

District Conditions for Scale: A Practical Guide to Scaling Personalized Learning



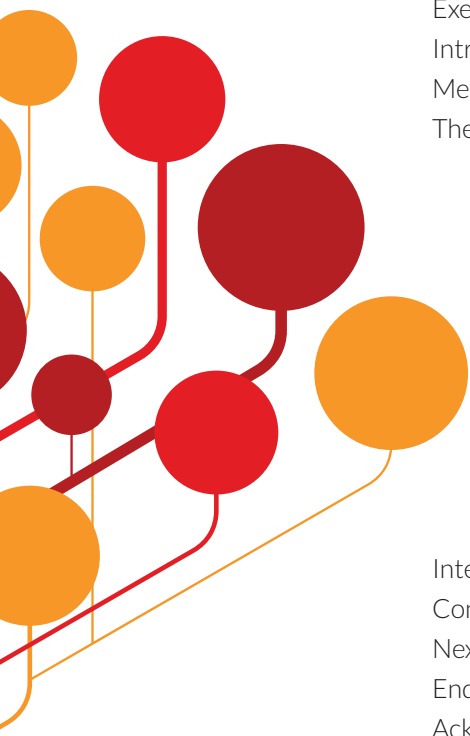
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Executive Summary

Over the past few years there have been numerous publications, reports, and briefs released that focus on the elements of an innovative school from a programmatic and a policy standpoint. These have helped to shape what practitioners and policymakers expect to see in innovative, student-centered, or personalized learning environments. Personalized learning, broadly speaking, is stuck in the school pilot phase. There are countless examples of personalized learning environments, models, and schools from coast to coast. We have all seen that great school or model and the world of possibilities it offers for the students that attend the school. But how are the other students in that district being educated? How do we reach a level of scale for personalized learning? How do we move from the isolated examples to whole systems designed around providing personalized learning options for all students? How do we build a school system, a learning system, with personalized learning at the core? One important step in this work is to identify the conditions for scale that exist at a district level. In other words, what are the conditions that a K-12 school district should put in place to support the scaling of personalized learning?

Why is scaling educational concepts such as personalized learning so difficult? Our current system is outmoded, designed for a time that is long since passed. Our system was designed for a time where low graduation rates, from both secondary and post-secondary, were absorbable into an economy brimming with and driven by industrial era jobs with union protections and benefits. That is not the economy of today, but our education system stands as a relic of the industrial age. The structures of our current system push against innovation, often thwarting it and blocking change beyond incremental tweaks.

What are the conditions that a district leadership team and school board should put in place to scale personalized learning? We have seen some bright spots across the country from Kentucky to Maine, from Iowa to Colorado, from New Hampshire to Ohio. The conditions that we put forth and examine are based on KnowledgeWorks' secondary research into this area as well as extensive primary research. We conducted interviews of district superintendents and district leadership teams from across the country who are leading system level scale around personalized learning. The secondary and primary research provided the basis for our ten District Conditions for Scale. It is important to note that the District Conditions for Scale would work to scale more traditional educational approaches; however, KnowledgeWorks maintains a bias that personalized learning is and will be the catalytic force for educational change in the United States.

In the paper that follows, we discuss in depth each of the ten district conditions, explore the cross cutting meta themes, and begin to build the alignment between the district conditions and state policy levers. As this work evolves, KnowledgeWorks believes that not only does unlocking the role for districts and district leaders hold the key to scaling personalized learning but also to aligning a supportive, flexible state policy environment will fully unlock the education system.

The District Conditions for Scale follow:

1. Curriculum

Curriculum must be aligned to the district's vision for teaching and learning and should be reviewed regularly to ensure alignment. The standards and learning targets contained in the curriculum should be consistent and easily understood for every student, although the ways in which students meet those standards may differ in order to provide a personalized learning experience for each student. These multiple pathways to meeting standards should be informed by real-time data on student performance and engagement, students' learning styles and interests, and the goals of the student and parents.

2. Instruction

Instructional practices must be aligned with the district's vision for teaching and learning. Instruction should be focused on teaching students how to learn, shifting from a teacher-led to student-led model incorporating differentiated instruction (incorporating direct instruction, mastery learning, blended and project-based learning, flipped models, etc.). Finally, instruction should be rigorous and relevant to students' needs and interests, and progression should be based on mastery, avoiding the "mile-wide, inch-deep" phenomenon.

3. Comprehensive Assessment System

Each district should implement a comprehensive assessment system that is aligned with the district's vision for teaching and learning. Assessments should include formative, interim, and summative assessments. Instant feedback from ongoing embedded assessments - including, but not limited to portfolios, capstone projects, performance-based assessments, curriculum-embedded assessments - should be used to monitor student progress and adjust day-to-day learning activities. Summative assessments should be offered multiple times a year, when students are ready to take the exam, and students should have multiple opportunities to show mastery of the assessment.

4. Learning Environments

Districts should cultivate learning environments, both inside and outside the school walls, that support high expectations for all students while fostering a culture of trust, support, equity, and inclusiveness. Continuous improvement should be embedded in the culture of the district and driven by student achievement data and other success indicators. Lastly, real efforts should be made to celebrate district and school successes.

5. Student Supports

Students should get the supports and interventions they need to be successful when they need them, not after they've taken a summative assessment at the end of the year. These supports should be informed by instant feedback based on frequent formative assessments and, to the extent possible, be embedded in learning. Schools should be given the flexibility to use the time in the school day/year as they see fit in order to provide these supports.

6. Professional Development

Each district should offer a job-embedded professional development program that aligns with the district's vision for teaching and learning and to student needs. The professional development program should foster a culture of collaboration and continuous improvement while leveraging technology that creates a customized experience for each teacher that is available at any place and time.

7. Leadership Development

A district should have a leadership development program that identifies and trains leaders at the classroom, school, and district level. This includes involving educators and other staff members in the visioning process, strategic planning, partnership cultivation, and curriculum review.

8. Technology Policy

Districts must have a technology policy that allows for ubiquitous, safe access to the internet at all times of the school day. Districts should also address deficiencies in infrastructure in order to support a more connected student population at scale.

9. Comprehensive Data Systems

Districts should maintain a comprehensive data system consisting of learning management, assessment, and student information systems. These systems should be able to track student achievement history, teacher comments, supports and interventions, and other indicators while protecting student-level privacy.

10. Partnerships

Each district should cultivate partnerships with business, community, and higher education constituents in their communities (including local and county government, recreation, juvenile justice, faith-based, etc.). These entities should be involved in creating a district vision and strategic plan that is aligned with a broader economic and workforce development plan for the community. All aspects of teaching and learning within the district (curriculum, instruction, assessment, professional development, etc.) should be aligned to this vision. In addition, these partners should assist with creating various learning opportunities (internships, mentor programs, work-based experiences, service learning, etc.) and publish a list of these opportunities for all learners.

One might ask, why focus on scaling personalized learning at the district level? The reasons are twofold. First, in the United States, the district level is the level of implementation. The district level is closest to the schools and thus the students as well as to the educators. Moreover, the district level has the most control over system vision, curriculum, and instruction, as well as formative assessment and student supports. Secondly, by solving for scale at the district level we gain a clearer vision for what supportive, enabling, and catalytic policy can look like at both the state and federal level. This begins to solve for a better aligned, more supportive education system that is oriented towards putting the student at the center of the system through a vision and focus on personalized learning. To move to truly focusing on personalized teaching and learning, it demands a coordinating move from pilot phase to true scale.



Introduction

Over the past few years there have been numerous publications, reports, and briefs released that focus on the elements of an innovative school from a programmatic and a policy standpoint. These have helped to shape what practitioners and policymakers expect to see in student-centered, personalized learning environments. Personalized learning, broadly speaking, is stuck in the school pilot phase. There are countless, isolated examples of personalized learning environments, models, and schools from coast to coast. We have all seen that great school or model and the world of possibilities it offers for the students that attend the school. But how are the other students in that district being educated? How do we reach a level of scale for personalized learning? How do we move from the isolated examples to whole systems that provide personalized learning options for all students? How do we build a school system, a learning system, with personalized learning at the core? One important step in this work is to identify the conditions for scale that exist at a district level. In other words, what are the conditions that a district should put in place to support the scaling of personalized learning throughout a K-12 school district?

For the purposes of this paper, KnowledgeWorks defines personalized learning in the following manner. Personalized learning requires the following elements:

- **Instruction that is aligned** to rigorous college-and-career ready standards and the social and emotional skills students need to be successful in college and career;

- **Instruction that is individualized**, allowing each student to design learning experiences aligned to his or her interests;

- **Pace of instruction that is varied** based on individual student needs, allowing students to accelerate or take additional time based on their level of mastery;

- **Educators' use of data** from formative assessments and student feedback in real time to differentiate instruction and provide robust supports and interventions so that every student remains on track to graduation;

- **Student and parent access** to clear, transferable learning objectives and assessment results so they understand what is expected for mastery and advancement.

Why is it so difficult to scale educational practices such as personalized learning? Our current system is outmoded, designed for a time that is long since passed. Our system was designed for a time where low graduation rates, from both secondary and post-secondary, were absorbable into an economy brimming with and driven by industrial era jobs with union protections and benefits. That is not the economy of today — our education system stands as a relic of the industrial age. The structures of our current system push against innovation often thwarting it and blocking change beyond incremental tweaks. Rick Hess, K-12 and Higher Education Scholar at the American Enterprise Institute, began his 2010 book, *The Same Thing Over and Over: How School Reformers get Stuck in Yesterday's Ideas*, in the following way:

How would you respond if asked for a plan to transform America's schools into a world-class, twenty-first-century system? Now imagine that there is one condition: you must retain the job descriptions, governance arrangements, management practices... and calendar of the existing system. Hopefully, you would flee just as fast as you possibly could and if so, you would be way ahead of the rest of us who have spent decades slogging through the dismal scenario.¹

This quote paints a bleak picture of the obstacles that are in the way when it comes to reforming our current education system.

Even with systemic obstacles, we are seeing districts begin to scale personalized learning. To Hess' point, there has been a great deal of both "fleeing" and "slogging" but some districts have begun to put the right pieces in place to extrapolate best practices, refine them, and scale them across schools within their districts. It is known that a strong visionary leader is needed to begin and lead change. In the preface of their work, *The Leader's Guide to 21st Century Education: 7 Steps for Schools and Districts*, Ken Kay and Valerie Greenhill, state the following, "One thing that stands out clearly for us is this: No school or district is doing real 21st century education work today without a strong leader. Individual educators or programs can produce inspirational results, but without the support of teacher-leaders, principals, and superintendents, the work does not sustain itself."²

Beyond leadership, what are the conditions that a district leadership team and school board should put in place to scale personalized learning? We have seen some bright spots across the country from Kentucky to Maine, from Iowa to Colorado, from New Hampshire to Ohio. The conditions that we put forth and examine are based on KnowledgeWorks' secondary research into this area as well as extensive primary research. We conducted interviews of district superintendents and district leadership teams from across the country that were leading system level change around personalized learning. The secondary and primary research provided the basis for our ten District Conditions for Scale. It is important to note that the District Conditions for Scale are agnostic; however, KnowledgeWorks maintains a bias that personalized learning, as previously defined, is and will be the catalytic force for educational change in the United States. As this work evolves, KnowledgeWorks believes that not only does unlocking the role for districts and district leaders hold the key to scaling personalized learning but building a supportive, flexible state policy environment will also be required to fully unlock the education system.

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One might ask why focus on scaling personalized learning at the district level? The reasons are twofold. First, in the United States, the district level is the level of implementation. The district level is closest to the schools and thus the students as well as to the educators. Moreover, the district level has the most control over system vision, curriculum and instruction, as well as formative assessment and student supports. Secondly, by solving for scale at the district level we gain a clearer vision for what supportive, enabling, and catalytic policy can look like at both the state and federal level. This hopefully begins to solve for a better aligned, more supportive education system that is oriented towards putting the student at the center of the system through a vision and focus on personalized learning. A systemic focus on personalized teaching and learning demands a coordinating move from pilot phase to true scale.

Methodology

In the sections that follow, we discuss in depth each of the ten district conditions, explore the cross cutting meta themes, and begin to build the alignment between the district conditions and state policy levers. Each of the district conditions were defined based on lessons KnowledgeWorks has learned from its subsidiaries' EDWorks and StriveTogether, work in the field from across the country, and secondary education research. Once the district conditions were defined, KnowledgeWorks interviewed almost 30 district leaders from across the country in an effort to refine, align, and validate the conditions against what is working in the field. The interviews created feedback and data which was used to refine each district condition. Moreover, superintendents' comments were organized into themes and then meta themes that are cross cutting through each of the ten conditions. Lastly, we collected best practices associated to each of the conditions to provide a better illustration for the implementation of the conditions. A summary of this research for each condition, along with definitional language and examples of best practices, follow.

1. Curriculum

Curriculum must be aligned to the district's vision for teaching and learning and should be reviewed regularly to ensure alignment. The standards and learning targets contained in the curriculum should be consistent and easily understood for every student, although the ways in which students meet those standards may differ in order to provide a personalized learning experience for each student. These multiple pathways to meeting standards should be informed by real-time data on student performance and engagement, students' learning styles and interests, and the goals of the student and parents.

It should come as no surprise that **curriculum** is one of the ten District Conditions for Scale. The subjects, course of study, and any aligned supplemental modules or extra-curricular alignment are all within the scope of the district's purview. Curriculum is the foundational element for any district but even more so for scaling personalized learning. If we had to rank the most important condition for a district to put into place, we would strongly argue for a vibrant, engaging, student-centered curriculum. Districts that are actively scaling personalized learning do not rely on one-size fits all scope and sequence and pacing guides that plague many schools and classrooms across the country.

It goes without saying that in our current educational climate, the curriculum is fully aligned to a robust set of college and career ready standards and to teacher professional development. Moreover, through the lens of personalized learning there is a new level of transparency needed within the curriculum. That transparency demands a consistency and deep understanding by students to not only know what they need to know but also how they can demonstrate that learning. The reason for this transparency is that the notion of one size fits all has been dismissed by a district that is leading personalized learning. As Angela Olsen superintendent from Spirit Lake, Iowa offered, "Students need to be able to set personal goals and work through learning progressions—one size does not fit all." With this, educators are able to tap into a student's passion and thus foster engagement.

The issue of student engagement was prevalent throughout conversations with district leaders about the vital nature of curriculum in driving personalized learning. One district leader mentioned that measuring engagement is important, but they are unsure of how that can be done. Other districts, such as Spirit Lake, Iowa and Lawrence Township, Indiana focus on multiple pathways and community level partnerships. These pathways and partnerships allow for students to follow areas they are passionate about, explore new topics or career paths, gain

post-secondary credit at local institutions of higher education (or via distance learning), or get on-the-job training through internships.

Other best practices that emerged in this condition of curriculum was that a vibrant curriculum needed to be rich and focus primarily on core academic subject matter but must be infused with skills as well. These skills have been called many things from 21st Century Skills to Deeper Learning Skills to the 4C's (critical thinking, communication, collaboration, and creativity). Whatever one wants to call these skills, the fact remains that they are not only desirable for graduates but mandatory for success in our ever changing world. Additionally, district leaders all point to the fact that the curriculum needs to be reviewed on a regular basis; and with that, it should be redesigned with the help of educators, parents, students, and the community.

2. Instruction

Instructional practices must be aligned with the district's vision for teaching and learning. Instruction should be focused on teaching students how to learn, shifting from a teacher-led to student-led model incorporating differentiated instruction (incorporating direct instruction, mastery learning, blended and project-based learning, flipped models, etc.). Finally, instruction should be rigorous and relevant to students' needs and interests and progression should be based on mastery, avoiding the "mile-wide, inch-deep" phenomenon.

Having effective instructional practices go hand and glove with having a flexible and learner-centered curriculum. The first aspect of the condition to call out is the fact that the district leaders we spoke with are not wedded to one particular instructional strategy but a bevy of strategies. As expected, district leaders focused on infusing instructional strategies that help to promote more student centered learning such as project-based learning, problem-based learning, inquiry-based learning, blended and

online learning, and experiential modalities. These approaches allow for greater differentiation and personalization with a pronounced focus on mastery or proficiency. Moreover, these sorts of instructional strategies allow for students to explore content through the lens of topics and outcomes that are engaging to them. Building on that, the exemplary districts on **instruction** actively find ways to engage students in both the planning and the implementation of lessons and their aligned instruction.

While instruction is a district condition, it is important to point out that the bulk of autonomy for instruction falls to the school level. John Quick, superintendent in Bartholomew County, Indiana, said, "Implementation is done at the school level, with the district clearing away barriers to this."³ Jurisdiction is important in discussions of instruction. The district should put the conditions in place so that educators can build lessons that are rigorous and relevant with instruction that engages all students. Districts should mandate differentiation for all students; in other words, put a primacy on personalization and provide the supports to educators to make that a reality in the classroom.

Underscoring the importance of jurisdiction, Theresa Eawald, Superintendent in Kettle Moraine, Wisconsin, offered the following, "Instruction would need to be aligned with the district's vision for teaching and learning. At the same time, while the vision is aligned, the details are determined at the school level, and the district monitors implementation."⁴ Districts should set the vision and the outcomes they would like to see and allow schools and educators to define how to meet the vision and the outcomes.

3. Comprehensive Assessment System

Each district should implement a comprehensive assessment system that is aligned with the district's vision for teaching and learning. Assessments should include formative, interim, and summative assessments. Instant feedback from ongoing embedded assessments - including, but not limited to portfolios, capstone projects, performance-based assessments, curriculum-embedded assessments - should be used to monitor student progress and adjust day-to-day learning activities. Summative assessments should be offered multiple times a year, when students are ready to take the exam, and students should have multiple opportunities to show mastery of the assessment.

Districts that are leading widespread implementation of personalized learning ensure that there is alignment between the conditions. It is essential that the first three conditions have strong alignment as curriculum leads to instruction which leads to a **comprehensive assessment system**.

Much like instruction, district leaders did not point to one particular type of assessment over other types but rather to an interconnected web of assessments. This comprehensive assessment system should extend beyond the current overreliance on end-of-the-year state level summative assessments. When we convened superintendents from across the state of Indiana, with our partners at the Center of Excellence in Leadership of Learning (CELL) at the University of Indianapolis, there was consensus among the district leaders that there should not be so many assessments that educators are unable to respond to data and adjust instruction. Therein lies the purpose of student assessment, to guide teaching and learning and give educators illustrative data that can be used to personalize instruction.

With that underpinning established, a comprehensive assessment system should utilize forms of assessment that include but are not limited to portfolios, capstone projects, performance-based assessments, curriculum embedded assessments,

and other formative assessments that provide feedback and data that can be used to adjust instruction to meet each student's needs. The aforementioned students' needs, in a personalized learning environment, include both remediation and acceleration and all points in between. The generation of real-time data on student performance is fundamental as is ensuring that data is shared in a transparent manner with educators, students, parents, and other key stakeholders (e.g. intervention specialist, etc.). All student interventions and supports should be aligned to the assessment data generated by the comprehensive assessment system.

Changing assessment systems, especially to one with multiple types of assessments including all mentioned previously is a challenge. Ensuring connective tissue between the assessments and instruction takes time and increased intentionality. For example, Napa Valley Unified School District (NVUSD) in California is focused on implementing district-wide, technology infused teaching and learning with an expressed focus on 21st century skill acquisition. With that approach the district focused on bringing coherence to the system which led them to focus on common data and a gradebook that blends content and skills. Aligning formative assessments, clear outcomes, and a gradebook was a codifying factor and was used to drive the personalization of education. Furthermore, as part of its comprehensive change, NVUSD implemented digital portfolios which, once again, aligned what they were measuring with what students need to achieve.

Building on the above, two district leaders brought up the fact that changing assessment systems is more challenging in high-performing districts as parents do not see the need for it. This speaks, once again, to the need for increased transparency around the first three conditions: curriculum, instruction, and comprehensive assessment system.

4. Learning Environments

Districts should cultivate learning environments, both inside and outside the school walls, that support high expectations for all students while fostering a culture of trust, support, equity, and inclusiveness. Continuous improvement should be embedded in the culture of the district and driven by student achievement data and other success indicators. Lastly, real efforts should be made to celebrate district and school successes.

As discussed with the previous three conditions, the condition of **learning environments** is where the conditions of curriculum, instruction, and a comprehensive assessment system all come together. Learning environments refer not only to physical space but also the culture that permeates the school.

In districts that are leading personalized learning, a greater focus is placed on the student's experiences within a system. Mark Morrison, a district leader in NVUSD in California, discussed creating the right conditions for teaching and learning that capture the hearts of both the student and the educator; and, that culture matters and is essential to reaching all students. Culture is imperative to advancing personalized learning. As mentioned above "a culture of trust, support, equity, and inclusiveness" as well as an expressed focus on continuous improvement were common across the interviews with district leaders. A focus on continuous improvement does not preclude a concentration on celebrating success and transition. The culture influences the learning space as well. Our findings on this condition track closely with Kay and Greenhill who state the following, "designing environments in response to the best understanding of developmentally appropriate practices for supporting the whole child (e.g. school time of day, length of instructional blocks, sequence of learning activities throughout a school year, physical and emotional safety, full engagement with school and community, etc.)."⁵ The aforementioned passage effectively captures the importance of putting students at the center of the learning environment.

Malleability is a key component of personalized learning in student centered learning environments. The ability to move the classroom to accommodate collaborative time, individual learning time, or even presentation time is fundamentally important. Moreover, education research is beginning to indicate that learning environments contribute to increases in both student achievement and engagement as more schools move towards more flexible and collaborative environments. Redesigning learning environments can contribute to more "brain-friendly learning." A.J. Juliani, an education and technology innovation specialist states, in a brain-friendly school, "the space is flexible [and] mobile. [It's] a place where students can get up and move around—where learning processes occur."⁶

Additionally, the use of time in those spaces is also of great importance. Students might need more or less time on a given task based on their needs or focus during a given project or unit. Districts have begun to use a personalized learning disposition as a vision for building new, different school environments that account for student voice, collaboration, and flexibility. In Bartholomew County, Indiana when the district built Columbus Signature Academy they took an old auto parts warehouse and built a school with flexible, glass classrooms to allow for multi-purpose usage as well as greater transparency. District leaders incorporated student voice into the school design to allow for greater personalization of the learning environment. The latter maps strongly to general agreement among district leaders that learning environments should look different to students, and classrooms should become more student-centered and student-led.

5. Student Supports

Students should get the supports they need to be successful when they need them, not after they've taken a summative assessment at the end of the year. These supports should be informed by instant feedback based on frequent formative assessments and, to the extent possible, be embedded in learning. Schools should be given the flexibility to use the time in the school day/year as they see fit in order to provide these supports.

Providing targeted **student supports** to low performing or struggling students is fundamental to any successful education system. One of the tenets of our current system is that those vulnerable populations will receive the extra supports — time, task, and teaching — to get them up to grade level. In a personalized learning system, supports are not only used to get students back on track or up to grade level but to also accelerate students. Student performance can vary subject by subject; personalized supports allow educators to meet each student where they are.

This condition is built upon the bedrock that all students in a personalized learning approach will have a personalized learning plan. This plan would be constructed based on real-time feedback, data, and frequent formative assessments; and not based on a once-a-year snapshot, summative assessment. Jim Rickabaugh from Cooperative Educational Service Agency (CESA) #1 in Wisconsin is actively working to implement shorter feedback cycles for students which allows for more effective differentiation of instruction and deeper personalization. Furthermore, it is important to note that student supports and interventions are in play to help all students of all levels. It also solves for students who are advanced in some subjects (e.g. English and social studies), on grade level in another (e.g. science), and in need of remediation in yet another subject (e.g. mathematics). In other words, supports are delivered in a real time, personalized manner. As articulated in the definitional language of the condition above, one built-in support as well as an effective way to

implement these supports is through the use of time in the school day/year. Some district leaders begin with supports to ensure they are in place prior to implementing a whole school personalized learning approach. As an example, Jason Glass, superintendent in Eagle County, Colorado, is focused on tailoring learning for all students by creating multiple pathways through the system. With that, he is focused on fully implementing a response to intervention for all students as a precursor to implementing a competency-based system throughout the district.

Student supports are tied to one of the themes from the discussions with district leaders around the need for transparency at all levels. Transparency, through the use of formative and embedded assessments, and through the use of real-time data, undergirds the entire system of supports for students. Additionally, the condition of student supports and interventions is strongly linked to multiple conditions in this paper including instruction, comprehensive assessment systems, learning environments, and comprehensive data systems.

6. Professional Development

Each district should offer a job-embedded professional development program that aligns with the district's vision for teaching and learning and to student needs. The professional development program should foster a culture of collaboration and continuous improvement while leveraging technology that creates a customized experience for each teacher that is available at any place and time.

It is no secret that the important element of student success is an excellent educator. Unfortunately, most pre-service teacher programs fail to prepare educators for today's personalized learning classrooms. For this reason, **professional development** (PD) has never been more important. Any PD program should align to the district's vision for teaching and learning, ensuring that educators are getting the training they need to be successful in meeting their students' needs.

In addition to aligning with the district's vision, PD should leverage the power of technology in order to promote anytime, anywhere learning and a culture of collaboration amongst educators. Providing PD offerings online not only allows educators to learn anywhere, it offers training "just-in-time," meaning educators can access the material when they need it, instead of relying on someone else to provide it. Further, a just-in-time approach to PD allows educators to personalize their experience to their needs which, according to most district leaders interviewed, is important in any learning experience. CESA #1, in Wisconsin, has implemented a system where educators earn badges for PD opportunities successfully completed, allowing educators to create professional portfolios of badges that display what credentials they've earned as in-service educators. Lastly, providing a technological platform offers educators the opportunity to share lesson plans, assessments, and best practices and to ask questions of each other. This provides an invaluable opportunity for all educators to learn from their most experienced and effective colleagues.

7. Leadership Development

A district should have a leadership development program that identifies and trains leaders at the classroom, school, and district level. This includes involving educators and other staff members in the visioning process, strategic planning, partnership cultivation, and curriculum review.

An effective **leadership development** program ensures that the success districts realize today can be sustained well into the future. As with the other District Conditions for Scale, all leadership development activities should be aligned with the district's vision. Unlike some of the other conditions, a key activity to any leadership development program includes the creation of that vision by emerging classroom, school, and district leaders. If a vision is already in place, emerging leaders should be involved with tracking the district's progress towards that vision. Moreover, future leaders must be involved in executing on that vision through strategic planning

processes, partner identification and management, and alignment of all district activities to the district's vision for teaching and learning. Similarly, if the strategic plan is already in place, emerging leaders should be tasked with the measurement of goals against the strategic plan and refresh of the strategic plan as appropriate. Involving emerging leaders from all levels of the system in visioning and strategic planning processes creates a culture of transparency that makes it much easier to secure the buy-in of not only the emerging leaders, but also the people they lead.

One of the most important steps in any leadership development plan is the identification of individuals whom districts should invest time and money to develop. In Kentucky's Fayette County Schools, identification happens at the school level, rather than the district level, in order to ensure that a new leader is compatible with the school and learning environments in which they will be working. While most of the districts interviewed for this paper have some sort of leadership identification and training process, they recognize leadership development as a major challenge. One of the biggest hurdles for many district leaders is the need for a more formal plan for identifying and training future school and district leaders. Many district leaders also commented on the need for true leadership development processes that focus on the qualities and traits of successful leaders as opposed to a program that focuses on the technical and practical skills required to lead a school or district. While the technical skills were found to be important, current district leaders expressed the need for a more balanced development program to ensure leaders know how to lead and develop the educators and students in their charge.

8. Technology Policy

Districts must have a technology policy that allows for ubiquitous, safe access to the internet at all times of the school day. Districts should also address deficiencies in infrastructure in order to support a more connected student population at scale.

A sound **technology policy** is becoming increasingly important in today's connected society. Students are plugged in twenty-four hours a day, seven days a week. Asking them to unplug and leave the technology they've grown up with at the school house door is one of the quickest ways to make school irrelevant for them. While schools should offer access to the internet at all times and maintain an infrastructure to support that access, they must also ensure that the internet is being used in a safe way that supports learning.

Many districts identified infrastructure as one of the biggest barriers to an effective technology policy. Along with the increased demands of a more connected student population, districts also have to deal with the bandwidth and hardware requirements brought on by more technology-driven assessment programs. One superintendent interviewed for this paper during a gathering organized by CELL at the University of Indianapolis suggested that technology should be an integral part of any strategy aimed at improving the education of traditionally underserved students. She went on to say that this makes the issues related to infrastructure all the more important because these students oftentimes do not have access to the internet or connectable devices outside of the school day.

In addition to serving a traditionally underserved population, quality technology can be a great tool for allowing constituents outside of the school, especially parents, to understand what is happening inside the four walls. By giving outsiders a view of what is happening in schools, they can be more supportive of their students and the system as a whole.

9. Comprehensive Data Systems

Districts should maintain a comprehensive data system consisting of learning management, assessment, and student information systems. These systems should be able to track student achievement history, teacher comments, supports and interventions, and other indicators while protecting student-level privacy.

The key to personalized learning is the use of data to construct personalized learning plans based on the information gathered from assessments and other learning activities. In order for educators to be able to do this effectively, educators (and parents and students) should have continuous access to a **comprehensive data system** that includes learning management, assessment, and student-level information. Further, any data system should include information about student-level supports and interventions, educator feedback, and other indicators, all while protecting data that could identify students at all costs.

Much has been made recently about the importance of comprehensive data systems to the implementation of personalized learning approaches and the barriers that exist to accomplishing this. According to Kate Ash's 2013 Education Week article,⁷ the fragmented nature of data systems in school districts, a lack of common data standards, and the lack of professional development to data users in schools combine to create a large obstacle to better schools. The Annenberg Institute for School Reform at Brown University offers several examples of how increased use of data, made easier by a comprehensive data system, positively impacts student learning including educators using assessment data to pinpoint knowledge and skills gaps, principals using data to uncover patterns of performance, and instructional coaches using data to improve instructional performance.⁸ Bill Tucker, formerly of Education Sector, offers five design principles for data systems.⁹ They are as follows: 1) learner centered; 2) information flows across institutions; 3) usefulness and usability to drive

adoption; 4) common, yet open, systems; and 5) getting the right data.

Because comprehensive data systems are fairly new in the education space, most superintendents interviewed for this project did not have a lot to say about them. Of the superintendents who have done a substantial amount of work in this area, one of the biggest challenges they have is finding a comprehensive system that is able to exchange information between the learning management, assessment, and student information components. Further, several districts are facing a lack of flexibility allowed by states who mandate the use of state-level data systems, as the districts' systems could not interface with the state system.

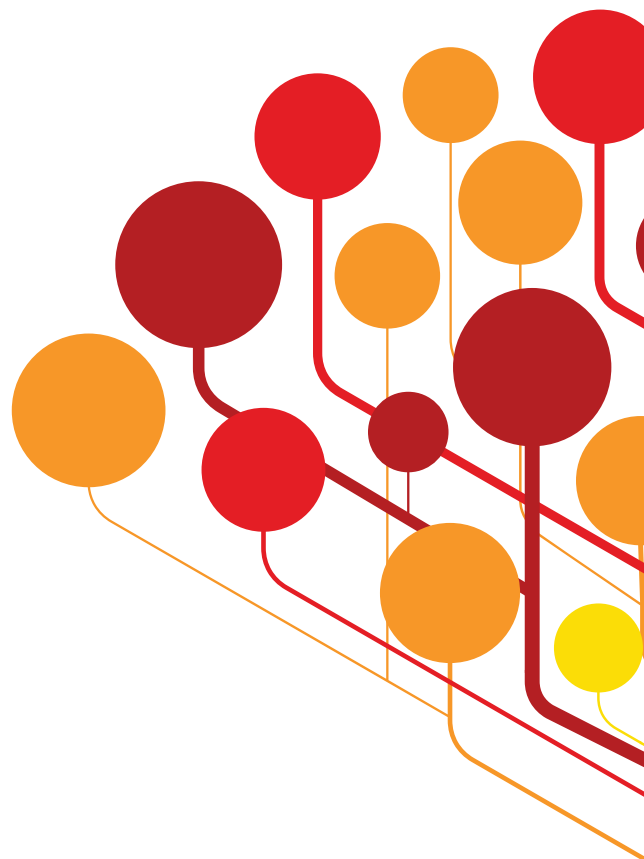
10. Partnerships

Each district should cultivate partnerships with business, community, and higher education constituents in their communities (including local and county government, recreation, juvenile justice, faith-based, etc.). These entities should be involved in creating a district vision and strategic plan that is aligned with a broader economic and workforce development plan for the community. All aspects of teaching and learning within the district (curriculum, instruction, assessment, professional development, etc.) should be aligned to this vision. In addition, these partners should assist with creating various learning opportunities (internships, mentor programs, work-based experiences, service learning, etc.) and publish a list of these opportunities for all learners.

Education is the single most important driver of economic success in the United States. Because of this, districts must align their vision for teaching and learning with the economic needs of the communities they serve. This is best accomplished by creating **partnerships** with business, community, higher education, and government leaders within a district's geographic area and leveraging these partnerships when creating and implementing the district's vision. These partners should also be included when creating learning activities aligned

to the vision. Such activities should include an array of extended learning opportunities including, but not limited to, internships, mentorships, and service learning programs. Due to their involvement in these activities, partners are more likely to be committed to students' success while also blurring the lines between school and community pushing districts even closer to the essential element of transparency. If a district has already committed to a vision, only partners who demonstrate commitment to that vision should be chosen to work with the district.

Spirit Lake Community Schools in Iowa are careful to ensure that all partnerships benefit not only students but the community partners as well. The district offers internships, wrap-around services, and other opportunities to ensure college and career readiness for students while also aiming to meet the economic and social needs of the community through out-of-school learning experiences. Mutually advantageousness was a theme throughout discussions with many superintendents who said it was absolutely essential for sustained, successful partnerships.



Meta Themes

As KnowledgeWorks interviewed district leaders from across the country in an effort to improve and refine the District Conditions for Scale, several meta themes emerged as the interviewees discussed their own experiences. These themes are important as, together, they serve as the connective tissues of the conditions and are the reason that a district must implement each of the ten conditions in order to successfully scale practices to improve teaching, learning, and student achievement.

Vision

Included in all comments from district leaders, directly or indirectly, was the idea of an aligned vision.

This vision should be shared between all involved in the education community, from board members to educators to community partners. Dr. John Quick of Bartholomew Consolidated Schools in Indiana was adamant about creating board commitment to a district's vision, saying, "If you can't get the board going in the right direction, nothing else matters." The vision should support districts in identifying the best possible leaders while assisting all members of the education community in understanding their role in student learning. Dr. Tom Shelton from Fayette County Schools in Kentucky pointed to the importance of involving district partners in the creation of a district's vision, ensuring community support for the pursuit of the vision. All parts of a district should be aligned to the vision, including professional development, the selection of curriculum and instructional practices, and the process of innovation. While it was assumed that the vision would include student achievement, district leaders focused on the general idea of having a vision rather than the specifics of their districts' visions.

Culture

The shared vision of a district clearly informs the system culture that a district will establish.

Sean Smith, Metropolitan School Districts of Lawrence Township in Indiana, noted creating the desired culture should be a key aspect of any superintendent's leadership style. District leaders focused primarily on culture in terms of the functioning of district leaders, educators, and staff rather than on students' experiences. For many of the district leaders, a key element of culture is expectations around innovation. Many of the districts were forced to make changes with no additional, or in some cases decreased, resources and money. As a result, innovative thinking is an expectation at all levels, including in partnerships, and especially encouraged at the school level. For instance, culture was extremely important in implementing the site-based decision making model Superintendent Steve Dackin implemented in Reynoldsburg, Ohio as part of the solution to the district's financial problems. Along with the

Fayette County Public Schools, Kentucky looks to the community and partners to craft and pursue the district's vision and mission.

The Institute @ CESA #1, Wisconsin resulted from a year-long study to better understand how to shift its understanding of how to use time, money, and resources. Using personalized learning as the foundation, it is focused on moving learners from passive to active roles, and shifting from a compliance-based to a nurturing system.

Spirit Lake Community Schools, Iowa sought out employers and business leaders in the community to understand goals for students. As a result, opportunities in and out of school were created to align instruction with economic needs.

Bartholomew Consolidated School Corporation, Indiana looks for empathy, mission, and gestalt in its potential leaders. Leaders do not fear making mistakes, as they understand that learning from mistakes leads to progress.

Charlotte-Mecklenburg Schools, North Carolina charts the path and identifies challenges, allowing school leaders to set and implement strategies.

Center of Excellence in Leadership of Learning (CELL), University of Indianapolis meeting participants emphasized the superintendent's role in establishing a strong culture, through

culture of risk-taking is the understanding that mistakes will happen and are not things to be feared. District leaders emphasized the importance of continuous improvement and fixing problems immediately.

Transparency

Resulting from the notion that members of the education community must feel safe to make mistakes, transparency was another overarching theme of interviews with district leaders. Districts need to be transparent to the board, unions, parents, partners, and the public. Valerie Truesdale discussed the importance of transparency during the process of creating Charlotte-Mecklenburg’s new strategic plan and the fact that every single step involved conscious efforts to share the work with the community. Reynoldsburg City Schools made the decision not to hire a public relations professional in order to take away any barriers between the district and the public. In yet another interview, it was mentioned that transparency is key to helping parents make the best choices for their children.

interacting frequently with teachers, involving building leadership in district level decision making, and visiting building to have a solid understanding of what is going on.

Fayette County Public Schools, Kentucky recognizes that transparency in district policies is essential in creating the best outcomes. The whole community was engaged in the resource allocations process and will be called upon in redistricting and creating a new strategic plan.

Reynoldsburg City Schools, Ohio chose to not hire a public relations professional in order to achieve total transparency. The district is open to the community and is willing to share areas needing improvement as well as the choices available to families.

Piedmont City School District, Alabama demonstrates transparency through continual conversations with teachers and parents, sharing the vision of why the district believes what it does, how it will do what needs to be done, and how the community can help.



Conclusion

The District Conditions for Scale were constructed upon the hard won lessons of district level trailblazers from across the country. These district leaders piloted, assessed, recalibrated, and scaled without an instruction manual. Often, the district leaders would admit to mistakes or the fact they were “building the plane while they were flying” leading to “Lego-like” policy making where each brick was assembled without a fully articulated path to implementation, let alone sustained scale. Many of the leaders we spoke to openly stated that they would have relished having had a set of conditions to follow, to implement, and to refine. Their insights and expertise provide a path to scaling personalized learning.

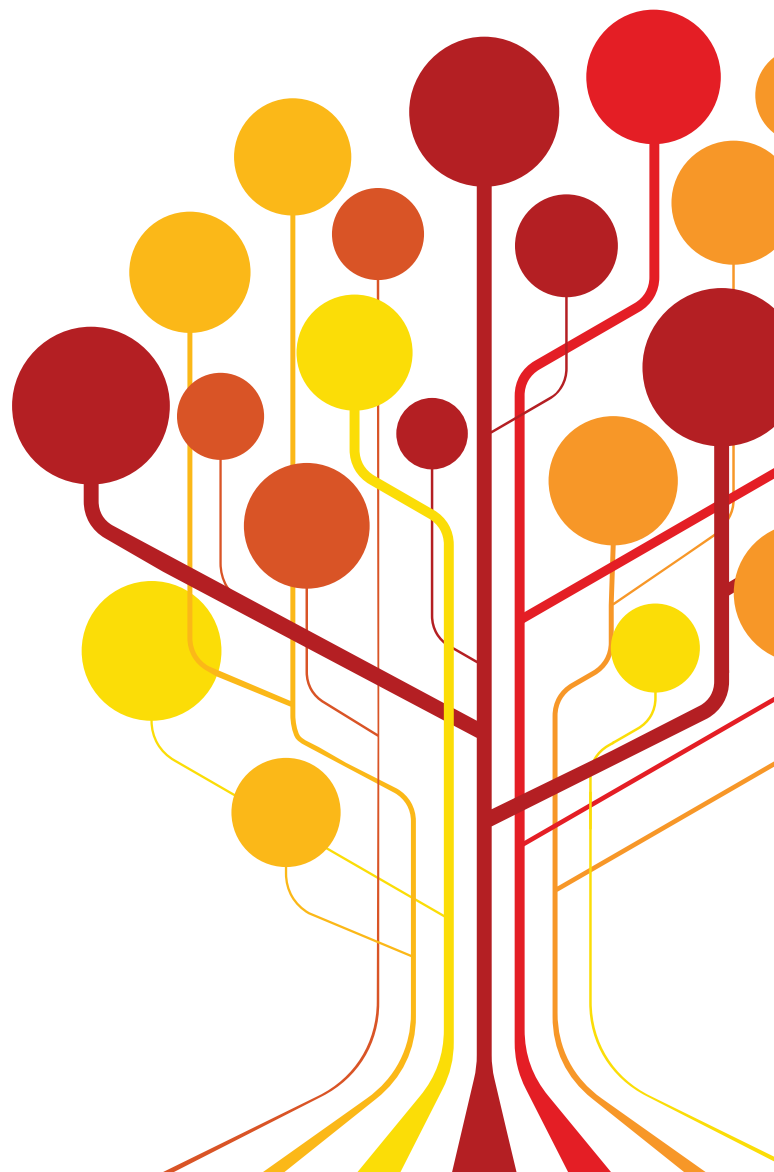
It is our hope that these conditions begin to help districts from across the country to implement a more aligned, supportive education system that is oriented towards putting the student at the center of the system through an expressed focus on personalized learning. A systemic focus on personalized teaching and learning demands a coordinating move from pilot phase to true scale. We feel that the district level is the right level of the education system to focus on in the United States. As mentioned previously, the district level is closest to the schools and thus to the students as well as to the educators. Furthermore, the district level has the most control over vision, curriculum and instruction, as well as formative assessment and student supports. Lastly, by solving for scale at the district level we gain a clearer vision for what supportive, enabling, and catalytic policy can look like at both the state and federal level. To truly get to focused, sustained scale we need better alignment between school and district, district and state policy, and state policy and federal policy.

Next Steps

Despite all the disagreement about education practice and policy in the United States, the one thing almost everyone can agree on is that an education that is personalized for each student’s needs is key to college and career readiness for every graduate. These District Conditions for Scale provide a path to that personalized education for every district, regardless of the strategy implemented to achieve that goal. There are barriers to implementing these conditions, and that is what KnowledgeWorks will address in the next steps of this project. Initially, KnowledgeWorks will convene district leaders and state-level policymakers to get input on a policy framework aligned to the District Conditions for Scale that states can put into place to enable and incentivize districts to scale personalized learning. KnowledgeWorks will also bring together district leaders and experts in the field to create a toolkit that can be used by a district interested in implementing these conditions. This toolkit would provide a step-by-step guide for districts to implement, evaluate, and refine their school district’s adoption of the District Conditions for Scale. It is KnowledgeWorks’ hope that by creating the policy environment and tools that allow districts to scale personalized practices, each student will experience personalized learning that will enable him or her to thrive in college, career, and civic life.

Endnotes

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- ⁹ Tucker, Bill (2010). Five Design Systems for Smarter Data Systems. *Education Sector*. Retrieved from: <http://www.educationsector.org/publications/five-design-principles-smarter-data-systems>



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About KnowledgeWorks:

KnowledgeWorks is a social enterprise focused on ensuring that every student experiences meaningful personalized learning that allows him or her to thrive in college, career and civic life. By offering a portfolio of innovative education approaches and advancing aligned policies, KnowledgeWorks seeks to activate and develop the capacity of communities and educators to build and sustain vibrant learning ecosystems that allow each student to thrive. Our portfolio includes EDWorks and StriveTogether. Learn more at www.knowledgeworks.org.

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District Conditions for Scale

CONDITION	EXPLANATION
<p>1. Curriculum</p>	<p>Curriculum must be aligned to the district’s vision for teaching and learning and should be reviewed regularly to ensure alignment. The standards and learning targets contained in the curriculum should be consistent and easily understood for every student, although the ways in which students meet those standards may differ in order to provide a personalized learning experience for each student. These multiple pathways to meeting standards should be informed by real-time data on student performance and engagement, students’ learning styles and interests, and the goals of the student and parents.</p>
<p>2. Instruction</p>	<p>Instructional practices must be aligned with the district’s vision for teaching and learning. Instruction should be focused on teaching students how to learn, shifting from a teacher-led to student-led model incorporating differentiated instruction (incorporating direct instruction, mastery learning, blended and project-based learning, flipped models, etc.). Finally, instruction should be rigorous and relevant to students’ needs and interests and progression should be based on mastery, avoiding the “mile-wide, inch-deep” phenomenon.</p>
<p>3. Comprehensive Assessment System</p>	<p>Each district should implement a comprehensive assessment system that is aligned with the district’s vision for teaching and learning. Assessments should include formative, interim, and summative assessments. Instant feedback from ongoing embedded assessments - including, but not limited to portfolios, capstone projects, performance-based assessments, curriculum-embedded assessments - should be used to monitor student progress and adjust day-to-day learning activities. Summative assessments should be offered multiple times a year, when students are ready to take the exam, and students should have multiple opportunities to show mastery of the assessment.</p>
<p>4. Learning Environments</p>	<p>Districts should cultivate learning environments, both inside and outside of the school walls, that support high expectations for all students while fostering a culture of trust, support, equity, and inclusiveness. Continuous improvement should be embedded in the culture of the district and driven by student achievement data and other success indicators. Lastly, real efforts should be made to celebrate district and school successes.</p>
<p>5. Student Supports</p>	<p>Students should get the supports they need to be successful when they need them, not after they’ve taken a summative assessment at the end of the year. These supports should be informed by instant feedback based on frequent formative assessments and, to the extent possible, be embedded in learning. Schools should be given the flexibility to use the time in the school day/year as they see fit in order to provide these supports.</p>

CONDITION	EXPLANATION
<p>6. Professional Development</p>	<p>Each district should offer a job-embedded professional development program that aligns with the district's vision for teaching and learning and to student needs. The professional development program should foster a culture of collaboration and continuous improvement while leveraging technology that creates a customized experience for each teacher that is available at any place and time.</p>
<p>7. Leadership Development</p>	<p>A district should have a leadership development program that identifies and trains leaders at the classroom, school, and district level. This includes involving educators and other staff members in the visioning process, strategic planning, partnership cultivation, and curriculum review.</p>
<p>8. Technology Policy</p>	<p>Districts must have a technology policy that allows for ubiquitous, safe access to the internet at all times of the school day. Districts should also address deficiencies in infrastructure in order to support a more connected student population at scale.</p>
<p>9. Comprehensive Data System</p>	<p>Districts should maintain a comprehensive data system consisting of learning management, assessment, and student information systems. These systems should be able to track student achievement history, teacher comments, supports and interventions, and other indicators while protecting student-level privacy.</p>
<p>10. Partnerships</p>	<p>Each district should cultivate partnerships with business, community, and higher education constituents in their communities (including local and county government, recreation, juvenile justice, faith-based, etc). These entities should be involved in creating a district vision and strategic plan that is aligned with a broader economic and workforce development plan for the community. All aspects of teaching and learning within the district (curriculum, instruction, assessment, professional development, etc.) should be aligned to this vision. In addition, these partners should assist with creating various learning opportunities (internships, mentor programs, work-based experiences, service learning, etc.) and publish a list of these opportunities for all learners.</p>

