Data-Driven Decision Making to Improve Educational Outcomes for All Learners
Curriculum in Context
Data-Driven Decision Making to Improve Educational Outcomes for All Learners

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We are excited to share with you the articles in this edition of Curriculum in Context. Educators today are bombarded with data from a variety of sources and in a variety of forms. The challenge is to make sense of that data and use it to inform decisions we make. Most pre-service teacher education programs do not have dedicated coursework in data collection and analysis procedures and so teachers often enter the field unsure how to read the data they receive from their administrators or that they collect themselves. This is, we believe, a missed opportunity. Data does not just tell us about a student’s academic achievement, it can also tell us what they understand about a topic and where they are confused; it can inform us about social, linguistic, and physical development. Beyond student challenges, data can help us understand how our school is functioning as a learning community or how our community views our schools and the resources they provide. Data is everywhere and if used properly, it can help us meet educational goals that improve outcomes for all stakeholders. With this more comprehensive view of data-driven decision making in mind, we solicited articles from people who hold a variety of roles in Washington State schools. They also have myriad views about what data is and how it can be used to what data is and how it can be used to inform innovations that can truly make schools to identify causes of reading difficulty and provide support to promote growth for high-needs students.

- June Lamberd and Josh Van Cleef who serve as Title One and Learning Assistance Program teachers in an eastern Washington school undertook a complete re-visioning of their school’s data collection and analysis process three years ago. Their article explains the way their school has changed its approach to data collection and analysis and describes their results implementing school-wide use of common assessments and weekly data meetings on the achievement of their students and the community of their school.

- Zeek Edmond shares his view of creating a building-specific data system that allows students to interact with data every day to monitor and gain control of their own learning trajectory. He asks three key questions: “Do your students know their data? Do they understand what it means? Can they use it to control their learning outcomes?” His article advocates for more student ownership of data beyond just academic achievement scores. Instead, he suggests sharing data with students regarding grades, discipline, attendance and more. This approach empowers students to become users of data themselves as they shape their own goals for growth.

- “Developing a School-Wide Data System to Increase Student Growth” by Stacy Hill and Travis Franklin provides a detailed example of one school’s efforts to develop a building-wide data collection and analysis system to track student growth in real-time and make regular adjustments to tailor academic intervention to match student needs. The article describes both the structure of the data system and how it ties in to both instructor developed and packaged curriculum to ensure appropriate differentiation for individual students.

- Martha Gady, a professor of math and math education at Whitworth University has contributed the article, “Correlates to District’s Performance on Standardized Mathematics Tests”. Her research includes an analysis of statewide data on math achievement to establish correlates with student groups who exceed expectations as well as groups who are not yet meeting expectations in math achievement. Her study examines the role of socio-economics and race/ethnicity in both establishing expectations for student achievement, and in identifying factors that can predict student outcomes.

- “Data that Shakes Up the Status Quo” by Erich Bolz and Bob Smart takes a comprehensive view of data and focuses particular attention on non-academic indicators that can predict or support student success. Their article argues that schools take an overly restrictive view of what data is and how it can be used to inform innovations that can truly make...
a difference before students ever begin formal education and that can support their success once they matriculate into school.

- In her article, “Using Implementation Data as a Lens,” Hannah Gbenro suggests that widening the lens through which we view data to include both implementation processes and goals along with outcomes would improve the ability of schools to know when new implementations are working and point to directions for improvement. She provides examples of what this might look like for multiple stakeholders in a typical K-12 school including behavior specialists, teacher librarians, curriculum developers, and more. Her approach to constructing a data management system will provide new ideas for readers on how to increase the impact data analysis can have on school innovation.

- Finally, Danielle Puhl focuses specifically on disenfranchised students in her piece, “Do Disenfranchised Populations Benefit From State Testing?” Specifically, she looks at current practices in Washington State around implementation of SBA with special populations of students. She pays special attention to English Language Learners and their experience with SBA including the purpose of state-mandated achievement tests as a tool to make informed decisions about school enrollment, special programs, funding and more.

It is our hope that as you read these articles, you will begin to see the richness that is contained in the data around you and consider ways to harness its power for your own practice. We believe that data can open our eyes to needs in our classrooms and communities that can be missed in the hectic day to day lives of educators. Data analysis can be a time to slow down, reflect, and gain insight into the many things that are making a positive difference for our state’s children and point to new possibilities for continued growth. We hope you leave these pages inspired and ready to enhance the way you use data in the fall. Happy summer!

The theme for the next journal will focus on Student Risk Factors and Resiliency Development. Please submit questions or articles for consideration by September 15, 2017 to:

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A message from the president
by Janet Kay Regge

How do you use your data?:
Do you act on it?
Do you ignore it? Do you fear it?

Research and data are powerful and effective tools and when used thoughtfully they can be dynamic devices to improve systems for student success. Too often data is collected and stored but not used with intention to make informed decisions. Data is more than facts and figures, it is essential for making decisions, creating opportunities, gauging progress and setting goals. Data should drive decisions and should not be used to fit or support a predetermined plan. Learning is a messy process and has so many factors. When using and reviewing data we must keep in mind ASCD’s Whole Child approach which is an effort to transition from a focus on narrowly defined academic achievement to one that promotes the long-term development and success of all children. Keep in mind that all students deserve to be safe, challenged, supported, healthy and engaged. To this end we need to look at multiple data including attendance, demographic, special program records, grades, perception and observational data.

As acting president of Washington State ASCD I have exciting announcements. I am happy to announce Carrie Lam as our new Executive Coordinator! She will work closely with our board of directors and support the work you are doing for all students in Washington State. Carrie comes to us as a previous classroom teacher with strong organizational skills. We are thrilled to have Carrie on our team.

As I learn and work with educators across our state and region we face many of the same obstacles when supporting students. A common challenge is working with students who come from a trauma background. We continue to learn and work with Kristen Souers to learn more about childhood trauma and how it affects learning and teaching. We invite you to a one day “Trauma Informed Practice Summit” to learn how to support students who are experiencing or have experienced trauma.

I thank you for your support and service to our students. If you have an opportunity to meet Carrie Lam, please welcome her. In conclusion, I hope this issue of Curriculum in Context will make an impact on how you use data. I challenge you to think deeply about your data and use it to set goals.

In addition to serving as WSASCD President, Janet Regge is an Instructional Facilitator with the Renton School District.
Data Based Decision Making at the Elementary Level

by June Lamberd and Josh Van Cleef

In this day and age of common core and the constant emphasis on collecting data, teachers, building administrators and support staff are in the position where thinking outside the box is critical. The desire to serve our kids has remained the constant, while the current climate is requiring adaptation in order to find success in balancing federal guidelines with measurable student growth. At Evergreen Elementary School, a Title 1 school in the Mead School District, we have engaged a unique approach to facilitating student success. This approach allows us to provide services building wide, rather than directing our Learning Assistance Program (LAP) resources to a select group of students.

The LAP team saw the benefit several years ago of using data to make decisions as they relate to student growth. Our migration from a single classroom ability-grouping format to an all-building skills format took a remarkably short two years. Our teachers recognized their increased requirements, from federal, state and local mandates. Students also met increased expectations with the inception of Common Core and Smarter Balanced Assessment (SBA). By changing the focus from a single teacher in a single classroom to a collaborative grade level team, each teacher’s students became everyone’s students. There was a clear benefit to working together to serve our students. This transition was made possible by the working relationship our school has with Whitworth University and Dr. Lisa Laurier, and LAP teacher June Lamberd. With their encouragement, the LAP team set out to make a greater impact on student achievement.

The model that Evergreen Elementary has chosen to follow is one that has the following concrete principles in place. Every student will have his or her state required minutes in grade level instruction. Every student will receive his or her core instruction in his or her grade level. Every grade level honors a skills time every day. In a skill-based environment, a good amount of instructional time is dedicated to practicing, assessing and reflecting on skills (“Skill-Based Instruction”, 2017). Every grade level gives a common assessment. Data is collected on all assessments the grade level gives, as well as benchmark assessments. These are turned into the LAP team. The LAP team helps interpret the results and offers suggestions and feedback to the grade level teams.

The skills time is where “students are grouped according to their achievement in one or more skills”, (Jecks, 2011). According to a definition provided by TalentAlign (2012): “Skills time each day is where something is learned in order to be able to carry out one or more job functions.” Each skill need is housed with a teacher who focuses on the skill during the designated time. In other words, a student from one homeroom is in another teacher’s room for skill time. Our students’ work in skills groups is based on the five pillars of literacy (phonemic awareness, phonics, fluency, vocabulary and comprehension). This allows for students at varying reading levels to be working in the same room because they each share the same skill need. This proves to be beneficial because all students, no matter their reading ability, share the same need. This has led to a reduction of our behavior issues in class as students feel less frustrated or bored with instruction that is targeted to them, and it makes students feel successful because all peers in the room are working towards the same goal.

As an example, Table A illustrates how we housed our students for the most recent 6-week cycle. The students were divided up based on the aforementioned five pillars of literacy.

Skills Groups Across Second Grade

Each year, our students are given an initial assessment we refer to as our fall benchmark. This data is used as our baseline. The LAP team and the grade level teachers then conduct weekly data meetings. At each meeting we review the data they collected for their designated skills. “This data provides quantifiable evidence, taking the emotion and guesswork out,” (Messelt, 2004). These data meetings focus around student achievement.

“By focusing on student achievement data, our teachers are able to identify the specific skill deficit that may have been the cause for a student to miss a benchmark goal” (Jecks, 2011). We are on a six-week skill rotation. So, for six weeks, we work on the assigned skills. However, every two weeks, the LAP team and the classroom teachers address placements and possible movement of students. In addition to facilitating the use of data, our role as LAP teachers is to support the classroom teachers with their assessments, provide resources and assist with curriculum as needed.
An example of our initial benchmarking data used for the baseline is in Table B. This graph shows the grade level and benchmarking assessments we use three times per year to track growth. Each assessment provides us with a different look into the student’s reading skills. We use these to monitor student growth and determine skill group placement.

**Benchmark Data**

We also utilize data in our weekly meetings. Table C is an example of the comprehension skills groups across a grade level. As you can see, our comprehension assessments are broken down into the three types of comprehension questions (literal, inferential and critical). The teachers provide the data and the LAP team enters it into the spreadsheet. The colors on the spreadsheet are red and green. Red represents not passing at <80%, while green represents passing at 80% or above. The spreadsheet also calculates literal, inferential and critical totals across a unit.

**Weekly Assessment Data**

The data that we collect from these skills groups allows us to paint a better picture for the students, teachers, parents and administrators about how our students truly are succeeding as readers. At Evergreen, we are able to provide multiple points of data for the five pillars of literacy (phonemic awareness, phonics, fluency, vocabulary and comprehension) to show students’ strengths and areas requiring growth. Our students feel more successful because the skills they are working on address their personal needs, the skills are challenging them at their pace, and we are able to share their growth with them to encourage them as readers.

We are now in our third year of implementation. Initially, our third grade and fourth grade teams agreed to adopt the new format. This allowed us to use them as our test groups and to share their benefits and areas for improvement with the other grade levels. As the other grade levels saw the success with the third grade and fourth grade teams, they wanted to join in the process.

We celebrate a student’s movement from skill level to skill level. We have data to support they are becoming successful readers. By having not only our teachers, but also our LAP team and support staff with their eyes on the data, student performance is always being monitored. This allows us to intervene more quickly when the need arises. It also allows us to correct reading habits so students continue to improve.

This program has become successful at Evergreen because teachers see the increasing expectations for student learning and growth. We recognize the challenge of common core. Yet, our main focus remains on student success. We were thirsty for a way to service our students while balancing our obligations to fulfill national, state and local requirements. Our teachers, parents, and administrators have seen how the process works and the student achievement is evidenced by better academic success using this model. We thought outside the box to create a system that works. Now we are in an exciting position where we are seeing the results from our collaborative efforts.

In 2014-2015 we implemented the skills approach only in grades third and fourth. That year there were 28 third graders receiving LAP support of which 25 ended the year and of that 25, 18 made 10+months growth. Now those third graders are in fifth grade and only 9 are still in need of LAP support. There were also 34 fourth graders in LAP that year, of which 29 ended the year still needing LAP interventions. Today, those fourth graders are in sixth grade and only 12 of the original 29 are still in need of LAP support.
2015-2016 we continued skill grouping with third and fourth grade, then added LAP support to our kindergarten thru second grade. We started serving 130 students in LAP in September 2015 and exited 60 kids by June of 2016 because data showed that they met their skill area. Of the 70 still in LAP, 52 made 10+ months of growth over their time in program. Students in third and fourth grade made an average increase of 30 words per minute.

2016-2017 – This is the year we spread our LAP support to all grades. We started the year with off serving 139 students kindergarten thru 6th grade and currently are only servicing 98. Students in third thru sixth grade made an average of 59 points increase in their lexile scores and an average increase of 20 words per minute from September 2016 thru January 2017.

References
The simplest measure of growth is the difference in performance between two points of time. I can pile a mountain of data in front of leaders, teachers, parents and students. Most would understand that if the second data point in time is less than the first, we have an urgent problem. The challenges lie in how we address this gap, when we address the gap, and who addresses the gap. If we wait until the lessons are over, the final bell has rung, and the state test data has posted, then school is out for the summer.

What if instead of looking backwards, we looked ahead? What if the data was evaluated at the classroom level and used to help students better understand their own growth? Schools can build systems for students to interact with data every day and institutionalize the practice of data driven decisions. The value of data during the lesson, in real time, can immediately impact student outcomes. As Antonetti and Garver (2015) note, “assessment for learning [occurs] when we see students involved in evaluating their own learning. We may also see them being given information by their teacher that, going forward, would alter the learning process.” (p. 128). I would challenge educators to ask themselves, do your students know their data? If students know how they are performing, do they understand what it means during a lesson? In schools, we must build a self-sustaining system of data analysis and students are critical participants in this work.

**Data Matters**

Over the past 20 plus years in education, I have witnessed the onset of high-stakes testing, and the development of systems to effectively analyze summative assessment data. For example, we now have multiple lenses for analyzing data from a 30,000-foot level of national pass rates, to the 20,000-foot level of state pass rates, to the 10,000-foot level of local district pass rates for state tests and benchmark assessments, and finally down to sea level for school level pass rates. All of this works simultaneously to help communities, districts, principals, and teachers understand how their efforts are improving year to year and compared to like demographics.

On the surface, sea level and above appear to tell us how our schools are performing, making decision makers happy. In practice, however, diving below the surface and seeking the application of data during instruction are more impactful. Think about it, the further above you are, the simpler the picture you see. As you get closer to the ocean, you can see the waves, marine life, and debris. It is only through diving below the surface, that we can address the immediate misconception or gaps in learning, creating a tighter data cycle: “Assessment for learning is any assessment for which the first priority in its design and practice is to serve the purpose of promoting pupils’ learning.” (Black & Harris, 2004).

At Stewart Middle School, we have built a common unit planning template that includes multiple data points to guide teachers and expand their use of data on a daily instructional level. The unit planner is the snapshot into a teacher’s multiple week unit. Within each unit planner are a series of lesson templates that also provide teachers opportunities to collect data through formative and summative assessments. The intention is for teachers and students to progress through the lesson and unit towards the same end. With this data in the hands of teachers and students, adjustments can be made immediately, effectively changing the trajectory for a student.

**We share all data with all students; state, benchmark, grades, discipline, attendance and more.**

What compels the data cycle in the classroom to be relevant for students is our school wide effort to publicize data at every interval. At our first assembly in the fall we reveal the prior year’s data all school, by cohort, by content and produce a series of goals for specific outcomes. This illustration is repeated with parents at orientation and open house. We continue to follow up throughout the year at each quarter with grades, benchmark assessments, attendance, and school to school comparisons (a little friendly rivalry boosts pride). All of which is shared at assemblies, in newsletters, through announcements and displayed around campus digitally and on posters.

**In the Classroom**

Once teachers start collecting data in the classroom they can create comparisons to all the data stated above. This data is used to inform teachers of student understanding...
and simultaneously allows teachers to compare results to the pre-assessment, benchmark assessments or other data. Teams can analyze the results and collaborate to modify lesson plans to improve outcomes. Teachers can connect with special education or English Language teachers for additional strategies. Schools with instructional coaches can align best practices with building and district resources. Most importantly, this allows teachers to share the results with students fostering a growth mindset in the classroom. As Boaler cautions (2016), “to erase math failure we need students to have growth beliefs about themselves and accompany them with growth beliefs about the nature of mathematics and their role in relation to it.” (p. 34).

**Scenario 1:** A science teacher reviews last year’s 3-week unit planner and recognizes that students struggled with life systems and the second of four labs was not highly productive. Therefore, the teacher teams with the instructional coach, pulls in a different lab, and modifies how they will collect data throughout this year’s unit plan. All results are posted daily and graphed throughout the progression of the unit. Last year students grew an average of 27% and students see their individual results along with the whole class. As each year goes by this team is building a database for this unit. They not only understand how to plan more effectively, but how to improve growth for students, their content, and ultimately the school. Students understand their role in improving not only themselves but supporting the teacher and school’s goals.

**Ultimately what happens in each lesson dictates student growth and subsequently a school’s success.**

With all the talk of learning targets and success criteria, students must identify and understand the standards that are being taught. In John Hattie’s 2012 reference of a checklist for starting a lesson, “students know that the purpose of the class is to learn and make progress.” (p. 69). They must also recognize and determine their progression towards mastery. If we continue to simply roll out lessons and use grades and tests as a final measuring stick, students will not appreciate their ability to grow. The most important factor in education is for every child to make at least one year’s growth in all subjects. We must give all students the tools and skills to measure their own progress and persevere. When students can articulate their comprehension of standards and increments of growth, it is empowering.

Boaler explains, “The powerful thinkers are those who make connections, think logically, and use space, data, and numbers creatively.” (2016, p. 31). When students can assess their own growth using teacher developed data cycles, the learning becomes more relevant. The bulk of our work lies under sea level, with students and teachers working side by side. We must dive below the surface and engage students and teachers in a common purpose. There is a sense of community. There is a sense of pride. There is a sense of empowerment.

**References**

<table>
<thead>
<tr>
<th>Week #</th>
<th>Data Collected</th>
<th>Growth</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre-Assess</td>
<td>Pre-assessment with a mix of results averaged 42% passing</td>
<td></td>
</tr>
<tr>
<td>Week 1</td>
<td>Exit ticket after the first lab which addressed the largest misconception from the pre-test. Exit ticket scored but not graded and 50% of the students are proficient.</td>
<td>8% growth</td>
</tr>
<tr>
<td>Week 2</td>
<td>A formal formative assessment is inserted in the form of a public learning continuum for all the class to see progress. Science notebooks are collected to review notes and grade summaries written by students. The instructional coach teams with the teachers to build/reflect on rubric.</td>
<td>13% growth</td>
</tr>
<tr>
<td>Week 3</td>
<td>A mini summative is given and shows a 10% average gain.</td>
<td>10% growth</td>
</tr>
<tr>
<td>Post-Assess</td>
<td>Summative assessment scored and graded 77% passing</td>
<td>4% growth</td>
</tr>
</tbody>
</table>
Across the country, as the leaves start to turn color and the air turns crisp, the classroom protocols are in place and the seating assignments firmly assimilated, our attention usually turns from classroom management to formative assessment. Each fall, classroom teachers begin to review initial assessments with an eye to students’ instructional needs. Although it has been this way since we can remember, we think there is a more effective assessment system for schools. Take for example the story of one primary teacher. By October, she noticed the data from a single assessment indicated large gaps in a Core Five area of literacy development. Additional data gathered in small groups indicated no gaps in understanding. Upon closer examination, the grade-level teachers discovered that the students were answering questions based on the colors they liked best instead of the right answer! Multiple assessments helped the teacher in this scenario to question the data and dig for further answers. This teacher learned from her data because she was part of a team that regularly collected and analyzed data to improve student learning. As we will describe further, our suggestions for a robust, school-wide assessment system includes support and transparency within the staff, scheduled time to analyze data, and a school-wide assessment cycle.

Transparency and Support

As school leaders, we know that it takes weeks of assessment data to deliberately design instruction to meet students’ needs. Therefore, at Spokane International Academy, the entire assessment team begins to analyze available data long before August rolls into town. Starting in June, the teachers collaborate as they review student files from previous years, offer pre-assessments to new students, identify where more data is needed, and most critically, design instruction. This process must, and we stress must, be collaborative and transparent, both across grade levels and within them. In many cases, that means creating paradigm shifts around assessment within institutions. The authors of Shaping School Culture recommend that an effective school contains stakeholders that are transparent and support one another (Deal and Peterson, 2016). The wisdom gleaned from this book was instrumental in creating our school culture around data. Additionally, the work of Paul Bambrick-Sontoyo (2010) in Driven by Data provided practical, structural advice for creating a system. At our school, our teaching teams know what, when, and why they assess students the way they do.

Weekly Collaboration Using Data

Our school has a unique schedule that supports data-driven instruction. Every Friday afternoon, our staff meets from 1:30 - 4:00. During this time, staff collaborate and co-plan lessons, review formative assessment results and realign intervention groups. For example, our K-2 staff are doing a targeted intervention in reading fluency that was designed during this Friday afternoon block. Staff are using The Six-Minute Solution by Gail Adams and Sheron Brown. These resources support the development of fluency by having students track their progress weekly to demonstrate growth and reinforce skills related to developing strong fluency and strong readers. All students take a pre-assessment in order to identify the specific skills they need to develop. They are then grouped according to their greatest needs. These groups are led by general education teachers, instructional assistants and the special education teachers. Students read aloud as their partners track on their own page. This practice allows students to practice their oral fluency as their partners refine their listening skills. At the end of that time, students have a reading exit assessment with their group leader. After an intervention cycle ends, the team meets again during Friday collaboration to discuss the new assessment data and next steps. After their conversation, they will adjust the groups and began a new intervention cycle. This Friday schedule allows the staff regular time to reflect on student growth and target the next teaching steps to address student need.

This is a protected time in our schedule which allows the teachers to fully engage in conversations without interruption. Our school brings all stakeholders to the table during this time. Teachers and instructional assistants have the opportunity to collaborate in designing future assessments and parsing through the data collected that week.

Interim Cycles and Data Days

Our initial efforts in creating a K-8

by Stacy Hill and Travis Franklin

Dr. Stacy Hill currently serves as the Director of Evening Teacher Certification at Whitworth University. Her areas of expertise include high-poverty schools, child and adolescent development, social studies education, and university/school partnerships. Currently, she serves on Washington State Charter Commission and the Board of Directors at Spokane International Academy.
data system for our school revolved around having all teachers on the same six-week intervention cycle. That cycle coincided with the interim assessment schedules and "Data Days" on the yearly, academic calendar. Every six weeks our school has a "Data Day" where students are not in attendance, but teachers are. This day is used for professional development related to programs we use at our school, and in strengthening teaching methods. The remainder of the day is spent by teachers reviewing data in grade level teams and across grade levels. Upon reviewing the data, the teams translate data into a reader-friendly format to share with families. This ongoing communication of growth and performance helps to keep families informed throughout the year and allows teachers to have conversations about inhibited growth or impressive gains. Our school calendar looks like this:

<table>
<thead>
<tr>
<th>Interim Assessment Cycles</th>
<th>Data Days</th>
<th>Assessments</th>
</tr>
</thead>
<tbody>
<tr>
<td>June-August Pre-Assessment</td>
<td>One week in June One week in August</td>
<td>Comprehension Benchmark Assessment (grades 6-7) Comprehension Benchmark Assessment (grades K-2) Lexia Rapid Teacher-created Spatial-Temporal Math (ST) math benchmark Lexia Core Five Diagnostic (for new students)</td>
</tr>
<tr>
<td>Second Week of October</td>
<td>Friday of that Week</td>
<td>Teacher-created Spatial-Temporal Math (ST) math benchmark</td>
</tr>
<tr>
<td>Second Week of December</td>
<td>Friday of that Week</td>
<td>Comprehension Benchmark Assessment (grades K-2) Lexia Rapid Teacher-created Spatial-Temporal Math (ST) math benchmark</td>
</tr>
<tr>
<td>Second Week of February</td>
<td>No formal data meeting</td>
<td></td>
</tr>
<tr>
<td>Third week of March</td>
<td>Friday of that Week</td>
<td>Teacher-created math benchmark</td>
</tr>
<tr>
<td>Third and Fourth Week of May</td>
<td>No formal data meeting</td>
<td>Comprehension Benchmark Assessment (grades 6-7) Comprehension Benchmark Assessment (grades K-2) Lexia Rapid</td>
</tr>
<tr>
<td>First Week of June</td>
<td>Friday of that Week</td>
<td>Teacher-created Spatial-Temporal Math (ST) math benchmark</td>
</tr>
</tbody>
</table>

Data Storage and Use

Having data based upon common assessments and accessible to everyone who supports student learning during the school day is necessary. Our school uses benchmarked assessments that are shared with all students so that they can see where they are in relation to a typically progressing student. This year, we used a shared commercial software platform, so all assessment data could be accessible by teachers, instructional assistants and special education staff. We found this to be critical in developing a functional system. All stakeholders should have unencumbered access to data to review and use to plan for learning opportunities. In our situation, the school culture is one of openness and transparency. Since all have access to each other’s data, we can all use it to help students grow academically.

We use two online programs, ST Math and Lexia, which have their own embedded assessment programs that allow our staff to see students’ year-to-year progress. Lexia and ST Math’s platforms both yield useful data in making instructional decisions along with the teacher-created assessments. All data is stored on our shared platform.

Continued use of formative assessments has changed the way our teachers instruct. It’s important to have a shared platform to input data to look at trends, but more importantly to discover an outlier. On more than one occasion, data that has pointed one way has given teachers the reason to dig deeper. For anyone considering how to structure a tighter assessment system, consider these starting points:

1. Examine the culture around data in your school. Is it one that promotes transparency or one that invites blame? How can you become more supportive of one another in your approach to assessment results?
2. Re-evaluate the current school schedule. When can you create a regular block of time to collaborate to analyze assessment data? Like anything worth making time for, you have to schedule it.
3. Agree on a school-wide calendar for assessment cycles. Agree to abide by the time frame so grade level teams and cross-grade level teams can meet and compare data results.
4. Construct or purchase a school-wide data software solution with shared access. Create a culture of transparency where data are accessible by all the school’s stakeholders. Welcome collaboration and invite a supportive atmosphere to discuss student growth.

Any teacher will tell you that there’s always a story behind the data in assessments. With our Friday schedule, intervention cycles, and shared platform, our school is working its way toward a more robust and effective way to use data to allocate resources to improve teaching and learning.

References

Correlates to District's Performance on Standardized Mathematics Tests

by Martha Gady

Introduction

Pedagogical decisions are made in school districts on the basis of anecdotal data. Statements such as “Let’s use curriculum X for science because it worked well for school Y” or “Book series W is what we should adopt for math in 4-8 since District Z adopted it and look at their test scores.” Unfortunately, factors that could affect student learning other than curriculum are often not considered. The idea of demographic factors affecting mathematics performance has interested mathematics educators for over 50 years. Much of the research that has been performed considers how these factors affect individual student learning. Factors that have been studied include student demographic data such as gender, race, and socioeconomics, as well as teacher quality factors.

An early foray into this arena dates back to the 1960’s as researchers considered the differences in mathematics performance of female and male students. Elizabeth Fennema (1974) summarizes the results of a multitude of studies. Fennema found that although no significant differences exist in mathematics performance at the preschool and elementary school level. If differences are seen in middle and high school, males excelled when more high-level cognitive tasks are involved and females when lower-level cognitive tasks are assessed. At the middle school level boys outperformed girls in arithmetic reasoning, but girls outperformed boys in arithmetic fundamentals and computation. Results at the high school level are confounded by the fact that more males drop out of school, causing the male population to be more homogeneous. Fennema also found that high school females at all ability levels do not elect mathematics courses as often as males do. Even with the attention addressed to ameliorating these differences, researchers are still finding small gender difference in mathematics performance (Halpern, 1997; Zhixia, 2010).

In the 1970’s the study of individual differences in mathematics performance shifted to ethnic and racial differences. Differences were assessed by considering performance on the SAT by students of different racial backgrounds (Jones, Burton, Davenport, 1984; Steen 1987; Jaschik, 2012). Steen (1987) established that the proportion of Asian-Americans who achieved high mathematics scores on the SAT (above 650) was twice the national average, while the proportion of Hispanic and black students was one-fourth the national average. The study of racial differences continues. Jaschik (2012), when considering SAT scores for 2006-2012, found significant differences in the average math SAT score by race. Black students averaged the lowest of all racial groups at 428 and Asian-American the highest at 595. Jaschik suggested that these differences could be attributed to course taking. Approximately twice the proportion of Asian-Americans than black students took the SAT after having taken Advanced Placement and/or honors mathematics courses. Researchers consistently found that Asian-American students outperformed Caucasian students and Native-American, black, and Hispanic students underperformed Caucasian students.

In the 1980’s, the study of the effect of poverty on mathematics performance began. Whether considering performance in school mathematics or testing achievement, an increase in poverty results in a decrease in the mathematics performance of students (Myers, 1985; Gemellaro, 2013; Isenberg et al., 2013; Sass et al., 2013). Both Myers (1985) and Gemellaro (2013) found negative correlation between measures of poverty in a school and the mathematics achievement of the students.

In an attempt to find means of alleviating this effect, studies were conducted to evaluate the effect of increased spending in schools. In a meta-study, Hanushek (1986) concluded that there was no impact on student performance related to school resources. Kreuger and Whitmore (2001) did find that spending used to decrease class size in K-3 resulted in improved academic performance for K-8 and beyond. Although poverty impacts performance, the means to minimize its affect are still being studied.

The last factor addressed in this research is the effect of teacher quality variables on students’ performance. Darling-Hammond (2000) found that while student demographic characteristics are strongly related to student achievement, they are less influential than the quality of the teaching force. Phillips (2010) found there was little support for No Child Left Behind’s indicators of teacher quality as related to achievement of
students. Education at any level was not significant. The only significant variable was the certification of the teacher. These mixed results indicate that more research is needed on the teacher’s effect on student performance.

This study will consider the effect of student demographic variables, school spending variables and teacher quality variables on the mathematics performance of an entire district, not on individual student performance.

Methodology
The passage rate on the first trial for End-Of-Course (EOC) for Algebra was obtained from the Office of the Superintendent of Public Instruction (OSPI) for each district in the state of Washington that reported the results for the test administered in spring 2013. The reason for choosing this examination is that success in algebra relies on an understanding of previous mathematics concepts from elementary and middle school. It is a culminating examination for previous mathematics learning more than a geometry examination would be. Demographic data was also collected for each district from OSPI. This included percentages of each of the following categories in the district:

- male/female students,
- students in major racial groups,
- students on free-and-reduced lunch program,
- students in foster care, and
- students with special needs (language, special education and disabilities).

To assess teacher quality, the average years of experience and the percent of teachers with master’s degrees were determined in every district. The size of the district and the average class size were also obtained. To determine the effect of each of these variables on the district’s passage rate on the Algebra EOC for students’ first attempt, a multiple regression was performed.

After determining the significant variables, a study in contrasts was performed between districts that were predicted to have passage rates in the lowest quartile and their actual rates were higher, with districts that did not predict in the lowest quartile and their actual results were in the lowest quartile.

The previously used variables were considered to determine differences between these two groups. To begin the process of determining the influence of the district’s culture, encouragement of post K-12 education such as percent of students taking college entrance examinations, or getting college credit in high school were obtained from OSPI for analysis.

Results
Once the data was obtained, a multiple regression was performed to determine the significant variables.

<table>
<thead>
<tr>
<th>Variable</th>
<th>t</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Enrollment</td>
<td>-1.004</td>
<td>0.317</td>
</tr>
<tr>
<td>Percent American Indian or Alaskan Native</td>
<td>-3.674</td>
<td>0**</td>
</tr>
<tr>
<td>Percent Asian</td>
<td>1.556</td>
<td>0.121</td>
</tr>
<tr>
<td>Percent Pacific Islander</td>
<td>-0.102</td>
<td>0.919</td>
</tr>
<tr>
<td>Percent Black</td>
<td>-0.725</td>
<td>0.469</td>
</tr>
<tr>
<td>Percent Hispanic</td>
<td>-0.099</td>
<td>0.921</td>
</tr>
<tr>
<td>Percent two or more races</td>
<td>0.770</td>
<td>0.442</td>
</tr>
<tr>
<td>Percent male</td>
<td>1.229</td>
<td>0.22</td>
</tr>
<tr>
<td>Percent migrant</td>
<td>0.335</td>
<td>0.738</td>
</tr>
<tr>
<td>Percent transitional bilingual</td>
<td>0.917</td>
<td>0.360</td>
</tr>
<tr>
<td>Percent special education</td>
<td>-0.320</td>
<td>0.749</td>
</tr>
<tr>
<td>Percent free or reduced price meals</td>
<td>-6.365</td>
<td>0**</td>
</tr>
<tr>
<td>Percent Section 504</td>
<td>-0.641</td>
<td>0.522</td>
</tr>
<tr>
<td>Percent in foster care</td>
<td>-0.278</td>
<td>0.781</td>
</tr>
<tr>
<td>Students per classroom teacher</td>
<td>-2.700</td>
<td>0.007**</td>
</tr>
<tr>
<td>Average years of teacher’s educational experience</td>
<td>1.011</td>
<td>0.313</td>
</tr>
<tr>
<td>Percent of teachers with masters degrees</td>
<td>2.583</td>
<td>0.01**</td>
</tr>
</tbody>
</table>

** significant with p<0.01

The only variables that had a significant effect on a district’s EOC passage rate were:

- percent of American Indian or Alaskan Native (t=-3.674, p<0.001),
- percent of students on free or reduced priced meals (t=-6.365, t<0.001),
- number of students per classroom teacher (t=-2.7, p=0.007)
- percent of teachers with master’s degrees (t=2.583, p=0.01).

These results replicated what was expected. As the percent of American Indian or Alaskan native students, percent
of students on free-and-reduced meal programs and the number of students per classroom rose, the passage rate decreased. As the percent of teachers with master’s degrees rose, the passage rate also rose. The regression equation explained a significant amount (41%) of the variation in the passage rates for districts ($r^2=0.41$, $p<0.001$).

These results raised the question “What is different about districts that outperform what would be predicted?” Of specific interest were districts that had low passage rates on the algebra EOC exam. To consider this question, low performing districts were contrasted (those outperforming their low prediction and those that underperformed their higher prediction), the initial variables were again considered to determine where differences might exist. Districts that are predicted low and have higher actual passage rates have more:

- American Indian/Native Alaskan ($t=2.24$, $p=0.049$)
- Free and reduced lunch ($y=-6.21$, $p<0.001$)
- Hispanic ($t=-3.38$, $p=0.007$)
- Migrant ($-2.37$, $p=0.039$)
- Transitional Bilingual ($t=-3.17$, $p=0.01$)
- Special education ($t=-3.02$, $p=0.013$)

Districts that predict higher and have lower actual passage rates have more:

- White ($t=4.58$, $p=0.001$)
- Students per class ($t=2.45$, $p=0.034$)
- Teachers with masters ($t=5.05$, $p<0.001$).

These results were intriguing since some factors appeared to contradict previous research, especially with respect to racial factors. The districts that underperformed expectations were more white and those that outperformed expectations were more Hispanic and American Indian/Native Alaskan.

Also of interest was the culture of the district in encouraging students to pursue post-secondary education. To assess this, differences were tested in the proportion of students in the following categories:

- Taking the PSAT as sophomores
- Taking the PSAT as juniors
- Taking the SAT

• Taking Advanced placement courses
• Taking International Baccalaureate classes
• Taking College in the High School courses
• Involvement in Running Start to attend college classes in high school
• Involvement in technical preparation course work.

The two groups being considered did not show any significant difference in the proportion participating in any of these programs.

Discussion
These results replicated much of what other research has shown to be true for individual students: increased poverty decreased the passage rate; increased class size decreased the passage rate; and increased proportion of Native American students decreased passage rates. The effects of poverty and class size on the district’s passage rate were as expected given the previous research. The racial differences provided interesting results. It was seen that increases in most racial groups did not significantly affect the proportion of students passing the Algebra EOC on the first trial. More Asian-Americans in a district did not increase the passage rate significantly and more black and Hispanic students did not decrease the passage rate significantly. This could be due to the fact that many of these groups are not in a district without the presence of other racial groups. It could be that the greater number of Asian-Americans in a district is accompanied by an increased number of black or Hispanic students. These two groups may negate the effect of the other, thus showing no affect for their racial group. The only two racial groups that exist in school districts without a significant quantity of others are the Hispanic students in central and eastern Washington rural schools and Native American students in schools on or near reservations. Both of these groups exist in districts without the presence of many Asian-American students, thus the effect of their racial group is not diluted with that of other races.

The correlation of the passage rate for a district with the percent of teachers with masters degrees is an interesting connection to consider. In this case, hypothesizing that a master’s degree causes an increase in math performance could be dangerous. Two questions arise:

- Does the fact that a district has more teachers with masters degrees mean that there is better education and thus the passage rate is higher?
- Are teachers with masters degrees attracted to districts that have students who have higher achievement?

Assuming that the master’s degree improves student performance could cause teachers to be encouraged to get their degrees and yet the performance remains stagnant since the reason for the relationship is that teachers with masters degrees are attracted to higher performing districts.

The most interesting results of this study come from the differences between the two diverging groups of districts (predict high but perform low with predict low and perform higher). This is especially true of the racial component. Schools that predicted low but performed higher had more Hispanic and Native American students, while schools that predicted high but performed low recorded a higher percent of Caucasian students. The fact that schools that underperformed their predicted passage rate recorded a greater proportion of Caucasian students and those that outperformed had a higher enrollment of Hispanic and Native American students elicits the question “Why?” There are a variety of possible causes that are yet to be identified. Are there more programs in the Hispanic and Native American districts due to availability of funding? Are there cultural effects that come into play? Is the effect of the family significant? Is a desire to improve a child’s standard of living significant in migrant families? Are the districts that are a larger percentage Caucasian in areas in which employment opportunities have been good in the past without any significant amount of formal education? Future research is necessary to determine the effect of components such as parent/school relationships, culture, and the interaction of these two on the mathematics performance as measured by standardized testing.
References


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Thank you Kaiser Permanente for Partnering with WSASCD
Using Implementation Data as a Lens

by Hannah Gbenro

“This seems like a great initiative, but how do we know if it’s actually working?”

“We’re always looking at the same data. How do we know which initiative is actually making the difference?”

These are common questions at schools and districts. Too often, educational leaders focus on Outcomes Data without using evidence-based protocols to collect Implementation Data as a lens through which to review Outcomes Data.

Outcomes Data Alone

When educational leaders only review Outcomes Data, they look at the same data sets time and again. Often, they note anecdotal evidence about what they think might be working.

Implementation Data as a Lens

Implementation data allows educational leaders to analyze the impact of innovative implementations on a completely new level. Collecting and reviewing data about the implementation, itself allows educational leaders to view Outcomes Data through a new lens.

Table A provides a scenario showing how one school examined Outcomes Data alone and came to one conclusion; versus leveraging Implementation Data as a lens through which to analyze the Outcomes Data, which led to a different outcome.

When implementing an innovation at the building or district level, it is important to collect Implementation Data as a lens through which outcomes, or results, data can be viewed. This provides stakeholders with an accurate understanding of the extent to which innovations are being implemented, and which programs or initiatives are most directly affecting the Outcomes Data.

Table B provides tangible examples of Implementation and Outcomes Data for multiple innovations.

With so many innovations being implemented in schools and districts, the role of Implementation Data as a lens through which to examine Outcomes Data is increasingly important to maintain integrity within data-informed and results-driven educational systems.

Hannah Gbenro, Ed.D. holds multiple degrees and certifications from the fields of education and business. Beginning in July, 2017 Dr. Gbenro will serve as the Director of Academic Alignment and Innovation in Tacoma Public Schools, where she currently serves as an administrator in Instructional Technology. Prior to serving in her current role, Dr. Gbenro served at each level – elementary, middle, high, district – as a teacher and/or administrator. In 2016, Dr. Gbenro received the Washington State Supervisor of the Year Award from WLMA, and has been previously recognized at a regional and national level for leadership and effectively facilitating the implementation of large-scale innovations within Pk-12 settings. Dr. Gbenro was recognized as an ASCD Emerging Leader in 2011.

Twitter Handle: @DrGbenro
Scenario: Cedarwood Elementary School is implementing one-to-one technology for the first time this year. The district asked Cedarwood to share a report about whether or not the one-to-one technology is making a difference for student achievement.

### Outcomes Data Alone

Cedarwood staff analyze the Outcomes Data they have and prepare a report showing:

- Increase in student achievement on district assessments
- Increase in student achievement on state assessments
- Decrease in student behavior incidents
- Increase in student and parent perceptions on Climate Survey

Cedarwood Elementary School share their findings from the data with the district. Cedarwood reports that, based on this data, the one-to-one technology is making a difference for student achievement and it is recommended to expand one-to-one technology to all elementary schools in the district.

### Implementation as Data Lens

Cedarwood staff first analyze the Implementation Data they’ve collected and identify:

- On average, 60% of staff participated in professional learning experiences about how to integrate Blended Learning within their classrooms (As measured by staff participation in professional learning opportunities)
- The Instructional Coach has been accessed in the following ways, on average: 60% related to classroom management and implementing the updated behavior expectations, 20% instructional support not involving technology, 10% instructional support involving technology, and 10% trouble-shooting technology (As measured by the Social Network Analysis)
- 10% of teachers are at a “Personal, Level 2” Stage of Concern, 85% of teachers are at a “Management, Level 3” Stage of Concern, 5% of teachers are at a “Consequence, Level 4” Stage of Concern (As measured by the Stages of Concern Questionnaire)

Staff identify the implementation of one-to-one technology is still in its beginning stages at Cedarwood Elementary School. When they examine their Outcomes Data, staff identify they are still positively impacting student achievement, attendance, and behavior.

- Increase in student achievement on district assessments
- Increase in student achievement on state assessments
- Decrease in student behavior incidents
- Increase in student and parent perceptions on Climate Survey

Staff begin examining the Implementation Data for other innovations on campus, including their behavior intervention system that started two years ago. Staff determine the positive intervention system is more fully implemented and more likely the driving force behind the positive Outcomes Data they are seeing.

Cedarwood Elementary School shares with the district what they have learned about both the one-to-one technology innovation and the positive behavior innovation. Additional professional learning is provided to Cedarwood staff around Blended Learning and leveraging one-to-one technology within their classrooms and the implementation of this innovation continues to be monitored.

### Table A.

**Examples of data that can be used collected and analyzed when implementing innovations**

<table>
<thead>
<tr>
<th>Innovation</th>
<th>Implementation Data</th>
<th>Outcomes Data</th>
</tr>
</thead>
</table>
| Behavior Intervention System| • PBIS School-wide Evaluation Tool to identify system supports and “next steps” on campus (annually)  
  • PBIS Tiered Fidelity Inventory (2 – 3 times a year)  
  • Principal, Assistant Principal, Dean, Counselor, Teacher, and Support Staff participation in professional learning experiences  
  • Exit/Debrief slips after each professional learning opportunity to monitor participant learning of content and participant engagement through processes used (ongoing) | Student Suspensions and Expulsions (monthly)  
Student Behavior Incidents (monthly)  
Student Attendance (monthly)  
- Student participation on state and district assessments (1 – 3 times a year)  
- Student results on state and district assessments (1 – 3 times a year)  
- Climate Survey (annually) |
### Examples of data that can be used collected and analyzed when implementing innovations

<table>
<thead>
<tr>
<th>Innovation</th>
<th>Implementation Data</th>
<th>Outcomes Data</th>
</tr>
</thead>
<tbody>
<tr>
<td>Updated Role for Teacher Librarians</td>
<td>• AASL Professional Standards Program Rubric based on the national program standards for school libraries (2 times a year)</td>
<td>• AASL Professional Standards Program Rubric based on the national program standards for school libraries (2 times a year)</td>
</tr>
<tr>
<td></td>
<td>• Book “collection analysis” that breaks down the quality of each book in the collection (annually)</td>
<td>• Book “collection analysis” that breaks down the quality of each book in the collection (annually)</td>
</tr>
<tr>
<td></td>
<td>• Social Network Analysis to show who on campus is accessing the Teacher Librarian, and for what purpose (2 times a year)</td>
<td>• Social Network Analysis to show who on campus is accessing the Teacher Librarian, and for what purpose (2 times a year)</td>
</tr>
<tr>
<td></td>
<td>• Teacher Librarian participation in professional learning experiences (monthly)</td>
<td>• Teacher Librarian participation in professional learning experiences (monthly)</td>
</tr>
<tr>
<td></td>
<td>• Exit/Debrief slips after each professional learning opportunity to monitor participant learning of content and participant engagement through processes used (ongoing)</td>
<td>• Exit/Debrief slips after each professional learning opportunity to monitor participant learning of content and participant engagement through processes used (ongoing)</td>
</tr>
<tr>
<td>Curriculum</td>
<td>District-Developed continuum that identifies expectations for what the curriculum should look like in practice, similar to an Implementation Configuration Map (annually)</td>
<td>District-Developed Skills Inventory to (a) identify overall growth from professional learning provided and (b) inform the professional learning plan for the following year (annually)</td>
</tr>
<tr>
<td></td>
<td>• Stages of Concern Questionnaire and related tools from CBAM to identify level of use by teachers and inform interventions to further implementation (annually)</td>
<td>• Student results on related strands from state and district assessments (1 – 3 times a year)</td>
</tr>
<tr>
<td></td>
<td>• Social Network Analysis to visualize the value of personnel supporting the implementation (2 times a year)</td>
<td>• Student attendance (monthly)</td>
</tr>
<tr>
<td></td>
<td>• Exit/Debrief slips after each professional learning opportunity to monitor participant learning of content and participant engagement through processes used (ongoing)</td>
<td>• Student dropout and graduation rates (annually)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Student grades (2 times a year)</td>
</tr>
<tr>
<td>One-to-one Technology</td>
<td>• Future Ready Assessment/Inventory for systems to support Curriculum, Instruction, &amp; Assessment and other areas of the Future Ready Framework to identify readiness and supports at a building or district level (annually)</td>
<td>• Student results on related strands from state and district assessments (1 – 3 times a year)</td>
</tr>
<tr>
<td></td>
<td>• Stages of Concern Questionnaire and related tools from CBAM to identify level of use by teachers and inform interventions to further implementation (annually)</td>
<td>• Student attendance (monthly)</td>
</tr>
<tr>
<td></td>
<td>• District-Developed continuum that identifies expectations for what the curriculum should look like in practice, similar to an Implementation Configuration Map (annually)</td>
<td>• Student dropout and graduation rates (annually)</td>
</tr>
<tr>
<td></td>
<td>• Social Network Analysis to visualize the value of support personnel (2 times a year)</td>
<td>• Student grades (2 times a year)</td>
</tr>
<tr>
<td></td>
<td>• Principal, Assistant Principal, Instructional Coach, Teacher Librarian, and Teacher participation in professional learning experiences (monthly)</td>
<td>• Climate Survey (annually)</td>
</tr>
<tr>
<td></td>
<td>• Exit/Debrief slips after each professional learning opportunity to monitor participant learning of content and participant engagement through processes used (ongoing)</td>
<td></td>
</tr>
</tbody>
</table>
A significant body of evidence has existed for some time around the practices of screening, progress monitoring, and multi-level prevention systems. If your interest is in learning more about these practices, we recommend visiting the Center on Response to Intervention.

However, achievement data is only one source of information that can be used to improve student outcomes. Rather than look narrowly only at academic outcomes, data can be used to create a more holistic picture of what schools can be. It is this more comprehensive view of data-based decision making that this article will focus on. By examining the literature around school reform and looking at schools such as those in the Bremerton area that have implemented some of what the research recommends, the authors of this article have developed a series of recommended steps that we believe have the potential to lead to comprehensive change for Washington’s children.

We are going to explore the question of what is truly possible in schools when school leaders are encouraged to think outside of data that is typically considered in our schools and systems. Nearly all school systems focus on improving instruction in one way or another. Some are even relatively sophisticated in how they use achievement data to drive the initiatives designed to improve both teaching and learning. However, few school systems really grapple at the input level, instead focusing on interventions that realistically make little difference in closing achievement gaps.

What if instead of asking questions focusing solely on increased achievement on state mandated tests, we considered other essential questions that might propel and inform actions? We believe the first steps of this transformative journey include wrestling with bold questions anchored in emerging evidence around best practices that are necessary to change the trajectory of a human life for the better. We would submit the following for your consideration:

- **Readiness:** What if every elementary school, in partnership with the community, began to address school readiness not at Kindergarten but at birth?
- **Engagement:** How can we be of service to our families who need us most?
- **Extensions:** What would it really look like to extend the school day and school year by providing meaningful learning opportunities to ensure all children access quality experiences that generally only are available for middle and upper class children?

How might we organize an “extended year” opportunity in real time—in other words, how can we reorganize time to leverage “right now” experiences to excel learning?

- **Recruitment:** What would happen if we identified promising first generation to college students while they were in high school and created a seamless path to teacher certification and employment?

### Partnering to Focus on School Readiness

Rather than focusing on narrowing achievement gaps in K-12, smart systems are now looking at what can be done to ensure achievement gaps do not exist from birth through age nine. Why is this important? Robert Siegler of Carnegie-Mellon University put it in simple terms: “Those who start ahead stay ahead. Those who start behind tend to stay behind” (Vandell, 2010).

In the first thirty-six to sixty months of life, the human brain undergoes significant development that sets a path for early learning readiness. If the brain is not sufficiently stimulated in those early months the consequences can be lifelong and this is something most classroom teachers are not trained to understand or to develop an effective response.

However, research suggests that we can do much in our communities to ensure each child comes to school ready. Resources that provide a common language include the landmark documentary, *The Raising of America* as well as the wonderful book *Making a Difference* based upon the birth to nine work in the community of Bremerton, Washington. Such literature demonstrates pathways through which a neighborhood community can invest in activities designed to ensure each child starts capable.

Universal school readiness could mean a reduction in teachers struggling with maladaptive behaviors or spending large amounts of time remediating academic deficits. Instead, we could encourage and embolden our teachers and principals to raise academic rigor and produce highly capable contributing citizens.

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**Data that Shakes Up the Status Quo**

by Erich Bolz and Robert Smart

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Erich Bolz currently serves as Assistant Superintendent of Instructional Services at Pasco School District in southeastern Washington. He has served as a remedial reading teacher, pre-K-12 principal, and as a central office administrator at the small district, large district and Educational Service District (ESD) levels. Erich also works as an adjunct professor, process facilitator, strategic planner, a systems consultant and is a published author and keynote speaker.

Robert (Bob) Smart, Ph.D. is the enthusiastic principal of an elementary school in the Kennewick School District. Dr. Smart has considerable experience in K-12 organizations having served as a science teacher, principal, and assistant superintendent. In addition, Bob has worked in higher education as an assistant professor at Boise State, faculty in residence in the Honor’s College, and Dean at Heritage University.
What are three questions to begin to frame discussion about comprehensive data-based reform?

1. Challenge our thinking about how we are organized. How do we align our practice of recruiting, retaining, training, and supporting our teachers and para-educators? What career arc can we establish at on-boarding to think more long term? The opportunity costs associated with early career attrition, moving from school to school, or the lack of insightful professional development is too much for it to be centered at the building level. Consider the schools doing amazing work and investigate how to scale this work across the system?

2. Set up a conversation with your colleagues. Ask questions about system organization. What might we do to facilitate a teacher/principal directed system of support?

3. Look at how we allocate resources to do this work. Do our resources align with our proffered hopes of outcome goals? This is a powerful question. Often we espouse goals but do not provide necessary resources to achieve the outcomes.

Once these questions are answered, a plan for improvement can be designed that is comprehensive in nature and considers the broader context in which our children live and learn.

Extending the School Day

The next key aspect of a comprehensive support model is creating greater access to extended day and year-round learning opportunities. This is very much in agreement with Response to Intervention (RtI) practices that work to prevent failure in school before it can happen. Extended learning opportunities, even when available, are not always taken advantage of by those families who need them most. To make this step effective requires a coordinated response with all of the stakeholders.

We know that children from wealth learn at the same rate as their less affluent peers. We also know the experiences enjoyed by more affluent children before school entry and during the summer months tend to be greater and more varied than what poor children typically experience. These experiences, in turn, provide the background knowledge that allows some students to more readily acquire new information and skills than others. All children benefit from enrichment experiences but not all children have equal access.

How are we creating extra time and opportunities for our kids who need extra supports? While a child identified as low achieving might spend a few weeks in the summer laboring through drill and practice, their more affluent peers are accessing the community, and the world at large through family travel, camp attendance and athletic and arts enrichment. Leveling the experiential playing field for all children during the time children are not in school holds great promise in ensuring access to high levels of learning for all children. This could mean providing summer camps that are focused on art, music, or science. It could mean engaging children in community service work or having summer field excursions led by teachers and trained community members. There are many ways to provide enrichment experiences for children but the schools can be a coordinating center to ensure that those most in need benefit from these efforts.

Recruiting, Retaining, and Supporting Professionals

It is a myth that student achievement is all about instruction. If it weren’t a myth, upper class kids would lag in achievement status with a bad teacher and they by and large do not. The advantaged have work-arounds (Putnam, 2015). Think about your own family situation. Do you leave content mastery to chance, or do you engage a family member, friend, school program or tutoring opportunity to ensure your child is not left behind? Teacher quality matters but it is only one part of the equation.

We can grow our own teachers and principals- that would make a difference. First generation to college students go into STEM related fields in greater proportion than their more advantaged peers and teaching is not seen as an equally attractive option. School systems can and should get into the talent development game as early as middle school.

By identifying talented students, removing barriers to access higher education, employing these students at high school graduation in school support positions and providing a student teaching opportunity in their home town we could
accomplish much to build a teacher pool that understands the local community and is trained to make a positive contribution to student learning.

Imagine invested young teachers from the local neighborhood who mirror the demographics of the community where they were in raised… Think about hiring as a multi-year talent development process with the children in our own system becoming contributing educators. Such a system inoculates schools against teacher shortages and provides a talent pool that is ideally suited to our schools.

What are four steps to take today?
1. Understand deeply that our core business is teaching and learning. Anything that interferes with that enterprise must be attended to in a meaningful way. For example, students who are struggling with poverty must have supports to achieve access to the promise of a quality education.
2. Identify and engage stakeholders in this critical work. Make the phone calls, invite the parents and community members to conversations, and have the crucial conversations with the policy makers.
3. Prepare the workforce needed in the 21st century by providing pathways to college that includes K-12 mentoring, scholarships and other financial resources, job training while studying and guarantees of employment post-graduation.
4. Commit to starting local. It really is that simple. We do have all the time there is to affect change. Perhaps a starting place might be organizing a book study or a summer school meeting.

Comprehensive reform doesn’t happen overnight. Work with your community and colleagues to set one goal for change and see it through to complete implementation and then select another goal. Trying to do too much, too fast will lead to frustration and increased the likelihood nothing will change. Instead, consider one thing that, if implemented, would help families send their children to school in the fall more ready for the hard work of learning and growing. Make that one thing happen and see how that sets a momentum for change.

How would we measure the impact of this work?
Let’s start with school readiness. Washington State has a wonderful assessment in place in WaKids. If we take the appropriate bold actions to ensure each child in our community has access to high quality early care and education opportunities before Kindergarten entry, it should naturally follow our WaKids data would improve. To avoid the issue of fade-out, the phenomena kids experience when quality early care and education opportunities are not followed by high quality early elementary school, third grade reading assessment data would also be a key benchmark.

If done well community engagement and family stabilization initiatives can also be measured a number of ways. Schools could provide perception surveys designed to assess whether the local school community believes the school is of service of children and the greater community. Achievement data could be tracked to provide correlational information to validate quality engagement efforts.

Similarly, extended learning opportunities could be measured in much the same way. Critics of school-collected achievement data point out that early fall data is not always predictive, and can, in fact codify summer learning loss. Ensuring quality extension activities during the school year and summer that mirror what some middle and upper class families provide for their children should stop traditional summer regression and could easily be reflected in improved fall achievement data.

Growing our own teachers could be measured by tracking a closer demographic match between student and teacher populations, as well as tracking the percentage of teachers in a system with proper certification pre- and post-initiative. It would be an interesting study to quantify what might happen in a low-income neighborhood when graduates who have been mentored and supported through college to career settle in the neighborhood, both in terms of economic impact and the strengthening of the local network of natural supports.

Finally, we are in no way disparaging the reform-based practices including Response to Intervention and Professional Learning Communities so many of our schools are skillfully implementing. We fervently believe in the synergistic agency of skilled teachers and a skilled principal implementing the best of practice in a singular educational setting. We suggest using our systems recommendations to focus on a more comprehensive reform effort.

We reviewed practices that are not necessarily at the forefront of our profession yet we believe should be capturing more of our energy. If schools become the focal point of their neighborhood, and are seen as a beacon for everyone’s success, our kids have a chance to do better than ever!

References
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All types of learners participate in state testing. State testing is used to determine if a student is below grade level, at grade level, or above grade level. Results become solidified if students are classified into different categories based on their levels of performance. Is it worth it for these disenfranchised populations to take more tests?

Disenfranchised groups is a term used to refer to those who are missing classroom opportunities, due to testing requirements. Groups impacted from testing the most, include special education students with identified learning disabilities. These are students at the bottom thirteenth percentile within the school setting. State testing also affects students on 504’s. These are students with suspected disabilities or impairments-mental or physical, such as ADHD, or those hurt by a life altering situation, such as an accident that may have resulted in a Traumatic Brain Injury. Another subgroup are ELL (English Language Learners.) These groups are all tested more than any other population of students, including gifted or talented students.

A decade ago, we had kids test, test, and test, so many new tests, weekly probes, and so much weekly practice. Prior to the adoption of Common Core State Standards (CCSS), teachers spent nights agonizing over Standard Deviation scores on specific district level tests. The teachers worked extremely hard at differentiating levels for students at their levels, scaffolding and color-coded lessons and PPT’s, so that all learners, including ELL students, had access to the curriculum. They were just merely doing, drill and kill on test prep each week. They looked at each sub area and measured the Standard Deviations. The larger the number, the bigger the difference in range. They thought to themselves, “What did we miss?” The old model of excess testing did not allow time to truly apply and master new concepts. They did not specifically master each standard.

Today literature teachers might focus on one novel for months and expose students to each of the outlined concepts through extension activities. This method of teaching brings new life into classic texts. It allows students to obtain different perspectives. With the adaptation of speaking and listening standards, Socratic Seminars and Philosophical Chairs, students are now able to communicate more and learn different perspectives, as opposed to learning the one, and only one, interpretation the teacher has shared or encountered throughout the book. Math courses are also diving deeper into more content and activities. Now, it is not simply about remembering a formula and solving a computation problem. It is about how learners can be given a formula, but need to build a room with their final calculated dimensions on the computer-generated tests. The next generation of learners are tech savvy, teachers are not their source of information, and they have access to anything by Googling it. We, as teachers, need to push them to apply themselves in a new way, through discovery.

Students who are over tested, do not have the same access to these learning opportunities, they are missing days of instruction due to testing. They end up missing the most seat time of any population. One of the reasons why they are required to participate in more testing is because they are not at grade level. This results in them taking the mandated tests over to verify that they are not at grade level.

Grade level classrooms are filled with learners whose abilities may range from several grade levels. It should be expected that there are kids at the top, a few who failed, and many right in the middle. When it comes to our disenfranchised populations, we cannot allow for any of them to fall behind any further, they need to be exposed to deeper thinking and ways to apply it. The goal is to narrow the achievement gap, year by year to prepare our students to compete for jobs against the general population. Students cannot get there if they are unsure where to start. CCSS has helped with this over the past few years.

With the adoption of Common Core State Standards (CCSS), a new standardized test was created that objectively measures whether grade based peers are performing at standard or below. Smarter Balance Assessment Consortium (SBAC) is aligned to what is taking place in the content areas with CCSS. Assessments are taken by students in grades three through eight and at the high school level. Eleventh graders take Math and English Language Arts assessments. Each of the tests have two portions, the Performance Task (PT) and Computer-Adaptive Test (CAT). Both are taken over a period of several days. The system allows many accommodations to be implemented and are already embedded without
special requests. Since they are computer tests, the burden is taken off the system and the teachers. New testing practices through SBAC have allowed students to access more seat time, especially the disenfranchised groups. They will always have the burden of testing more than other groups, to determine appropriate levels, but with the implementation of SBAC testing, it is a start in the right direction to eliminate some of the other probes and tests districts required. The caveat is that as eleventh graders, they are test given the tests twice, if not at grade level to these populations, and again twice in twelfth, to prove they are indeed low performing and not meeting standard. The testing is also done over several days for each PT and CT part. This is not ideal, but it is having the most impact at the high school secondary level versus elementary or middle school level where skills are brand new to basic skills.

Most schools have moved towards full inclusion models with SIOP (Sheltered Instruction Operational Protocol). This includes having trained teachers who are skilled at working with ELL populations. Language objectives and built into the daily academic objectives. Co-teaching models being adopted and access to new and clever tech tools to allow students easier access to content than ever before. The goal within each class is MASTERY. When students attempt state tests, they are working towards that Level 3 victory that shows mastery of the material. Sometimes for these groups, that Level 2 Basic is even a victory.

Other tests seem to be phasing out as most states move to this standardized test. Some groups, such as our bottom learners, are still required to take multiple tests to meet graduation requirements if they fall below standard. ELL students are still required to take ELP (English Language Proficiency) tests. Nevertheless, if we look at the purposes, it is to determine if we are doing our jobs to move these students in the right direction. Frustrating as it maybe, they benefit us as teachers and determine if students are in fact still in the disenfranchised groupings. With CCSS, we are moving in the right direction, but we still have work to do, to eliminate over testing.

When results are public, it is a clear picture of that particular neighborhood and community. Parents make better-informed decisions as to which schools to enroll their children in that best suit their child’s needs. Schools can use these tools to aid in funding for specialized interventions such as academic literature support classes or additional math labs. With increased transparency between the community and parents to help aid in discussions can be, jump-started regarding community needs and support for different populations and different learners. Public testing results can also provide a guide for focus at teacher PLC (Professional Learning Committee) meetings to ensure teachers are using best practices and see where their personal instruction maybe falling short. In summary, testing is worth it, but it needs to continue to evolve to allow all groups the opportunity to continue to thrive, in a classroom seat, not a testing environment.
In November, I received a warm welcome from the Washington State ASCD Board of Directors as the new Executive Coordinator. I come to the organization with a background in Sociology and a Master’s in Elementary Teaching, with an endorsement in Special Education from the University of Washington. Before taking a leave from the classroom to stay home with my two daughters, I taught first grade in the Renton School District. I am thrilled to have the opportunity to join WSASCD and share in the important work focused on The Whole Child. From the moment I accepted this new role, I was met with the amazing leadership and guidance of Kathy Clayton, the departing Executive Director. Kathy was a public school teacher and administrator for more than 30 years. For the last 10 years Kathy, has dedicated her organizational skills along with her leadership to the board. Through her leadership, the organization thrived. When faced with financial challenge, it was Kathy’s careful undertaking that sustained the organization. WSASCD consists of teachers, educational administrators, university faculty, and leaders who serve as board members because they believe in collaborating to provide Washington State educators quality professional learning opportunities and publications to improve teaching and learning for all students. As Kathy leaves this role with WSASCD, she will continue to serve on the Board of Directors for Communities in Schools of Benton-Franklin. Kathy will be missed by her WSASCD family and I am deeply thankful for the support and mentorship she has provided me these past months.

When I came on board, it was a pleasure to see that our editors and board of directors selected data-driven decision making as the theme for this issue. The focus on how schools are developing and implementing data-driven decision making systems to enhance overall school effectiveness and to support achievement for all learners is so important. When I was teaching first grade our school focused on collecting data, reflecting on the data and using it to inform decisions in our instruction as we monitored reading fluency school wide. To gather this information, each week I would meet with students individually to listen to them read and ask them a few comprehension questions on their given passage and record words read per minute. My reason for collecting data was to contribute to our school wide database for reading fluency. I also used the data in my classroom as an indicator for which students were surpassing the benchmark, progressing, or not making progress. The weekly data I was collecting also gave me insight into individual student comprehension which informed me on how to shuffle reading groups the following week to build comprehension skills. Each week, I would go through the same process and continue to collect, reflect upon, and use the data to guide my instructional approach or to design an intervention if needed.

Today, schools are using data-driven decision making systems to narrow opportunity gaps, to improve curriculum, promote parental involvement, enhance teacher performance and learning outcomes for students. As educators, we know how challenging it is to make critical decisions and changes that impact what goes on in our classrooms. Last November, WSASCD began our work towards developing awareness in our schools regarding the impact of poverty in the lives of the students they serve through our Poverty Institute in Kent. WSASCD is committed to ensuring that as your professional organization, we are making thoughtful decisions about how we provide continuous support in serving students and families who come from traumatic backgrounds. More and more children come into classrooms with physical, mental, and emotional needs that go far beyond standard educational training. To support teachers and educational leaders with developing best practices with these issues, the WSASCD Board of Directors will host a one day summit in Tukwila on June 2nd with Kristin Souers, a mental health counselor and consultant, who will share her work surrounding trauma informed practice. She will deepen your understanding of the prevalence of childhood trauma and the impact of trauma and toxic stress on learning and development. Kristin Souers is also a co-author of the ASCD Publication Fostering Resilient Learners: Strategies for Creating A Trauma-Sensitive Classroom. For more information, check out our website at www.wsascd.org.

I look forward to the work as your executive coordinator, and helping our members, schools and districts as we plan for the most meaningful professional development. We are mindful that the greatest impact on student outcomes is made by the people who work to support teaching and learning in our schools.
Theme: Building Resiliency

The next issue of Curriculum in Context will address the topic of resiliency, referred to as one of the other 21st Century Skills. We want to hear about the great things that you are seeing and doing to help students, families, and educational employees manage emotions or bounce back in the face of challenges, trauma, or failure.

The American Psychological Association, on their website, points out that “the road to resilience is likely to involve considerable emotional distress. Resilience is not a trait that people either have or do not have. It involves behaviors, thoughts and actions that can be learned and developed in anyone.”

Resilience has been around for many years, with early research by Werner (1989), Bernard (1991) and others indicating that one of the major contributing factors towards resiliency is a positive relationship with an adult. We recognize that teachers and schools have the power to change lives.

From the preparation of teachers and students, to supporting those in their journey there are tools and strategies you use at the classroom, school, or district level. Address any of the tools or topics as it relates to resiliency. The following may be central to your work on building resiliency:

- Trauma
- Social Emotional Learning
- Core Tier 1 (Response To Intervention) strategies and systems in addition to Tier 2 & 3
- Positive Behavior Interventions and Supports (PBIS)
- Adverse Childhood Experiences (ACEs)

This issue of Curriculum in Context will focus on how schools are supporting teachers, students, families, and staff in their resiliency. There is research linking support achievement for all learners. Authors are invited to address any aspect of building resiliency. These are just some of the questions that you might consider when submitting an article or book review for consideration. The editorial staff invites you to submit a manuscript on this topic to Doreen Keller, Ed.D. dkeller@whitworth.edu by September 15, 2017.