practice and student learning. ***Barbara Douglas, Principal Magnolia***

Reducing the achievement gap requires that equitable learning opportunities be incorporated into every aspect of the school environment. The Learner-Centered School Model provides educators with a framework for developing strategies that facilitate the learning of all students, especially minority students.

In the spring of 2003, the Michael Knapp and his colleagues through Center for the Study of Teaching and Policy published "Leading for Learning: Concepts and Examples," and the design principles of the Learner-Centered School reflect the essential tasks that are identified in "Leading for Learning." The administrators, faculty, and staff of the Learner-Centered School are guided by the following principles:
1. schools should focus on learning
2. schools should build professional learning opportunities
3. schools should engage the external environment to promote learning
4. school leadership should be distributed
5. there should be coherence in the school program.

> See: Knapp, M., Copeland, M., and Ford, B., McLaughlin, M., Milliken, M., and Talbert, J. "Leading for Learning Sourcebook: Concepts and Examples." Center for the Study of Teaching and Policy. 2003. Retrieved in May 2003 from http://depts.washington.edu/ctpmail/PDFs/LforLSourcebook-02-03.pdf.

Although the principles can be interpreted in a variety of ways, the strategies offered in this report reflect specific assumptions about the way schools should be run and the way people learn that have good promise of addressing the needs of minority students. The selection of strategies presented in this brochure was influenced by research on professional learning communities and Karen Murphy and Patricia Alexander's research on the elements of meaningful learning.

For more information about professional learning communities and the conclusions of Murphy and Alexander, please see the appendices on the Learner-Centered School Model on the *CD-Rom. Design Principles for Learner-Centered Schools* that accompanies this report

VI. Organization of This Report
This report is organized to present each of the five Learner-Centered School design principles. Complementing each principle are descriptions of
- approaches to using data to address the principle;
- strategies that address the principle;
- explanations of the value of adopting particular strategies;
- specific actions that teachers and principals can take to address the principle;
- From "Principle to Practice" Advice from the Principals of our feature schools for each strategy; and
- a professional development activity that focuses on addressing the principle.

VII. Design Principles

1. Design Principle One: Focus on Learning

A school that "focuses on learning" constantly articulates its broad beliefs that all children can learn and that all children will learn. Its mission statement refers to the school community's specific position regarding how students learn and how teachers should teach. Resources, both material and human, are channeled into policies and practices that facilitate student learning.
For the latest research on learning, please see the on-line text How People Learn: Brain, Mind, Experience, and School at http://www.nap.edu/html/howpeople1/.

> **From Principle to Practice**
> Using their class data and pre-assessments, our English teachers found that the students needed to work on critical thinking skills. They put a plan in place that emphasizes the deeper questions in their classes. In-class dialogue includes questions like "Why?, What happened to make you think that…? Tell me more about." This practice has helped many students begin to approach reading and writing from a more critical and reflective point of view. This practice is helping students who have not been exposed to higher order thinking skills and critical thinking dialogue to engage in the process. Their own skills are being developed and refined in their classes. I honestly believe that the way that we must account for students who have different experiences is to expose them to rich and rewarding educational experiences inside the classroom. Working together, we have had amazing results. 100% of our ESOL students have passed the Maryland Functional Writing Test. ***Dr. Ursula Hermann, Principal, Westland Middle School, Montgomery County Public Schools***

Focus on Learning:

Strategy one – develop students' knowledge base

According to cognitive learning theory, people learn by attending to new knowledge and associating it with knowledge that they acquired previously. Students bring differing knowledge bases to school, and this impacts what they pay attention to, learn, remember, and forget (Alexander, 1996). Scores on the National Assessment of Education Progress indicate that achievement gaps among socioeconomic groups emerge very early in schooling and then persist. Obviously, a disconnect exists between the knowledge bases that teachers expect students to have and the knowledge bases that some students bring to school.   This is one source of the achievement gap, and it needs to be addressed.

> *Focus on Learning -- Data Approaches*
>
> * *Scrutiny of standardized test scores*
> * *Examination of pedagogical methods used by your teachers*
> * *Assessment of student health and hunger as it relates to students' ability to learn*
> * *Investigation of knowledge bases students have when they enter your school*

Teacher's actions
* Build a common knowledge base for the class by scheduling field trips or other unique experiences.
* Learn as much as possible about the community from which the students come and weave aspects of it into lessons.
* Build students' knowledge bases about standardized tests by having them take mock tests and then having them review their answers.

    For explanation of how cognitive learning techniques can enhance student learning, please see the pop and scholarly articles about memory found at http://www.psychology.org/links/Environment_Behavior_Relationships/Memory/. Additionally, please see "Improving the Quality of Student Notes" at http://www.ericfacility.net/ericdigests/ed366645.html.

Principal's actions
* Establish a pre-k program at your school.
* Establish a "Breakfast-in-the-Classroom" program to ensure that no students are hungry and are therefore unable to attend. Please see "Statement on the Link Between Nutrition and Cognitive Development in Children" http://www.centeronhunger.org/pubs/cognitive.html. For more information about the Maryland Meals for Achievement Breakfast in the Classroom Program, please see http://www.msde.state.md.us/programs/foodandnutrition/MMACBPP.htm.
* Screen students' hearing and vision frequently and take measures to facilitate the learning of students with hearing and visual impairments.

From Principle to Practice
What we do here is have what's called the global shared folder. The global shared folder is a computer folder that everybody in the building has access to, and in this folder, we monitor student performance. The folder has all of the data system wide, CTBS data over a period of years, MSA data, former MSPAP data…it has MCPSAP data which is the primary reading assessment used in the school system. Also in this folder, each classroom teacher has a reading file, a science file, and a math file…and in that file, data is monitored on every child in their class. ***Jody Leleck, Principal Broad Acres Elementary School***

Surveys given to staff, students, and parents to gauge perceptions, opinions, and attitudes toward the school climate and instructional practices. ***Nancy Reynolds, Principal, Bel Air Middle School, Harford County***

We are "rehearsing for the recital". The state has done a wonderful job of creating rubrics for most subject areas. For those areas that have not yet been developed, I have charged my teachers with developing one that closely resembles and assesses the same skills as the state. HDHS is fortunate in that we have received a reading Grant for the MSA based on our scores. The grant is allowing us to dedicate additional resources to reading. ***Wayne Thibeault, Principal, Havre de Grace High School***

Focus on Learning:
Strategy two – increase student motivation

Because motivation is key to academic success and lifelong learning, schools need to encourage the "habits of mind" of highly motivated students. In Instructional Leadership, Anita Woolfolk –Hoy and Wayne Hoy identify characteristic of students who are highly motivated. These students

- have intrinsic motivation. They are motivated by their own interests, curiosity, and enjoyment rather than by extrinsic factors like rewards and punishments.
- seek the personal satisfaction of a job well done rather than approval from others. They chose goals that are moderately difficult or challenging rather than extremely difficult or very easy.
- are concerned with mastering material and skills rather than getting attention from others
- are motivated to achieve rather than to avoid failure
- attribute success or failure to controllable causes rather than to uncontrollable causes
- believe that intelligence is something that can be improved with effort. For them, intelligence is not a stable, uncontrollable trait (129).

From Principle to Practice:
We have done some pretty cool things with the dimensions of learning in terms of dimension one, in terms of motivating kids, setting purpose and so forth. There is some big time work that we need to do with dimensions two and three and four in terms of helping kids become better thinkers, but the strategy related to dimension five is very important, in terms of allowing kids to reflect on their own learning, and not just kids, but also the school family members who are looking at linking assessment ***Barbara Douglas, Magnolia Elementary, Harford County***

More information about student motivation is found in "Student Motivation To Learn" http://www.ericfacility.net/databases/ERIC_Digests/ed370200.html and "School Leadership and Student Motivation" http://www.ericfacility.net/ericdigests/ed346558.html.

Teacher's actions
- Structure learning such that students are guided gradually to high achievement.
- Use portfolios so that students can watch themselves grow.
- Insist that students do multiple drafts of written work.

Principal's actions
- Celebrate genuine school/student/faculty accomplishments to boost collective efficacy.
- Train all teachers in the instruction of gifted and talented students and expect that they will use this type of instruction for all students.

From Principle to Practice
Barbara Douglas believes that educators at Magnolia school must become better at being able to help children to look at their own at data, and be able to make some adjustments, in order to impact their own learning: We have done some things in terms of rubrics, but really having children be able to set goals in relation to what the data is telling us, and then being able to go back and being able to analyze or look at those goals and adjust so that they can better meet them is very important. **Barbara Douglas, Magnolia Elementary School**

What we do here is have what's called the global shared folder. The global shared folder is a computer folder that everybody in the building has access to, and in this folder, we monitor student performance. The folder has all of the data system wide, CTBS data over a period of years, MSA data, former MSPAP data; it has MCPSAP data which is the primary reading assessment used in the school system. Also in this folder, each classroom teacher has a reading file, a science file, and a math file…and in that file, data is monitored on every child in their class. **Jody Leleck, Principal Broad Acres Elementary School**

Focus on Learning:
Strategy three –incorporate "informal education" into the school

Educational theorists make a distinction between the "informal education" children learn outside of school and the "formal education" they learn inside the school. "Informal education" is seen as more practical and collaboratively constructed, and formal education is seen as more abstract and individualistic. Teaching methods like cooperative learning, authentic instruction, and authentic assessment bring informal education into the classroom. These particular methods increase student achievement, especially for minority group students (Slavin, 1995).

Authentic Learning

Authentic learning is "learning that has real-life value, functions as the cornerstone of mastering that subject, and is actively constructed by the student. It is learning that is used to solve problems and complete open-ended tasks" (Glatthorn, 1999).

Teacher's actions
- Use authentic instruction and assessment.
- Use cooperative learning groups and "seed the discussion with ideas and alternatives that push and prod student thinking" (Woolfolk-Hoy and Hoy). The quality of student discussion determines the success of cooperative learning.
- Enlist parent volunteers and older students to be cooperative group facilitators.

Principal's actions
- Provide material resources, time, and coaches for teachers to learn and practice cooperative learning and authentic learning pedagogy.
- Look for opportunities to explain the importance of cooperative learning and authentic learning to parents.

From Principle to Practice
Taking a look at Havre De Grace High school's discipline referral data, the school improvement team realized that character education was needed at HDGHS. "The highest discipline infraction at our school was insubordination and disrespect." As a result, the school improvement team decided to be proactive and develop some programs and organizations that would help students to focus on and engage in positive and respectful activities on a regular basis. Some of the programs that exist at HDGHS are Ladies First, EcoWarriors, Student Government Association, and S.M.I.L.E.S. We have made a concerted effort to instill "Warrior Pride" in all of our students. As adults we model respect, courtesy and honesty in the school. Students were made aware of our focus on values and of the incentive programs that we were putting in place. The results after first quarter have been fabulous. **Wayne Thibeault, Principal, Havre de Grace High School, Harford County**

The recipe for success includes three key components: alignment, analysis and instruction. Schools should make sure that the assessments are assessing what the teachers are teaching. They should also be prepared to analyze student results on a regular basis to inform instructional decisions. Sound assessments should occur on a frequent basis so as to engage in continuous improvement for all. *Dr. Ursula Hermann, Principal, Westland Middle School, Montgomery County*

Professional Development Activities for a Focus on Learning

Two professional development strategies are particularly suited to the "focus of learning" principle. The first is lesson study. In a lesson study, small groups of teachers create an exemplary lesson on a topic of their common interest. The teachers do research for the lesson, design it, teach it to a class, and then critique and refine the lesson. Because teachers may be unfamiliar with various types of cooperative learning (i.e. jigsaw), lesson study could give them the opportunity to achieve flexibility with these techniques. The second activity is study groups. In study groups, small groups of teachers explore topics of interest and then report on their findings to others in the school community. Cognitive learning theory, constructivist learning theory, and motivation are topics that "focus on learning" and would be good topics for study groups.

2. Design Principle Two: Build Professional Learning Opportunities

> "It has become increasingly clear that if we want to improve schools for student learning, we must also improve schools for the adults who work within them. . . . We have only recently come to understand that student learning also depends on the extent to which schools support the ongoing development and productive exercise of teachers' knowledge and skills" (Smylie & Hart, 1999, p.421)."

University of Maryland professors Willis Hawley and Linda Valli identify eight "musts" for educators' professional development. The professional development must:

1. Be driven, fundamentally, by analyses of the differences between goals and standards for student learning and student performance.
2. Involve teachers in the identification of their learning needs;
3. Be primarily school based;
4. Provide learning opportunities that are organized around collaborative problem solving;
5. Be continuous and on-going, involving follow-up and support for further learning;
6. Incorporate evaluation of professional development activities;
7. Provide teachers the opportunity to develop a theoretical understanding of the knowledge and skills learned; and
8. Be integrated with a comprehensive school improvement process. (Hawley and Valli, 1999)

> *Build Professional Learning Opportunities -- Data Approaches*
>
> - *Evaluation of current professional development's potential to enhance teaching and learning*
> - *Investigation of how other schools have increased time and resources for professional development*
> - *Examination of teachers' views about how professional development could be improved at your school.*

On-line resources for building professional learning opportunities include:
http://www.cpre.org/Publications/rb16.pdf "Helping Teachers Teach Well: Transforming Professional Development"
http://www.ed.gov/pubs/CPRE/t61/framwork.html "A Framework for Reviewing Professional Development Policies and Practices"
http://www.cpre.org/Publications/rr38.pdf " Rethinking the Allocation of Teacher Resources: Some Lessons from High Performing Schools"

Build Professional Learning Opportunities:
Strategy one – encourage teachers to engage in action research

Engaging in action research on their own practice provides teachers opportunities to reflect on the challenges and successes of their students. Zeichner notes that teachers who engage in action research report having more confidence in their work, feeling a greater sense of control over their

practice, being more proactive in addressing difficult challenges, and being more analytic and focused on the impact of their teaching (1998).

Teacher's actions
- Reflect on your teaching by journaling,
- analyzing videotapes of your lessons, and
- critiquing your assessments.
- Solicit objective feedback from colleagues.
- Modify instruction as self-evaluation dictates.

Principal's actions
- Create opportunities for teachers' action research and give resources to this.
- Encourage teachers to observe one another and work together to address teaching challenges.
- Create opportunities for teachers to share their action research with others in the school, district, and community and with members of professional organizations.

From Principle to Practice
All teachers are part of the data analysis and collection. I look to Richard Elmore's distributive leadership strategies to address issues of time. The administrative team and the leadership teamwork together as do the subject teams that have developed in our professional learning community. We have a 9th grade failure prevention team, a SAT prep team a Biology team and etc. Our teams really work together to plan and share responsibilities, ***Wayne Thibeault, Principal, Havre de Grace High School, Harford County.***

We had professional dialogue groups. We knew our language arts wasn't working, so I asked one of the teachers to chair a committee to look at the Four Block, and that was before everybody started moving to the Four Block day in Language Arts and our Reading program. Everybody was invited to participate on the committee. It was a yearlong committee. We provided them with books to read about Four Block and its reading approach…They read it as a committee, they discussed it, they had good dialogue about [it]…they made recommendations at the end of the year to the school improvement team and what strategies we should use next year. ***Jill Mills, Principal, Green Holly Elementary, St. Mary's County.***

Build Professional Learning Opportunities:
Strategy two – have teachers plan lessons collectively

Too many cooks spoil the soup? Not when it comes to lesson planning. Creating lessons together enriches teachers' understanding of the course content and encourages them to use a variety of teaching methods in their classrooms. Facility with a number of teaching strategies allows teachers to adapt their teaching to suit their students' needs and eliminate the barriers to student learning.
An important "predictor of African American and non-white student achievement . . . [is that barriers to student achievement] are eliminated through a cooperative problem-solving process." (Henderson, et al.)

Teacher's actions
- Work together to plan lessons.
- Work together to set learning goals for each lesson.

Principal's actions
- Set aside time specifically for teachers to plan together.
- Have trained coaches show teachers how to collaborate in teacher planning teams.
- Have novice teachers teach the same classes as their mentor teachers and make joint planning a part of your mentor-mentee program. For more information please see, "Teacher Mentoring as Professional Development" at http://www.ericsp.org/pages/digests/01-04.pdf.

Promising Professional Development
See an Overview of Promising Practices using teacher collaboration in:
Lesson Study with additional website resources by Bud Rorison on the CD-Rom of this report (p. 69)

Study Group Overview with additional website resources by Margaret Jerome Stuart on the CD-Rom of this report (p.74)

Build Professional Learning Opportunities:
Strategy three – have teachers collectively assess student work and collaborate to plan for improvement

Although some teachers create lesson plans with other teachers, few teachers work together to assess student learning. There are three reasons why more teachers should do this. First, collectively creating assessments allows teachers to "check out" other teachers' assessment tactics and encourages creativity in the type of assessments that teachers offer. Second, when teachers collectively assess student work, they arrive at consensus about what counts as student achievement. Third, in the process of critiquing student work, teachers are likely to reflect on their own teaching methods, and this encourages them to try alternative teaching strategies in their classrooms.

Three Benefits of Collaboration *Teachers who have the opportunity to meet regularly with other teachers to share ideas and solve problems are more likely to implement research-based instructional strategies (Kline, Deschler, & Schumaker, 1992). . .*

In secondary schools, typically more resistant to change than elementary schools, collaborative structures enabled teachers to focus inquiry, provide resources, build linkages, reinforce positive change, and enable teachers to move from a focus on obstacles to change to strategies to overcome the barriers (Weinstein, Madison, & Kuklinski, 1995) Correlational evidence suggests that the way schools are run predicts the level of disorder they experience. Schools in which the administration and faculty communicate and work together to plan for change and solve problems have higher teacher morale and less disorder (Gottfredson, 1997). Willis Hawley, Learning Communities, University of Maryland. Web CT

Student achievement is higher in schools that use a variety of assessment tools to measure student learning and that have a shared understanding of achievable learning outcomes (Rollie, 2002).

Teacher's actions
- Work together to plan assessment and view student work.
- Establish grading criteria with other teachers.
- Work with other teachers to refine the teaching/learning process so all students will meet specific expected outcomes.

Principal's actions
- Give teachers time to collectively assess student work and plan for improvement.
- Have trained coaches show teachers how to work collaboratively to plan and evaluate assessment.

From Principle to Practice
We have a lot of things going on. It's a team approach. There's not one person who can't make a difference. We approach it as a team and everybody has a piece. We use professional dialogue groups. We could start there. You could have a book discussion because it's not really about the classroom; it's about strategies you might use in the classroom. And then get on your team to talk to each other. But somebody's got to facilitate it. *Jill Mills, Principal, Green Holly Elementary, St. Mary's*

It is important that after we have analyzed data, interpreted it, and identified some instructional implications that we have applied these implications to best teaching practices as supported by staff development and then evaluate it. *Barbara Douglas, Principal, Magnolia Elementary, Harford County*

Professional Development Activities

In the appendix of the Learner-Centered School Model CD-Rom there are descriptions of several professional development activities any of which could be adapted by teachers who wish to engage in action research or who want to work with other teachers on planning and assessment. "Teacher Research" gives an overview of action research and is found at http://www.accessexcellence.org/21st/TL/AR/.

We realize that many teachers are reluctant to have other teachers critique their practice. Formal, peer critique methods are useful in minimizing the emotional aspects of the peer critique process. The Tuning Protocol developed by the Coalition of Essential Schools is helpful when teachers view videotape of themselves, share lesson plans, share assessment strategies, etc.

A general overview of the Tuning Protocol by the protocol's creator, the Coalition of Essential Schools, is found at http://www.essentialschools.org/cs/resources/view/ces_res/54. Thorough descriptions of the Tuning Protocol and the role of the facilitator are found at http://www.brookings.k12.sd.us/BrookingsTTL/Goodfellow%20Special/The%20Tuning%20Protocol.htm.

3. Design Principle Three: Engage the External Environment

When the school engages the external environment it builds relationships, and this engagement increases the number of resources available to the school for teaching and learning. The authors of "Leading for Learning" detail three types of environments with which school should establish a dialogue:

- Family and community environments (i.e. parents, advocacy groups, human service agencies, municipal bodies, the media, local businesses, and taxpayers);
- Professional environments (i.e. unions, universities, professional networks and associations, and the local labor educator market); and
- Larger policy environments (i.e. local, state, and federal education agencies and local, state, and federal politicians). (Knapp, Copland, and Talbert, 19)

Engage the External Environment -- Data Sources

- *Analysis of local media reports, especially op-ed articles and letters to the editor*
- *Results of meetings with community groups*
- *Results of parent surveys*
- *Evaluation of the direct and indirect impacts of district, state, and federal mandates and policies on your school*

This engagement of the external environment is "simultaneously personal and political – personal, as leaders cultivate durable human connections with colleagues, community members, and others; and political, as leaders mobilize allies and create coalitions of diverse interests, often in the face of significant conflict." (Knapp, Copland, and Talbert, 19)

From Principle to Practice:
Rotary Wings has kind of adopted us. Because we have the military children here we involve them with everything. We have quarterly awards…assemblies, and they come in and hand out the awards to the children. *Jill Mills, St. Mary's County*

Engage the External Environment:
Strategy one— engage family and community environments

From its examination of numerous studies, the San Diego County Office of Education (SDCOE) concluded that "the most accurate predictor of a student's achievement in school is not income or social status, but the extent to which that student's family is able to: create a home environment that encourages learning; express high (but not unrealistic) expectations for their children's achievement and future careers; [and] become involved in their children's education at school and in the community."

Bridges between the school and parents enhance student learning, especially for students from historically disadvantaged groups. Nevertheless, too frequently, there are barriers preventing parents from being productively involved in their children's educations. Sometimes the barrier is unfamiliarity with the American system of education. With clear instruction and support, parents

can be taught how to reinforce the lessons their children learn at school. Sometimes the barrier is alcoholism, poverty, or illness. In these cases, the school would be wise to partner with social service agencies in order to bolster parents' ability to attend to their children's emotional, physical, and educational needs.

Teacher's actions
- Increase use of parent volunteers as teachers' helpers and guest speakers.
- Run a mini-class for parents at the start of the year in which parents are shown how you teach, what your assessments look like, and what your expectations are.
- Go to community events.
- Speak informally with social service agencies if you have questions about how to address the needs of students with difficult home lives.
- Actively establish connections with local employers so that you can refer qualified students who do not have plans to go to college.

Principal's actions
- Create opportunities for out-of-school time for teacher-family interaction.
- Encourage parents to utilize the school library, computer facilities, and the career counseling center as a place for their own learning and exploration.
- Ask bilingual parents to be translators at school functions.
- Establish parenting, parent literacy, and social service coordination programs in collaboration with social service agencies. Please see "Building Relationships between Schools and Social Services" http://www.ericfacility.net/ericdigests/ed339111.html.
- Provide food at all events at which parent attendance is expected.
- Anticipate potential criticism of your school's test results and devise ways to address this criticism. Be ready to explain in nontechnical terms the meaning of test results.
- Work with local businesses and parent groups to establish traditions at the school (e.g. the Fire Department Leadership Award).
- Form a leadership team to investigate how a strong relationship can be forged between teachers and local employers.

From Principle to Practice

We need to get much, much better in helping Mom and Dad understand what the data is saying, and then having understood what the data is saying for us as a school to provide support so that we can help Mom and Dad at home impact that learning, whether it's a "make it take it night", or sending home some suggestions for how to help, or "come on in and we'll have some show you", or what ever. *Barbara Douglas, Magnolia Elementary, Harford County*

We're doing a portfolio breakfast coming up because now we are teaching the children how to be responsible for their learning and choose what they want in their portfolios. Now we're going to share them with our parents. So, we're hoping by offering them doughnuts and coffee before the school that they will come in and go through their portfolio with their children. *Jill Mills*, *Green Holly Elementary, St. Mary's County Public Schools.*

Engage the External Environment:
Strategy two—engage professional environments

As long as public schools continue to rely heavily on local property tax revenues, fewer resources will be available for schools in low-income areas. It is obvious that there will be a problem with student learning if schools lack essentials like books, teachers, and paper. But a lack of resources also can negatively affect school climate. Two commonly used climate surveys, the Organizational Health Inventory and KEYS-2, measure school health in part by measuring the school staff's perception of resource availability. If teachers and administrators aggressively seek resources, they will likely obtain resources and improve school climate too.

Teacher's actions
- Establish connections with local teachers' unions and investigate what resources they can provide for your courses.
- Establish connections with local professional organizations and investigate what resources they can provide for your courses.

Principal's actions
- Establish connections with local administrators' and teachers' unions and investigate what resources they can provide for your school.
- Establish connections with local professional organizations and investigate what resources they can provide for your school.
- Establish connections with local colleges and universities that have teacher-training programs and informally "recruit" new teachers at these institutions.

  Links to professional organizations for teachers and administrators are found at http://www.edu-cyberpg.com/Teachers/proassoc.html. "Upgrading School Support Programs Through Collaboration: Resource Coordinating Teams" is found at http://smhp.psych.ucla.edu/worktogh/smhpart1.htm.

Engage the External Environment: **Strategy three—engage larger policy environments**

"Leading for learning means searching for ways to make a learning agenda 'good politics.'" (Knapp, Copland, and Talbert, 21) School improvement and increased student achievement do not happen in the short term; often it takes several years before new teaching methods and school policies show dividends. The problem for school leaders is how to advocate for a school improvement plan and forestall premature criticism of it. To address this problem, school leaders must forcefully market their school's agenda to district and state educational leaders and to county and state political leaders.

Teacher's actions
- Invite civic leaders to speak with your students.
- Have students organize a "meet the candidates" night.
- Arrange for student government members to have internships in politicians' offices.

Principal's actions
- Arrange monthly meetings with local political leaders to discuss your school and hear their concerns.
- Arrange for county and state candidates to use your school for their community forums.
- Frequently seek the advice of district and state education agencies.

From Principle to Practice
Taking a look at Havre De Grace High school's discipline referral data, the school improvement team realized that character education was needed at HDGHS. "The highest discipline infraction at our school was insubordination and disrespect." As a result, the school improvement team decided to be proactive and develop some programs and organizations that would help students to focus on and engage in positive and respectful activities on a regular basis. Some of the programs that exist at HDGHS are Ladies First, EcoWarriors, Student Government Association, and S.M.I.L.E.S. We have made a concerted effort to instill "Warrior Pride" in all of our students. As adults we model respect, courtesy and honesty in the school. Students were made aware of our focus on values and of the incentive programs that we were putting in place. The results after first quarter have been fabulous, ***Wayne Thibeault, Principal, Havre de Grace High School, Harford County.***

Professional Development Activity
Friday Forums would allow school staff the time to track down resources and establish and maintain connections with parents, community groups, local employers, professional organizations, and political leaders. In Friday Forums, members of the school staff engage in several hours of professional development while students have special assemblies or programs. Community volunteers who are supervised by several members of the school staff proctor these assemblies and programs. As a bi-monthly feature, Friday Forums allow teachers and administrators to engage the external environment.
See Friday Forums Overview with additional website resources by Linda Jones on the CD-ROM of this report (p.72)

4. Design principle four: Distribute leadership

Virtually all the current organizational models of school improvement emphasize the positive effects of having strong leadership throughout a school community. In academic circles, this is called "distributed leadership."
In "Distributed Leadership" Professor Alma Harris of the University of Warwick, United Kingdom explains:

> "In contrast to traditional notions of leadership premised upon an individual managing hierarchical systems and structures, distributed leadership is characterized as a form of collective leadership, in which teachers develop expertise by working collaboratively. This distributed view of leadership requires schools to *'de-centre'* the leader (Gronn,

2002:) and to subscribe to the view that leadership resides *'not solely in the individual at the top, but in every person at entry level who in one way or another, acts as a leader'* (Goleman, 2002:14). Distributed leadership therefore means multiple sources of guidance and direction, *'following the contours of expertise in an organization, made coherent through a common culture. It is the 'glue' of a common task or goal-improvement of instruction-and a common frame of values for how to approach that task'* (Elmore 2000:15)."

Distributing Leadership to Local Schools

Local control and principal leadership both contributed to successful reform of Chicago area elementary schools. Parent-dominated local school councils had the power to hire and fire school principals. Principals were able to select competent teachers who could contribute to the vision of the school. Principals also received additional resources relative to the number of low-income students they served. Locally supported principal leadership emerged as a critical factor in the success of the reform. Studies of the reform show that in 1990, 25% of students met national norms in math and reading. By 1999, 35% did so in reading and 43% did in math.

(Sebring & Bryk, 2000).

The role of the principal is to coordinate the efforts of these diffused leaders and create a school culture that expects each person to use his or her best skills and talents for the good of the school. In this way the principal maximizes human leadership capital.

Two valuable articles on distributed leadership are: "Research Findings: Sinagua High School**:** A Case Study of School Leadership" http://ici2.umn.edu/beacons/research/sinagua.html and "The Changing Shape of Leadership" http://www.ascd.org/author/el/2002/05may/king.html.

From Principle to Practice
All teachers are part of the data analysis and collection. I look to Richard Elmore's distributive leadership strategies to address issues of time. The administrative team and the leadership teamwork together as do the subject teams that have developed in our professional learning community. We have a 9th grade failure prevention team, a SAT prep team a Biology team and etc. Our teams really work together to plan and share responsibilities.
Wayne Thibeault, Principal, Havre de Grace High School, Harford County

There are meetings in which the people who do staff development presentations present to the team – that could be me, the Assistant Principal, staff developers in the county – so those types of sessions occur. When I do them it is on data analysis –we are talking about data all the time. Then there are separate team meetings in which teams meet with their team leaders. My role for this is to guide the team leaders with what they can do with their teams. I did the training for the 10 question quizzes. The team leaders now have been meeting with their teams to make it all happen. My goal is to get to what you just described, where teachers are talking to each other about what is it we need to be held accountable for. ***Carolyn Kimberlin, Principal of New Market Middle School, Frederick County***

Distribute leadership:
Strategy one – distribute leadership to students

There are three important reasons to distribute leadership to students. First, student motivation and understanding increases when students participate in decisions about their learning. Young people know what excites them and can give teachers valuable feedback on what works and what does not. Constructivist learning theorists suggest that students must be involved in planning their learning if deep understanding is to be achieved. Second, student involvement in school decision-making allows school staff to "tap into" informal student networks and use these networks to support the school's vision. Last, students have an influence on their parents and can draw their parents into the school community (Wagner, 1992). For an overview of constructivist learning theory and teaching orientation, please see http://www.stemnet.nf.ca/~elmurphy/emurphy/cle.html.

Teacher's actions
- Create class "constitutions" with students that list your rights and their rights.
- Work with selected students over the summer to create course syllabi.
- Emphasize activities that enable students to interact with the course content and construct their own understanding of it.

Principal's actions
- Meet with student government leaders each week to discuss school issues.
- As appropriate, place student representatives on school task forces.

From Principle to Practice
One of our new initiatives this year is portfolio assessment. We knew it's powerful to have the children engaged in deciding what stays in their portfolios and sharing it with their parents. We also know it takes a lot to get that going in your classroom. So, the resource teachers developed a system, put them in crates for teachers and set up everything for them and give directions on how you do the portfolio assessments and to get the children involved and made the labels, they could put on the writing pieces. *Jill Mills, Green Holly Elementary, St. Mary's County Public Schools*

Distribute leadership:
Strategy two – distribute leadership to parents

The pool of parents holds more talent than the school staff does, if for no other reason than the parents greatly outnumber the school staff. There may be a History professor in their midst who could run a colloquia for your History faculty. There may be a computer expert who could train teachers to use a new computer program in the classroom. Too many schools put up barriers to parental involvement and leadership, and this limits the readily available physical and intellectual resources that parents can provide.

Aside from utilizing the essential knowledge of parents, distributing leadership to parents is necessary for school improvement to occur. According to constructivist theory, if a new school

vision is to take hold, it must be constructed by all in the school community; new understandings cannot simply be dictated by the school to parents. Without including parents in the creation of school values and norms, the school and parents may not act to reinforce a common view of schooling.

Teacher's actions
- Treat parents are partners in educating their children. Involve them in curricular decisions and work with them to make sure that school learning is reinforced at home.
- Establish parent representatives for your homeroom and ask the representatives to coordinate volunteers for field trips and other special activities.

Principal's actions
- Include parent representatives on school task forces especially those formulating short and long-term school goals.
- Make note of the leadership skills of your students' parents so you can call upon them to use those skills in the service of the school.
- Articulate loudly and often that the entire school community shares responsibility for student achievement.

> ***Distribute Leadership--Data Approaches***
>
> - *Analysis of leadership assets of students*
> - *Analysis of leadership assets of parents*
> - *Review of staff resumes*
> - *Analysis of the school's formal and informal power hierarchy*

Distribute leadership:
Strategy three distribute leadership to teachers

Distributing leadership to teachers has three benefits. First, it increases teachers' sense of being a valued member of the school staff. Second, it channels teachers' leadership talents into school improvement. Last, it facilitates the transfer and sharing of information and understandings through the school. Please see "Teacher Leadership: Principles and Practice" http://www.gtce.org.uk/research/teachleader.asp.

Teacher's actions
- Accept active roles in the school community.
- Be willing to learn from others and offer your expertise to them.

> ***ATLAS Communities***
>
> *ATLAS Communities is a comprehensive school reform project. Teams of teachers from elementary, middle, and high schools work together to design curriculum and assessments based on locally defined standards. The teachers collaborate with parents and administrators to set and maintain sound management and academic policies, ultimately resulting improved student performance.*
>
> *http://www.atlascommunities.org/*

Principal's actions
- Identify informal leaders among school staff.
- Set up structures like leadership teams in which teachers can exert decision-making power. Please see "Creating Successful Collaborative Teams" http://www.nsdc.org/library/jsd/dukewits174.html.
- Train staff in collaborative decision-making.
- Recognize teacher leaders, especially those who have pedagogical and content knowledge that others should emulate.

From Principle to Practice
Each grade was accountable for documenting how they implemented the school improvement plan. And they presented this to SIT every nine weeks and the parents. And again, we used the parents who come in and say I want to know what they're learning. When they started doing this, people started looking at their school improvement plan. *Jill Mills, Green Holly Elementary, St. Mary's County*

Professional Learning Community is a whole new mindset for us. It requires beginning to think how important it is that we are able to recognize that together we have to look at the data in a meaningful way, and having looked at it, it should be driving most of what we do in terms of children's learning, as long as you keep in mind that the data are both soft and hard. *Barbara Douglas, Magnolia Elementary, Harford County*

It's the leadership team working together to do what the teachers need. The instructional resource teachers are in the classrooms. So, they can bring back to me concerns. Like some teachers might hesitate to come and say this isn't working. They'll say, okay, we need to do something. They'll bring back ideas to me…how are we going to make this better for the teachers? *Jill Mills, Green Holly Elementary, St. Mary's County*

Professional Development Activity

The idea of distributed leadership is unfamiliar to many educators. It is necessary, therefore to take a workshop day to discuss distributed leadership and how the school can maximize the talents of all members of its staff. At this daylong workshop, the principal can get the ball rolling by focusing on the formation of school leadership teams. While the focus of school leadership teams will vary from school to school, a good description of general by-laws can be found in Appendix A of "The Bridgeport Story: What Urban School Districts Need to Know about Leadership Teams." Appendix B offers principals a school leadership team checklist that provides useful direction in the leadership team formation process. "The Bridgeport Story" can be found at http://www.alliance.brown.edu/topics/leadership.

5. Design Principle Five: Create Coherence

When a principal creates coherence, he or she aligns school programs, policies, climate, and resources around particular beliefs. One potential cornerstone of a coherent system is the belief that strong relationships between students and teachers increase student achievement. Described below are three strategies that work together in coherent symbiosis to achieve the goal of facilitating these strong relationships. These strategies include: increasing opportunities for teachers and students to interact; giving students and teachers more one-on-one time in the classroom; and challenging teachers to examine student development and individual differences.

From Principle to Practice:
In trying to understand differences we started digging into it, we looked at why looping was working for them. And they talked about the mobility and the children that come from at-risk homes. Sometimes it takes them so long to build up trust that you could lose nine weeks while that child is deciding whether they're going to trust you or not. So, it really sounded like our population. And some children, [it] take a lot for them to warm up. And, also with assessments being administered in February, you can't use all that time in the beginning to get to know your students anymore. You almost have to come to school and here we go. Already having the children the previous year, they know your expectations, they know your classroom routines, you're ready to get to work. Their classrooms were functioning and they were ready to go. They knew where to pick them up and they were very excited about it.
Jill Mills, Principal, Green Holly Elementary, St. Mary's County

The Institute for Student Achievement Project

*This project is a collaboration between the National Center for Restructuring Education, Schools, and Teaching (NCREST) and the Institute for Student Achievement (ISA) . . .. ISA's mission is to improve the quality of education for children at-risk so that they graduate from high school and are prepared for college, other post secondary education, and the world of work. NCREST is working in close partnership with Dr. Gerry House, ISA president and CEO, to develop, implement, and document a comprehensive high school education intervention that achieves ISA's goals. The intervention is structured, as a small learning community comprised of a cohort of dedicated teachers and 9th through 12th grade students who remain together through students' high school enrollment. Program features include intensive counseling for students, a rigorous college-prep instructional program for all, post-secondary planning, extended day and year, parent involvement, regular, customized on-site professional development, and on-going organizational development through formative and value added assessments.
http://www.tc.columbia.edu/~ncrest/*

From Principle to Practice
The recipe for success includes three key components: alignment, analysis and instruction. Schools should make sure that the assessments are assessing what the teachers are teaching. They should also be prepared to analyze student results on a regular basis to inform instructional decisions. Sound assessments should occur on a frequent basis so as to engage in continuous improvement for all.
Dr. Ursula Hermann, Principal, Westland Middle School, Montgomery County

Strategy-- facilitate strong mentoring relationships between faculty and students
Part one – increase opportunity for student-teacher interaction

The more frequently teachers and students interact, the more they know about each other. With more frequent contact, teachers are able to better assess students' knowledge bases, establish rapport with students' parents, monitor student progress, and detect fluctuations in students' physical and emotional health. With more frequent contact, students are more likely to understand teacher expectations and will come to see particular adults as "constants" in their lives. More consistent teacher-student contact leads to greater student achievement.

Teacher's actions
- Attend students' games and performances.
- Talk to students before and after class and in the hall.
- Do not limit your conversations with students to academic matters.
- Make yourself available to students before and after school.

Principal's actions
- Structure teacher assignments such that teachers teach or advise particular students over multiple years.
- Require teachers to moderate a student activity and schedule time in the school day for them to do so.

> *Create Coherence -- Data Approaches*
>
> *Conduct an analysis of your school mission vis-à-vis*
> - *Parental attitudes about schooling;*
> - *values reflected in school policies and procedures;*
> - *teachers' attitudes about intelligence as determined by surveys; and*
> - *values reflected in staff assignments and the staff's degree of involvement in school functions.*

Strategy – facilitate strong mentoring relationships between faculty and students
Part two -- give students more one-on-one time with teachers in the classroom

Research on class size reduction indicates that reducing class size to below 20 students provides significant increases in achievement (National Institute on Student Achievement, 1999).   For disadvantaged students the effects of class size reduction are even greater than for non-minority and advantaged students (O'Connell, & Smith, 2000). Attending smaller classes increases the SAT and AP scores of black students, and there is evidence that black males assigned to smaller classes are less likely to be convicted of crimes than black males assigned to larger classes (Krueger & Whitmore, 2001). With smaller classes teachers have more time to assess and address student needs and can establish personal connections with students. For more information, please see "Sizing it Right: Class-Size Reduction and Student Achievement" http://www.nsba.org/site/docs/9300/9269.pdf.

Teacher's actions
- Use pedagogical methods that allow you to attend to small groups or individuals.

Principal's actions
- Limit class size to fewer than twenty students.

Strategy – facilitate strong mentoring relationships between faculty and students
Part three -- challenge teachers to see value in their students' talents

Schools have long placed emphasis on nurturing students' verbal and mathematical talents. Unfortunately, this often has been done at the same time that students' other talents have been de-emphasized. This practice limits teachers' ability to intellectually mentor students who do not have a particularly strong verbal or mathematical flair.

Intelligence	Core Operations
Linguistic	syntax, phonology, semantics, pragmatics
Musical	pitch, rhythm, timbre
Logical-mathematical	number, categorization, relations
Spatial	accurate mental visualization, mental transformation of images
Bodily-kinesthetic	control of one's own body, control in handling objects
Interpersonal	awareness of others' feelings, emotions, goals, motivations
Intrapersonal	awareness of one's own feelings, emotions, goals, motivations
Naturalist	recognition and classification of objects in the environment
	http://www.pz.harvard.edu/sumit/MISUMIT.HTM

Using the Multiple Intelligences theory of Harvard professor Howard Gardner, schools can tap into the intellectual potential of all students. Twenty years ago, Gardner posited that there is not a single intelligence factor; rather, each person has a unique combination of many intelligences.   Gardner believes that the complexities of modern, global society require that we use all of our intelligences in our daily life.   Additionally, he believes that the rapid changes in society require us to make interdisciplinary connections in the course of solving never-before-seen types of problems. Because of this, schools should recognize the value of all types of intelligences and should develop students' talents in each of these domains.

Howard Gardner is a principle investigator for Project Zero and research projects on Multiple Intelligences conducted by Project Zero are found at http://pzweb.harvard.edu/Research/ResearchMI.htm.

Teacher's actions
- Vary the type of material you focus on and vary how you present it.
- Make your curriculum as interdisciplinary as possible.
- Offer a variety of types of assessment.
- Encourage students to design individual or group projects to illustrate their mastery of the course content.

Principal's actions
- Provide opportunities for teachers to develop their understanding of intelligences.
- Encourage teachers to design their lessons so that students of all intelligence combinations are able to establish a connection with the material.
- Offer interdisciplinary courses.
- When putting together teacher teams, try to match up teachers with intelligence strengths that complement each other, rather than match each other.
- Fund art, music, dance, theater, and sports programs and celebrate students and faculty accomplishments in these areas.

From Principle to Practice

"Rigor, Relevance and Relationships, these are the three new R's in 21st century education. Rigor in curriculum and instruction is required for all courses- the lessons need to be relevant to the everyday lives and real world experiences of the students, they need to be related to identified student needs and the way to achieve the highest level of relevant rigor is through positive relationship building." Positive and healthy family relationships are encouraged and supported at Havre de Grace High School. Teachers work hard to ensure that students know that they are available for them and that they believe in them. Incentive programs are in place that recognizes student achievements and progress. Above all, Wayne Thibeault provides special attention to the relationships among staff in the building: teacher-teacher, teacher-administrator. He wants "all of his kids to do well", ***Wayne Thibeault, Principal, Havre de Grace High School, Harford County***

Every instructional staff member has a data notebook—and that data notebook is given to them the first pre-service day of the school year, and that helps with both the big picture part of it—this is where we are as a school system, this is where we are as a school, this is where we are as a grade level, this is where we are as a content, our reading goal, our math goal, our staff—and then this is where the children in my classroom this year are across all of those areas. ***Jody Leleck, Principal, Broad Acres Elementary School, Montgomery County***

We are better, a lot better than we used to be, and why, because we are more focused and we realize that the data is important and we realize that it should be driving what we do because we want to make sure that we are assessing what is taught, and in the appropriate manner. And I think that technology has helped our teachers become a lot better at data based instruction decision-making. ***Barbara Douglas, Magnolia Elementary School, Harford County***

Currently, we're beginning a process that's used for collecting data to determine root causes that might inhibit some of our subgroup populations from improving their achievement. After identifying the causes, we will reevaluate our school's professional development program and use of resources for removing or decreasing the effects of these root causes, ***Carolyn Kimberlin, New Market Middle School, Frederick County***

Professional Development Activities

Two professional development activities are appropriate for this example of creating coherence, e.g. facilitating strong mentoring relationships between faculty and students. These activities are (1) bringing in outside experts and (2) holding retreats.

While it is best to have most professional development generated in-house, outside experts are sometimes needed. In this example of creating coherence, outsiders might be needed to teach the staff about pedagogical methods that allow for more one-on-one time in the classroom and Multiple Intelligences Theory. In addition, follow-up and coaching would be needed to ensure that teachers change their teaching in accordance with their new understandings.

School retreats are good opportunities for individual staff members and students to forge personal connections. The informal interaction and learning that occur on retreats encourage shared school memories and illuminate the multi-faceted natures of students and staff alike. With insights formed at the retreat, teachers can better tailor lessons to the individual needs of their students. With increased rapport with their teachers, students are more motivated to please their teachers and will increase their academic effort.

VIII. Conclusion:

In this report on Design Principles for Learner-Centered Schools we have focused on considering what it means when administrators, faculty and staff are guided by the following principles:
1. schools should focus on learning
2. schools should build professional learning opportunities
3. schools should engage the external environment to promote learning
4. school leadership should be distributed
5. there should be coherence in the school program.

We have outlined research about the kinds of actions of teachers and principals that are most effective in creating a learner centered school. We have also featured strategies for databased decision making that principals in five Maryland schools described using. Their full commentaries leave us with a new sense of the ways in which data can be used for instructional improvement, the strategies that are used for linking assessments, data, collection, analysis, their Strategies for managing and supporting ongoing data collection and analysis, the approaches that they use in developing teacher professional learning in data based instructional improvement, and finally the ways they go about creating conditions that support data based decision making for improving student learning. In this report we have provided an overview of actual strategies they use.

We refer you to the CD-Rom of this report for a more in depth reporting of commentaries of the principals of the six Maryland schools that we interviewed. . The CD-Rom contains this report, along with in-depth commentaries by our featured principals. The CD-Rom also contains descriptions of promising approaches to professional development, and in-depth descriptions of what it means to become a professional learning community.

We wish to thank the principals of our featured schools for sharing their insights into promising approaches to data based decision making to improve student learning. They *are* LEADING FOR LEARNING and Designing Learner Centered Schools:

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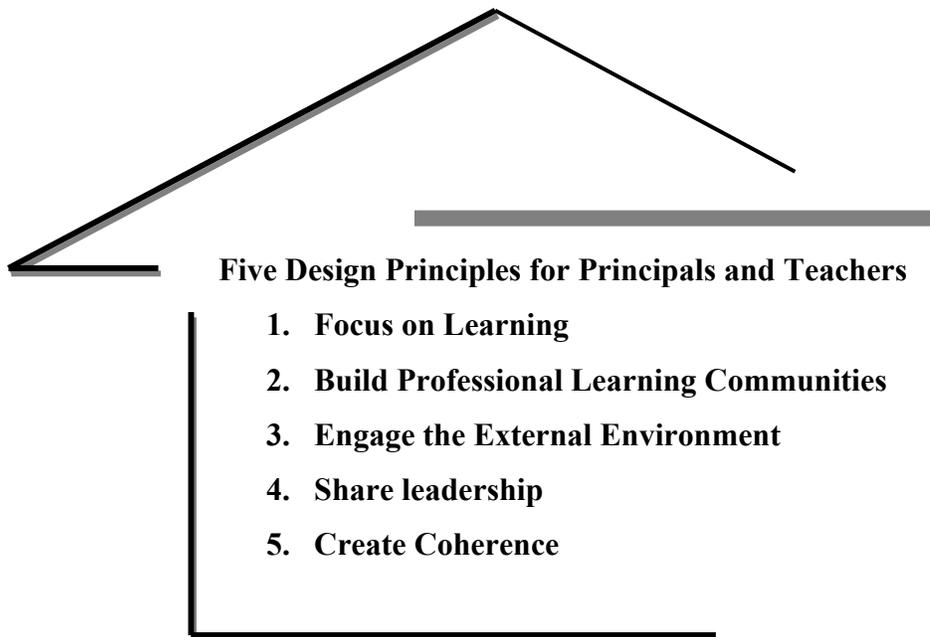**301-405-4546**
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Design Principles for

Learner-Centered Schools:

Promising Approaches to Data Based Decision Making to Improve Student Learning

Five Design Principles for Principals and Teachers

1. **Focus on Learning**
2. **Build Professional Learning Communities**
3. **Engage the External Environment**
4. **Share leadership**
5. **Create Coherence**

APPENDIX A

Commentaries of Principals of our feature schools follow:

Bel Air Middle School, *Harford County Public Schools*
Nancy Reynolds, Principal
Case Study Prepared by *Darrin A. Slade*

Broad Acres Elementary School, Montgomery County Public Schools
Jody Leleck, Principal
Case Study Prepared by *Jane Lai Woodburn*

Green Holly Elementary, *St. Mary's County Public Schools*
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Methodology and Focus of Case Studies
During the fall of 2003, interviews with these principals were conducted by graduate students of the Department of Education Policy and Leadership of the University of Maryland under the direction of Dr. Hanne B. Mawhinney, and under the conditions approved by the Institutional Review Board of the University of Maryland. Superintendents of Harford County Public Schools, Montgomery County Public Schools and St. Mary's County Public Schools were sent letters requesting nomination of schools that were using promising approaches to data based decision making to improve student learning. Principals of the schools featured in this report were asked to respond to five questions concerning key aspects of databased decision-making:

1. *How does your school use data to improve instructional practice to enhance student learning?*
2. *What strategies have you used to link assessments, data collection, analysis, and instruction?*
3. *Effectively managing and supporting the ongoing process of data collection and analysis requires time, resources, and money. How have you met these managerial challenges?*
4. *Do you feel teachers are effectively prepared for databased instructional decision-making? If not, what kind of professional learning is required for teachers to engage in databased instructional improvement?*
5. *Do you have any advice on the kinds of conditions that support databased decision making for improving student learning?*

The students conducted interviews lasting between one and two hours and subsequently analyzed the responses to identify strategies and practices that provide examples of the application of the five principles of leading for learning that we have explored in this report. Students' prepared brief case studies of promising practices in data based decision-making principles from the principals' reports. The case studies are included in Appendix 1 of the CD-Rom expanded report on Design Principles for Learner-Centered Schools; Promising Approaches to Data-Based Decision Making to Improve Student Learning.

Bel Air Middle School
Harford County Public Schools
Nancy Reynolds, Principal

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Bel Air Middle School is a large educational center located in Harford County Maryland. The school currently has 1,463 students enrolled in grades 6-8. The school has been recognized throughout the county and state for the dramatic advancements made in the area of student achievement in recent years. Mrs. Nancy Reynolds has been the principal of Bel Air Middle School for the last six years and under her leadership the entire faculty and staff has grown accustomed to utilizing data sources to guide the process of instructional decision making. The school has been recognized as a National Blue Ribbon School of Excellence during Mrs. Reynolds's extraordinary tenure as principal. Here is a brief summary of Mrs. Reynold's responses to the assigned interview questions:

Using Data for Instructional Improvement

Q: How does your school use data to improve instructional practice to enhance student learning?

To encourage and promote high achievement and rigorous standards the School Improvement Plan is based on 5 goals that are stated as action research questions. These goals are designed to capture every aspect of the school plan as they focus on the climate, instruction, use of assessment, recruitment / teacher training, and closing the achievement gap.

As identified in the school plan data is used to improve instruction and address the following identified components:

Climate
-School climate survey given two times a year to students, teachers, and parents. Results of survey used to gauge student, parent, and staff perceptions
-Student focus groups used to gain qualitative data on student opinions, perceptions, and attitudes toward school
-Data derived from *Skill for Success Classes*. 25 identified at risk students are assigned a school based mentor
-Office referrals are reviewed for trends and patterns

Instructional Data Based Strategies

-Instructional surveys given 3 times a year to staff, students, and parents
-Teams and departments encouraged to focus on quality instruction with an
  emphasis on student work
- Students required to respond to stance questions aligned with the annual testing
   instrument. Questions used are similar to the ones used on MSPAP and MSA's
-Principal evaluates and checks student stance question once a month. Principal
  checks every students response questions
-Ongoing assessment program includes monthly tests (Reading, Writing, Math)
  Test results are used by teachers to determine remediation and enrichment
  practices
-Teachers evaluate stance questions every week
-School wide milestone assessment given twice a year (5 period test)
-SRI test given by teachers daily
-Teachers given and encouraged to use disaggregated test data

1. **What strategies have you used to link assessments, data collection, analysis,
   and instruction?**
   The use of data and assessments are part of a continuous cycle of information and
   feedback that are used by all school stakeholders.
   -The information obtained from various survey sources is used to evaluate school
     based programs and assess their overall effectiveness.
   -Test results are collected, analyzed, and disaggregated by school based staff and
     community partners to influence and guide the instructional decision making
     process. An emphasis is placed on the implementation of remediation and
     enrichment activities
   -Milestone tests and S.A.I.L reading program coupled with embedded staff
    development activities, allow the staff to implement school improvement
    objectives across grade levels, to collect relevant data, and to analyze this data
    for continuous improvement.

Strategies For Managing And Supporting Ongoing Data Collection And Analysis

*Q: Effectively managing and supporting the ongoing process of data collection and analysis
   requires time, resources, and money. How have you met these managerial challenges?*
   Contrary to popular belief effectively utilizing data does not require a vast amount of
   financial resources. All staff members have a vested interest in the continued academic
   growth of the entire student body and gladly invest their time. The school benefits from
   its partnership with Towson State University. Qualified staff members from Towson
   State including renowned professors spend at least 20 hours a week working with the
   school's instructional program.
   -The student / teacher schedule was created in a manner that optimizes the amount of
   time that pupils are actively engaged with instruction. Students are assigned to 1 of 10
   academic teams. Each student participates daily in math, science, social studies, and

language arts. In addition all students participate in physical education, and a special area subject. Each school day consists of 7, 50-minute periods in addition to homeroom and lunch.

Approaches to Developing Teacher Professional Learning in
Data- Based Instructional Improvement

Q: Do you feel teachers are effectively prepared for databased instructional decision-making? If not, what kind of professional learning is required for teachers to engage in databased instructional improvement?

Teachers always have room to grow. Teachers at Bel Air Middle School are extremely qualified and eager to learn. School-based staff provides staff development weekly. We have a *Literacy Team* in place that provides ongoing staff development. Staff development has to be an ongoing process. I have a wonderful staff and the teachers have been eager to create professional learning communities.

Creating Conditions that Support Data-Based Decision
Making For Improving Student Learning

Q: Do you have any advice on the kinds of conditions that support decision making for improving student learning?

The principal has to set the tone and create an environment where every one is engaged in the process of continuous learning. Everyone is a learner here at Bel Air Middle, I don't claim to have all of the answers nor does any one individual on my staff. We are all involved in the learning process here and it is an ongoing process. I also believe in shared leadership and encourage all of my staff members to be risk takers. I encourage the use of data to evaluate school based programs and activities. We must have the ability to analyze what we do as a school and staff. The school has done extremely well since we placed an emphasis on using data to guide instructional practices.

Broad Acres Elementary School
Montgomery County Public Schools
JoAnn A. Leleck, Principal

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Board Acres serves a very diverse student population. A large percent of the students receive FARMs. Principal Jody Leleck comments,

> "*The really great thing about this staff is that they get it*. Initially, four years ago when I started this spreadsheet to enter…we started with reading data. It was an activity, and what we've been able to really move to is that teachers use this data in two-week planning sessions…so that teachers know what needs to happen based on indicators that have been taught. Who got it, who didn't get it, what needs to be retaught for whom.

Using Data for Instructional Improvement

Q: How does your school use data to improve instructional practice to enhance student learning?

In our building, teachers collect and analyze data based on prioritized indicators, and these indicators are always aligned with our School Improvement Plan (SIP). What we do here is we have what's called the global shared folder. The global shared folder is a computer folder that everybody in the building has access to, and in this folder, we monitor student performance. The folder has all of the data system wide, CTBS data over a period of years, MSA data, former MSPAP data…it has MCPSAP data which is the primary reading assessment used in the school system. Also in this folder, each classroom teacher has a reading file, a science file, and a math file…and in that file, data is monitored on every child in their class. In addition, there is also report card data—historically, and for the current marking period—so that in addition to analyzing reading, math, and science data, we're also analyzing work-study skills data…and especially here, attendance data…to monitor that. We can also look back in that file and look historically over time to see which classroom teacher the child had, if there were interventions such as reading recovery—were they successful. And finally, what we add to that is the summer program data so that we can try to determine exactly what it is that's having an impact for individual students, and what it is overall school wide that's impacting performance at a grade level and in a content area like reading, science, math.

The really great thing about this staff is that they get it. Initially, four years ago when I started this spreadsheet to enter…we started with reading data…entering running record data. Teachers entered the data, and they didn't necessarily understand the use of it. It was an activity, and what we've been able to really move to is that teachers use this data in two-week planning sessions…so that teachers know what needs to happen based on indicators that have been taught.

Who got it, who didn't get it, what needs to be retaught for whom. They also can look at the data and get help from their colleagues. So if you and I are science teachers, and my kids are just not getting predicting an experiment or if they are not getting any of the science processes or indicators, I can go to you and say, how did you do it? My kids haven't done it yet…your kids have. And the final thing for us…it's important that the data that we track…is we look at Limited English Proficient status and then special ed status. So that again when we come to standardized testing, we're really well aware of the instructional implications for that and the accommodations needed for the testing.

Strategies For Managing And Supporting Ongoing Data Collection And Analysis
Q: Effectively managing and supporting the ongoing process of data collection and analysis requires time, resources, and money. How have you met these managerial challenges?

The team of teachers that I asked this of talked about the backmapping strategies in Wiggins and McTighe, *Understanding by Design*. And their response is that they identify desired results based on indicators determine what data needs to be collected and then plan learning, instruction, experiences based on this data. I would say that in addition to that we've been helped by the Framework for Teaching and Learning that Montgomery County has, and that really does show that alignment between assessment data that whole teach, plan, instruct…. and the final part of it is that we really do have a curriculum that is indicator-based so that we can specifically address those indicators. I think the strategies that we're using are based on the data we're collecting so it's kind of what comes first. The strategies that we're using are going to be strategies that are for all kids and there are also going to be strategies that are for the Limited English Proficient children. Children who are new to us and have a lot of catch up to do. So there are different strategies within that.

The data collection, strategy part is also impacted by the School Improvement Plan because in the overall analysis of the data, everybody's got to have a focus—you can't do everything and do everything well. So that whole focus part of it then is what we really concentrated on. We have…. this year from the understanding that while our children may be performing very, very well on kindergarten, first, and second grade assessments, they are great decoders. We have done a superb job at the decoding instruction, but the comprehension with Limited English Proficient students is a huge factor in what happens from third, fourth, and fifth grade on. So we might look pretty good in looking at our data; so for us that whole strategy for making assessment, data collection, analysis, instruction is now in our School Improvement Plan.

Comprehension is a focus. How do you monitor comprehension? That's a pretty different area to look at and what we've done is we've taken the primary indicators of comprehension that are assessed on MSA. We're using a monthly grade level assessment. No matter who you are or what you're instructed at, you take the grade level assessment, and we've created spreadsheets now to monitor and track the comprehension. When these assessments are given monthly, we can have a summary of each student, for example, on main idea, and the teacher can have a class summary of how the whole class did—and that's monthly again. So you would hope that with the intervention, if somebody wasn't getting main idea, we'd start to see that.

Strategies For Managing And Supporting Ongoing Data Collection And Analysis

Q: Effectively managing and supporting the ongoing process of data collection and analysis requires time, resources, and money. How have you met these managerial challenges?

I'm going to read to you first the teachers' perspective, and then I'll talk about the administrator's perspective because I think they're very different. Specific structures from the School Improvement Plan address data collection, analysis, and instructional practices. Every staff member is a part of those structures. Staff members here are compensated for the required commitment to do that, but I would say that in Title I schools that have been identified as in need of improvement, that's the main focus of the Title I professional development money. So I think everybody can do it. I don't think it's an issue of just certain schools can do it. The structures are managed and facilitated by classroom teachers—in other words, there's teacher leadership that really needs to be created in order to support that process. Teachers need to see that alignment of data collection, planning and instruction, and an analysis that is cyclical and that's continuing; and if they see that alignment, they'll see the need to do the analysis before you can plan.

The issue that consistently comes up is where do we get the time? There is never enough time. And my response to that is, how can you plan, if you don't know where the kids are…so whatever we have to do to find that time, we have to do it. There are a variety of ways that my colleagues in Montgomery County use, and we've really tried to implement some of those. This year, we have been able to give teachers Monday and Tuesday data meeting time by using media and guidance as a special, and by adding a .5 technology teacher. That really has made a huge difference in the time part of it. So even if you can't extend a teacher's workday contractually and do that, it can be done and it has to be done. Our Monday and Tuesday data analysis meetings are vertical content groups. For example, the third, fourth, and fifth grade reading teachers meet together, the first and second math teachers meet together…and they would be looking at whatever that data collection piece was—now analyzing it and then getting ready to plan. Okay, based on this, these are the indicators we that need to reteach…these are the indicators we're ready to move to. And that's really something that we have to do; however, we have to find the time. I don't think it takes resources necessarily beyond what we're given. I think it may take thinking outside of the box and realigning resources…and using money again…everything that you do, the time, the resources, and the money have to be driven by the SIP.

And the other thing that we do here is every instructional staff member have a data notebook— and that data notebook is given to them the first pre-service day of the school year, and that helps with both the big picture part of it—this is where we are as a school system, this is where we are as a school, this is where we are as a grade level, this is where we are as a content, our reading goal, our math goal, our staff—and then this is where the children in my classroom this year are across all of those areas. So we have that starting point in terms of the group of kids. Staff members are required to bring this data notebook to all meetings that we attend. That way, the message that we're all responsible for knowing where all children are and moving them forward is shared, and everybody owns it.

Approaches to Developing Teacher Professional Learning in
Data- Based Instructional Improvement

Q: Do you feel teachers are effectively prepared for databased instructional decision-making? If not, what kind of professional learning is required for teachers to engage in databased instructional improvement?

The response of the staff here is that teachers at Broad Acres are more effectively trained for data based instruction because we have ongoing training that we're doing on Excel, on IMS that the school system does, and then curriculum training. And those trainings are Montgomery County trainings—anybody can enroll himself or herself in those trainings. We have what's called an E-Learning Specialist who will come, and our teachers know that all they have to do is email him if they need help with Excel—if they need help with the collection. They know that there's IMS training that is available to them and usually that's part of the curriculum training that they go to. So that they're getting the message from the school system that data collection and analysis is a part of instruction—is part of teaching.

The other thing that happens here is that we train each other. Teachers—once you start the data collection…part of it is almost like you can't get enough, and they're making all kinds of data collection devices that are really fairly sophisticated, and then sharing them with each other. There still are those teachers who prefer the paper and pencil, and that's fine too. They do have to enter the required data on the spreadsheet here but it's their level of analysis—it's I would like to make this chart that I can bring home and I can look at that.

Creating Conditions that Support Data-Based Decision
Making For Improving Student Learning

Q: Do you have any advice on the kinds of conditions that support decision making for improving student learning?

The staff response is that the instructional leadership has to model data analysis and data based decision-making. Administrators in the building must set the expectation that data must be collected, analyzed, and used. The administrators must build in that shared time into the day however that happens. And then there has to be an expectation that you're also going to deliver differentiated training because people are at such different levels. And then finally, the only way to do this is to teach your leadership. There has to be teachers who are helping each other understand the purpose for data, collection and analysis and the use of it for instruction. And we have been able to develop here—really, almost every teacher could take on that teacher leadership in those discussions.

I would also add that we can't let roadblocks get in the way. You hear that everywhere you go and I'm not negating the fact that it's hard. I know that I have been at meetings with other principals and their response is, "We can't ask teachers to do that." And my response is, "How can we teach if we don't do that?" And I think that as an administrator, we've got to develop ways to make it happen so teachers are not being overburdened by it, and they are clearly understanding that it is an expectation because everybody understands that we need to move our children forward, and in order to do that you have to know where they are.

Green Holly Elementary
St. Mary's County Public Schools
Jill A. Mills, Principal

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A part of the St. Mary's County Public School System, Green Holly Elementary School is located in Southern Maryland. Although not far from a major artery into St. Mary's County, the woods quickly drown out much of the road noise and the school sits quietly serving the children of this community. The brown brick-walled building looms large for an elementary school that services only 700 students. However, the history of the building explains much of its size and its present focus and vision. The building is actually a combination of two older buildings. One side of the building was built in the 1970's as a special education center and the other side was built in 1989 as an elementary school. The two were eventually combined and turned into an "all-purpose" elementary school serving a diverse population with a wide range of needs. Along with being a regular education elementary school, the schoolhouses a Judith P. Hoyer Early Childhood Center, is identified as the cluster site for special education, and is classified as a Title I school because their free-and-reduced meals (FARM) percentage exceeds fifty percent.

Jill Mills has been the principal of Green Holly for the past eight years. Having a dual degree in Elementary Education and Special Education, she displays a certain confidence when talking about her children and the many needs that must be met. When she explains who her children are and the population she serves, she is careful to discuss not only her regular education children, but also her children of special needs. When discussing the diversity that she must face, she sees it as a true representation of the world we live in.

> "It's really interesting cause I really think we're like a cross-section of what the world looks like with the disabilities…also, we pull the neighborhood behind us [and they are] a waterfront community and very high tech…so, you've got a mix of everything. And we're bringing it all together [in] trying to meet everybody's needs and make it work."

Although confident, she is quick to mention her leadership team to which she attributes much of her success.

> "And I'm very fortunate to have a fantastic team. I couldn't do it without them. I cannot be the instructional leader, the disciplinarian, the parent liaison…[do] observations…you can't do it alone. It's very important to have that leadership team…"

Her comments reflect not a weakness or inability to lead, but a style of leadership that has empowered the school community. Even with the idea of empowering others, she establishes clear expectations, especially, with regard to instructional practices.

> "When I do observations, I tell them flat out, when I come in, I want to see what you've identified…what outcome you've identified and I'm going to make sure your instruction matches it and I'm also going to make sure your assessment [matches]…They know what the expectations are [and], they know we're looking for it."

Using Data for Instructional Improvement

Q. How does your school use data to improve instructional practice to enhance student learning?

Her expectations extend to the analysis of the data and the method by which data is examined. She strongly believes that dialogue and teacher leadership are necessary to achieve instructional improvement and hence student achievement.

> "I'm not the one sitting back here making all the decisions. It's really input from my team leaders who get input from the teachers who provide the input for the resource teachers [and from] discussion about what's best for the students. And every decision that's made is not what's best for teachers, but what's best for students."

The determination in her voice rings stronger when she makes this last statement, emphasizing her belief that at the heart of high-quality instructional practice is successful student performance.

Strategies For Managing And Supporting Ongoing Data Collection And Analysis

Q: Effectively managing and supporting the ongoing process of data collection and analysis requires time, resources, and money. How have you met these managerial challenges?

At Green Holly, the approach to using data has involved gradual steps and multiple layers. Recognizing the ineffectiveness of their Reading and Language Arts program based on their performance on assessments, the principal asked a teacher to chair a committee in order to examine the possibility of using the Four Blocks literacy program, a balanced literacy approach to Reading and Language Arts. The committee interacted as a dialogue group using resources provided by the principal and others. As teachers participated on the committee and discussed the effectiveness of the program, the dialogue produced a groundswell of support for the initiative and aided in the overall buy-in by teachers to the program.

> "I have found that if you say, we're just going to do this, it usually flops because they think it's my initiative and this is just something else that I am

requiring of them. If we give everybody a voice, then the ownership piece is there."

While data still drives much of the instructional practice, the dialogue, which must occur before analysis and instructional revision, is an area where teachers struggle. Hence, the principal has focused on improving dialogue between teachers to both examine student data and improve instructional practices. Title I funds were used to purchase Collegial Friends. Consultants come in and help teachers examine their instruction along with the student data in order to improve instructional practices.

"We have to have teachers having good conversations with other teachers about what the instruction looks like and the data looks like. And that's what Collegial Friends is doing for us right now. They meet with them probably every three weeks as a team. And they bring student work to the table and they discuss it as a team – very non-threatening environment."

Each strategy adopted by the school focuses upon increasing the opportunity for teachers to dialogue about the data and to examine instructional practices to improve student achievement. Looping is a strategy that was adopted based on evidence of success in schools that had high minorities and high poverty. While intended to garner greater comfort for children to improve student achievement, the impact is not lost on the teachers as well.

"And it was powerful to put two second grade teachers on the third grade team and move two third grade teachers on the second grade team because they're going 'Wow, I knew where I was taking them in second grade. I didn't realize where they had to be by the end of third grade'…. having the good talk about it is no longer [about] looking at the curriculum [in] only my grade. It's now as a school, we have a responsibility to get them here. So, that's how we're looking at the data now and talking with each other and looking at the student work."

Strategies For Managing And Supporting Ongoing Data Collection And Analysis

Q: Effectively managing and supporting the ongoing process of data collection and analysis requires time, resources, and money. How have you met these managerial challenges?

A constant theme for Green Holly Elementary is that leadership is not about a single person. While there is a single person to apply pressure and ensure the vision is clear, leadership and decision-making is shared. Through such a leadership style, managing and supporting data collection and analysis becomes more manageable.

"It's the leadership team working together to do what the teachers need…the instructional resource teachers are in the classrooms, so they bring back to me concerns."

The constant involvement and empowerment of the leadership team filters down to the teachers so that the magnitude of the data does not become overwhelming and hinder the school from helping students achieve.

> "One of our new initiative this year is portfolio assessment. We knew it's powerful to have the children engaged in deciding what stays in their portfolios and sharing it with their parents. We also know it takes a lot to get that going in your classroom. So, the resource teachers developed a system…put them in crates for teachers and set up everything for them and load up…gave directions on how you do the portfolio assessments and to get the children involved – and made the labels they could put on the writing pieces. That's why it works here because we're not putting one more thing on teachers."

Admittedly, resources are scarce, but Title I funds have supported many of the initiatives at Green Holly.

"And the resources, not every school [is] Title I, so we can purchase the crate and the file folders [for the portfolio assessment]. That helps tremendously. The Collegial Friends – that's through Title I…we are able to purchase consultants to come in and work with the teachers."

Ultimately, the team approach to management and decision-making allows Green Holly Elementary to unburden their principal and prevent any burnout.

> "We have a lot of things going on. We approach it as a team and everybody has a piece."

Approaches to Developing Teacher Professional Learning in Data- Based Instructional Improvement

Q: Do you feel teachers are effectively prepared for databased instructional decision-making? If not, what kind of professional learning is required for teachers to engage in databased instructional improvement?

Although critical of teacher preparedness to analyze the data and use it to improve instruction, the principal understands the nature of data and the effect it has on people who are not used to seeing their instruction analyzed in such a manner.

> "…We're not going to get any higher until we can look at that data and use it to make good instructional decisions. And teachers are overwhelmed by that because it takes time to sit down and have the good discussion. They also feel vulnerable because you really could see things…what's going on in that classroom."

Although the question was about data analysis impacting instruction, the response focused on the ability of teachers to have dialogue. In her view, dialogue among teachers promoted an ability to properly discuss and analyze the data and to improve instruction and student achievement. In

many of the responses, the common link between dialogue, data analysis, instructional improvement, and student achievement is a recurring theme.

> "The day used to be that you went into your classroom, shut the door, and it was good. We've got to break away from that. The discussion has to be going on. He really didn't get that, I can't move on. What are we going to do? Well that child may not have an understanding of what we're looking for. How am I going to make that child an independent learner? It's a scary thing to say come in and critique my room."

Creating Conditions that Support Data-Based Decision Making For Improving Student Learning

Q: Do you have any advice on the kinds of conditions that support databased decision making for improving student learning?

Green Holly Elementary is not unique in that teachers are not always on the same page as everyone. While much has happened at Green Holly Elementary, the change process and the buy-in came slowly. Decisions need to be made with teachers in mind and the need for their support. Developing such conditions is a long and arduous process, but one that is rewarding and one that will drive the school for years to come.

> "They have to know that their ideas will be accepted. And not always we're going to do it your way, but I'm not going to bite your head off if you bring me an idea. They have to feel safe that they can come in here and say I don't think this way is working. Here's what we'd like to try. And they have to be given that opportunity to try. They have to have ownership of the decision. They have to feel empowered by the decision. They have to see the improvement in their decision. It was difficult to make some of the changes that we made. It was a very difficult process to go through. Change is confusing. We had camps. But the piece that I think that brought us together was when we saw our students making progress. But when we got those results back, it was powerful. All of a sudden it was like, yes, let's go. And now they are really driving the school."

Havre De Grace High School
Harford County Public Schools
Wayne Thibeault, Principal

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Havre de Grace High school is a four-year comprehensive high school. 684 students and 55 faculty members walk through the halls of this spacious building on a daily basis. The Maryland Accreditation Association of Schools and Colleges accredit Havre de Grace High school. Havre de Grace was identified as a National School of Excellence in 1991.

Wayne Thibeault is the newly appointed principal of Havre de Grace High School. He has 32 years experience in education and is an avid proponent of databased decision making. He is innovative and on the cutting edge of education. As the top building administrator, he is highly visible and knows his "kids". On most days. Wayne Thibeault visits all of the classrooms in the building. He expects two key elements in every lesson: 1. What the students will be able to do (objective) and 2:how they will be able to show that they know it (assessment). Wayne Thibeault expects "substance" in every lesson that students receive at Havre De Grace High School.

Using Data for Instructional Improvement

Q: How does your school use data to improve instructional practice to enhance student learning?

All goals at HDGHS are linked to data. In our school improvement plan all goals are based on identified problems/areas for improvement. These areas are identified based on data. Careful analysis of the data suggests where we need to devote careful attention. The data is used to improve instructional practice on a macro and micro level.

Ninth Grade Failure Prevention
For example our school improvement plan includes a ninth grade achievement goal. This is based on our data analysis of the ninth grade failure rate. We looked at our data from the last four years and recognized n alarming trend. The data suggest that up to 15% of our ninth graders were failing. This number was five times greater than the number of seniors who failed. As a result of this information, we decided that this was important and that we were going to focus on our ninth graders. Research indicates that ninth grade is the most important year in a student's high school career as it relates to future success and graduation. We assembled a ninth grade failure prevention team and we have a resource person that is in charge of coordination. We took a look at the courses with the most failures for ninth graders and pulled in those teachers to strategize and collaborate. As with most other schools the top courses that students were failing were English and Math. The team of teachers that teach these courses comes together on a regular basis to look at curriculum goals, objectives and plan lessons. They were also charged with

looking at the data and determining which units' students typically encountered the most difficulty with. After they identified the units, they adapted their lesson plans to approach the material in a different manner to increase student achievement.

Character Education

Another one of our goals is character education. Yes, typically this is something that is emphasized in elementary and middle schools, however taking a look at our discipline referral data we realized that character education was need at HDGHS. Based on our data, the highest discipline infraction at our school was insubordination and disrespect. As a result, the school improvement team decided to be proactive and develop some programs and organizations that would help students to focus on and engage in positive and respectful activities on a regular basis. Some of the programs that exist at HDGHS are Ladies First, EcoWarriors, Student Government Association, and S.M.I.L.E.S. We have made a concerted effort to instill "Warrior Pride" in all of our students. As adults we model respect, courtesy and honesty in the school. Students were made aware of our focus on values and of the incentive programs that we were putting in place. The results after first quarter have been fabulous. We are taking 125 students who were formerly suspended because of disrespect and insubordination last year to a Ravens football game. These students have exhibited flawless behavior for the first quarter. We recognize their achievements and reward them for it. We are letting them know that their behavior is appropriate and it is appreciated. Incentive programs at HDGHS are made possible by the local businesses in the community that provide donations to us. The Ravens donated these tickets and told us to use them however we wanted to. We also receive additional funds through fundraising of the PTSO and students.

High School Assessments (HSA)

We have taken a very close look at our scores from the HSA exams. The data suggests that we have some work to do with our students in preparation for the upcoming high school assessments. In particular the MSA reading exam spoke the loudest to us. We have a school were 683 out of 684 students have passed all of the Maryland Functional reading and writing tests. However, our percentage was not as high for the MSA reading exam. In looking for solutions we tried to seek out those things that were both "diagnostic and therapeutic". Our data analysis of state data, in conjunction with end of year exams and final grades led us to infer that our students are in need of increased vocabulary development, note taking and note making organizational strategies and familiarity and practice with rubrics, selected response, brief constructed response, and extended constructed responses. All of these skills are important for high achievement on the H.S.A.'s. We all know that the more familiar a person is with the format and content of an exam, the more likely they are to perform at a higher level on an assessment. It is with this in mind, that I have asked all teachers regardless of subject matter, to use the state issued rubrics for assessment. The state has done a wonderful job of creating rubrics for most subject areas. For those areas that have not yet been developed, I have charged my teachers with developing one that closely resembles and assesses the same skills as the state. HDHS is fortunate in that we have received a reading Grant for the MSA based on our scores. The grant is allowing us to dedicate additional resources to reading.

SAT's

We have also spent some time looking at our SAT data from the College Board. Our average is 511 verbal and 497 math for a total combine score of 1008. Our goal is to increase our scores in the SAT's as well. We have analyzed the PSAT and SAT scores for our students. We have focused on the actual performance of students on the SAT and compared it with the predicted performance from the PSAT. We found that there was a strong correlation between performing well on the PSAT as an underclassmen and future performance on the SAT's for our students. We have decided to use the PSAT scores in identifying students that could benefit from additional SAT test preparation. We have implemented several programs that focus on the SAT's at HDGHS. We work in concert with the Guidance department to counsel students on taking the SAT's and what classes they need to have taken in order to prepare for the test. We share this information with our parent community as well. We have a SAT review course along with SAT tutorials on Saturdays, after school and before school. These options are made available to meet student needs. We are willing and available to help them prepare for the SAT's at all times. Our commitment to our students is serious. In addition to the tutorials and SAT classes, we do a school wide 3 day SAT Blitz before each test administration.

Strategies For Managing And Supporting Ongoing Data Collection And Analysis

Q: Effectively managing and supporting the ongoing process of data collection and analysis requires time, resources, and money. How have you met these managerial challenges?

I think everything we do that is important requires time. This is not to say that we can use time as an excuse to not meet our needs. At HDGHS we use time that is already built in to our schedule to achieve our goals. All teachers are part of the data analysis and collection. I look to Richard Elmore's distributive leadership strategies to address issues of time. The administrative team and the leadership teamwork together as do the subject teams that have developed in our professional learning community. We have a 9th grade failure prevention team, a SAT prep team a Biology team and etc. Our teams really work together to plan and share responsibilities.

The data that we use is sometimes user friendly and other times it is not. We work with it and through it as best as we can. We break up the data so that it is not overwhelming to staff. We have had staff development for the entire faculty on data.

We are fortunate in that we have received resources and money from Harford County Public Schools and the community. We have a grant writer that helped us to get a reading grant and a ninth grade population resource position. We have a full time staff member that is responsible for the ninth graders. We are fortunate to have staffing, SAT mentors and incentives as a result of our resources.

In summary the county, in conjunction with the dedication of the faculty, parents and community members of Havre De grace have helped me to meet the managerial challenges associated with databased decision making. We are not perfect, but we are working together and getting better at it every day.

Approaches to Developing Teacher Professional Learning in
Data- Based Instructional Improvement

Q: Do you feel teachers are effectively prepared for databased instructional decision-making? If not, what kind of professional learning is required for teachers to engage in databased instructional improvement?

No, they are not effectively prepared. Historically, education has not been based on analyzing data. With that in mind, we must realize and respect the learning curve with regards to data for most veteran teachers analyzing data. In an effort to deal with this, I provide my staff with additional professional development opportunities. All of our faculty meetings are staff development. I do not have memo meetings. Our faculty comes together for one and a half hours each month to engage in a staff development experience. Understanding that a teacher's time is very precious, all f the topics for these meetings are based on data. Data has told us that we need to spend some time on effective lesson planning and so we dedicated our first faculty meeting to that topic with in-house and county experts. Additional topics that we have addressed include the instructional sequence chain, strategic learners and planners, professional learning communities, testing strategies for the HSA 's and end of year exams, vocabulary development, and note-making and note-taking skills.

In addition to faculty meetings and county in-service days. I have also arranged for teams to get together during the school day to spend time planning and working on data. To facilitate this, we hire substitute teachers. I also work with the teams.

Modeling databased decision making throughout the school on a regular basis is the most powerful staff development exercise that a principal can engage in. When teachers recognize that you make your own decisions based on data, they are more open and receptive to learning how to transition their practices to incorporating the use of data.

Creating Conditions that Support Data-Based Decision
Making For Improving Student Learning

Q: Do you have any advice on the kinds of conditions that support decision making for improving student learning?

The only advice that I have is to stay objective. The beauty and power of databased decision-making is that it is concrete and objective. It provides teachers and administrators with a clear perspective of how their kids are doing and what they need to do to help increase student achievement. If that wasn't enough data allows an administrator to have honest conversations with people. If a teacher is an extraordinary teacher who is good for kids, you can look at the data (test scores, grades, parent comments, student comments etc.) and say you are a good teacher because your students learn what you teach them. Conversely, data allows administrators to have those courageous conversations with those who contend that they are good teachers because their students like them and they have fun in their classes. You can look at the data and say, " I beg to differ, and the data does not support your contention".

Data allows administrators to identify areas of need and focus on weaker areas. The data can help you to zero in on the critical areas.

When asked to describe his philosophy in one sentence or less, Principal Thibeault responds "Rigor, Relevance and Relationships, these are the three new R's in 21st century education. Rigor in curriculum and instruction is required for all courses- the lessons need to be relevant to the everyday lives and real world experiences of the students, they need to be related to identified student needs and the way to achieve the highest level of relevant rigor is through positive relationship building." Positive and healthy family relationships are encouraged and supported at Havre de Grace High School. Teachers work hard to ensure that students know that they are available for them and that they believe in them. Incentive programs are in place that recognizes student achievements and progress. Above all, Wayne Thibeault provides special attention to the relationships among staff in the building: teacher-teacher, teacher-administrator. He wants "all of his kids to do well". He also works hard to make sure that all of his teachers have the resources, professional development and support needed to help the kids succeed. His goal is to help all of his teachers use databased decision making to guide all of their instructional actions in the classroom. He believes that the development and infusion of true, collaborative, focused, professional learning communities will help them to look to data when they practice their craft-teaching. His bottom line is that he does not want to lose good teachers and he wants his kids to do well.

Magnolia Elementary School
Harford County Public Schools
Barbara Douglas, Principal

Case Study Prepared by
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Magnolia Elementary is located in Joppa MD on a site of over 18 acres in Harford County. The majority of students live in a densely populated area of town homes and apartments. Magnolia is a Title I "Schoolwide Program," all 589 students are eligible to receive the benefits that Title I provides. The school has more materials, programs and personnel because of those funds. Barbara Douglas has been principal of Magnolia for one year. Previously she was principal of another Harford County Public School. She began her career as a teacher in Baltimore City. Mrs. Douglas sums up her philosophy of leadership in this way:

> I am very passionate about education, intensely so. I am one who is very much at home being a teacher, vain enough to think that I was born to teach, and comfortable enough to recognize that the only people who truly make a difference in this business are the teachers, not the administrators supervisors or whomever, but wise enough to recognize that in order to make the greatest impact on student achievement teachers need to be comfortable with their own level of confidence and competence and I think that it is crucial that the head cheerleaders, meaning myself keeps that in the front of all considerations.

Using Data for Instructional Improvement

Q: How does your school use data to improve instructional practice to enhance student learning?

Mrs. Douglas points out that interpretation of data is critical, particularly interpretation of the instructional implications.

> It is important that after we have analyzed data, interpreted it, and identified some instructional implications that we have applied these implications to best teaching practices as supported by staff development and then you evaluate it.

She believes that it is important to recognize that there are various kinds of data, both soft and hard data:

> It is important to help teachers recognize that we need to look at as many different pieces of data as we can in a meaningful way so that we get a total picture, so that we are not just looking at what does the MSA telling us, what is SRI telling us, but what about anecdotal records, what about parents conferences, what about kid watching, all of those things are important in terms of improving instructional practice and student learning.

Mrs. Douglas believes that schools must become better at being able to help children to look at their own at data, and be able to make some adjustments, in order to impact their own learning:

> We have done some things in terms of rubrics, but really having children be able to set goals in relation to what the data is telling us, and then being able to go back and being able to analyze or look at those goals and adjust so that they can better meet them is very important.

She also thinks that schools need to become much better in helping parents become supportive of student learning.

> We need to get much, much better, is helping Mom and Dad understand what the data is saying, and then having understood what the data is saying for us as a school to provide support so that we can help Mom and Dad at home impact that learning, whether it's a "make it take it night", or sending home some suggestions for how to help, or "come on in and we'll have some show you", or what ever.

Strategies For Managing And Supporting Ongoing Data Collection And Analysis

Q: Effectively managing and supporting the ongoing process of data collection and analysis requires time, resources, and money. How have you met these managerial challenges?

Mrs. Douglas believes that one of the most important strategies for managing and supporting data collection and analysis is making certain that there are vehicles in place that will facilitate communication among all school family members where the assessment, data analysis and so forth can be linked. She points out that:

> Whether it's a PLC panel or grade chair meetings, or whatever, you need to have a vehicle. And then that vehicle needs to be set up so that th*ere is a routine and a rhythm to these strategies*, so that it becomes a natural part of what you are doing: the assess, the analyze, the now lets get together and talk about it.

Managing and supporting ongoing data collection and analysis requires ongoing communication, both oral and written.

> I think that there are different things that you can design that will facilitate communication, whether email, conference calling grade chair meetings.

She believes that a key component in supporting ongoing data collection and analysis involves helping students understand and use data to set goals and talk about what this means.

> We have done some pretty cool things with the dimensions of learning in terms of dimension one, in terms of motivating kids, setting purpose and so forth. There is some big time work that we need to do with dimensions two and three and four in terms of helping kids become better thinkers, but the strategy related to dimension five is very important, in terms of allowing kids to reflect on their own learning, and not just kids, but also the school family members who are looking at linking assessment to learning.

Managing and supporting ongoing data collection and analysis also requires organization of personnel, organization of the communication, and organization of time.

When you are talking about the time, the resources and the money, I am very fortunate at this school because I have an instructional leadership team, I have an administrative team, and I have a school improvement team. Keeping those teams so that they are interconnected, so that they are consistently communicating is very important.

In addition, managing data collection and analysis requires a focus on using technology, keeping spreadsheets, keeping notebooks, agendas, being very clear about what the expectations.

Mrs. Douglas points out that in addressing managerial challenges face-to-face communication is very important:

Its not that you can't do the email and the other things. But we have to be at the round table, and even though it takes a lot of time initially, its time well spent because not only does it build collaborative bonds but also it clarifies expectations provides opportunities for problem solving.

One of the most challenging issues is finding time to train teachers.

one of the most difficult things we face is we want to train them but we don't want to take them out of classroom in order to train them, and then everybody has other lives, and no time.

Approaches to Developing Teacher Professional Learning in Data- Based Instructional Improvement

Q: Do you feel teachers are effectively prepared for databased instructional decision-making? If not, what kind of professional learning is required for teachers to engage in databased instructional improvement?

Mrs. Douglas does not feel that educators are as effectively prepared as they could be for data based instructional decision making, but she says:

we are better, a lot better than we used to be, and why, because we are more focused and we realize that the data is important and we realize that it should be driving what we do because we want to make sure that we are assessing what is taught, and in the appropriate manner. And I think that technology has helped our teachers become a lot better at data based instruction decision-making.

Mrs. Douglas believes that much more knowledge is need by teachers and administrators about making the right kinds of instructional decisions based on the data are being made:

You can analyze, but now having analyzed it, what it does this mean, what do I need to do, How do I need to provide a support for this. What does it look like if it says that I need to be doing more of this, less of that, and so forth.

Magnolia Elementary is using a professional learning community model to help support teacher professional learning. Mrs. Douglas believes:

PLCs are a whole new mindset for us. It requires beginning to think how important it is that we are able to recognize that we have to look at the data in a meaningful way, and having looked at it, it should be driving most of what we do in terms of children's learning, as long as you keep in mind that the data are both soft and hard.

Mrs. Douglas warns against looking only at test data, as they are only one piece of information. She believes that educators also need to be able to graphically display so that the data is meaningful to people.

> Not everyone can read a box and whiskers; we need different ways of looking at data so that it is meaningful. Once again, parents just as well as students.

Creating Conditions that Support Data-Based Decision Making
For Improving Student Learning

Q: Do you have any advice on the kinds of conditions that support decision making for improving student learning?

> Mrs. Douglas believes that the most important condition to support databased decision making for improving student learning is leadership:
> > leadership that's coaching, leadership that cheers, leadership that's committed, however, leadership that is also not afraid of looking at the consequences that often crop up as a result of any type of change that you look at.

School leaders need to create conditions that are risk free, and they have to keep the focus on improving student learning

New Market Middle School
Frederick County Public Schools
Carolyn Kimberlin, Principal

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New Market Middle School was built in 1979. It currently has a total enrolment of 958 students. Carolyn Kimberlin, Principal of New Market Middle School shared her thoughts on promising strategies to improve student learning, by observing that,

> One of the things we have worked on is when I first came here, I noticed that the bar, the educational bar, really was not where it needed to be because they said they can't do that. It was a mindset that we had to break. They were not doing it because they didn't have the expectations – they didn't want to put additional stress on these children by holding them accountable like some of the other influential schools. You know, the children walk in, they're handed these things and they're expected to do it."

Using Data for Instructional Improvement

Q. How does your school use data to improve instructional practice to enhance student learning?

We use data in quite a variety of ways. In general, we're continually gathering data information, and it's solely to monitor achievement and to determine needs for re-teaching – that's our focus. Currently, we're beginning a process that's used for collecting data to determine root causes that might inhibit some of our subgroup populations from improving their achievement. After identifying the causes, we will reevaluate our school's professional development program and use of resources for removing or decreasing the effects of these root causes. We may not be able to totally eliminate a cause, but we certainly can work toward eliminating what it is that's prohibiting us from moving ahead. It's our major emphasis right now. Now, past work – what we've been doing in the past –MSA is new to us – we did not have data to start the school year, but last year we started a process that we continued this year, where over the summer, because we didn't have MSPAP data, we took our criterion referenced exams, and we took our results from that and we created a data base in Excel, by grade level, of all the students' performance, 6th, 7th, and 8th grade. 6th grade, of course, had past achievement test results and we had another database of those results. On the very first day of school both this year and last year, we presented our teachers, our whole faculty, with this data, in reading and math; we provided them with a form that's divided into four parts. Those that could be classified as advanced; those that could be classified as above satisfactory, those who we would say are proficient, and those we would say are below level. Teachers then got class lists and they took their class of kids and for

each class they created a list of where those students fell. And you would probably ask the same question they would ask – would be, and they did, was why don't we just create a database, sort it, and hand it to us? Well, I attended a workshop about two years ago that was absolutely wonderful, the best one I had ever gone to regarding student achievement – a lot of Ruby Payne's work. And they said let the teachers manipulate the data, because when they manipulate the data it means more rather than looking at scores. So that's why we use that process. I heard more ooo's and ahhh's and wow than I have ever heard before because it gave the teachers a picture, and they appreciated having a picture of what they would have to do in their classrooms in terms of varying levels, even though we level, supposedly, in language arts and math they get all sorts of levels. The other piece of this information is that they really need to be reminded that this is only one piece of information and they learn that after they've used these – they use this information to group their students for instruction, to differentiate, but they also learn that when they are teaching and they are assessing, these kids are changing groups, and suddenly that's not the picture anymore. And so it's been a real interesting experiment that we've been working on.

A follow up question I wanted to ask – You mentioned regrouping, you mentioned differentiated instruction – what other interventions come about as a result of teachers looking at that data? Are there any special programs or intervention positions in your building that, as a result of that analysis, you can move some kids into some services that they might not have gotten before?

Not in the middle school. Teachers have a tutoring period once a week. They use that. We have two people that are paid about $6 an hour to tutor, but they are half time – so they equal one person. They do tutor kids that we've identified with ILP's. Last year, we had two teachers – two math teachers who had time in their schedule to tutor daily, and we also had funds through the academic intervention program to have after school tutoring for reading, writing, and math. but those funds are gone this year. So the only resource we have left are our classroom teachers who do the best they can, and the only other thing we have is a homework club, but it's not necessarily geared toward what we're talking about here. But I have more information to share with you on that question. I'm not sure that I covered the fact that as the school year progresses, teachers continue to create additional data sheets with categories based on their own classroom assessments, and the goal is to move students from a lower category to an upper category on these sheets. It's a real good visual for teachers to have in front of them – 'I need to move these kids here – and move these kids here – until they get to the top.' With Maryland State Assessment data, we use this information for a variety of purposes. One is to determine if the overall school is improving. To determine the amount of progress the school must make to meet AYP for the current year. And so I've created a sheet for math and for reading - what I did was study the data myself and what I came up with was an average of about a 5% increase – it's a little above what AYP or AMO will be for us next year, but it's a goal, it's a minimum goal, and I shared this with all the teachers.

I'm currently holding what we call "ten minute interviews" with teachers. And these are the types of questions I'm asking them with regards to what's happening in their classrooms. In addition, I have also created a sheet for teachers to look out which specifically tells you the number of students, I'm trying to get it as far down to the classroom as I can get it, so let's say you have, this is hypothetical because it's not typical of our school, but let's say you have 20 African American students in our school (we actually have 5), and you know through

manipulating data and playing around with it a little bit, that if we made a difference with 5 kids, we will have met standard. And I think that's good information for teachers to know what their target is. It brings it down to again, what is it that I need to think about in my classroom. The most recent thing I did was collect FARM data. Now that took a while to obtain, due to all the confidentiality kinds of things, and I created a data base that would show FARMS kids and their Language Arts level and teacher and their math level and teacher, and then I sorted it by teacher, and on Monday these teachers will get these list of only their children. This is what they will get (she shows me a copy). They also have in their hands their data sheet, what they've developed, they know where they fall academically, and for example, the first student I can look up her interim grade, she's go all A's and B's, so she seems to be doing fine, but there are other students on this list who are not doing fine. Again, more information for them to use to know what their target is. I did the same with special education, I took the special ed. List and I matched it to free and reduced, because they are counted a number of times on the MSA data, so we did that also, and that information I sent out to all special education teachers. Our greatest problem here at New Market Middle is special education and free and reduced, but mostly special education kids not making progress. And basically, I don't think we held special education accountable in the past. And we've been working on that for a couple of years.

You talked a little bit about this in some of your answers to the first question, In terms of strategies you've used with assessment and data collection and analysis for instruction, and I know you've already provided some good examples. These questions on the 10-minute meetings with teachers are great because it really focuses teachers for the task at hand, could you elaborate a little more on this process?

With that process in particular, it's a very informal conversation and it's not held in a way where teachers are put on the spot, it's more that I'm learning about what they are doing and giving pats on the back for what they are doing – and really encouraging them to seek ways to help our kids. And so it's been very interesting to me because I'm learning a lot about what's going on in classrooms, by simple conversation. One of the things that I learned in the Ruby Payne workshop was something called a 10- question quiz. We've done a staff development session on what a ten question quiz is and how to create it – Particularly what it is, is, by grade level, let's say there are three math teachers at a grade level, these three teachers meet to create one quiz that measures the state standards for the skills they are teaching, they bring to their meeting two or three questions to add to the quiz – they discuss what they've done and they use the mdk12 web site – because on that site the standards are there plus the assessment levels are there to tell teachers what will be assessed. So we are just beginning this process – teachers are still shaky on developing these, but people are starting to work together – great advantage though, in that we're communicating now with each other – we may have a teacher's whole grade level now knowing what the others are doing. So, it has reaped a lot of benefits. With that in mind, we don't grade kids on these – we only look at the results as to who got it and who didn't. The other thing that I mentioned earlier is our school system's curriculum specialists are working closely with the state department in writing the voluntary state curriculum. And so basically our language arts secondary curriculum is finally getting aligned to state standards, and in math. I always felt our worse area was in language arts but I feel like it's moving in the right direction now. I'm feeling as principal, that I feel pretty sure to be able to tell teachers that with our

essential curriculum, you're getting state standards. The other thing I'm doing is through monthly department chair meetings (she shows me an example) we use a resource used to examine root causes. Here is the data – they've seen it before, particularly the MSA data, but we just got our profile sheets for our schools yesterday and how we did. In one year we've made tremendous gains and a lot of it is because we are focusing every single day on the same targets – so we're real pleased with that, but it's not perfect –and so we're going to look at the areas using this resource which gives direction on analyzing data and what we need to do.

Strategies For Managing And Supporting Ongoing Data Collection And Analysis

Q: Effectively managing and supporting the ongoing process of data collection and analysis requires time, resources, and money. How have you met these managerial challenges?

This question deals with the amount of time required – as well as resources and money- Talk me through a little about this ongoing process. Each year staff changes – how do you bring everyone together to do this – how do you get the buy-in and get people to see that this is not only beneficial for the school but for them personally, in terms of instruction?

Obviously, one of the first things you have to do is win the respect of your staff. And if you've got that, that's half the battle, so that every opportunity that I have I talk the same talk. The message that we have is for me to keep doing this over and over again – and sometimes the light doesn't go on unless you go over it several times. So anytime there's a discussion, a faculty meeting, a team meeting the focus is always the same. You might be introducing something that they are not familiar with, but the focus never changes of what it is. You could walk around the school and ask the teacher – 'what's New Market's focus' and they have to give the same answer because it's been like this for the last two years.

Let me refine the question a little further. We talked earlier that during the school day when you had opportunity, you would pull people together to have conversations. What do those meetings look like? Do people bring recent assessments with them and share with teammates? Are they bringing assessment information and putting it in a database? Obviously the resources are limited – you do with what you can during the school day – there's not a lot of money coming in to have after school tutoring sessions or support for kids, so when does the data analysis occur and what does a typical meeting look like?

Well, there are a variety of meetings. There are meetings in which the people who do staff development presentations present to the team – that could be me, the Assistant Principal, staff developers in the county – so those types of sessions occur. When I do them it is on data analysis –we are talking about data all the time. Then there are separate team meetings in which teams meet with their team leaders. My role for this is to guide the team leaders with what they can do with their teams. I did the training for the 10 question quizzes. The team leaders now have been meeting with their teams to make it all happen. My goal is to get to what you just described, where teaches are talking to each other about what is it we need to be held accountable for? Bringing their information, as far as their data, is a goal I want to get to, where they are now bringing in their assessments and they are talking about- here's what I use to teach this unit on geometry, or here's what I use for this and here's the results. The other thing is that

teachers are using Micrograde now. Not everybody, but one whole team decided to pilot it this year, and they are also e-mailing grades to home. So, parents are getting bi-weekly reports, just with a click of a button. So those types of things are occurring. To actually sit down and bring their own personal data to a teaming – we haven't gotten to that point yet – but it is a goal that I have. Because when you start talking about how kids are doing in my class versus your class, that's really important at a middle school level.

Approaches to Developing Teacher Professional Learning in Data- Based Instructional Improvement

Q: Do you feel teachers are effectively prepared for databased instructional decision-making? If not, what kind of professional learning is required for teachers to engage in databased instructional improvement?

So, this leads to the next question. Do you feel teachers are prepared for databased decision-making? It sounds like you're providing the framework and empowering teachers to use data in this fashion, because that's where you want to see them go, to further their instructional decision making for kids based on data.

Exactly. You hit upon something in your comments and that is the amount of process it is taking me to think through the process, and to bring it and make it work for our teachers. Because you can't do this job on a day-by-day basis and have the time to do that. So, I spend many weekends just thinking, making notes, and putting it in an organizational form as to what do I need to do next? How do I get to where I want to go? There's a lot of time involved. Teachers are not ready or trained to handle it and neither are principals. None of us have been really trained to do this and the interesting thing is, there's nobody out there to tell us how to do it either. So I just decided I'm accountable and I've got to go with this in the best way I can, which is why I seem to be sponging up anything I can find here in order to learn more about what works and what doesn't. Even if someone told us how to do it – it's not going to be the same for everyone –so you want to pick out the features that will work for you – and that's really what I do.

Some researchers argue that data analysis is one approach used in fostering a professional learning community. Do you agree with this?

Absolutely. It's not quite where I'd like it to be – I'd love for teachers to be having this discussion constantly –and I realize that that's not real –you have to be away from it sometimes. When we are meeting I'd love for them to be focusing all of their time on this sort of thing that we're talking about today – I have teachers who are able to do this the problem is they are typically teachers who leave to become assistant principals or principals –they are what we call the omnivores – they soak it all up they do a lot of things then they leave you – so you have to find more omnivores.

Let's talk about the opposite of the omnivores and that is what about people who are kind of reluctant to buy in or –haven't seen the benefit of the process. Do you do anything different or have a different approach – have you run into this type of barrier?

We don't have very many of those people left, but there are still a few. I'm hoping that my one to one meetings will make a difference so people have to be accountable by coming in and talking about what they do. I don't think I have found a team totally where everyone has been won over, but I would say in this school we've got about 98% on board. I hate to say it, but a lot of these people are people who have been around a long time, like myself so I can't be too critical, and are ready for retirement – but they don't want to go. The people who are younger and are coming into this who don't want to be a part of it, they get out of teaching – they say I can't do this and this is more than what I bargained for and so basically we don't have as much of a problem with the younger teachers than you do with those who have been around for more than 25 years.

Creating Conditions that Support Data-Based Decision Making For Improving Student Learning

Q: Do you have any advice on the kinds of conditions that support decision making for improving student learning?
If you were giving advice to someone on the kinds of supportive conditions that must be created for this to be successful, what would you tell, maybe a new principal, trying to create this kind of learning community?

As we talked about earlier, you really have to create a positive school climate in your school and your teachers have to trust and believe in you. If you don't have that you're not going to be able to do any of this, and I'm fortunate enough to have that right now –although sometimes it can go astray, basically I believe that is the most important piece to have in place to make any difference. We have to treat our teachers in a way that we want our teachers to treat our students in order for students to achieve. We also have to believe that we can do it. And one of the things about coming into this school, and coming from a city school for years was it was amazing to me what the potential was in the school. I saw and talked to the kids and said to the teachers I don't know why this isn't the top school in Frederick County because the kids are incredible. The other item that you need coming from a city school is, if an administrator has to deal with discipline issues all the time then you don't have time to do the things we are talking about. A perfect example of that is that I am so excited because the experience here has allowed me to be a real principal, and I'm not saying I wasn't a real principal before, but I was finished with being a city principal because that's what we had to do to keep things going. We were able to make progress at a city school, but our focus had to be shared with discipline. That makes it a lot tougher – so having a safe school with fewer discipline issues, and we still get them, but my goodness it was like dying and going to heaven. You also have to have a strong desire as an administrator to make a difference. If you think you can do this without spending extra time beyond your normal school day, you can't do it – unless you're ignoring everything that's going on out in your building. The other thing you need – and I think we have this – is a great central office. Very supportive – whenever I need something, I can call whatever office and get what I need. I called my boss last week to get my hands on a certain piece of FARM data and it was available to everyone the next day.   So there's a perfect example of they know you're out there trying and we'll do everything we can to help you. It is not we're going to beat you up if you don't improve – it's what can we do to help you. And of course, having those carnivores – those teachers who are willing and eager to implement the process and become role models for other staff is tremendously helpful.

Westland Middle School
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Dr. Ursula Hermann, Principal

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Dr. Ursula Hermann is the principal of Westland Middle School in Bethesda, Maryland. More than 950 sixth, seventh and eighth graders in Montgomery County Public Schools attend Westland. During Dr. Hermann's four year tenure at Westland, she has brought the process of data-based decision making to the forefront. The staff work hard to ensure that student data drive the school improvement process. Major decisions are always focused on what is best for all students. Dr. Hermann urges her teachers to disaggregate the data and base their instructional decisions on it. She consistently demonstrates a positive attitude towards the use of data in her school. She understands that the use of data is intimidating to some and she respects that. Dr. Hermann provides her staff with time and support to help them engage in the process of data-based decision making in a professional learning community.

Using Data for Instructional Improvement

Q: How does your school use data to improve instructional practice to enhance student learning?

Once the data has been obtained, one of our first steps is to disaggregate the data. We also try to the best of our ability to identify the specific skill sets that were assessed. We immediately develop a plan to share this information with the teachers. Our goal is to always deliver the data in a user- friendly manner.

 In our math classes, we pre-assessed all of our students using practice versions of the Maryland Functional Math test. The data that we received from these tests was very detailed and concrete. It helped our teachers to identify the specific skill sets that the students needed additional practice with. This information was crucial to our lesson planning for the year. We used the results in planning for our daily warm-ups and homework. As a result, students received the remediation that they needed on specific skills while moving forward with the county curriculum of IM and Algebra. Students were not placed in remedial classes, they were provided with resources in their math classes. In some cases, students are in a double period of Algebra that includes additional practice/skills building.

Students were also pre-assessed in reading at the beginning of the year to determine reading levels. This information was helpful in determining the level of support that each student needed.

We looked at this information and made sure that each student was in a position to meet with success. In addition to the previously mentioned assessment, all students are pre-assessed before each unit. This helps our teachers identify the concepts and ideas they need to reinforce the most. This practice has proven to be quite helpful to our students.

Strategies For Managing And Supporting
Ongoing Data Collection And Analysis

Q: What strategies have you used to link assessments, data collection, analysis, and instruction?

We rely heavily on the best practices. These are instructional strategies that have been proven to work with kids. We have a full-time staff development teacher that presents best practices to the entire staff during faculty meetings and professional development days. She also works with teams, departments and individual staff members to provide resources, coaching and release time for planning and observations. Her work has been instrumental in linking the data to instruction. Our staff development teacher is using the curriculum to drive the support that she is providing to our teachers.

In addition, the team leaders and resource teachers are working together to continually collect classroom data and use it to plan and modify lessons. For example, reading and English teachers meet once a week to talk about lessons and student responses. They use the same books with all students in order to provide greater coordination and support to all. They use the same resources, assessments and timeline. All of our English teachers focus on developing the same skill sets in class. We have purchased books on tape to help our students who have difficulties with decoding. Our special education teachers meet with departments and are an integral part of the lesson planning process.

 Using their class data and pre-assessments, our English teachers found that the students needed to work on critical thinking skills. They put a plan in place that emphasizes the deeper questions in their classes. In-class dialogue includes questions like "Why?, What happened to make you think that…? Tell me more about." This practice has helped many students begin to approach reading and writing from a more critical and reflective point of view. This practice is helping students who have not been exposed to higher order thinking skills and critical thinking dialogue to engage in the process. Their own skills are being developed and refined in their classes. I honestly believe that the way that we must account for students who have different experiences is to expose them to rich and rewarding educational experiences inside the classroom. All students need instruction. One of the strategies that we are looking at is the infusion of Junior Great Books in to our English classes. The books are powerful and exciting for all children.

Working together, we have had amazing results. 100% of our ESOL students have passed the Maryland Functional Writing Test.

Managing and Supporting the Process of Data Collection and Analysis

Q: Effectively managing and supporting the ongoing process of data collection and analysis
requires time, resources, and money. How have you met these managerial challenges?

We have a dedicated user support specialist that helps us with our data collection. The administrators along with our testing coordinator and staff development teacher work on the first level of data analysis. Our teachers work with the data on specific levels as it relates to their students. They have become more comfortable with data collection and analysis because of the support that we have available for them at school.

In the area of money, it has not cost us any additional funds in order to maintain our data. The analysis is done in house and we provide training to teachers from resident experts and county specialists.

Time is a precious commodity, especially in education. We make sure that we utilize every teachable moment that we possibly have. We treat everyone's time with respect. We make sure that we plan effectively for everything. The dedication of the staff and the commitment that we have to work together for the good of the students helps us to work through the data process. We are working on it all the time in manageable pieces.

Approaches to Developing Teacher Professional Learning in
Data- Based Instructional Improvement

Q: Do you feel teachers are effectively prepared for data-based instructional decision making? If not, what kind of professional learning is required for teachers to engage in data-based instructional improvement?

No, they are not effectively prepared. This is not by any fault of theirs. Data-based decision making is not learned in school. In the past when teachers have been taught to utilize data it has only been at a cursory level. Teachers have not been taught how to effectively manipulate data and to base their instructional decisions on it.
The kind of professional learning that I feel is most necessary is training on the effective use of classroom data. Teachers need to know how to give a unit test, analyze the results, and use their findings to reteach skills that need reinforcement.
Professional development should be immediate, relevant and make sense for growth.

Creating Conditions that Support Data-Based Decision Making
For Improving Student Learning

Q: Do you have any advice on the kinds of conditions that support decision making for improving student learning?

My best advice is to start small. Begin with a test that people are familiar and comfortable with. Be sure to focus on a test that includes all kids. The process should not be cumbersome and teachers should receive immediate feedback.

Principals should be prepared to provide time for staff to work with an expert. They should exercise patience and be ready to provide support. Many of my teachers tell me that it is very

helpful for them to be able to talk to someone who gets it. Some people are naturals and know how to work with data. They should be provided with opportunities to share their knowledge and experiences with others.

Exemplars should also be utilized with staff to help emphasize expectations. Discussions that are centered around data collection, analysis and future planning are an integral part of this process. The process should be presented to teachers in a non-threatening manner that encourages sharing and risk-taking. Schools should identify the type of data that is the most important and focus on that. In my experience, I have found classroom data to be the most powerful. It is a direct reflection of the kind of instruction that is being delivered to our children on a daily basis.

The recipe for success includes three key components: alignment, analysis and instruction. Schools should make sure that the assessments are assessing what the teachers are teaching. They should also be prepared to analyze student results on a regular basis to inform instructional decisions. Sound assessments should occur on a frequent basis so as to engage in continuous improvement for all.

Study Guides for Designing Learner-Centered Schools

In these Appendices of the CD-ROM version of Design Principles for Learner-Centered Schools, we have provided additional information for use as study guides in designing learner-centered schools for each of the following:

B. Professional Learning Communities and the Importance of Principal Leadership

C. The Learner-Centered Principle of Karen Murphy and Patricia Alexander

D. Professional Development Activities

1. Critical Friends

Overview Prepared by Jean Kugler, Prince George County Public Schools

2. Lesson Study

Overview Prepared by Bud Rorison, Montgomery County Public Schools

3. Friday Forums

Overview Prepared by Linda Jones, Anne Arundel County Public Schools

4. Study Groups

Overview Prepared by Margaret Jerome Stuart

5. Action Research

Overview Prepared by Darryl Williams, Montgomery County Public Schools

E. Suggested Readings

Study Guide for Designing Learner-Centered Schools

APPENDIX B: **Professional Learning Communities and the Importance of Principal Leadership**

The following is excerpted from the Southeast Educational Development Laboratory's on-line article "Professional Learning Communities: An On-going Exploration."

> The term "professional learning community" defines itself. A school that operates as such engages the entire group of professionals in coming together for learning within a supportive, self-created community. Teacher and administrator learning is more complex, deeper, and more fruitful in a social setting, where the participants can interact, test their ideas, challenge their inferences and interpretations, and process new information with each other. When one learns alone, the individual learner (plus a book, article, or video) is the sole source of new information and ideas. When new ideas are processed in interaction with others, multiple sources of knowledge and expertise expand and test the new concepts as part of the learning experience. The professional learning community provides a setting that is richer and more stimulating.

> In the publication <u>Professional Learning Communities: Communities of Continuous Inquiry and Improvement</u>, Hord (1997) noted that there was no universal definition of a professional learning community. Based on an extensive literature review of the subject, Hord conceptualized professional learning communities as schools in which the professional staff as a whole consistently operates along five dimensions: (1) supportive and shared leadership, (2) shared values and vision, (3) collective learning and application of learning (formerly identified as collective creativity), (4) supportive conditions, and (5) shared personal practice . . ..

> Rather than becoming a reform initiative itself, a professional learning community becomes the supporting structure for schools to continuously transform themselves through their own internal capacity. Leithwood and Louis (1998) suggest "the task is not just to create a school organization capable of implementing the current set of reform initiatives . . . in the context of today's turbulent environments. Rather, the task is to design an organization capable of productively responding, not only to such current initiatives in today's environment, but to the needless number of initiatives, including new definitions of school effectiveness, that inevitably will follow" (p. 6) . . ..

> Research shows that low-performing schools can overcome the implementation problems that accompany reform efforts, and increase student achievement, when the staff and school are organized as a professional learning community (Lee, Smith & Croninger, 1995; Newmann & Wehlage, 1995; Reyes, Scribner & Paredes Scribner, 1999). In such cases, school staffs have learned to develop their own capacity in order to produce improved student outcomes from year to year. It is clear that the development of a professional learning community—an environment that nurtures and supports learning together, trust, respect, common goals, and high expectations for staff and students—can address the issues that many educators are struggling with in their schools today.

The most critical of the themes emerging from the first year of . . . [SEDL's Comprehensive School Reform program] was the leadership capacity of the principals, which had significant impact and influence on the other four core issues [shared values and vision, collective learning and application of, supportive conditions, and shared personal practice]. Without identifying a shared focus for improvement, administrators could not guide their staff in developing and articulating a collective vision for their students or their school. This lack of clarity made it difficult for the administrators to model the vision or mental image of improvement through their actions with staff, students, parents, and community. The expectations of administrators for their staff and students tended to be based on historical norms and relationships, and high expectations were rarely modeled for staff or students. The absence of decision-making structures prevented teachers from being involved in long-range planning and resulted in unilateral decisions made by the administrator. A lack of organizational systems was apparent in planning efforts, in meetings, and in daily work. Systems for communication among staff and between school and home were also inadequate. Too often, administrators also left conflict to resolve itself, a situation that then became detrimental to the school and/or the staff.

Supportive and shared leadership in professional learning communities looks much different than in low-performing schools. Using their shared values and vision as a lens, administrators guide the school with the participation of their professional teaching staff. Expectations are high for all staff and students, and the principal models those expectations daily in words and actions. Decision-making structures are developed and put into place by the principal to facilitate the involvement of teachers in decision responsibilities. The administrator is primarily responsible for developing the Supportive conditions within their school. In designing efficient systems for operation, communication, and learning, the principal influences the physical conditions within a school. In providing opportunities for staff to learn together, to have fun together, and to work together, the principal is developing the people capacities on the campus. The actions of leadership pave the way for collective learning and application of learning and shared personal practice to occur within a professional learning community school . . ..

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Study Guide for Designing Learner-Centered Schools

APPENDIX C: **The Learner-Centered Principle of Karen Murphy and Patricia Alexander**

Murphy and Alexander identify five assumptions about learning that educators need keep in mind in order to address the learning needs of minority students. These five were derived from fourteen American Psychological Association principles of learners and optimal learning. According to Murphy and Alexander, to best close narrow the achievement gap, educators should assume that

- learning involves increasing students' knowledge base
- motivation is a key factor in student learning
- students learn by strategically processing new information
- there are commonalities and differences in the way people learn an in the rate at which they learn
- social contexts affect learning.

The following is taken from Murphy and Alexander's "The Learner-Centered Principles: Their Value for Teachers and Teaching."

Research Underlying the Various Dimensions of the Learner-Centered Principles
and It's Implications for Teachers and Teaching

Research Findings	Educational Implications
The Knowledge Base	
• Prior knowledge predicts future learning • Knowledge is multifaceted and multidimensional • Knowledge misconceptions can deter or interfere with future growth.	• It is important to have a firm grasp of what students know and believe, and use that knowledge as an instructional bridge. • Learning tasks should be structured so that students understand the what, how, and when. • It is best to provide experiences that enable students to correct or modify their misunderstandings prior to teaching new content.
Motivation	
• Intrinsic motivation and personal interest lead to greater achievement.	• It is important to structure activities that will tap students' deep-seated interests.

• Learning is enhanced when students' goals are focused on learning and mastery of content rather than on performance • Students' beliefs about their ability to complete a task are at least as important as their actual ability.	• Permitted choice and a sense of agency in learning tasks, students will likely perform better on learning tasks • It is important to structure incremental activities that allow students to build their abilities as well as their beliefs about how well they can perform.
Strategic Processing	
• Learning is enhanced when students use cognitive and metacognitive strategies. • Strategic processing and executive control are influenced by the novelty of the task or situation • Strategic processing is by definition both purposeful and effortful.	• Students must be taught how to think reflectively about their learning and performance. • Training in strategic processing should be regularly linked to new tasks and new situations • An environment should be created that rewards and encourages strategic processing.
Development and Individual Differences	
• There are predictable and defined global patterns in human development. • Individuals retain their uniqueness. • Individual learner differences can both help and hinder the learning process. • Both heredity and environment influence development and individual differences.	• Not every child in a particular classroom should be expected to be at the same developmental level. • Individual differences should be embraced and students helped to use their individual differences to enhance individuality in learning. • It should be recognized that a student's heredity and experiential factors both contribute to who that student is as a learner.
Situation or Context	
• The social context is an influential factor in learning. • All learning is filtered through one's sociocultural context and knowledge. • Teachers are vital components in facilitating and guiding the social exchanges that take place in classrooms.	• Classrooms should encourage both individual and social learning and growth. • Activities should be considered that explore and challenge the context through which students view learning. • Direct and individual assistance in student learning should be provided.

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APPENDIX D: **Professional Development Activities**

> **Critical Friend Overview Prepared by Jean Kugler, Prince George County Public Schools**

1. Critical Friends

Critical Friends Group (CFG) professional development was developed at the Annenburg Institute for School Reform at Brown University and supports teachers and principals who are pursuing significant school change. The National Coalition of Essential School and the Annenburg Institute have devoted time and effort in formalizing a professional development approach to school "self analyzing" called Critical Friends. Professional development using a Critical Friends Group approach has four beliefs; that school personnel, working together can make real and lasting improvements in their schools; that teachers and administrators must help each other to turn theories into practice and standards into learning; the key to effort is developing a collaborative learning community that holds regular meetings to examine student and teacher work; and, teachers and administrators need high quality training and sustained support. Critical friendship is based upon the belief that those working on change can help each other by providing supportive feedback.

A Critical Friends Group is made up of 8 to 12 teachers and administrators working together with a coach to define and produce improved student achievement. The Critical Friends Group meets for at least 2 years. Each group has a coach who has been trained to help the group members' focus on improved student learning. The National School Reform Faculty program sponsors the training of Critical friends coaches. Critical Friends Group meetings are usually two hours in length; once a month it is preferred that they take place during the normal school day. CFGs observe classroom instruction and provide feedback monthly with other participants.

Student voice is also a key ingredient in planning instruction and participants in Critical Friends Groups may also hold conversations with students about their own learning. Teachers will use an inquiry approach to have students examine what they don't understand about the topic that has been taught so that they can adjust their teaching appropriately. Critical Friends Group participants often will video tape teachers lessons, review the tape at the monthly meeting and point out missed opportunities for guided reflection. Also in critical Friends Group meetings teachers have an opportunity to share not only their best work but work on problems in their instruction or the classroom.

In a Critical friends Group, participants first learn group process skills then they focus on designing learning goals for students, which can be stated specifically enough for others to observe in their practice. The Group then works out strategies to move students towards those goals and collect evidence on how the classroom strategies are working. Working as a group, they work to revise goals and strategies. Critical Friends Group participants bring student work, instructional lessons, case studies of students, and classroom problems to their monthly meetings. Using structures called "protocols", CFG members help each other "tune" their

practice by analyzing these artifacts and issues. Protocols were developed as a means of looking collaboratively at student work and/or teacher practice. These protocols are carefully structured formats, facilitated by someone trained in these discussions.

Critical Friends Group coaches have specific roles and are held accountable for: planning and facilitating the monthly meeting; implementing strategies to promote trust-building, collaboration, reflective practice and documentation of student learning; dealing with controversy and conflict; serving as a resource within the school; Serving as an advocate for the group at the building, district and community levels; and, participating and leading a variety of networking activities. Because teachers usually work in isolation, the Critical Friends Group approach is difficult at first. And taking the time to meet with colleagues is sometimes difficult. However, participants find that the reflective work becomes invigorating with practice.

The Critical Friends Group professional development approach has numerous benefits. When students are allowed to give feedback on lessons and class activities, the students are given a voice in planning curriculum. CFG develops skills in the areas of peer observation, examination of student and teacher work, giving effective feedback, and creating new knowledge on issues of teaching and learning. Participants learn to balance roles as both leader and group participant. Implementation of the Critical Friends Group approach allows for immediate transfer to the classroom as teachers revise their work based on the feedback from the group and try out new versions in their classroom.

What are the goals of a Critical Friends Group? 1) Improving academic success of students by providing teachers with new resources and tools for examining student work. 2) Develop and empower teacher leaders at the school site. 3) Alter the leadership structure of the school by forming a collaborative relationship. 4) Developing a new model for the on-going and sustained growth of teachers. 5) Establish and facilitate a network for both teacher leaders and principals.

Web Resources on Critical Friends

http://www.education-world.com/a_admin/admin136.shtml
"School Administrators: Critical Friends Groups: Catalysts for School Change"

http://www.nsdes.nsw.edu.au/research/criticalfriends.html
National School Drug Education Strategy

http://www.cesnorthwest.org/critical_friends_groups.htm
Coalition of Essential Schools – Critical Friends Groups

http://www.essentialschools.org: Coalition of Essential Schools

http://www.houstonaplus.org/criticalfriends.htm: The Houston A+ Challenge Critical Friends

http://www.annenburginstitute.org: The Annenburg Institute fore School Reform
http://www.nsrfharmony.org: National School Reform Faculty
http://www.middleweb.com/Mwresources/debfriends.html
Redesigning Professional Development: Critical Friends

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C. Professional Development Activities:

   2. Lesson Study

> **Lesson Study Overview Prepared by Bud Rorison, Montgomery County Public Schools, Ph.D. Candidate, EDPL, UMCP**

Lesson study is a form of professional development that provides teachers with an opportunity to plan together, observe one another, and reflect on practice with the goal of improving instruction. The following summary of the process is excerpted from the Northwest Regional Educational Laboratory website: (http://www.nwrel.org/msec/nwteacher/spring2001/pdf.html)

1. Focusing the Lesson
The lesson study usually focuses on a broad, school wide goal such as "independent thinking" or "love of learning." The teachers help determine these broad goals, and they choose the specific topic of the lesson. The topic often comes from a problematic concept that the teachers have observed in their own classrooms.

2. Planning the Lesson
The teachers research the topic of the study, reading books and articles about the problem they are working on. They collaborate to develop the lesson plan, and a draft is presented to the school staff for feedback.

3. Teaching the Lesson
One teacher from the team presents the lesson in his classroom. The other teachers observe the lesson very closely, taking notes on what the students and the teacher are doing and saying. The lesson may be documented through video, photographs, audiotapes, and student work.

4. Reflecting and Evaluating
The group meets after school to discuss the lesson and their observations. The teacher who presented the lesson speaks first, outlining how he thinks the lesson went and identifying problems he observed. The other teachers contribute their own observations and suggestions.

5. Revising the Lesson
Based on the problems identified in the first presentation, the study group makes changes in the lesson. Changes are usually based on student misunderstandings that the teachers noticed during their observation. The group may meet several times to improve the lesson and prepare for a second implementation, although sometimes the teachers decide that they do not need to reteach it.

6. Teaching the Revised Lesson
The lesson may be presented again to a different group of students. The same person may teach the lesson a second time or a different teacher may try it out. Often, all the teachers in the school are invited to observe the revised lesson.

7. Reflecting and Evaluating
The whole faculty will participate in the second debriefing session, which may cover more general issues of learning and instruction. There is usually an outside expert working with the lesson study group, who speaks last during the debriefing.

8. Sharing Results
Teachers share the lessons they develop through this process, creating a bank of well-crafted lessons to draw upon. The teachers will often publish a report about their study, including the teachers' reflections and a summary of group discussions. In addition, teachers from outside the school may be invited to observe the teachers present the lesson.

Lesson study is not a "demonstration lesson that showcases a particular teacher or approach (Watanabe, 2002, p. 37). Nor does lesson study include a presentation of research on a particular instructional approach or topic. Teachers in a lesson study group locate appropriate research, share it with one another, and work together to apply the research to instruction. One teacher teaches the lesson, not as a demonstration, but instead for the purposes of research and analysis by the entire lesson study group.

Web Resources on Lesson Study

http://www.nwrel.org/msec/nwteacher/spring2001/pdf.html
This is an excellent article that summarizes the process, provides examples, and lists the main lesson study resources.

http://www.rbs.org/currents/0502/index.shtml
This site contains an overview of lesson study, some practical implications, and examples of implementation.

http://www.tc.columbia.edu/lessonstudy/resources.html
This site contains readings, tools, and a variety of other resources that guide an educator through each step of the lesson study process. Specifically, you can find on this site worksheets to help teachers determine lesson goals, a sample lesson plan format, and a protocol for observing the lesson and conducting the post-lesson debriefing.

http://www.lessonresearch.net/res.html
This site was developed by Catherine Lewis at Mills College. The site contains a series of articles that address different aspects of lesson study including essential elements of lesson study and case studies of implementation.

http://www.c-b-e.org/PDF/EyeoftheStorm.pdf
A detailed and oft cited case study of lesson study implementation.

http://www.rbs.org/lesson_study/readings_and_resources.shtml
This site contains a series of readings and resources on lesson study.

http://www.childresearch.net/CYBRARY/MABM/MEMBER19.HTM

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C. Professional Development Activities:

3. Friday Forums

Prepared by Linda Jones, Anne Arundel County Public Schools, Ed.D. Candidate, EDPL, COE

Overview

Friday Forums are creative way of finding time for professional development time for teachers while students to participate in career seminars, self-defense demonstrations, music assemblies and other beneficial activities.

Normally, for teachers to gain professional development time, students are scheduled for late arrival or early release from school. Teachers also gain professional development when, small groups of teachers attend seminars with substitutes covering their classes. However, the late arrival or early dismissal sometimes creates a problem for parents who pick their children up from school or must find daycare or another form of supervision for their children. Also disadvantageous to students is they receive less instructional time.

The new way to schedule Friday Forums is this:
- Six times a year, students attend an assembly and specialty class of their choice. The Forums are centered on such topics as careers, technology, substance abuse, diversity and sexual harassment.
- Members of the community, non-teaching faculty and parents supervise the assembly or teach the specialty classes.

    o For example, airline pilots talk to students about what is like to fly a plane, deal with passengers.
    o Fire department representatives might teach CPR and basic first aid skills.
- A part-time Friday Forum coordinator recruits the community and parent volunteers and arranges for guest speakers and assembly presentations.
- Students register for classes in advance and are scheduled in two alternating schedules so that half the students are in the assembly while the other half are in classes.

Resources for Friday Forums

Friday Forums can present a number of topics for student/teacher/parent participation. Some possible topics follow.

School Climate
http://www.gottfredson.com/esb.htm
http://www.nwrel.org/scpd/sirs/10/c020.html
http://www.school-psychology.com/school_climate.htm
http://www.school-psychology.com/school_climate.htm

http://www.nlcs.k12.in.us/dollens/climate.htm

Bullying
http://www.stopbullyingnow.com/
www.starprograms.com
http://www.nobully.org.nz/
http://www.lfcc.on.ca/bully.htm
http://www.antibullying.net/

Sexual Harassment
www.thompson.com
http://www.wcwonline.org/harassment/index.html
http://www.wgby.org/edu/flirt/fhmain.html

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C. Professional Development Activities:

4. Study Groups

Study Group Overview Prepared by
Margaret Jerome Stuart**,** Center for Teaching
Excellence, UMCP, Ph.D. Candidate, EDPL,
UMCP

Overview

The professional development strategy of study groups allows the whole school community or portions of the school community to address school needs. Over the course of a year or longer, study group members meet in groups of four-to-eight and explore issues such as:
- curriculum design and innovations in instruction
- integration of a school's practices and programs
- the impact of school, district, state, and federal practices on students and staff
- a school-wide problem and how the problem can be resolved
- research on teaching and learning[1]

Study groups explore topics in a series of formal steps. These steps are:
1. analysis of a wide range of data and indicators describing the status of student learning and the condition of the learning environment
2. generation of a list of student learning needs
3. categorization of student needs and prioritization of the categories
4. organization of study groups around the prioritized student needs
5. creation of publicly displayed study group action plans that describe the focus of the study groups, the resources they will use, and how group members will share information
6. implementation of study group action plans
7. evaluation of the impact of the study groups' effort on student performance. [2]

Featured Focus for Study Groups: Learning Theory

Many study groups choose to focus on learning theory, and there are benefits in studying this. First, it encourages school staff to set student learning as the goal of their jobs, and this is an essential characteristic of members of a professional leaning community. Second, knowledge of learning theory enables teachers to expand their knowledge base[3] and increase their methodological repertoire. Last, understanding of learning theory influences teachers' philosophies – i.e. their view of ideal interactions between students, teachers, and course content. Because understanding of learning theory plays a central role in good teaching, resources are provided at the end of this section for study groups

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[1] This description of the study group approach is taken for the Association of Supervision and Curriculum Development website. http://www.ascd.org/trainingopportunities/ossd/studygroups.html

[2] Steps are taken from Carlene Murphy's "Study Groups" at http://www.nsdc.org/library/jsd/murphy203.html

[3] Stanford University professor James Stigler identifies understanding of the teaching-learning relationship to be an essential part of a teacher's knowledge base. See http://www.ascd.org/publications/ed_lead/200203/willis.html

that choose to examine two major theories of learning: cognitive learning theory and constructivist learning theory.

In the cognitive view of learning, people are highly sophisticated "information processors" and acquire knowledge by transforming stimuli into components of long-term memory. From the stand point of cognitive learning theory, teachers should structure student learning such that
- students focus on the material to be learned
- students relate new material to prior knowledge, organize new information into categories, and identify new material with particular sensory stimuli
- students are aware of how they learn best.

From the constructivist perspective, people learn when they negotiate meaning with others and thereby construct their own knowledge. It is the teacher's responsibility to structure students' learning such that
- students are given authentic and complex tasks
- students take responsibility of their own learning
- content is presented in multiple ways
- the academic canon is presented as a construction rather than as a given
- instruction is student centered.[4]

Resources for Study Groups

http://www.ufttc.org/modelnetwks.html
Short video clip from a study group.

http://www.ascd.org/trainingopportunities/ossd/studygroups.html
Description of study group approach from the Association of Supervision and Curriculum Development.

http://www.ascd.org/author/el/92/nov/murphy.html
On-line version of Carlene Murphy's "Study Groups Foster Schoolwide Learning" in *Educational Leadership*.

http://www.nsdc.org/library/jsd/murphy203.html
On-line version of Carlene Murphy's "Study Groups" in *Journal of Staff Development*.

http://www.compstrategies.com/pdfs/ studygroups.pdf
Assessment of study groups in the context of professional learning communities.

http://www.ucalgary.ca/~cll/archives/1998/05-May/28-Jefferies-StudyGroupsForPrincipals
Descriptions of study groups for principals.

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[4] This description of constructivist teaching is taken from Woolfolk Hoy, A. and Hoy, W. Instructional Leadership: A Learning-Centered Guide. Boston: Allyn and Bacon, 2003. pg. 94.

Resources for Cognitive Learning Theory

http://www.psychology.org/links/Environment_Behavior_Relationships/Memory/
Both "pop" and more scholarly information about how memory works.

http://www.sedl.org/secac/rsn/quest.pdf
Essay based largely on cognitive learning theory entitled "Questioning Strategies to Improve Student Thinking and Comprehension."

http://www.sedl.org/reading/framework/
Good information about using the cognitive learning method to teach reading.

http://www.support4learning.org.uk/education/concept.htm
Everything you would ever like to know about mind maps, concept maps, and graphic organizers.

http://www.ecs.soton.ac.uk/~harnad/Papers/Py104/ericsson.long.html
Technical paper entitled "Long-Term Working Memory" that details prevailing theories of memory and posits that working memory is greatly influenced by long-tem memory. In this assertion, this research can be useful for those studying cognitive and well as constructivist learning theory.

Resources for Constructivist Learning Theory

http://www.educ.uvic.ca/depts/snsc/temporary/cnstrct.htm
A serious overview of constructivist theory and application. Discussion of methods of measuring constructivist teaching.

http://www.stemnet.nf.ca/~elmurphy/emurphy/cle.html
Excellent website for an overview of constructivist learning theory and teaching orientation. Enjoyable to read.

http://www.spu.edu/orgs/research/classroomobservationreport5.html
Research supporting constructivist methods.

http://education.ucdavis.edu/cress/projects/grants/constructivist.html
Research examining the relationship between the use of constructivist learning model strategies in secondary science classrooms and students' attitudes toward science.

http://www.ed.psu.edu/ci/Journals/97pap32.htm
Detailed study examining the effectiveness of constructivist professional development on the implementation of constructivist methods in science and math classrooms.

http://www.educ.uvic.ca/depts/snsc/temporary/cnstrct.htm
Very detailed overview of constructivist learning theory.

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C. Professional Development Activities:

5. Action Research

Action Research Overview Prepared by
Darryl Williams, Montgomery County Public
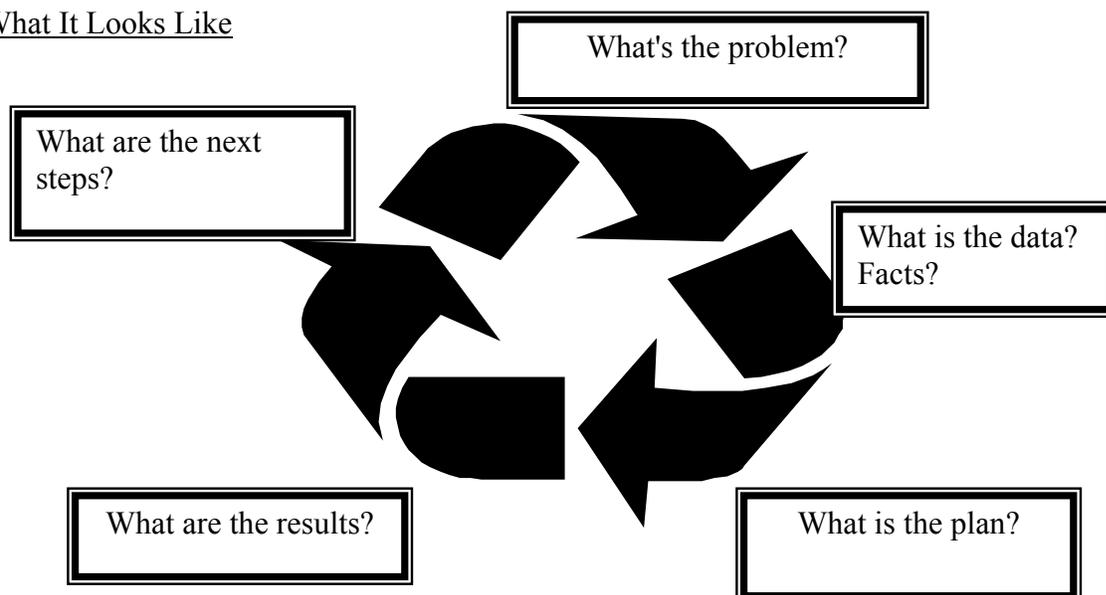Schools, Ed.D. Candidate, EDPL, UMCP

Overview

Action research is a strategy for learning more about the teaching and learning process, often in collaboration with other educators. With this learning design, teachers decide what questions are important to examine in order for them to gain insight into what is happening into their classroom. While the inquiry process is structured, it is not as formal as other forms of research and can provide teachers with valuable information in improving their practice.

"Action research provides the opportunity to talk about what we do in our teaching and learn from each other's experiences." Prendergast, Michael (2002*) Action Research: The Improvement of Student and Teacher Learning.* Ontario Principals' Council Research Report

Action research is a form of collective self-reflective enquiry undertaken by participants in social situations in order to improve the rationality and justice of their own social or educational practices, as well as their understanding of those practices and the situations in which the practices are carried out. The approach is only action research when it is collaborative, though it is important to realize that action research of the group is achieved through the critically examined action of individual group members. (Kemmis and McTaggart 1988:5 - 6) Taken from Kurt Lewin: Groups, Experiential Learning and Action Research; http://www.infed.org/thinkers/et-lewin.htm

What It Looks Like

What's the problem?

What are the next steps?

What is the data? Facts?

What are the results?

What is the plan?

<u>What do the experts say?</u>

"Action Research is a three-step spiral process of (1) planning which involves reconnaissance; (2) taking actions; and (3) fact-finding about the results of the action."
Kurt Lewin (1947)

"Action Research is the process by which practitioners attempt to study their problems scientifically in order to guide, correct, and evaluate their decisions and actions."
Stephen Corey (1953)

"Action Research emphasizes the involvement of teachers in problems in their own classrooms and has as its primary goal the in-service training and development of the teacher rather than the acquisition of general knowledge in the field of education."
Walter Borg (1965)

"Action Research in education is study conducted by colleagues in a school setting of the results of their activities to improve instruction."
Carl Glickman (1992)

"Action Research is a fancy way of saying let's study what's happening at our school and decide how to make it a better place."
Emily Calhoun (1994)

 "Action Research is a process where participants - who might be teachers, principals, support staff -examine their own practice, systematically and carefully, using the techniques of research."
Cathy Caro-Bruce (2000)

<u>Web References on Action Research</u>

"Action Research for School Improvement" by Emily F. Calhoun
http://www.ascd.org/publications/ed_lead/200203

Teacher research leads to learning, action, by Joan Richardson. Winter 2000 Tools for Schools;
http://www.nsdc.org/library/tools2-00rich.html

Action Research by Jeffrey Glanz, Summer 1999 Journal of Staff Development:
http://www.nsdc.org/library/jsd/glanz203.html

Action Research, by Eileen Ferrance, Themes in Education, 2000;
http://www.alliance.brown.edu/pubs/themes_ed/act_research.pdf

Action Research: Three Approaches; Emily Calhoun, Education Leadership, Vol. 51, No. 2, October 1993; http://ascd.org/readingroom/edlead/9310/calhoun.htm

The Cycle of Inquiry and Action: Essential Learning Communities; Horace, Vol. 15, No. 4., April 1999; http://www.essentialschools.org/cs/resources/view/ces_res/74

Relationship Between School Climate and Family Involvement
http://www.ncrel.org/sdrd/areas/issues/envrnmnt/famncomm/pa31k5a.htm

Action Research: The Improvement of Student and Teacher Learning
http://educ.queensu.ca/~ar/reports/MP2002.htm

"Where Can Teacher Research Lead? One Teacher's Daydream" by Rita Wright Johnson
http://www.ascd.org/publications/ed_lead/199310/johnson.html

As an elementary school principal, how can I improve my ability to entice engagement of teachers, in my school, in the action research process as a means of providing evidence of their professional growth and improved student learning while continuing to support them as they struggle with their frustrations and successes?
http://schools.gedsb.net/ar/articles/aera_april_2003.html

Trust In School: A Core Resource for School Reform by Anthoy S. Bryk and Barbara Schneider
http://www.ascd.org/publications/ed_lead?200303/bryk.html

"Symbols and Celebrations That Sustain Education" by Carl D. Glickman
http://www.ascd.org/publications/ed_lead/200303/glickman.html

"Creating A School Community" by Eric Schaps
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