

Culture Shift:

Teaching in a Learner-Centered
Environment Powered by Digital Learning

DIGITAL
LEARNING
SERIES



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ALLIANCE FOR
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The increasingly global economy and complex world have changed the demands on the U.S. education system. Unlike in the first half of the twentieth century, today all students must be able to think critically, communicate effectively, collaborate with others, and analyze information and sources while meeting rigorous benchmarks, such as those contained in the common core state standards.¹ The percentage of jobs in the United States requiring postsecondary education has grown from 28 percent to 60 percent since 1973.² For students to be adequately prepared for college and a career, they must graduate from high school with a very different set of skills and knowledge than was needed in the past; according to the authors of *Teaching 2030*, “in the emerging workplace, most students—not just an elite few—must be able to find, synthesize, and evaluate information from a wide variety of subjects and sources.”³ This requires a shift from a teacher-centric culture to one that supports learner-centered instruction with an intense focus on the student, whether in face-to-face, blended, or virtual environments. The learner-centered environment uses data to set learning goals and criteria for success, assesses progress, and provides students with a comprehensive system of academic and developmental supports. The new culture offers flexible learning opportunities that are relevant to students and engage them deeply in directing and taking responsibility for their individual learning.⁴ Specifically, learner-centered instruction has several characteristics that help prepare students for college and a career. Such instruction is



- **rigorous and based on college- and career-ready expectations;**
- **personalized;**
- **collaborative, relevant, and applied; and**
- **flexible, with learning taking place anytime, anywhere.**

Low student achievement scores and high dropout rates in the United States indicate that the education system is not meeting the needs of many students. The U.S. has an increasingly diverse student population, and large numbers of students do not graduate from high school. In a dozen states during School Year (SY) 2009–10, students of color and Hispanic and Native students made up the majority of the student population. In ten additional states, students of color made up between 40 percent and 50 percent of K–12 enrollment.⁵ One in four students now fails to graduate from high school on time, and African American and Hispanic students drop out of high school at nearly double the rate of their white peers.⁶ In the Class of 2011, more than 1 million students dropped out before graduation. Among those students who do earn a diploma, an increasing number must take remedial coursework after they enter college. Unfortunately, this does not guarantee success; students who enroll in a remedial reading course, for example, are less likely to eventually earn a degree or certificate.⁷

Culture Shift Supports:

Learner-Centered Instruction

Teaching in a Learner-Centered Environment

Preparing and Supporting Educators for New Roles

Higher expectations for preparing students for life after high school combined with the challenges of high dropout rates and low achievement will require a significant shift in how the United States educates its students. To meet the needs of the diverse student population, the education system must provide a more personalized, rigorous, and collaborative learning environment that moves from teacher-directed, one-size-fits-all instructional strategies toward a learner-centered model. Learner-centered education dramatically impacts the work of educators, and education systems and schools must empower teachers to apply their pedagogical knowledge, instructional skills, and digital tools and resources to meet the needs of individual students. Teachers will likely need to take on new professional responsibilities and roles in working with students and peers, and they should view this as an opportunity to share ownership in collaborating, planning, and learning with their students. Educators' roles in the learner-centered education system should support efforts to elevate the profession of teaching.

Building on the urgency for utilizing digital learning and innovative teaching practices to meet the needs and challenges outlined in the Alliance for Excellent Education's report *The Digital Learning Imperative: How Technology and Teaching Meet Today's Education Challenges*, this paper delves more deeply into the characteristics of

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a learner-centered approach to education and the support that educators and schools require. A learner-centered approach will not succeed without a cultural shift throughout the education system that includes maximizing the potential of digital learning to meet students' needs. Although some schools are already making significant progress, many schools and districts continue to struggle to transition to a learner-centered model.

Rick DuFour writes, "Culture has been defined as 'the way we do things around here.'"⁸ Terrence Deal and Kent Peterson describe school culture as the "inner reality."⁹ ASCD's "Lexicon of Learning" states that it is "[t]he sum of the values, cultures, safety practices, and organizational structures within a school that cause it to function and react in particular ways."¹⁰ School culture involves the administrators, teachers, staff, and students, but it also includes parents and the community. In looking at schools with strong school cultures, DuFour found that "[o]ne of the most evident commonalities is that the staff in each school is emphatic about and fixated on the fundamental purpose of the school—high levels of learning for all students."¹¹

When building a strong learner-centered culture, all stakeholders in the school need to have a common understanding of both the goal and the path. Educators need administrator support, professional learning opportunities, resources, and a supportive infrastructure. As demands increase on students to be better prepared for college and a career, the expectations placed on teachers to implement student-centric learning must also change. This paper looks at teachers' new roles as well as the professional support teachers will need as they transition from a teacher-centered model to a learner-centered environment, whether in face-to-face, blended, or virtual settings. It also explores how digital learning can support the move toward this new environment.

LEARNER-CENTERED EDUCATION

In schools where more personalized and collaborative learning occurs, the administration, educators, staff, and parents are committed to a new approach to teaching and learning. Educators are empowered to use innovative approaches and personalize learning in face-to-face, blended, or virtual environments. In these settings, there are support systems in place; there are also opportunities for teachers to learn from each another and from outside experts, and to take risks with new instructional strategies or lessons. Technology and digital learning support this culture shift by providing tools, resources, data, and systems that increase teaching options and opportunities as well as promote efficiency. Technology allows educators to increase the use of data on a regular basis and to provide different students with learning experiences that take place at different paces, times, and locations. While effective instructional strategies remain a constant, educators apply those strategies in a more student-centric approach that uses different methods for various student needs.

Learner-centered instruction is focused on the needs, abilities, and learning styles of individual students. It is personalized, engaging, and rigorous. While learner-centered instruction does not require digital learning, it is frequently enabled and enhanced by it, and digital learning expands the opportunities and options for teachers and students. No longer should the norm be teachers standing at the front of the classroom delivering the same information to all students at the same time. Teachers must utilize more formative data from student assessments in an ongoing way to understand the abilities and learning style of individual students. While meeting high standards, students take a more active role in and have more ownership of their learning. Students should develop content and collaborate with others to build and share knowledge, and they need opportunities to engage in meaningful and appropriate learning experiences and to apply what they learn. Learning experiences in which students are held accountable

Digital Learning

Digital learning is any instructional practice that effectively uses technology to strengthen a student's learning experience. Digital learning encompasses a wide spectrum of tools and practices, including, among others,

- online and formative assessment;
- an increase in the focus and quality of teaching resources and time;
- online content and courses;
- applications of technology in the classroom and school building;
- adaptive software for students with special needs;
- learning platforms;
- participation in professional communities of practice; and
- access to high-level and challenging content and instruction.

In particular, blended learning occurs any time a student learns, at least in part, at a supervised brick-and-mortar location away from home and, at least in part, through online delivery with some element of student control over time, place, path, and/or pace.

for directing and developing their own products and knowledge foster self-direction and motivation. Students need to be able to understand and apply feedback to their work, plan the steps that are necessary to accomplish their goals, and work independently when appropriate.¹²

The evolving access to technology and digital content and resources supports and increases opportunities for a learner-centered model. Students can access more content, courses, and collaborative opportunities, and digital learning and technology can provide opportunities for teachers to apply evidence-based practices that support more effective and personalized instruction. The potential for where, when, and how learning occurs has changed as students and teachers can potentially access digital content, information, and opportunities to collaborate and learn online.

As noted earlier, learner-centered instruction has several characteristics that help prepare students for college and a career. This instruction is

- 1. rigorous and based on college- and career-ready expectations;**
- 2. personalized;**
- 3. collaborative, relevant, and applied; and**
- 4. flexible, with learning taking place anytime, anywhere.**

1. Learning is rigorous and based on college- and career-ready expectations.

Expectations for graduates are increasing, as the global economy, employers, and higher education institutions want students who have the knowledge and ability to solve problems, think critically, collaborate with others, and communicate in a variety of media. The common core state standards, currently adopted by forty-six states, include increased rigor, and many of these skills are embedded throughout the math and English language arts standards.¹³

Three-quarters of the states that have not adopted the common core have enacted similar college- and career-ready standards for their graduating high school students. As result, 99 percent of U.S. students are now being held to much higher education standards than before. According

to the Alliance's "A Time for Deeper Learning: Preparing Students for the Changing World," "This shared agreement among so many states to educate all students to the same high levels of achievement represents a major shift in the nation's attitude about public education."¹⁴

Envision Schools Defines Rigor

Envision Schools emphasizes the four Rs—rigor, relationships, relevance, and results. It defines rigor as "when students are pushed not only to know information but also to apply and demonstrate their understanding of that information ... [I]n a rigorous school, students not only learn, do, and reflect, they also master such twenty-first-century skills as critical thinking, problem solving, creativity, collaboration, project management, and written and oral communication." For example, Envision Schools utilizes project-based learning and performance-based assessments to challenge students to learn and apply knowledge and skills simultaneously.

Bob Lenz, "The 4 R's: Rigors in a 21st Century School," <http://www.edutopia.org/envision-schools-rigor> (May 24, 2012).

“A Time for Deeper Learning” describes how students need and deserve deeper learning, which is “the delivery of rich core content to students in innovative ways that allow them to learn and then apply what they have learned. Rigorous core content is the heart of the learning process; true deeper learning is developing competencies that enable graduating high school students to be college and career ready and then make maximum use of their knowledge in life and work.”¹⁵ Similarly, the Partnership for 21st Century Skills outlines the critical skills and content needed for students to develop and be prepared for college and a career. Although the terminology used in “A Time for Deeper Learning” and by the Partnership for 21st Century Skills emphasizes different areas, the following chart highlights the consistency among the skills identified for students to be truly college and career ready.

College- and career-ready standards—such as the common core state standards, which incorporate many deeper learning and twenty-first-century skills—lead to increased rigor and more challenging and compelling learning experiences by emphasizing the importance of applying the knowledge needed in the global economy.

Deeper Learning Skills ¹⁶	21st Century Skills (3Rs + 4Cs) ¹⁷
Knowledge and mastery of core academic content	Content (English/Reading/Language Arts, Mathematics, World Languages, Art, Economics, Science, Geography, History, and Government/Civics)
Critical thinking and complex problem solving	Critical thinking and problem solving
Effective communication	Communication
Collaborative work, self-direction, and incorporation of feedback	Collaboration
	Creativity and innovation

2. Learning is personalized. To ensure that each student graduates prepared for college and a career, education systems must provide a more personalized learning environment for each student.¹⁸ Rather than teaching all students in the same way and at the same pace, or tracking students into two or three different levels of learning, learner-centered instruction focuses on meeting students where they are and helping them to develop the knowledge and skills they need. This involves the use of strategically embedded assessments and data to understand a child’s individual needs and learning style, and the most effective instructional strategies.¹⁹ Students who are performing well and are on track for graduation need to be challenged as well, and should have access to personalized learning to meet their own needs and abilities.

A learner-centered culture emphasizes the relationship between teachers and students as an integral part of personalizing the learning experience and meeting the needs of each student, including interests, learning styles, and readiness. Educators must understand how to identify and address individual learning needs and consider mastery when a student demonstrates competence with a particular standard or course. Educators also should use digital learning and technology to support the learning process.

Efforts to provide more personalized learning experiences that are more centered around the student are emerging.²⁰ While differentiated instruction is already being implemented in many schools across the United States,²¹ learner-centric or personalized learning goes even further: as defined in the U.S. Department of Education’s national education technology plan, “Personalization refers to instruction that is paced to learning needs [i.e., individualized], tailored to learning preferences [i.e., differentiated], and tailored to the specific interests of different learners. In an environment that is fully personalized, the learning objectives and content as well as the method and pace may all vary.”²²

This often goes beyond academics and addresses the broader range of student needs as described by the Response to Intervention model. RTI efforts incorporate “high-quality, culturally and linguistically responsive instruction; assessment; and evidence-based intervention”²³ to support the academic, learning, and behavioral needs of students to strive for continuous improvement in a multi-tiered approach. By focusing on general and then more targeted assessment to identify specific student needs, RTI provides a systematic approach to better personalize learning for students.

Digital learning offers additional instructional strategies and variations of content to provide students with opportunities to work at their own pace. For example, a student may have the option to utilize simulations or access content that is in a visual or audio format. Ensuring that content is culturally relevant is more realistic because digital learning typically provides more options for content and approaches. In a traditional school setting, students are often limited to maintaining the same pace as the class as a whole, especially in middle or high school. Opportunities for online or blended learning increase a student’s ability to take the courses and/or access the content and teachers. According to the Software & Information Industry Association,

Personalized learning requires not only a shift in the design of schooling, but also a leveraging of modern technologies. Personalization cannot take place at scale without technology. Personalized learning is enabled by smart e-learning systems, which help dynamically track and manage the learning needs of all students, and provide a platform to access myriad engaging learning content, resources and learning opportunities needed to meet each student’s needs everywhere at any time, but which are not all available within the four walls of the traditional classroom.²⁴

Finally, and consistent with deeper learning and twenty-first-century skills, learner-centered instruction must guide students toward greater ownership of their learning.

- 3. Learning is collaborative, relevant, and applied.** To prepare for the global economy, students must be able to collaborate and apply knowledge and skills to real-world situations. Learning cannot simply consist of memorizing facts or information and should not be disconnected from the real world. Many proven instructional strategies involve opportunities for students to collaborate with one another while applying knowledge to relevant situations, including project-based learning. With project-based learning, educators design key questions for students to explore and address, and students typically produce some kind of product to demonstrate their learning. While the project can be thoughtfully aligned to standards, the open-ended nature allows for personalized learning in which different problem-solving strategies and critical thinking are applied by students. Students often create their own paths to address the problem while also meeting key requirements or expectations. Frequently, educators design learning experiences that allow students to collaborate on the project or key question.²⁵

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If students work independently on the project, educators may design opportunities for students to collaborate or help each other at particular points in the process. For example, at a high school in North Carolina, one educator encouraged students to participate in a “fishbowl” with a student who was stuck on his multi-month project-based learning experience. He posed questions, and then his peers asked him questions in return and provided recommendations. Providing educational experiences that are relevant to a student’s world can increase engagement and, ultimately, student outcomes.

- 4. Learning is flexible, taking place anytime, anywhere.** The ever-changing opportunities with digital learning and technology allow students to have access to learning anytime and anywhere. Technology and digital learning expand opportunities for learning beyond a traditional classroom and often allow for learning that is more flexible and occurs throughout students’ daily lives.²⁶ The ability to extend learning opportunities outside of school and home is becoming more of a reality, with 52 percent of all children having access to one or more mobile devices. Forty-one percent of U.S. children have a smartphone, 21 percent have a video iPod, and 8 percent possess an iPad or other tablet device.²⁷ This trend is increasing, and many schools in the United States have programs to provide computers or other devices to students in school and/or at home.²⁸



With digital learning and technology, students often have more flexibility with timing and pacing, can take courses that are not offered at their school or do not fit into their schedule, and experience different instructional approaches. In many cases, these experiences represent blended learning

models, in which part of the instruction occurs in a school building and part occurs online, as described earlier. In rural, urban, or historically underserved schools, students may not have the opportunity to take AP classes or high-level STEM (science, technology, engineering, and mathematics) courses. The Learning Power program in South Dakota, for example, offers online AP courses to rural students, and offers support and training for the onsite teachers to allow them to develop as well.²⁹

To a struggling student, a course like Algebra I, which is required for high school graduation, may be a significant barrier to a degree. Although a traditional course likely approaches the material in one way at one pace, digital content or modules, provided through an online course or adaptive software that addresses different learning styles or specific standards, may provide the support and personalized approach a student needs to succeed. The School of One in New York City, for instance, directly addresses and adapts to student needs through daily assessments and the consideration of how each student learns best.³⁰ The ability to identify a student's individual learning style is especially important when a course is needed for credit recovery. Students can retake courses at alternative times—or they may not even need to repeat an entire course if they simply need help understanding one or two key concepts. In many instances, technology and digital learning provide more tailored options for the individual needs of students and their teachers. In many cases, this helps students who are not on track to graduate from high school by providing them with access to different instructional programs or courses.³¹



Learner-centered instruction that is personalized, rigorous, collaborative, and flexible increases opportunities for students to be prepared for college and a career. However, teachers must have the skills, knowledge, and resources to implement a learner-centered approach with their students. The next section describes the challenges of developing highly effective teachers and the changing role of the teacher in a learner-centered environment. This includes how the effective application of technology can assist teachers in meeting the needs of individual students.

TEACHING IN A LEARNER-CENTERED ENVIRONMENT

Challenges in Recruiting and Retaining Effective Teachers

Although research continues to show that effective teaching is the most important school-related factor in student achievement,³² access to effective teaching in the United States remains widely uneven and inequitably distributed. The disparities vary by locale and student population and include the shortage of qualified teachers in certain content or geographic areas, difficulties in retaining and recruiting teachers, and a lack of training in applying proven pedagogical strategies to personalize learning.³³

Many U.S. students do not have access to effective teachers of science, math, and foreign language courses. In SY 2007–08, nearly 60 percent of public school classes in high school physical science were taught by a teacher who had not majored in that subject area.³⁴ Finding and retaining certified STEM and language teachers is particularly difficult in rural areas; Minnesota, for example, has only 182 certified physics teachers working in its 971 high schools.³⁵ In general, schools with lower socioeconomic status have more teaching vacancies in science and math.³⁶

The current difficulty retaining and recruiting teachers in many schools and districts makes creating a learner-centered environment challenging.³⁷ One reason for teacher retention problems may be the recent decrease in job satisfaction—the largest decrease in twenty years. As MetLife notes,

Teacher job satisfaction has dropped 15 points, from 59 percent “very satisfied” to 44 percent between 2009 and 2011. An additional 37 percent noted that they are “somewhat satisfied” ... Additionally, 29 percent of teacher respondents noted that they are “very likely” or “fairly likely” to leave the teaching profession within the next five years to go to another profession. In 2009, only 17 percent of respondents said they were “very likely” or “fairly likely” to leave.³⁸

In part because fully 50 percent of teachers leave the profession within their first five years,³⁹ the nation’s teaching force is increasingly less experienced; today’s typical teacher has just one to two years of experience, compared to fifteen years in 1987.⁴⁰ The authors of *Understanding Teacher Working Conditions* write,

Teachers’ level of autonomy in instructional practice directly influences feelings of efficacy and level of commitment to the organization. In fact, participation in decision making increases teachers’ feelings of trust and sense of fairness because they directly influence classroom activities and learn to defend their practices. Conversely, the lack of control over classroom decisions, such as selecting curriculum and designing discipline policy in today’s high-stakes testing environment, is cited as a primary reason teachers leave the classroom.⁴¹

Even in schools that have qualified teachers across grade levels and subject areas, educators may not have the skills needed to apply instructional strategies identified as critical for effective teaching. This problem often varies widely among educators within schools and districts. Many educators rely on more teacher-centric methods to instruction rather than applying proven pedagogical practices in a student-centric approach, such as providing meaningful and appropriate feedback, modelling, using cooperative learning, and “scaffolding” students’ task engagement and performance.⁴² Scaffolding is an instructional technique in which teachers guide students from what they already understand and know toward mastery of and competence in new content. Teachers do this by designing effective learning experiences that take into account the learner’s individual progression of knowledge and understanding.⁴³

Professional learning opportunities for educators continue to be inconsistent across the country, and in many districts and schools these opportunities do not appear to meet the needs of teachers. In a recent study only 59 percent of teachers reported that professional development in their content areas was useful, and fewer than 50 percent found professional development in other areas to be useful.⁴⁴

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In countries where students demonstrate the highest achievement on international assessments, teachers receive far more support than U.S. educators do, and teaching is considered a prestigious occupation. In Finland, for example, teaching is viewed as the most admired profession among high school students; only 10 percent of applicants are accepted into programs to become primary school teachers.⁴⁵ In the United States, however, several challenges hinder the ability of the teaching profession to attract the strongest candidates and retain effective teachers. The lack of autonomy and support in pre- and in-service preparation as well as declining professional prestige results in a shortage of effective teachers, which then compromises the movement toward a learner-centered environment.⁴⁶ Extensive negative media coverage of problems such as contract disputes, layoffs, and accountability may also detract potential candidates. As Secretary of Education Arne Duncan recently pointed out, “We need to change society’s views of teaching—from the factory model of yesterday to the professional model of tomorrow—where teachers are revered as thinkers, leaders and nation-builders. No other profession carries a greater burden for securing our economic future.”⁴⁷

The current adoption of new teacher evaluation and teacher effectiveness systems across many states may affect whether or not a teacher sees moving toward a learner-centered environment as a viable option. The federal Race to the Top program requires states to develop a more comprehensive evaluation approach that includes “student growth” as one of its measurements.⁴⁸ The determination of the components, support, and culture that surrounds the implementation of the teacher effectiveness evaluation affects how a teacher views her ability to move toward a learner-centered approach to instruction. Evaluations may also focus on individual performance rather than teamwork and collaboration, both of which are needed to personalize learning effectively in a multidisciplinary way. While curriculum pacing guides and access to a range of content and assessment can support a teacher, they can also limit a teacher’s perception of her ability to take on new roles and focus on a learner-centered environment. States and districts have a responsibility to ensure that the teacher effectiveness and evaluation systems they implement promote rather than hinder progress toward learner-centered instruction.

Raised Expectations of Teachers

The global economy and more rigorous standards that increase the demands on students also raise the expectations of teachers. Teachers must have a deep understanding of content and pedagogy with a focus on how individual students learn. As the Council of Chief State School Officers (CCSSO) notes, “To ensure that each student learns new knowledge and skills, teachers must understand that learning and developmental patterns vary among individuals, that learners bring unique individual differences to the learning process, and that learners need supportive and safe learning environments to thrive.”⁴⁹ Educators must have opportunities to use more frequent and varied assessments and data to understand what students need so they can make informed instructional decisions for individual students. Educators must be able to apply proven instructional practices; research has demonstrated that well-designed and well-implemented practices produce gains in learning by increasing the amount of “relevant instructional time.”⁵⁰ However, teachers must have opportunities to develop the skills and knowledge needed to move toward learner-centered instruction. In many places, the current education system does not provide the time, training, or support teachers need for learner-centered instruction.

The CCSSO recently updated the Interstate Teacher Assessment and Support Consortium (InTASC) Model Teaching Standards, focusing on a new vision for teaching to improve student achievement.⁵¹ The InTASC report emphasizes the potential of technology to help personalize learning and create more independent learners:

One aspect of the power of technology is that it has made learners both more independent and more collaborative. The core teaching standards assign learners a more active role in determining what they learn, how they learn it, and how they can demonstrate their learning. They also encourage learners to interact with peers to accomplish their learning goals. In these ways, the standards embody a vision of teaching that personalizes each learner’s experiences while ensuring that every learner achieves to high levels.⁵²

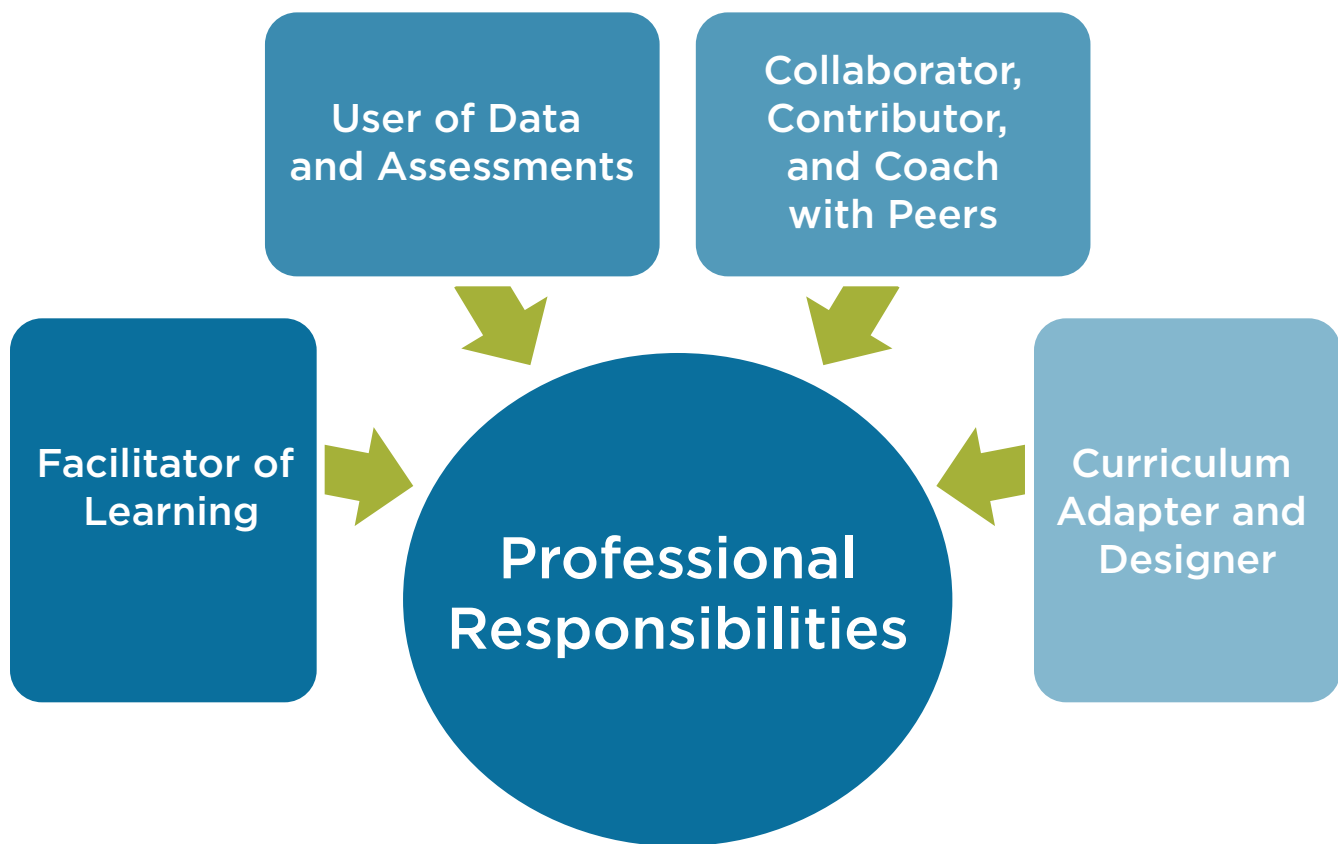
The InTASC standards outline high expectations for teachers to have the understanding, knowledge, and skills to ensure that instruction is personalized and meets the needs of a very diverse student body.⁵³ The goals and aspirations outlined in the InTASC report represent a significant shift for many teachers and align closely with the learner-centered approach described in this document. Similarly, the Center for Teaching Quality’s Teaching 2030 model envisions the future of teaching as “[t]eachers ... who are recruited for their diverse teaching skills and strategically prepared, in both virtual and brick-and-mortar venues, to mutually support each other’s learning, promoting a high level of interaction that is flexible, democratic, and person-centered.”⁵⁴

Teachers, working together with their peers, should understand the abilities and needs of each student and apply different strategies depending on those needs. Digital learning provides teachers with many options and tools around which to build lessons, analyze data and assessments, and personalize learning experiences. Even though technology and digital learning can dramatically support a more learner-centered approach, the United States is only beginning to realize the potential of technology for teaching and learning. While the National Center for Education Statistics reports that 97 percent of all teachers had access to a computer in their classroom in 2009, only 72 percent of all teachers, and 64 percent

of secondary school teachers, said they used computers for instruction.⁵⁵ The use of technology for instruction that supports the development of higher-order skills was not commonplace among educators: only 45 percent reported that students used technology to solve problems; 25 percent reported that students used technology to conduct experiments or create art, music, movies, or webcasts; 17 percent reported technology use in developing demonstrations or simulations; and 13 percent reported use for designing and producing products.⁵⁶

As educators move toward a learner-centered approach that prepares students for college and a career in the global economy, they have the opportunity to perform new roles that allow them to draw on their professional knowledge, creativity, and analytical skills to meet the needs of individual students.

Professional Responsibilities and Roles



Learner-centered instruction demands that teachers develop different professional roles and responsibilities. This allows many teachers to apply a wide array of skills to meet the needs of students and may also offer opportunities for more hybrid positions in the school in which they teach students as well as work in other capacities, including as a

- **facilitator of learning;**
- **user of data and assessments;**
- **collaborator, contributor, and coach with peers; and**
- **curriculum adapter and designer.**

- **Facilitator of learning.** The new culture and digital learning provide opportunities to shift the teacher's role from a disseminator of knowledge to a facilitator of learning or "education designer."⁵⁷ In the past, teachers and/or textbooks provided the majority of information and content to students. With the internet, digital content, and the ever-growing body of technological resources, students now have access to material on demand. This contributes to a shift in how teachers can spend the time they have with their students and the interaction and assignments when they are not together. Teachers can guide students in their learning and help them navigate information and resources and understand content; they can also help students think about and create their own knowledge base.⁵⁸ A teacher can focus efforts on asking questions, pushing students to develop their own products or knowledge, and providing opportunities for students to collaborate and utilize higher-level thinking skills.

One specific model made possible by technology that changes the role of the teacher is called "flipping the classroom," supported by the work of Sal Khan and Khan Academy. Flipping the classroom changes the way students typically utilize class and homework and involves careful consideration of how face-to-face teacher-student time can be best utilized for learning. Typically, students watch or listen to lectures at home, and then the teacher and students can interact as students work through activities and problems individually or in groups during the class period. Some teachers assign Khan Academy videos as the lectures to watch at home. In some districts, schools, and classrooms in North America, teachers assign students to either watch or listen to lectures that are recorded by the classroom teacher or another instructor on video or podcast. Because class time is no longer used for teacher-directed lectures, teachers and professors can provide students with different types of learning experiences during face-to-face or synchronous time together. Students often have more opportunities for collaboration with teachers and peers. Digital content and curriculum like that developed by Khan Academy provides another resource for teachers to utilize for learner-centered instruction. As of October 2011, the school boasted over 3.5 million unique users per month.⁵⁹

When the teacher serves as an educational designer,⁶⁰ the interactions and dynamics of student-teacher relationships change. Each student should have a close relationship with an adult adviser who can guide the student to resources in the community that further his learning goals. Transitioning the teacher from a passive, teacher-centric role of largely disseminating content knowledge to being actively involved in the student's discovery and application of information creates a powerful learning experience that positions students to see themselves as innovators and creators.⁶¹

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- **User of data and assessments to personalize learning.** For true learner-centered instruction, teachers need to have a better understanding of what students know and understand and how they learn most effectively. Technology allows teachers to have more immediate access to data and assessments, ideally including learning-style preferences and feedback from other teachers, and to focus more on formative assessment to drive instructional decisions. Formative assessments are ongoing check-ins or assessments that provide data to teachers immediately or in a timely manner.

Based on effective use of data, teachers can make decisions about what a student needs to learn and the most appropriate content and activities to support deeper learning. The new InTASC Model Core Teaching Standards emphasize that “teachers need to have greater knowledge and skill around how to develop a range of assessments, how to balance the use of formative and summative assessment as appropriate, and how to use assessment data to understand each learner’s progress and adjust instruction as needed.”⁶²

Teachers may integrate formative assessment seamlessly into daily instruction. For example, interactive response system devices or “clickers” allow teachers to get a quick snapshot of what students understand about a current standard or lesson. With more personalized learning, teachers may utilize a rubric to analyze student work and discuss a project with a student to learn more about her depth of knowledge or outstanding questions. EPortfolios provide a way to store students’ work digitally over time and offer a means for reflection on the work by the teachers, parents, and students. Rather than relying solely on multiple-choice tests,

teachers and students can analyze progress and needs based on a range of work produced by students. Additionally, ePortfolios can follow students from year to year, providing a more authentic means for demonstrating progress and understanding student needs than a once-a-year summative assessment.

Without technology and digital learning, personalizing learning with content that meets the needs of each student could be much more difficult on a daily basis; however, data and assessment systems tied to content and lessons make personalized learning more scalable for teachers.⁶³ Twenty years ago, teachers rarely had a multitude of data to utilize in planning instruction; currently, however, teachers in many districts run the risk of having too much data. Because of the vast amount of information, data and assessment systems must assist teachers to quickly identify and apply the most relevant information for each student. For example, “data dashboards” now exist that can identify the five or six most relevant data points for a student and/or standard. Additionally, teachers need professional learning opportunities to ensure that they have a clear understanding of how to utilize data. Many teachers have different ideas on using the information they collect,⁶⁴ and they may not be able to maximize the potential of student performance data if they have not had the opportunity to develop the skills to interpret it.⁶⁵ For teachers to become effective users of data and assessments, they must have both access to information in a way that is readily applicable to their instructional decisions and also the high-quality training to support their work.

“I instantly see the feedback of what I need to re-teach, how I need to adjust this, who is still struggling with this concept, and then I can assign just those people additional remediation. The data that we get goes into making me a better teacher, because I can really differentiate and really meet the kids where they are, and help them advance, wherever their starting point is.”

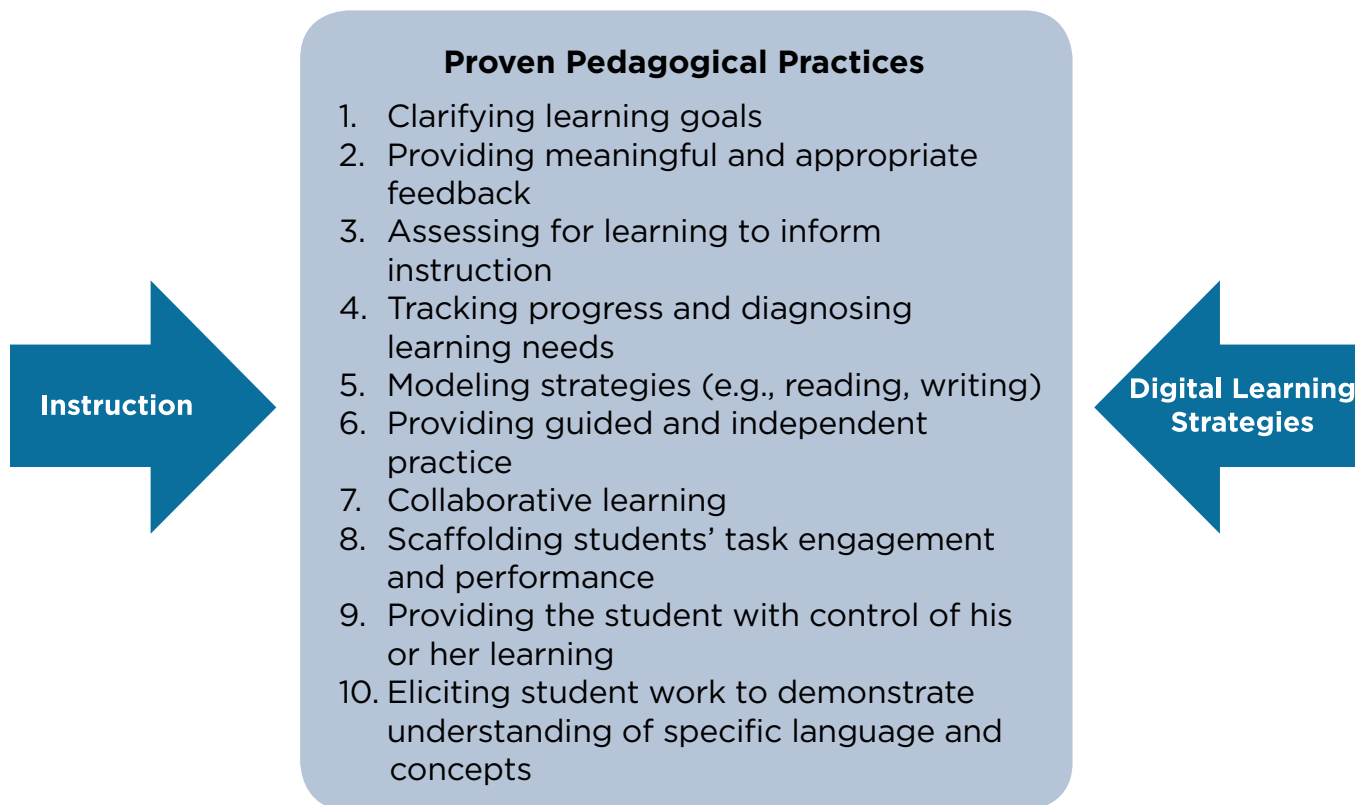
—Tracey Waid, Mooresville High School,
Mooresville Graded School District, NC

Teacher Emily Vickery shares the following in the Center for Teaching Quality’s Teaching 2030:

Successful teachers will become masters of a curation economy ... Teachers will be sought after for their expertise in editing and filtering digital content as they customize learning experiences.

- **Curriculum adapter and designer.** Teachers with a clear understanding of highly effective pedagogical practices have expertise that can be applied to curriculum design. With appropriate training and support, teachers can develop content, curriculum, and projects that are centered on the learner, and provide opportunities for students with different abilities, learning styles, and needs. For example, teachers can develop project-based learning opportunities that provide for cross-curricular learning that is often more relevant to the students. Teachers also possess an understanding of how students' learning develops within a subject area, the nature of gaps that may arise in students' understanding, and the strategies that can address students' evolving needs. Professional learning opportunities exist to support teachers in the development of curriculum, and some teachers develop the skills to design online or blended courses.

Although most teachers do not currently receive the pre-service training or professional learning opportunities to translate their pedagogical and content knowledge into the development of curriculum, some have participated in programs that support their transition to the role of curriculum designer. For example, the Education Development Center's Ed Tech Leaders Online program trains teachers virtually through courses and collaborative opportunities with peers to develop online courses and content.⁶⁶ The role of curriculum designer is complex and requires training in cognitive psychology and assessment in addition to a deep understanding of the proven instructional practices outlined below.



As documented in *The Digital Learning Imperative*, technology can provide more opportunities for teachers to design learning experiences and content that incorporate proven pedagogical practices. Teachers can identify, adapt, and put together many different types and sources of digital content to meet the needs of individual students. This requires extensive knowledge about pedagogy

and curriculum, and the increased access via technology and digital learning provides an almost endless supply of potential content. Teachers may have opportunities to apply their instructional expertise to the role of curriculum or educational designer.⁶⁷ Digital learning and technology can provide opportunities for teachers to apply evidence-based practices that support effective teaching and learning. Incorporating these proven practices provides students with the requisite extended opportunities to engage in meaningful and appropriate learning.

- **Collaborator, contributor, and coach with peers.** Although teachers often work in isolation,⁶⁸ learner-centered teaching encourages collaboration among educators to share and learn from each other. Teachers have the opportunity to work in teams to better understand specific students, to collaboratively plan lessons or cross-curricular projects, to learn together, and to ensure that all efforts are in line with the school improvement goals. Educators can be teacher leaders within their schools and also provide collective leadership as schools implement learner-centered instruction.

According to the CCSSO, “When teachers collectively engage in participatory decision-making, designing lessons, using data, and examining student work, they are able to deliver rigorous and relevant learning for all students and personalize learning for individual students.”⁶⁹ Collaboration among teachers has a significant impact on instruction and student outcomes. “Peer learning among small groups of teachers is the most powerful predictor of improved student achievement over time,”⁷⁰ and achievement scores in math and reading increase with higher levels of collaboration among teachers with a focus on school improvement.⁷¹ One particular collaborative opportunity that can benefit teachers and students is participating in professional learning communities. DuFour writes,

In professional learning communities ... schools create a systematic response—processes to monitor each student’s learning and to ensure that a student who struggles is provided additional time and support for learning according to a school wide plan. Furthermore, the response is timely. Students are identified as soon as they experience difficulty, allowing the school to focus on intervention rather than remediation. The response is directive. Students are not invited to seek extra help; they are required to receive the additional assistance and devote the extra time necessary to master the learning.⁷²

To be prepared for the multifaceted new roles in this more personalized, learner-centered environment, teachers need support and professional learning opportunities to help them develop new skills, maximize the potential of digital learning, and provide models and opportunities for practice and a school culture that encourages and facilitates the teachers’ roles. This may happen with experts and colleagues alike and in formal and informal settings.

PREPARING AND SUPPORTING EDUCATORS FOR NEW ROLES

Today's educators must be prepared and supported to teach in a learner-centered environment. Because teacher effectiveness is the single most important factor influencing student achievement in the school,⁷³ it is critical to consider how teachers are prepared and supported, especially with regard to the new roles outlined in the previous section. Professional learning opportunities for educators vary widely across the country in quantity, type, and quality. Professional development ideally should be “a process of continuous improvement for teachers and principals that transforms practice and increases student achievement.”⁷⁴ Extensive research emphasizes that effective professional learning opportunities should

- **be intensive, ongoing, and connected to practice;**
- **focus on student learning and address the teaching of specific curriculum content;**
- **align with school improvement priorities and goals; and**
- **build strong working relationships among teachers.**⁷⁵

Although the quality and type of professional learning varies widely, teachers typically spend between thirty-three and fifty-six hours per year on professional learning opportunities.⁷⁶ In a recent MetLife survey, 26 percent of teachers reported that professional learning opportunities have increased, 27 percent indicated a decrease, and 46 percent noted that opportunities were relatively the same.⁷⁷

Districts and schools in the United States have a difficult time ensuring that educators have access to meaningful professional learning opportunities consistent with the critical qualities identified in the above list. Teachers often report that the professional development offered to them is not useful; according to a 2009 National Staff Development Council study, “nearly half of all U.S. teachers are dissatisfied with their opportunities for professional development.”⁷⁸ In many cases, professional development does not provide chances for collaboration on curriculum and instruction, and some professional development opportunities are designed to appeal to a larger group of teachers rather than focusing on specific areas of need. At least 90 percent of teachers in the U.S. have participated in professional development that involves workshops or short-term conferences, and only 22 percent have observed classrooms in another school.⁷⁹

A significant discrepancy exists in professional learning opportunities for educators when comparing the U.S. to other countries that perform higher on international assessments, such as Finland and Singapore.⁸⁰ This includes the priority placed on professional learning that meets the needs of educators and the amount of time dedicated within the work day. These other countries dedicate significant resources to professional learning opportunities that are ongoing and sustainable and emphasize collaboration among educators.⁸¹ Teachers in the United States participate in significantly fewer hours of professional learning than other countries and spend about 80 percent of their working time instructing students, while educators from more successful nations spend about 60 percent of their time in classrooms.⁸²

While providing effective professional learning opportunities presents a challenge for many districts and schools, the efforts can lead to significant results for students. Technology and digital learning increase access and opportunities for professional learning by increasing flexibility in terms of time and eliminating the confines of geography for opportunities. Teachers have access to more courses and formal professional learning, as well as increased exposure to peers and colleagues from around the world.⁸³ This can increase teacher effectiveness as well as student achievement. Joellen Killion writes that “[a]ccording to the research, these intensive professional learning efforts that offered an average of forty-nine hours per year boosted student achievement by approximately 21 percentage points.”⁸⁴ The dramatic results of creating professional learning opportunities and support provide an impetus to meet the effective professional development standards above to improve student achievement.

Professional Learning: Formal

Formal professional learning comes in many forms and may be offered by the state, district, school, or university or organization. Formal professional learning may include full courses in person, blended, or online, workshops or webinars, professional learning communities, or coaching or mentoring.⁸⁵ Educators identify several specific priorities for professional learning opportunities: specific content areas, classroom management, working with special needs students, and integrating technology in the classroom.⁸⁶ Repeatedly, teachers want professional development that directly relates to their work.

Technology can greatly enhance the formal professional learning opportunities in which teachers participate by expanding access to courses, peers, experts, resources, and digital content. As Killion reports, “Technology increases access to and availability of professional learning and expands the way educators acquire information and meet their personal and professional goals for continuous development.”⁸⁷ More formal opportunities include online courses, professional learning communities, and coaching.

Technology can greatly enhance the formal professional learning opportunities in which teachers participate by expanding access to courses, peers, experts, resources, and digital content.

Online and blended courses are frequently offered by and/or developed by universities, school districts, state departments of education, and education organizations. Educators may take courses with a cohort from their district or school or independently. The types and quality of online courses vary, but a high-quality teaching and learning experience can lead to positive changes in teaching and learning.⁸⁸ The Education Development Center’s Ed Tech Leaders Online program implemented eLearning for Educators in ten states across the country, and research results demonstrate that when educators participate in high-quality professional learning, teacher instruction and content knowledge improves and student achievement increases.⁸⁹

In the Standards for Professional Learning, Learning Forward reports that professional learning within communities—known as professional learning communities, or PLCs—“requires continuous improvement, promotes collective responsibility, and supports alignment of individual, team, school, and school system goals.”⁹⁰ PLCs can operate face-to-face, online, or in a blended model. Many schools develop PLCs for staff members. For example, Morris Grove Elementary School in Chapel Hill, North

Carolina, views each grade level as a dedicated PLC. Educators work together to plan, learn, identify goals, and reflect on progress. A PLC may include educators from different schools within a district or even beyond a district.

Coaching and mentoring are examples of formal professional learning opportunities for educators that have been proven to improve student achievement.⁹¹ Coaches and mentors may be peers or administrators in the school, district, or other organization and ideally are able to provide one-on-one support and guidance to educators. Technology has increased access to coaches and mentors who may or may not be from the same school building. Researchers from a study funded by the U.S. Department of Education on virtual coaching cited the following benefits:

The immediate feedback, which enables a teacher to make better decisions, rescue a shaky lesson, and learn as he or she teaches, is one important advantage of virtual coaching ... Other benefits include savings in time, money, and travel. For instance, central office administrative specialists could conduct virtual coaching sessions with teachers in several schools without accruing travel costs or time. Professional experts in one district or state could virtually coach teachers or principals in another, to meet a particular need.⁹²

Additionally, coaches can easily film lessons and share digital resources and planning through collaboration technologies to ensure that the opportunities are job embedded, ongoing, and sustainable.

Professional Learning: Informal

Many educators seek out informal learning opportunities to meet their professional needs and to connect and collaborate with educators beyond their school or district. About 25 percent of teachers in the United States belong to at least one online professional learning community.⁹³ In *Mobile Learning for Teachers in North America*, Jennifer Fritschi and Mary Ann Wolf write that online communities of practice and professional learning communities “are especially beneficial for teachers who feel isolated because they are in rural areas and those who teach a low-incidence subject with no colleagues in their school or district.”⁹⁴ Digital learning and technology have dramatically expanded the opportunities for teachers to learn on their own through social networking sites, digital content and published materials, and more formal communities of practice. While the discussions or topics covered may not be formally linked to a district’s initiatives or priorities, educators often find people from other districts or schools who are working to meet the same challenges and goals.

Pew reports that nearly two-thirds of all adult internet users participate in social networking.⁹⁵ Along with other adults in the United States, many educators access information online. One benefit of using online opportunities for professional learning is that it is more likely to be available at the right time. As the authors of *Teaching 2030* write, “Soon, not just students, but also their teachers will prefer just-in-time virtual learning opportunities that will break up their longstanding isolation from each other and escalate the possibilities for excellent teaching to spread from one classroom to another.”⁹⁶

Communities of practice (CoP) are similar to PLCs, but they typically involve many more participants and may not be centered on specific, common goals.⁹⁷ Online CoPs have dramatically increased the access for educators to resources, experts, and peers. Many educators who seek collaboration and

opportunities to learn more than what is available in their own school may connect with others from around the country or world through a CoP.⁹⁸ For example, the U.S. Department of Education has several CoPs focused on specific topics, such as assessment or the use of technology in the classroom. A new CoP, Epic-Ed, will launch in 2012 to provide support, ideas, resources, and collaboration space for education leaders planning and implementing initiatives involving technology and digital learning.⁹⁹

Teacher-Made Virtual Groups Support Texas Teachers

Last summer, fifth-grade teachers in Texas were required to take a static online course on the new math curriculum. Upon returning to school in the fall, the “implementation dip” began to occur — when teachers began integrating the new curriculum into their classrooms, they needed on-going support in order to do so successfully. Together, teachers used Project Share, an online engagement management system, to form collaborative groups. Within these groups, they co-planned lessons, problem-solved, and shared resources. Geographical boundaries were lifted and teachers worked together, across the state, like never before. When investigated by state personnel, it was noted that in the first September of the Project Share implementation, 800 teacher-made groups were formed. Teachers were excited to collaborate with their peers but needed a platform to do so. The teacher-made and state-led virtual groups help provide on-going, job-embedded support, and collaboration on topics that are specifically relevant to the teachers’ daily work.

Some educators look for informal professional learning opportunities because they can personalize the experiences to meet their needs. In some cases, teachers who are early adopters of digital learning or other instructional strategies do not have peers with whom to collaborate in their own school or district, so they seek out others on social networking sites or CoPs. Some teachers learn by following other educators on Twitter. This may help them to learn about organizations or conferences in their areas of interests or education resources or blogs to follow.

In many cases, informal learning serves a different purpose than more formal opportunities as it relates to building collective ownership of school or district goals. However, informal learning can augment more formal opportunities in a school or district and allow educators to share ideas learned from around the world with their peers. For others, informal learning is the primary source of professional development. Technology continues to expand the possibilities for professional learning opportunities; in the years to come, mobile technologies such as tablets and smartphones will likely increase access and encourage more educators to collaborate online.

Pre-service Opportunities

In-service professional learning opportunities are often seen as building on what educators learned or were exposed to in their teacher preparation, or pre-service, programs. While educators enter the teaching workforce through various avenues, they primarily come through a traditional college of education, a teacher certification program, or an established alternative certification route. To implement learner-centered teaching and learning, the relationship between teacher preparation and in-service education will continue to be critical for new teachers. Charles Coble, cofounder and partner of Teacher Preparation Analytics, writes:

Teacher education in higher education is at a critical juncture. It must be focused less on learning about teaching and focus more directly on teaching for student learning. We have to front-load clinical experiences and then deepen those experiences with the full engagement of Master teachers. Failure to do (at least) this will be a forfeiture of relevance for teacher education in higher education.

Many educators say that they do not feel prepared when entering their first teaching experience, and the pre-service experience can be very disconnected from the realities of teaching. According to *Teaching 2030*, “The early 21st-century evidence is clear: Not enough teachers—whether they enter teaching through university-based programs or shortcut approaches—experience the quality of training they need to serve students well.”¹⁰⁰ While student teaching as part of teacher preparation can provide an initial connection to a district or school, few current efforts make a purposeful connection among pre-service teachers, university professors, and the district’s professional learning opportunities and resources. With this in mind, the National Center on Teaching and America’s Future has implemented the Teachers Learning in Networked Communities (TLINC) project, which is designed to increase the collaboration and communication among these groups (see box).

National Commission on Teaching and America’s Future: Teachers Learning in Networked Communities Project

The NCTAF implemented the Teachers Learning in Networked Communities (TLINC) project to connect pre-service teachers with mentors and peers from universities and districts and create a “blended collaborative learning environment.” Recognizing the many demands and challenges that pre-service and new teachers face, TLINC utilizes professional learning communities to provide opportunities for support, collaboration, reflection, and sharing among experienced educators, university professors, and pre-service teachers. This encourages discussions and connections between university work and classroom experiences and builds a feedback loop for graduates with their teacher preparation programs.

TLINC recently expanded to include mobile devices for the pre-service teachers to ensure anytime, anywhere access to mentors, peers, planning resources, and digital content. The student teachers will have access to and be able to communicate with other teachers, peers, and professors in real time. TLINC 2.0 will increase opportunities for virtual observations to support coaching and communication with university professors. The intent is that student teachers will have better access to resources, experts, and peers as they learn more about pedagogy and instruction, and that they will also learn a great deal about teaching and learning with technology.

Source: National Commission on Teaching and America’s Future, “TLINC,” 2011, <http://nctaf.org/tlinc/> (accessed September 28, 2011).

Many teacher preparation programs continue to focus on a teacher-centric environment and do not provide new teachers with the skills and knowledge they need to teach in a learner-centered environment. Teacher preparation programs need to incorporate the tenets of a learner-centered environment and address the various roles that teachers may take on as professionals in the schools. For most colleges of education and other alternative routes to teaching, this represents a significant shift in content, pedagogy, and pre-service experiences.

CULTURE SHIFT TO SUPPORT LEARNER-CENTERED INSTRUCTION

A true shift to a learner-centered environment, including new roles for teachers and effective professional learning opportunities, requires a strong culture that embodies, encourages, and focuses on the needs of each student. This new culture is critical for real change to happen and to raise the achievement and graduation rates so that U.S. students are prepared for the global economy; it will, however, be nearly impossible to enact at scale without the integration of technology and digital learning. Administrators, teachers, students, and parents must all have a commitment to personalized and collaborative learning, and educators must be empowered to use innovative approaches for learner-centered instruction. Teachers must also have the support systems and professional learning opportunities to develop and continue to grow their skills and access the resources needed.

While many schools and leaders would like to move in this direction, the education system faces many challenges that can hinder the development of strong cultures in schools. However, through a collective vision and specific focus on developing a culture that supports a learner-centered environment, schools, districts, and states can empower teachers and students to ensure that graduates are prepared for college and a career. The qualities of a learner-centered environment, teaching in this new environment, and the professional learning opportunities needed are discussed throughout this paper, and this section specifically points to the leadership, changes in the teaching profession, and the integration of digital learning that are critical to the transition to this new culture, and provides tangible recommendations for education leaders and stakeholders.

The school administrator's support of a learner-centered environment is critical for teachers to fully meet the needs of each student; a culture that is not supportive can have devastating results. Teachers may worry about being penalized for utilizing innovative or personalized approaches to learning, or they may feel that they are not supposed to make professional decisions but, rather, should teach in a prescribed way to all students at the same time. Other teachers do not receive high-quality professional learning opportunities or the time they need to develop the skills and abilities to utilize digital learning and other instructional strategies.

Dr. Gail Pletnick, superintendent of Dysart Unified School District, in Surprise, Arizona, discussed the challenges they encountered in a district that grew from 5,000 students to 25,000 students in twelve years. She emphasized the importance of strategic planning with a clear goal to ensure that students are ready for the future. When faced with a complication, she would ask, "Is this a barrier or a pothole?"

School leaders have the opportunity to build a strong culture that supports a learner-centered environment. The school culture must encourage, expect, and support the kind of teaching and learning that prepares students for college and the workplace, and must also provide educators with the time and professional learning opportunities to develop and sustain the skills and efforts needed for learner-centered instruction.

In the video *Role of Leaders in 21st Century Education*, several superintendents from across the country share their perspectives on the role of leaders in twenty-first-century education, with an emphasis on teamwork and involving all stakeholders.¹⁰¹ The school leaders say that this takes time, and that they encountered challenges as they worked to establish and sustain a strong culture focused on the learner-centered approach. Principals and superintendents also discuss the importance of modeling and practicing the collaborative approach with teachers. Leaders who seek a collaborative environment review data with teachers and work with them on how they can improve student outcomes. Teachers have opportunities to take risks and try a new instructional strategy, and they also have the support for professional learning opportunities in their school and with outside experts. Some stakeholders, including administrators, teachers, parents, students, and community members, have to learn to operate in this new culture, but a concrete goal and a constant return to the vision of improving student learning can help create the environment needed for students and teachers to thrive.

Culture Is a Team Effort:

Morris Grove Elementary (Chapel Hill Carrboro City Schools, NC)

Amy Rickard, principal of Morris Grove Elementary, in Chapel Hill, North Carolina, intentionally seeks out excellent educators who want to work together. She emphasizes that “culture is not about the principal or one leader. It’s about the team.” She says that the classroom teacher is the closest to the student, and school support and professional learning opportunities must be designed in a way that ensures that the teams and teachers have what they need. Educators share ownership of the students, even in terms of assessments and results. Grade-level teams and specialists provide differentiated instruction across grades, and all teachers work with all students. In this environment, if one teacher’s students have performed better on a particular unit, the other teachers are encouraged and are willing to learn from his or her experience. The constant communication and collaboration also support new teachers because they are immediately part of the team and the professional learning community at their grade level.

While a principal plays a critical role in establishing the culture in a school, it is the connection among stakeholders that sustains and dictates the strength of that culture, as described in the example above from Morris Grove Elementary in Chapel Hill, North Carolina. At Morris Grove, African American, Hispanic, and Limited English Proficiency students and students with disabilities consistently perform significantly higher than district and state averages on end-of-grade assessments.¹⁰²

Educators must be empowered to learn from each other and to change their current practice to move toward a learner-centered environment. Classrooms may not be as quiet, and students should be working on different things at different times. Esther Wojcicki, a journalism teacher at Palo Alto High School, writes that “[t]eachers need to empower students as learners and collaborators in learning by giving up some control to the students. They need to allow students to search for and find information to share with their peers and the teacher.” Teachers cannot fear that they will be penalized for asking a question and must genuinely trust that they share ownership of the students. While instructional practice should

be evidence based, educators need to trust that it is acceptable to try a new lesson or strategy and possibly fail, and that reflection and learning will be encouraged.

School leaders and principals should also be engaged in a process of providing feedback and reflecting with teachers to encourage an ongoing discussion about instruction and potential for improvement. Principals and teachers, teams of teachers, or PLCs can have discussions about data, including what it means and how teachers can address any gaps or challenges.

The increased opportunities and challenges placed on teachers in a learner-centered environment could have a positive effect on the profession of teaching. As noted above, teacher satisfaction and morale is the lowest it has been in decades. The MetLife Survey of the American Teacher shows that this has been accompanied by a 12 percent increase in the number of teachers who expect to leave the profession within two years. Teachers also report that they are feeling the effects of economic challenges, with decreases in health and social support services provided to their students, larger class sizes, and out-of-date instructional materials and educational technology.¹⁰³ Additionally, the media and other policymakers frequently describe teachers in a negative light and rarely credit the work they are doing with students. Teaching is rarely viewed as an esteemed profession, as it is in countries like Singapore or Finland.



The newer teaching standards and vision for educators, such as the InTASC standards and the Teaching 2030 model referenced previously, could potentially support an improvement in the perception of the teaching profession and also in the type of work and roles that teachers can engage in. Common core state standards, digital learning, and a learner-centered approach allow teachers to utilize their wide array of skills and knowledge and work to improve student learning in innovative ways. The culture shift required to move toward a learner-centered model must respect teaching and what is necessary to meet the individual needs of students on a daily basis. The culture must carefully consider collaboration among teachers and the development of a professional learning community among educators in which they are all working together toward the same goal.

Finally, leaders and teachers must also have a deep understanding of how technology and digital learning can support the culture shift to a learner-centered environment. Including digital learning and technology in the strategic planning, curriculum development, data and assessment decisions, and professional learning opportunities allows the school or district to provide tools, resources, data, and systems that increase the options and opportunities as well as promote efficiency. Technology allows educators to increase the productive use of data on a regular basis and to provide individual students with different types of learning experiences at different paces, times, and locations. As teachers connect pedagogy and content, integrating technology must reflect content learning along with practices to advance students' progress toward more advanced knowledge and skills. Educators thus apply proven instructional strategies in a more learner-centered approach and in different ways for students with diverse needs.

RECOMMENDATIONS

The following recommendations provide some specific areas of focus for stakeholders in education—including state and district leaders, principals, teachers, and community and business leaders—seeking to transition schools to the new learner-centered culture to meet the needs of today’s and tomorrow’s students:

- ✓ Develop a deep understanding of what it means to have a learner-centered environment; identify the many potential changes that must be made from the current instructional models; and create opportunities to discuss and observe learner-centered instruction among all parties involved in a student’s learning process.
- ✓ Provide leaders with the professional learning opportunities needed to understand how to initiate and grow a strong culture of a learner-centered environment in a school.
- ✓ Empower school and district leaders to develop collaborative working environments for teachers that set high expectations and provide the support needed for educators and staff.
- ✓ Integrate technology and digital learning into the strategic planning and culture discussions within the school to maximize potential to support learner-centered environments, including the use of data and assessments, multiple types of digital content and curriculum, and collaborative opportunities for teachers and students.
- ✓ Elevate the profession of teaching by understanding the complexities of teaching very diverse students in a learner-centered environment; establish teacher effectiveness evaluations that support growth and take into account multiple variables; and align professional learning opportunities to evaluations.

The movement toward a learner-centered environment and the culture shift needed to achieve and sustain it will require significant changes in the education system. The ability of all students, as well as those committed to their education, to realize the full benefits of a learner-centered environment will be greatly increased with the effective application of digital learning and technology. Successful examples demonstrate that determined commitment, proper teacher support, and strategic technology integration can create this critical shift in educational culture that all U.S. students need to succeed in college and a career.

This brief was written by Mary Ann Wolf, PhD, a digital learning and technology consultant for the Alliance for Excellent Education.

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