



International Center for
Leadership in Education

RIGOROUS LEARNING FOR ALL STUDENTS

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RIGOROUS LEARNING:

BRIDGING STUDENTS FROM OUR CLASSROOMS TO SUCCESSFUL LIVES

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ARE WE DOING OUR JOB AS EDUCATORS?

Emma is rising through the ranks at a medical lab that 3D prints human tissues and organs for implants or prostheses. The medical 3D printing industry has tripled in size since she joined the firm. Due to rapid growth, Emma's lab often struggles to find living cell "ink" developers that supply the exact materials necessary to print organs or tissues, particularly as urgently and as often as needed. (Frey, 2014) Recognizing a need, Emma starts a 3D medical printing ink brokerage business. After building a broad and deep knowledge of the medical ink developer business and 3D medical printing labs, she forges relationships with as many companies as she can. Eventually, her business grows to the point of needing to hire a team of consultants to advise her clients, website developers to build her online presence, and marketers to increase brand awareness—all of whom work remotely, some overseas. Managing her team remotely not only requires high-level leadership and communication skills, it also requires a high degree of empathy, as Emma must create a sense of cohesion, motivation and a positive culture over the Internet and across continents.

Mason is the lead data stream organizer for a data management firm that companies hire to store, sort and analyze massive quantities of data. (Frey, 2014) The firm's target market focuses primarily on companies that build sensors to monitor home and personal electronics usage and enable remote operation. At the start of a project, Mason and all project leads discuss the nature of the client's data and its intended use. He must work closely with data collection engineers to build compatible code that can filter raw data into logical streams. He also collaborates with the analytics team to understand how the client wants to use and analyze data to ensure it is organized to be relevantly actionable. Once Mason grasps all parties' needs, he and his team meet to determine the compatible code and develop an action plan to execute the project. From there, Mason delegates tasks to his team and leads them through a timely completion.

Avery is a scientist working for a pharmaceutical company. Genomic testing and research have isolated a gene that appears to play a role in Alzheimer's disease. Avery and her team have been tasked with developing a drug that would prevent that gene from being activated and triggering the onset of Alzheimer's in carriers of the gene. The process involves multiple rounds of trial and error, as well as successfully meeting the rigid requirements to move through the long FDA-approval process, which continues to change as regulations around this new area of genomic-driven drug development are passed. Avery and her team repeatedly encounter setbacks, as they are working under many unknowns, but must remain flexible, creative and tenacious as they attempt to develop a cure for a devastating disease.

These are only three examples of the types of well-paying jobs the Emmas, Masons and Averys in our education system will soon be competing for: complex, technological, ambiguous, international, dynamic, fast paced and collaborative. They require high skills and flexible use of them. It's no longer enough for an employee to develop one expertise and perform it over and over in a vacuum. Employees must understand how all parts come together so that they can work successfully on teams and understand how their contribution fits into a larger operation. Employees cannot afford to ignore the environment that surrounds their work and companies; in today's global, interconnected, interdependent economies, the successful employee must anticipate the effects of outside forces and be able to adapt quickly when circumstances change—often at the drop of a hat.

Why does this matter?

It matters because of our job as educators.

What is our job? Is it to prepare students for the next grade level? And then the next? And the next?

No. It is to prepare ALL students—English language learners, students with disabilities, and those demographically challenged—for success: in school, in college, in careers and in life.

**THAT IS OUR JOB. THAT IS OUR DUTY.
THAT IS OUR PROMISE.
AND WE ARE ALL CAPABLE OF IT.**

Students at Noblesville High School, a 2015 Model School, are inspired to innovate, patent new products and share ideas on a regular basis with Innovation Coordinator Don Wettrick.

Rigorous Learning: The Key to Successful Lives for ALL Students

Rigorous learning is the bridge from our classrooms to our students' future, long-term success. Rigorous learning is developing in students the skills, knowledge, attitudes and aptitudes that will enable their success in the increasingly complex world in which they will live and work. To achieve rigorous learning for all students requires instructing each student in a way that is relevant to him or her. It includes nurturing, caring relationships with ALL students and teaching interpersonal skills. It includes instilling in ALL students the skills they will need for the careers that will allow self-sufficiency as adults.

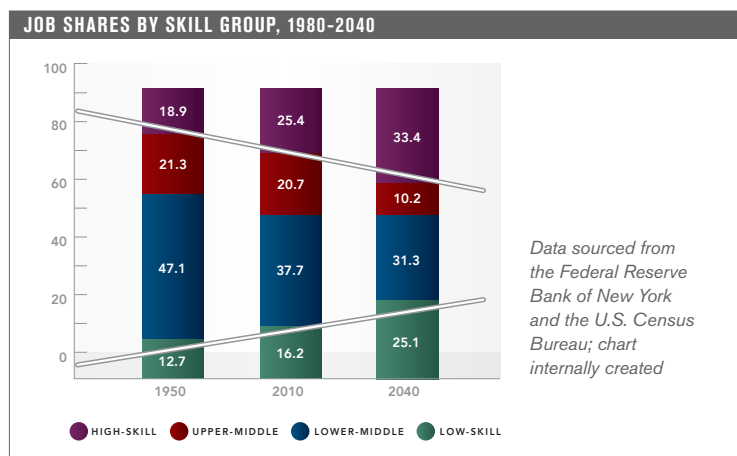
The world is changing at a rapid fire pace. Think back to what the world looked like when you were an elementary school student. Recall the learning tools you used and the technologies you had in your home. Consider how much life has changed since then, and how quickly. Consider how much your smartphone alone has changed in just the past few years.

Technology is driving change at breakneck speed. And it's influencing everything—from how we communicate and get and share information, to how we get work done and engage in commerce. It's changed our relationships with each other and it's changed how we relate to and collaborate with those in other parts of the world. It's changed what is needed to be successful in work; everyone must be reasonably fluent in technology. It's changed how we will be successful in life; the transparency and permanence of our digital selves—our “digital tattoo,” that mark we leave of all of our online communications and actions—is having and will continue to have a huge impact on our students' ability to succeed in college, the workplace and society.

Technology has also transformed economies all over the world. Specifically, it's wiped out entire categories of entry-level jobs and now is poised to do the same to many mid-level jobs. Consider the jobs replaced by kiosks, ATMs and robotics. Technology is about to do the same to accountants, technologists, economists, technical writers and many other mid-level employees.

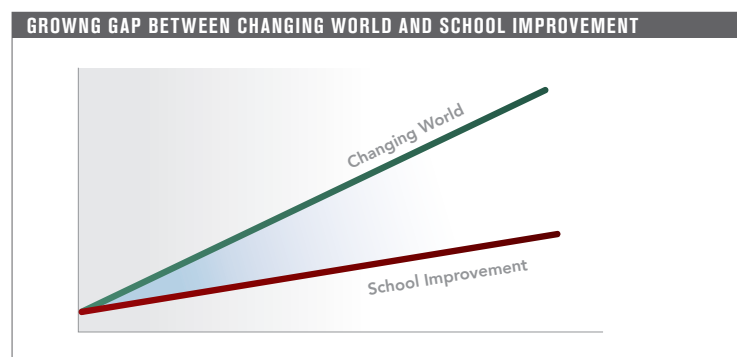
The middle is now disappearing; we call this the “missing middle.” The jobs that have replaced mid-skilled labor have been higher- and lower-skilled jobs. Half of the jobs knocked out in the Great Recession paid between \$38,000 and \$68,000 per year. (Condon and Wiseman, 2013) As 2013 data shows, only about 2 percent of the jobs we've regained since the recession ended in 2009 pay in that range; about 70 percent pay below that range, and about 28 percent pay above it. (Condon and Wiseman, 2013)

The following chart shows job share by job skill level from 1980 to 2010 and projected through 2040. Low-skilled jobs and high-skilled jobs are and will continue to increase; as a growing share of the country climbs in wealth, they will grow the demand for low-skilled services, such as lawn care, cleaning services and other help staff. Mid-level jobs will continue to vanish before our eyes.



What does this mean? It means that the well-paying jobs of tomorrow, the jobs that will allow people to be self-sufficient, successful in their careers and successful as citizens—the jobs we want our students to get—are getting increasingly competitive.

As the world changes rapidly, by and large our schools' rate of change is not keeping pace. Too many schools are struggling to provide our students the rigorous learning they need to thrive in the world they will face upon graduation. Unless we as teachers, principals, administrators, superintendents, schools and districts decide to make big changes in name of rigorous, student-centered learning, the gap between what today's learners need and what schools provide them will only grow larger and larger, making it harder and harder to catch up.



Many of our schools are improving, and we are increasing graduation rates. But a growing percentage of our students enter our schools with big challenges, primarily due to escalating poverty rates. Meanwhile, we are saddled with more and more standards and tests, which often become the focus of instruction and learning. All told, this leaves us with a group of students who are the most educated, yet least prepared for their futures in our nation's history.

Closing the Gap: Delivering Rigorous Learning for ALL Students

Twenty-five years ago, we developed the Rigor/Relevance Framework® as a tool to help schools instruct ALL students in a way that prepared them for college and careers. The Framework was born from the observation that technology was driving change at a faster and faster rate, and that what students needed to know for successful lives in an evermore technology-based world would change along with it. This observation was true then, and it remains true today.

We created the Rigor/Relevance Framework as a guide for educators to devise learning plans that achieved consistent Quadrant D learning. It is in Quadrant D where true rigor and relevance takes place. When students are learning in Quadrant D, they are learning to think analytically and creatively. Their thinking is complex and they are gaining the skills to flexibly apply information to a range of real-world situations, even unpredictable ones. In other words, they are learning to think in the ways they will need to in dynamic careers.

Careers are JumpStarted at Neptune High School, a 2015 Model School, through a non-traditional academy model. Through hands-on projects and modules, students learn about multiple career pathways.

The vertical axis of the Rigor/Relevance Framework was first based on the original Bloom's Taxonomy, which was revised based on research that found that students learn best when they can take responsibility for their own learning, cognition and thinking. We recently updated the Rigor/Relevance Framework to reflect the revised taxonomy to place greater emphasis on the cognitive processing around hands-on, active learning.

Since both creating and implementing the Rigor/Relevance Framework, we have been pleased to have worked with hundreds of districts in coaching thousands of teachers and leaders through the process of making rigor the centerpiece of learning and creating the necessary infrastructure to support sustainable and consistent rigorous learning for ALL students. Many schools across the nation are now attempting to create curriculum where the goal is to provide rigorous learning opportunities for every student.

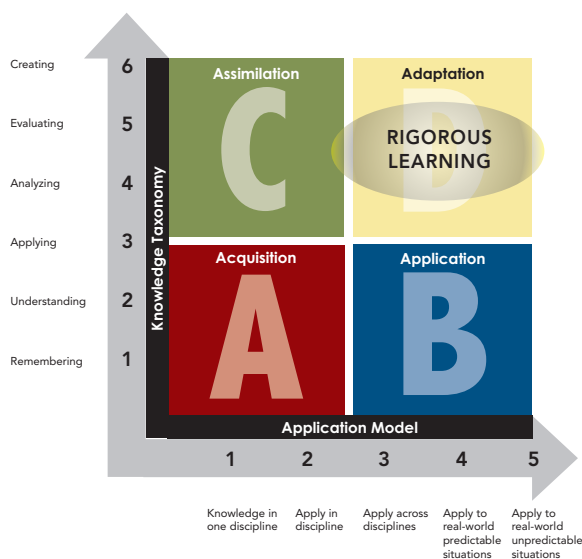
How do they do that? More importantly, how do YOU do that? How do you and your school or district close the gap between what the world demands and what schools provide?

It begins with a subtle shift in our collective mindset: ALL educators must begin thinking less about teachers teaching and more about learners learning. This is the lens through which productive 21st century education must be viewed: are students learning?

From there, we must define rigorous learning, particularly as it fits our own school's or district's DNA. Then we must coach our teachers through broad and successful implementation of rigorous learning strategies, followed by close data collection and analysis and monitoring of student achievement. Finally, the entire system—from the classroom to the boardroom to home—must be aligned and oriented toward consistently delivering rigorous and relevant learning to ALL students.

The central office and school board members at Monticello Central School District have provided the necessary support to Robert J. Kaiser Middle School's leadership and staff as they implemented a broad rebranding, remarketing and reculturing campaign. The results dramatically changed this 2015 Model School, which achieved the goal of putting student learning at the center of all decisions and actions.

RIGOR/RELEVANCE FRAMEWORK®



Defining and Recognizing Rigorous Learning

Educators struggle to pinpoint exactly what rigorous learning is and what it looks like in the classroom. Without a common definition of rigorous learning, it is impossible to measure instructional effectiveness and learner progress. Without consistently providing teachers and leaders professional learning around rigor and relevance, schools, at best, will tread water.

In an effort to help educators identify tenets of rigorous learning so they can embed them regularly into instruction, we developed the Collaborative Instructional Review Process (CIR). Designed as an action plan for rigorous learning, CIR is a four-step coaching process that relies on open, honest and ongoing dialogue between leaders and teachers. Its aim is to replace controversial, often counterproductive evaluations with a collaborative coaching model where teachers feel supported in their quest to bring rigorous learning to their classrooms, rather than punished for mistakes or weaknesses.

At the core of CIR are classroom visits, with a key point of differentiation: under the CIR model, 80% of observation is focused on the students and 20% is focused on teachers.

After all, it's student achievement that indicates successful rigorous learning. CIR looks for clues of high student engagement to determine the effectiveness of a teacher's ability to impart rigorous learning in a relevant manner for ALL students.

At Kathleen H. Wilbur Elementary, a 2015 Model School, instructional excellence is driven by the three Rs—rigor, relevance and relationships—with leadership teams focused specifically on each area. Every other week, teacher leaders share with staff a strategy for 3R learning that can be used in the classroom immediately.

The question remains: what are the clues of high student engagement? CIR includes rubrics that, at the onset, serve as a framework to define rigorous learning for your school or district. They then evolve into a tool for collaboration and goal setting. The following indicators, upon which the rubrics are based, are associated with the process of pinpointing the hallmarks of rigorous learning in your classrooms.

RUBRIC CATEGORIES	INDICATOR DESCRIPTIONS		
Rigor	Thoughtful Work: Lesson intentionally prepares students to complete a range of high-quality learning intentions.	High-Level Questioning: Lesson provides opportunities for students to respond to and ask a range of questions that increase in rigor and levels of thinking.	Academic Discussion: Lesson includes opportunities for students to engage in vocabulary-rich, academic conversation with adults and peers.
Relevance	Meaningful Work: Lesson requires students to complete relevant, real-world tasks that connect to tasks typically completed in related careers.	Authentic Resources: Lesson includes a range of sources of information and requires students to use information from sources for relevant, real-world tasks.	Learning Connections: Lesson includes a variety of opportunities for students to make connections between what they are learning and real-world applications.
Engagement	Active Participation: Lesson is designed to maximize engagement of all students throughout the duration of the lesson.	Learning Environment: Classroom environment is centered on a culture of respect and commitment to learning.	Formative Processes and Tools: Lesson is tailored to meet the needs of all students, including using results from formative tools and processes to plan for differentiated instruction.

DSEI: A Systemwide Approach to Rigorous Learning and Sustainable Change

Change is hard—there is no doubt about it. But when approached collectively with a systemwide shift in mindset, rapid improvement can and will occur. We've seen many districts including Yakima, North Kansas City, Central Dauphin, Poughkeepsie, Lubbock and Monticello make great strides in building instructional capacity and shifting the culture to where ALL parts of the system believe in rigorous learning for ALL students—and they all did it by taking a systems approach.

Something that we have seen time and time again is that if the entire system—from the classroom all the way to the district office—is not aligned around supporting teachers as they deliver rigorous and relevant learning to ALL students, innovation and broad changes will not sustain. At best, isolated improvements will occur; those students fortunate enough to come under the guidance of a teacher well equipped in facilitating rigorous learning will increase achievement, but only temporarily. At worst, the entire staff will feel frustrated and confused as they attempt to fold new directives or best practices into a system that isn't built for change. In other words, even the best-intentioned initiatives will feel like nothing more than yet one more rule. Feeling that much more overwhelmed and overloaded by conflicting demands, staff will abandon ship and default to the familiar, even if it's not working.

We call this sense of being overwhelmed and overloaded the fog. We repeatedly hear that teachers, administrators, principals and superintendents feel lost amid a sea of conflicting external demands. They feel they've lost control. They don't know how to prioritize. They don't know what to prioritize. They get so caught up in answering to outside forces that they lose focus on the people who matter most: the students. Learning takes a backseat to testing, evaluations, mandates and anyone and everyone but the students.

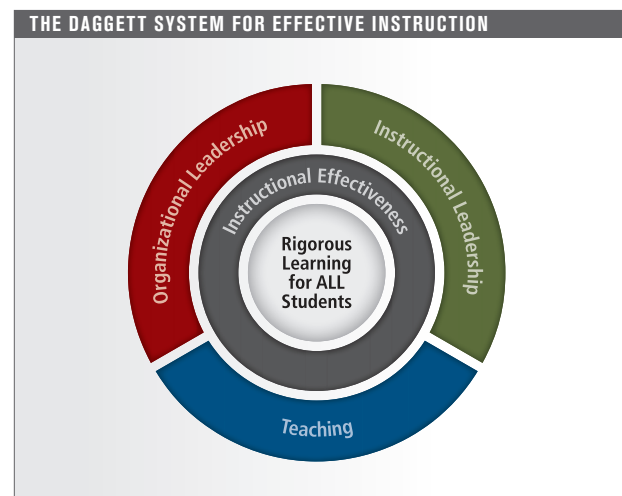
The power of the Rigor/Relevance Framework is that it provides one priority against which all decisions and actions are measured: rigorous learning. When the Rigor/Relevance Framework is a school or district's guiding light, all decisions naturally become easier, even obvious.

But how does one make rigorous learning a school or district's guiding principle? Through a system that aligns everyone around it.

We developed the Daggett System for Effective Instruction (DSEI) to do just that: systematically orient and prepare every last person in the district and school to support teachers in their commitment to rigorous and relevant learning for ALL students. Just as rigorous learning is the bridge from our classrooms to a student's long-term success in life, DSEI is the bridge from the

fog to a place where everyone is mobilized around a clear and shared vision of student achievement.

There are three main segments of DSEI: organizational leadership, instructional leadership and teaching. Each segment has elements, or strategies, to bring effective change to each segment.



Based on our lessons learned from the field, we've shifted the centerpiece of DSEI from a focus on student achievement to a focus on rigorous learning for ALL students. This change shows that rigorous learning must be the target of systemwide instructional effectiveness and represents the importance of continuous learning and high expectations for ALL students.

With DSEI, the entire system is focused on rigorous learning for ALL students. This requires everyone in the district to focus every day on instructional effectiveness. This is not just the responsibility of the teacher; it is first, foremost and always the responsibility of all leaders at the building and district levels.

Organizational Leadership: Under DSEI, organizational leaders must create a culture of high expectations. They are then responsible for preparing all stakeholders for forthcoming changes to equip all educators and learners to rise to meet new, heightened expectations. A vision, or central objective, must be created, and all systems must align to toward realizing this vision. Organizational leaders must empower all staff to take initiative and leadership in implementing broad plans and programs. This focus on cultivating leadership should also guide hiring decisions and staff support programs. Finally, it's the role of the central office to identify and employ appropriate data systems that will monitor student achievement and progress of core objectives.

Instructional Leadership: Under DSEI, instructional leaders must take an active role in supporting teachers to do what they do best: help students learn. To begin, instructional leaders must use data to establish an urgent need for higher expectations and positive relationships. Under the guidance of instructional leaders, schools must develop curriculum and assessments that drive vision, but still align to standards. To ensure that students get the skills they need for tomorrow's jobs, literacy, math and technology must be embedded into curriculum with every chance. To track the efficacy of rigorous learning, instructional leadership must make frequent use of data analytics tools and provide support for teachers so they are able to understand data and turn them into action plans. As schools raise expectations, instructional leaders must provide the necessary professional learning for teachers to gain the skills and tools they need to facilitate rigorous learning. And finally, the community and family must be engaged in the process of elevating expectations, learning and achievement.

Teaching: It is the job of organizational and instructional leaders to clear the decks, so to speak, so teachers can be laser focused on rigorous learning. Under DSEI, teachers must begin by believing that ALL students can achieve, and repeatedly express this belief to students. It's up to teachers to create a healthy, supportive learning environment where students feel cared for and respected. By refreshing their content expertise, teachers can easily and adeptly tie learning to a range of real-world scenarios to make it relevant to all students. The most effective teachers will keep on top of the latest research, best practices, technologies and instructional strategies so that instruction is specific to how today's learners learn. Teachers who frequently use assessments and data to gauge all students' progress can determine where differentiated instruction and scaffolding is needed. Finally, to maintain the high-level skills needed to provide rigorous learning, teachers must regularly take part in professional development, advance their content knowledge and collaborate with colleagues to share best practices.

When everyone in the system is acting on the elements of DSEI, everyone is naturally working in unison to support teachers' capacity to increase rigorous learning opportunities and, thus, boost student achievement. In other words, *no matter your role in the education system, you play a role in student achievement*. Everyone matters in the movement to prepare students for successful lives in the 21st century. DSEI is the guide to get every last person on board.

Poughkeepsie City School District in New York stands out for its systemwide vision of and relentless pursuit of instructional excellence through a laser focus on best practices in literacy and leadership.

At this year's Model Schools Conference, we are excited to introduce the new book: *Rigor, Relevance and Relationships In Action: Innovative Leadership and Best Practices for Rapid School Improvement*. The aim of this book was to put DSEI into easy-to-grasp, approachable terms. We also provide dozens of best practices for all DSEI elements. If you'd like to learn more about DSEI, the book is a comprehensive guide for what everyone in the system can and needs to do to bring rigorous learning to EVERY classroom and ALL students.

Probing Questions to Motivate Action

We know that in all our decisions and actions, student learning must come first. Where to start in redirecting the ship toward this goal? It can feel overwhelming to make broad, systemwide changes. But we have found the simplest place to begin is by asking questions to take stock of where your school or district is and where it needs to go. It's difficult to know what to fix if you don't know what's broken. The following questions can serve as helpful conversation starters with your colleagues and leaders and can reveal areas needing change and improvement.

■ *Are you preparing students for successful lives beyond school? Or are you preparing them only to advance to the next grade?*

■ *Is everyone in your district—from the central office to building staff—working in unison to raise expectations? Is everyone in the system—staff and students—working to rise to meet heightened expectations?*

■ *Has your school or district defined rigorous learning? Could you and all of your colleagues list examples of rigorous instruction and learning in action?*

■ *Do your teachers feel supported in facilitating rigorous learning? Are they provided the professional support and skill advancement opportunities needed to teach today's learners what they need to know in the future?*

■ *Have instructional leaders been provided the professional learning and skills needed to bring out the best in their teams, empower staff and nurture budding leadership?*

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