# Personalized Pathonays to success

Schools are using data about college and career readiness of students to focus and refine their systems of support.

he term "college and career ready" has become widely used as a result of the proposed Elementary and Secondary Education Act (ESEA) reauthorization and Common Core State Standards movement. As we move toward what may be considered a moral and economic imperative for our nation's students, it is essential that we first identify the gaps of college and career readiness both in our students and within our systems of practice.

In working with districts across California, a simple yet compelling example observed while leading instructional rounds in a high school conveys the extent to which these gaps exist. In the first classroom the following occurred:

On the board were five terms: setting, tone, mood, character and plot. The teacher asked students to spend three minutes writing independently how these terms are used to describe a story. At the conclusion of three minutes, students were asked to turn to a partner and share what they had written for two minutes. Following the dialogue, four students were randomly selected to read what they had written and what their partner dialog may have clarified. Each student spoke with clarity and precision as to how these terms explained the structure of a story.

In the second classroom the following occurred:

On the board was the number 2/3. Students were asked by the teacher to name the reciprocal. After many prompts without correct student responses, the terms opposite and negative were shared by the teacher and written on the board. With additional student prompting the teacher wrote the number -3/2 on the board. Students then were given the opportunity in pairs to find the reciprocals of several other fractions, during which time students struggled with the structured interac-

tion. After 10 minutes students were confident in their ability to conceptually understand the meaning of a reciprocal number.

How does this observation convey the gaps of college and career readiness? In debriefing with teachers participating in the instructional rounds, it was asked what would be required for the students in the Algebra 1 class to successfully complete the same task asked of the freshman English students. After a discussion of the scaffolding needed, the time frame of two periods was decided upon.

The stark difference between these two classrooms conveys the gaps of college and career readiness of our students – academic language, higher order skills, academic behaviors and real-world applications. These four attributes both define a college and ca-

reer ready student and demonstrate the gaps within student abilities. Closing these gaps truly is a moral and economic imperative of our nation's schools.

## **Defining college and career ready**

The research on college and career readiness has been clearly articulated. The culmination of this work can be translated into the four attributes of a college and career ready student as depicted in the diagram at right. A school needs only to assess its students' abilities and performance using these attributes to identify the extent to which student cohorts are prepared for college and ready for the workforce, and in doing so assess the effectiveness of its student support systems.

In looking back at the two classroom observations, the student gaps become exceptionally clear based upon students' academic behavior and ability to use academic language and higher order skills to solve a problem. In the first classroom students would be able to apply their knowledge to solve real-world problems, whereas in the second classroom students would struggle.

These gaps become even more problematic as students enter into postsecondary education and the workforce. The American Management Association, based on a poll of business executives across the United States, stated that without the ability to effectively communicate, engage in critical thinking, and collaborate to solve problems innovatively and with creativity, high school graduates are unemployable – or at best employees with no potential for upward mobility in the organization. Clarifying why the gaps exist and how to intervene early to further develop these essential skills is vital for the academic and career success of our students.

# **Defining the gaps**

One only needs to observe a few things in a classroom to understand how these student gaps emerge. The clarity and rigor of the student learning task, frequency of student speaking and writing, structured student interactions for practicing of skills, and the engagement and responsiveness of students during checking for understanding opportunities all provide a clear lens into the minds and learning of students.

As clarified by Richard Elmore in the book *Instructional Rounds* (2009), task predicts performance. Therefore, what matters is this: how students are engaged in clear and rigorous learning tasks that require structured student interactions promoting frequent student speaking and writing and responsiveness during checking for under-

can be traced to an early age, but the extent to which school practices and systems provide students with the support needed to attain these leading indicators may not be as clear.

What are integrated systems of support and why do our students need them? The integrated systems concept began with the Response to Intervention movement that

# Four attributes of college and career ready students

College and career ready

students possess the ability

to solve real-world problems

through the conceptual

knowledge using higher

order skills.

application of key content

#### ■ Academic behaviors

Students possess the ability to organize their academic work, engage in self-assessment of progress

toward course outcomes, manage their time effectively, and complete or refine assignments with precision and accuracy.

# ■ Real-world application

Students possess the ability to successfully complete problems connected to real-world scenarios that require conceptual applica-

tion of content knowledge, collaborative group work and use of various forms of media.

# **■** Higher-order skills

Students possess the ability to solve problems using critical thinking, reasoning and interpretation of

research and results that is communicated in a manner that conveys clear understanding of various solutions.

## ■ Academic language

Students possess the ability to demonstrate mastery of content area skills and concepts through the appropriate use of academic

language (reading, writing and speaking) as defined by the level of rigor within the standard.

standing opportunities. Without this, students don't develop understanding of fundamental concepts, mastery of academic vocabulary, critical thinking skills or academic behaviors required for completion of a rigorous course of study.

In *The Forgotten Middle* (2008), ACT determined that maximizing student readiness for college and career by high school graduation requires a focus on the role of upper elementary and middle school. The research indicates that eighth grade academic achievement and being on target for college and career readiness in eighth grade have the greatest impact on students' ability to become college and career ready by the end of high school.

Why is this so? Primarily because upon entry into high school, students are enrolled in course sequences based on their academic preparedness. And once the march toward graduation credits begins, students are sorted and shuffled based on their academic abilities.

Leading indicators of a prepared student

originated from the 2004 reauthorization of the Individuals with Disabilities Education Act. This concept proposed that systems for student academic and behavior support were needed to ensure all students could reach their full potential.

# **Changing our systems of support**

With the emphasis in education changing to that of college and career readiness, it makes sense that our integrated systems of support also change. So rather than having a concept based upon early identification and student support to reduce entry into special education, the redefined model should emphasize the development of college and career ready attributes.

The systems that most impact student academic and career success include: early identification and support of at-risk students, data-driven instructional cycles, curricular pathways and personalized graduation plans. As schools and districts become more focused on college and career readiness, these systems will be of great benefit

in proactively supporting student learning toward completion of a rigorous course of study needed for the seamless transition into postsecondary education toward a viable career path.

How these integrated systems of support are implemented and how they will shift school practices are best described through example.

What we measure and monitor becomes

the focus of our attention. School districts have begun to use data dashboards of leading indicators of college and career readiness to focus and refine their systems of student support. Leading indicators serve as an effective tool to assess the degree to which student cohorts and subgroups are demonstrating the level of performance required to seamlessly transition into postsecondary education toward a viable career path.

If we were to backwards map these indicators they would include college persistence rates, college enrollment rates, college remediation rates, high school graduation rates, A-G completion rates, Early Assessment Program readiness rates, AP enrollment and pass rates, California High School Exit Exam proficiency and pass rates, Algebra 1 completion and proficiency rates, eighthgrade math and ELA CST proficiency rates, fifth-grade math and ELA CST proficiency rates, and third-grade math and ELA proficiency rates.

Then, as we noticed student cohorts and subgroups not progressing as desired, our systems of student support would be activated and refined to meet the needs of struggling student populations. The looming question is whether our current systems of support align with these leading indicators. The answer is most likely not to the degree needed, as our focus has clearly been on attaining AYP and API performance targets.

#### Proactive use of formative assessments

Frequent monitoring of student progress is also reliant upon the design and proactive use of a formative assessment model inclusive of monitoring points, performance tasks and authentic assessment of student learning. Just as the data dashboard provides a snapshot in time of the progress of student cohorts and subgroups, frequent formative assessments provide opportunities for justin-time student support.

The frequency of student monitoring, the clarity of the student performance task and the use of authentic assessment of learning all have a significant impact on the effectiveness of student support aimed at college and career readiness. Frequent, clear and authentic may be a fundamental shift in formative assessment practices for some schools and districts. If formative feedback of students' development of the four attributes of college and career readiness cannot be determined through analysis of formative assessment results, then we may only be assessing a students' ability to use test-taking strategies on a multiple choice exam.

Two organizations that have recently begun the long-term commitment of using Continued on page 35



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# Personalized pathways to success for students

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data dashboards to measure and monitor student progress and refine student support systems are the Shasta County Office of Education and the Corona-Norco Unified School District. Shasta COE has engaged the more than 20 district superintendents, Shasta College, Chico State University and University of California at Davis to create metrics of early grades readiness, secondary school preparedness and college readiness to create common practices and systems of student support. This process has provided a structure in which all stakeholders can define both what attributes a college and career ready student needs to demonstrate, and how to monitor student progress toward becoming college and career ready.

The expansion of current school accountability measurements that drive instructional programs toward metrics that more clearly demonstrate student preparedness has afforded schools the autonomy to work within their individual cultures to adjust instructional programs in support of the learning needs of their own student populations. Both Shasta County Office of Education and the Corona-Norco Unified School District are now poised to refine their systems of student support, and in so doing redefine RtI to focus on the attributes of college and career readiness.

# **Data-driven instructional cycles**

Districts and schools with highly effective data-driven instructional cycles have in common a clearly defined collaboration cycle, a common language of instruction and frequent use of formative assessments that drive collaboration and instruction.

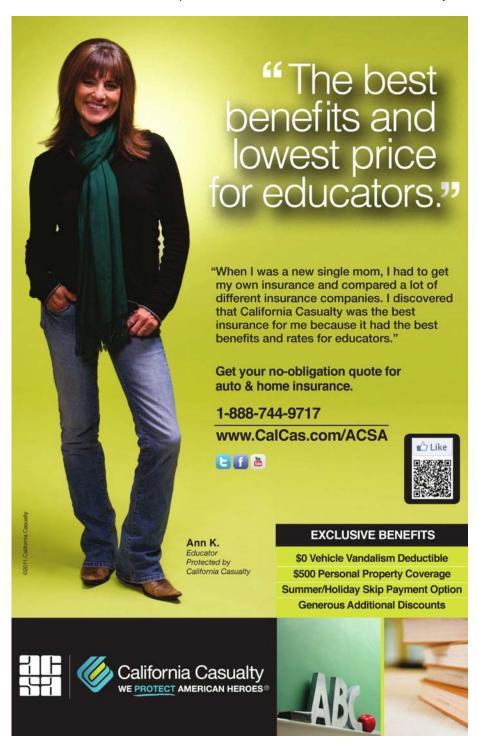
The extent to which collaboration focuses on instructional planning, monitoring student progress and clarifying best first instructional practices varies between schools and districts. Similarly, the use of a common instructional language based upon the gradual release of student responsibility emphasizing clear and rigorous learning tasks, student use of academic language, structured student interactions and frequent, student-

centered checking for understanding also greatly varies.

And although formative assessments are administered, the degree to which they drive the focus of collaboration and design of instruction not only differs between schools but also within them.

ACT research has clarified why this is so

important. ACT findings indicate that high quality, rigorous instruction is the most important factor in ensuring that students become college and career ready. The key then is to embrace a data-driven instructional cycle that empowers and engages teachers to reduce the variances in collaboration, instruction and formative assessment prac-



tices based upon the outcome of high levels of learning for all students.

Desert Sands Unified School District has embraced this concept, and over the past several years has provided schools and teacher teams with a structure for implementing these essential systems of practice. The district engages principals, instructional coaches and school leadership teams to identify strengths and areas of improvement

within their data-driven instructional cycles, and directly empowers and supports schools to increase student achievement by building their internal capacity.

## The concept of curricular pathways

Bryan Goodwin in *Simply Better* (2011) uses the phrase "curricular pathways to success" and provides two key research-based principles: provide all students with high-

expectations curricula, and with personalized learning opportunities connected to career pathways. Thus, the concept of curricular pathways is a foundational system for schools.

A key question to ask is whether we have curricular pathways for all students. In California we clearly have grade-level expectations that guide our K-6 curricular pathways. But once students enter into seventh grade and progress through high school, these curricular pathways become less clear. Some districts have begun to define curricular pathways as A-G for all; however, not all students will successfully complete the Algebra II requirement of this curricular pathway.

If we default to course sequences needed for seamless transition into postsecondary training, community college certificate and associate's degree programs and four-year universities, then the concept of curricular pathways becomes broader in design yet precise as an outcome. And at the same time, if we recognize the United States is now entering into a knowledge-based economy, then the career-focused aspect also becomes clear.

How this translates into a system of practice is based on ensuring students seam-lessly transition from elementary to middle school, from middle school to high school and from high school into postsecondary education toward a career path – designing curricular pathways with the end in mind.

# High schools serve as models

In a 2011 collaboration with the Riverside County Office of Education we brought together three high schools to serve as models from which other high schools could learn, and one school, Murrieta Mesa High School, showcased its curricular pathway model. From the time of opening in 2009 the school was built upon five career pathways: medical, business and culinary, visual and performing arts, engineering, and liberal studies/education.

The school also houses students within a freshman academy and sophomore academy as a means of ensuring students have access to a rigorous course of study and have identified a career pathway based on their personal goals and aspirations. Students

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# **Personalized pathways**

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complete grade-level project-based learning activities connected to their career paths that integrate skills and concepts across subject areas. As a result, Murrieta Mesa High School has been able to engage staff in creating an instructional program with curricular pathways built upon the academic and career aspirations of students.

# **Postsecondary completion rates**

Two distinguishing factors influence postsecondary education completion rates in California: enrollment in freshman college remediation courses and the clarity of a student's academic and career-oriented plan. With high school counselor ratios nationally hovering around 457 students per counselor, as determined by the American School Counselor Association, the likelihood of students having a personalized graduation plan seems unrealistic. However, if the creation, monitoring and student support for such a plan becomes part of a school-wide system, the barriers quickly diminish.

And if these plans originate in middle school and provide students with a clear understanding of curricular pathways that seamlessly transition through high school and into postsecondary education toward attainment of a viable career, then almost all barriers are removed and a high school diploma has tremendous value for a student. Students then see their personal plan as a pathway to success.

Riverside Unified School District in 2011 began implementation of a personal-

ized graduation plan model using Career Cruising, a web-based platform that guides students through interactive career exploration, course sequence selection and college planning.

Within this district Ramona High School has been able to accelerate the personalized graduation plan using its technology-rich learning environment. Each student has a digital learning device that has replaced



textbooks and provides access to a learning management system and the Internet to enhance classroom learning.

Through an advisory model, students are able to both engage in their exploration and planning for college and careers and receive guidance from teachers. In addition, Ramona high school has piloted a student dashboard with leading indicators of college and career readiness that provides students, staff and parents regularly updated information of student progress. Monitoring of student progress is becoming the role of all staff, rather than resting on the shoulders of overburdened counselors.

## Toward personalized pathways to success

As schools and districts implement integrated systems of support, the barriers to ensuring all students become college and career ready will fall away. Undertaking a gap analysis of current systems provides a deeper understanding of college and career readiness as well as a method to identify areas of focus and next action steps.

By building common knowledge, common language and clarity of action, the idea of college and career readiness for all students will become more manageable. The challenge is moving toward a vision of college and career readiness within the current accountability system under which California schools operate.

In light of the transition to the Common Core State Standards and shift toward Smarter Balanced Assessments, this challenge will be reduced and greater momentum will occur. Proactive schools and districts will move more quickly toward a focus on college and career readiness, a lesson learned from California's initial standards movement and accountability system implementation.

The outcome of college and career readiness for all students has the potential to personally touch the learning of every student, but only if we have a truly integrated system of support. Only then will students have personalized pathways to success.

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