

Personalized Learning:

Policy & Practice Recommendations for Meeting the Needs of Students with Disabilities

Educators, parents, and others have struggled for decades to find the best ways to teach and support students with disabilities.

Students with disabilities can achieve at high levels if they receive specialized instruction tailored to their unique needs, supports that build on their strengths and mitigate their challenges, and an environment that is engaging and sparks their desire to learn. Personalized learning systems can help educators provide these things when implemented appropriately. As personalized learning efforts expand across the nation, now is the time for educators, parents, and others to understand what personalized learning is, how it works, and how it can help students with disabilities succeed.

UNITING THE FIELD TO CONSIDER THE NEEDS OF STUDENTS WITH DISABILITIES

With funding from the Bill & Melinda Gates Foundation, NCLD initiated a process to help educators, families and policymakers *understand, explain and address how school districts implementing personalized learning systems can systematically and appropriately include students with disabilities*. This work was part of a larger effort to develop recommendations addressing the needs of traditionally underserved groups of students and it included a parallel project by the National Council of La Raza, who focused on the needs of English learners.

Specifically, NCLD set out to develop policy recommendations at the federal and state level and recommendations for best practices in schools so that students with disabilities are appropriately and fully included in the development, implementation and evaluation of personalized learning systems. To do this, NCLD gathered top special education and personalized learning experts from across the nation – including educators, researchers, state and district leaders, school leaders, and parents of children with disabilities – and engaged them in discussions to learn and explore ways to ensure that personalized learning systems integrate and benefit students with disabilities.



UNITING THE FIELD TO CONSIDER THE NEEDS OF STUDENTS WITH DISABILITIES *(continued)*

NCLD recruited nearly 40 experts to join this discussion and offer their knowledge and expertise. Over the course of several months and multiple interactive webinars, these professors, researchers, educators, school administrators, disability experts, advocates for students, and policy experts spent time sharing ideas, challenging perceptions, identifying obstacles, and finding solutions to ensure students with disabilities are not left behind.

To supplement this deep conversation, NCLD conducted one-on-one expert interviews in key areas where specific in-depth knowledge was needed and participated in three site visits to schools that are in the early stages of implementing personalized learning. In addition, NCLD collected over 1,800 responses from two online surveys, indicating that parents of students with disabilities lack knowledge about personalized learning but are eager to learn more.

From these robust and thoughtful conversations and our analysis of responses, NCLD gathered common themes and ideas which served as the foundation for our policy and practice recommendations. Finally, in August of 2015, NCLD brought together these experts, advocates, and trusted advisors in Washington, D.C., to consider the recommendations, challenge assumptions, and explore best practices for including students with disabilities in personalized learning. During their time together, the experts reacted to each recommendation, engaged in small-group discussion, and ranked the recommendations by order of priority. The experts involved in this process were not asked to endorse

these recommendations but all have had a hand in informing NCLD and guiding the development of this work.

Through these recommendations, NCLD hopes to bridge the gap between knowledge and action so that educators are more prepared, parents are more informed, and policy makers are ready to appropriately integrate students with disabilities into personalized learning efforts as they spread to schools and districts across the country. Now is the time for schools, districts, states, educators, advocates, researchers, and anyone involved in personalized learning to ensure that students with disabilities are included in a way that improves educational outcomes. These recommendations were born from the first deep dive into the complex issues surrounding personalized learning. But there is much more work to be done for students with disabilities as the field develops and new knowledge and practices emerge. At this critical time, these recommendations are the first step to helping schools design personalized learning systems where students with disabilities are able to fully participate, learn, and thrive.

DEFINITIONS MATTER: WHAT “PERSONALIZED LEARNING” MEANS FOR STUDENTS WITH DISABILITIES

Personalized Learning

As the personalized learning movement is growing, the knowledge base supporting it continues to expand and become more refined. However, there is no single common definition of personalized learning used across the field. Instead, the definition varies across districts, states, and organizations who are involved in the implementation of personalized learning. To ground this work and focus our efforts, NCLD chose this definition of personalized learning:

“Students’ learning experiences – what they learn, and how, when, and where they learn it – are tailored to their individual needs, skills, and interests, and enable them to take ownership of their learning. Although where, when, and how they learn might vary according to their needs, students also develop deep connections to each other, their teachers and other adults.”

In addition, we asked our consulting experts to reflect on four specific approaches to personalized learning described by the Gates Foundation: learner profiles; personal learning paths; competency-based progressions; and flexible learning environments (see attached glossary). When we refer to personalized learning generally, any of these approaches can be substituted to fit the type of personalized learning a school or district is implementing. Where any of these approaches have unique implications, we specifically address that approach and use the corresponding terminology.

Focus Population

Our work focused on *all* students with disabilities and the full range of learning needs that students with disabilities may present. To accomplish this, the participants we invited had expertise in the full range of disabilities, such as students with learning and attention issues, intellectual disabilities, autism, emotional/behavioral disabilities and significant cognitive disabilities. Through our investigation, it became evident that no two students will have the same learning needs and that personalized learning systems are uniquely positioned to address student-specific needs. Yet, to do so, leaders and educators must begin to carefully consider and plan for the diverse needs of students with disabilities.



RECOGNIZING THE POTENTIAL: IMPROVING OUTCOMES & BUILDING SELF-ADVOCACY SKILLS THROUGH PERSONALIZED LEARNING

We Must Act Now

Now is the perfect time to begin this conversation about how best to include students with disabilities in personalized learning systems. Over the last ten years, students with disabilities have been increasingly included in general education. In fact, more than 60% of students with disabilities (ages 6 through 21) spend 80% or more of their day in the general education classroom.ⁱ Personalized learning allows students to be educated in a general education environment while also receiving many supports and tailored interventions that address their needs. Because students with disabilities are more often than not instructed in general education classrooms with their non-disabled peers and will be participating in personalized learning where it is offered, these new systems must be designed to fully include students with disabilities and allow them to participate in a way that improves their educational outcomes. To ensure that personalized learning will benefit students with disabilities and help them – like all students – succeed, students with disabilities must be considered and included from the beginning.

Making the Most of Personalized Learning for Students with Disabilities

Personalized learning systems, by design, stand to offer a prime opportunity for students to develop self-advocacy skills by providing them with the opportunity to take ownership of their learning. Demonstrating self-advocacy skills is related to a student's level of self-confidence. This opportunity is vital to the growth and success of students with disabilities and should not be overlooked. A recent study by NCLD found that students with learning and attention issues are four times more likely than their non-disabled peers to struggle with self-confidence.ⁱⁱ The study also found that self-confidence is one of the biggest predictors of success for young adults with learning and attention issues.ⁱⁱⁱ Because self-confidence is such an important factor for success in school and life, students with disabilities must be offered opportunities to build that confidence through making positive choices about and taking ownership of their learning.

Learning From History: The Importance of Inclusion

In recent decades, students with disabilities have been excluded from the design of several promising initiatives in education. Their omission from these initiatives led to the clumsy and often ineffective practice of retrofitting policies to try and match their unique needs. These imperfect “fixes” often were extremely frustrating for students, educators and parents, and very likely suppressed student achievement. To ensure that personalized learning will benefit students with disabilities and help them – like all students – succeed, students with disabilities must be considered and included from the beginning. Now is the time, as personalized learning models and initiatives are just beginning to emerge, to include students with disabilities. If students with disabilities are included in the design and implementation of these systems, it will prevent the problem of having a separate system for special education students or having to retrofit one general education system to meet the needs of students with disabilities.

RECOGNIZING THE POTENTIAL: IMPROVING OUTCOMES & BUILDING SELF-ADVOCACY SKILLS THROUGH PERSONALIZED LEARNING *(continued)*

Personalized learning offers exactly the type of environment that can help students build these skills. In particular, it requires students to become active, engaged learners who take ownership of their learning, and it also provides the conditions and opportunities required for students to develop those skills. By tailoring education to meet the needs of each unique learner and requiring students to be deeply involved in their learning, personalized learning settings are the perfect opportunity for students with disabilities to develop higher-level skills such as self-advocacy. This skill will serve students with disabilities well throughout life and can be critical to their success. Now is the time to design and implement systems that purposefully

focus on and incorporate the development of self-advocacy skills for students with disabilities.

While it has become clear that more research and discussion are needed on this topic, it is not too early for school leaders and educators to explore and think about how they might focus on self-advocacy skills and opportunities within a personalized learning system. School leaders should recognize the potential that these systems hold to transform learning for students with disabilities. Personalized learning systems can and should be designed in a way that makes the most of this opportunity and maximizes the ability of students with disabilities to develop self-advocacy skills.

VISION FOR PERSONALIZED LEARNING: ESSENTIAL CONDITIONS FOR SUCCESS

Aligning Critical School Frameworks with Personalized Learning Systems

Personalized learning holds the promise of truly customizing education to meet every child's learning needs but requires thoughtful implementation to ensure that all students – including students with disabilities – are truly engaged, supported, and able to succeed. In order for schools to fully meet students' needs in personalized learning systems, there are two critical frameworks that must converge with personalized learning: universal design for learning (UDL) and multi-tiered systems of supports (MTSS). These frameworks are foundational to how educators provide effective instruction and supports for students with disabilities and must be part of any personalized learning system that seeks to properly serve students with disabilities.



VISION FOR PERSONALIZED LEARNING: ESSENTIAL CONDITIONS FOR SUCCESS *(continued)*

Universal Design for Learning

Universal design for learning (UDL) is essential to the education of students with disabilities and must be a core component of any personalized learning system.

UDL is a set of principles for curriculum development that give every student the opportunity to learn.^{iv} UDL addresses how information is presented (representation), how students demonstrate what they know (expression), and how students interact and engage with the material (engagement). These elements and the principles of UDL are core to what personalized learning sets out to do: tailor instruction and the learning experience for every single student. All materials, assessments, and instructional strategies must be designed using UDL in order for instruction to be truly customized for each student's individual needs. UDL is especially important for students with disabilities, who often need multiple methods of instruction and performance to show what they know or may need content presented in a different way than other students. In fact, UDL seeks to optimize instruction for all students by tailoring each aspect of learning to meet the needs and build on the strengths of each student.

Multi-tiered systems of supports

Building on the foundation of student equity of access to content and curriculum through UDL, **students with disabilities must also receive the supports and interventions necessary to succeed in a personalized learning system through the use of a multi-tiered system of supports (MTSS).** MTSS is an evidence-based and system-wide practice that uses data-based progress monitoring to make decisions and respond to students' academic and behavioral needs through access to instruction delivered in varying intensities. This system-wide approach gathers data and continually monitors student performance, identifying and addressing needs and challenges along the way. Because some approaches to personalized learning aim to meet students where they are and allow them to work at their appropriate level and pace, MTSS is a natural and critical piece of any personalized learning system. As personalized learning challenges the notion of seat time, credit hours, and grade-level and offers students the opportunity to move at their own pace and follow a more flexible learning path, there must be safeguards in place to ensure that students continue to make progress. For students with disabilities, MTSS is especially necessary to ensure that all students are being held to high standards, are being continuously monitored for progress, and are receiving the interventions and supports necessary to move forward.

VISION FOR PERSONALIZED LEARNING: ESSENTIAL CONDITIONS FOR SUCCESS *(continued)*

Bringing Together All Stakeholders to Ensure Successful Implementation

For personalized learning systems to be successfully implemented and inclusive of all students with disabilities, stakeholders must be brought to the table from the earliest design stages. True collaboration and sharing of skills, knowledge, and expertise is critical to the success of this promising education reform. There is a great deal to learn and much more to be done to meet

the needs of students with disabilities in personalized learning systems. Therefore, NCLD's recommendations are meant to serve as a starting point for each of the stakeholders that are involved in this work, including ***educators, school and district leaders, policy makers at state and federal levels, parents, and researchers.***



GETTING STARTED: POLICY & PRACTICE RECOMMENDATIONS

1. **School and district leaders must thoughtfully consider, throughout the planning and implementation process, how personalized learning systems will seamlessly meet the needs of students with disabilities, reduce the stigma of special education, and maximize accessibility to enable students with disabilities to meet high standards.**

Perhaps more than any other factor, school and district leaders are the biggest driver of successful personalized learning systems. To ensure that students with disabilities are successful in new systems, leaders need to consider and plan for meeting the needs of the full range of individuals with disabilities from the start and throughout the implementation process.

When done effectively, personalized learning systems offer a learning environment that can reduce the stigma of special education and transform the learning experience for students with disabilities. In personalized learning systems that offer multiple methods of instruction for all students, it is not uncommon for students to rotate through various types of instructional settings during the school day. Students may participate in small group lessons, independent work with technology, or one-on-one tutoring. Students may even be working at their own pace or on slightly different content from their peers. When every student participates in these new methods, all students become less aware of who among them might be receiving special education services.

Recommendations:

- **School and district leaders** should collaborate with leaders of other schools, districts, and states to create professional learning communities that facilitate the sharing of information, resources, and experiences among educators and leaders involved in personalized learning.
- **School and district leaders** must consider the needs of the full range of students with disabilities throughout the planning and implementation process. One way to accomplish this is to include special educators and specialized instructional support personnel in the planning and implementation process from the beginning.
- **School and district leaders** must carefully plan the change management process and introduce changes in a thoughtful and systematic way to ensure that parents, educators, and students are involved, well-informed and understand how personalized learning systems can benefit their students. Specifically, this includes providing opportunities (such as meetings) for parents of students with disabilities to ask questions and address concerns about the forthcoming changes.

GETTING STARTED: POLICY & PRACTICE RECOMMENDATIONS *(continued)*

Recommendations:

- **School and district leaders** should strive to create a flexible learning environment that offers multiple methods of instruction for all students and may include both face-to-face and virtual or out-of-school learning opportunities. The use of personalized learning systems with students with disabilities is an important way to increase instructional options.
- **Educators** should openly foster a classroom culture that supports and engages all students in the learning process.



Perhaps more than any other factor, school and district leaders are the biggest driver of successful personalized learning systems.

GETTING STARTED: POLICY & PRACTICE RECOMMENDATIONS *(continued)*

2. Parents of students with disabilities play an important and distinct role in their child's education and are great partners for school and districts. As such, parents should be informed about the role of personalized learning systems in the education of their child from the beginning and throughout implementation of personalized learning systems.

Parents of students with disabilities may be more involved in and out of school than parents of students without disabilities because they often work with outside therapists and tutors and coordinate services among these professionals and the school. Therefore, schools must communicate with parents and support them in their understanding of how a personalized learning system might impact their child's day-to-day experience and future. Schools should create opportunities to listen to parents and address concerns whenever possible.

Moreover, throughout this process of change and innovation in schools, it is important to remember that schools are often the center of the community for many families. In this important role, schools must be aware and respectful of existing cultural dynamics so they can effectively communicate with students' parents and families. School and district leaders should be diligent in continuing to foster an environment where families are supported, connected, and engaged with the school community.

Recommendations:

- **School and district leaders** must develop communication plans that are culturally sensitive and responsive to parent needs and inform parents, help them understand what changes are happening in the school, and invite them to be a part of the planning process.
- **Principals** and individuals involved in the implementation of personalized learning at the school level must offer parents of students with disabilities the opportunity to ask questions about personalized learning and the implementation process and discuss how the needs of students with disabilities will be met through inclusion in these systems.
- Throughout the design and implementation process, **parents** must have a seat at the table and the opportunity to ask questions, remain informed about their child's progress, and receive the support they need to assist their child at home with personalized learning activities.

GETTING STARTED: POLICY & PRACTICE RECOMMENDATIONS *(continued)*

3. Educators need a deeper understanding of the diverse learning needs of students with disabilities in order to include these students in personalized learning systems. In particular, educators need support and training that focus on meeting the needs of students with the full range of disabilities, supporting students' executive functioning challenges, and appropriately using technology in the classroom.

Personalized learning systems represent a major shift in the role educators perform in the classroom each day. Educators must design and facilitate student learning while responding quickly to ever-changing student needs. To succeed, all educators will need more training and ongoing support to help them address the needs of students with disabilities, including those with significant cognitive disabilities, and professional development must acknowledge and address this need.

Specifically, professional development and targeted support should focus on two areas that are important for students with disabilities in the context of personalized learning: executive functioning and use of technology.

Focus area: Executive functioning

Executive functioning includes skills related to impulse control, emotional control, flexible thinking, working memory, self-monitoring, task initiation, and organization.^v Personalized learning systems require increased executive functioning skills, especially in areas such as decision-making skills and organization. Students with disabilities and, in particular, those with attention and/or executive functioning issues may struggle in this environment. For students with executive functioning issues, tasks that require

planning, organization, or reflection on performance – much like personalized learning requires – are a challenge. Therefore, educators must be sensitive to this dynamic, informed about how it might impact their students, and provide extra support and assistance to these students as needed.

Focus area: Use of technology

Technology – while not synonymous with personalized learning – can be an important way to reinforce and differentiate learning based on each student's needs. Where it is appropriate to use technology, educators should be trained and capable of using technology to adapt content and enhance instruction for each student to meet their needs. Educators using technology and school leaders choosing technology or software or incorporating blended learning or fully online models of personalized learning must ensure that the technology is accessible to students with disabilities who have varying needs. In particular, in fully online programs, where content and technology are most closely linked, it is especially important that both are accessible. Online programs must be able to serve the full range of students with disabilities enrolled in their programs, through both the content and curriculum they offer and through the software and technology they use.

GETTING STARTED: POLICY & PRACTICE RECOMMENDATIONS *(continued)*

Recommendations:

- **School leaders** must provide continued, needs-based professional development for all educators in a way that is personalized to help them meet the varying needs of students with disabilities in their classrooms, especially in the context of personalizing learning for their students with disabilities.
- **School and district leaders** should use professional development models that incorporate coaching and ongoing feedback for educators that focus particularly on instruction of students with disabilities.
- **School and district leaders** should evaluate the roles of special educators and specialized instructional support personnel to ensure they are achieving the most effective results. Special educators can add value to all school staff by sharing their expertise with all educators in the building and serving as coaches for general educators to help them to better serve students with disabilities.
- All **educators** should receive training on how particular strengths and weaknesses in executive functioning skills may impact the supports needed for students with disabilities to benefit from personalized learning systems.
- **Special educators** and **general educators** should be provided with intentional opportunities to collaborate and customize instruction in order to provide supports to students with executive functioning challenges.
- **Educators** should intentionally plan for and create opportunities for students with disabilities to examine, discuss, and reflect on their learning so they understand the choices available and their implications. This includes the use of curriculum and explicit instruction that focuses specifically on executive functioning skill building.
- **Educators** must be prepared to use technology in the classroom and be able to adapt content and tailor instruction for each student to meet their individual needs.



Technology – while not synonymous with personalized learning – can be an important way to reinforce and differentiate learning based on each student's needs.

GETTING STARTED: POLICY & PRACTICE RECOMMENDATIONS *(continued)*

- 4. In order for students with disabilities to succeed in a personalized learning environment, students must be provided with multiple ways to demonstrate their knowledge and educators must continuously monitor student pace and progress and provide interventions to keep students on track to meet their goals.**

For students with disabilities, providing multiple methods and opportunities for success is often critical.

One way to accomplish this – as discussed in the introduction – is to incorporate universal design for learning (UDL), which is a framework that optimizes teaching and learning for all students by customizing and adjusting instructional goals, assessments, methods, and materials to meet student needs.

Incorporating UDL is an effective way to ensure that all students with disabilities are able to meaningfully engage with content and curriculum. Further, students with disabilities have unique strengths and challenges, making some methods of assessment and performance more challenging than others. Allowing students to choose from multiple ways to show what they know empowers students, establishes a sense of ownership and communicates to teachers accurately what students with disabilities know, understand and are able to do.

Spotlight on Opportunity

Concerns about pacing might actually be mitigated by personalized learning itself when implemented appropriately. For example, when students are instructed in small groups, rather than as a class, educators can more readily identify and monitor student progress or lack of progress, resulting in fewer students falling behind or not receiving appropriate interventions. Additionally, practitioners have observed that tailoring instruction to student interests can increase engagement and actually lead to increases in student pace.

Focus-area: Competency-based systems

How students are able to demonstrate mastery becomes especially important in systems – such as competency-based systems – that (among other things) allow students to advance upon demonstrated mastery. This flexibility sometimes allows students to receive more support in areas or on competencies that are challenging, while accelerating in areas where they excel. However, this type of system presents a potential danger for students with disabilities who may struggle with learning.

Without a comprehensive system that monitors student pace and intervenes appropriately, struggling students – including but not limited to students with disabilities – can easily fall behind, spending too much time on one or more competencies without receiving necessary supports. Monitoring student pace and progress can be done using “teacher pacing,” which allows teachers to compare student progress to a projected timeline of on-track performance. Tracking student progress and using data-based decision making to guide their instructional strategies and interventions for each student is one of the key elements of a multi-tiered system of supports (MTSS).

Students with significant disabilities are expected to meet state standards using alternate paths and assessment methods that link to content-specific grade-level knowledge and skills.


GETTING STARTED: POLICY & PRACTICE RECOMMENDATIONS *(continued)*

Student assessment is based on alternate achievement standards associated with academic content, but often at reduced depth, breadth, and complexity. However, in order to do so appropriately in a personalized learning system, educators must first have a deep understanding of learner skill progressions as well as essential elements of such knowledge and skills that students with significant cognitive

disabilities are able to perform in order to move ahead and be successful. In this respect, progress monitoring, data-based decision making, and pacing are all appropriate aspects of competency-based systems for students with significant disabilities, within a framework of alternate achievement standards aligned with age-appropriate and grade-level standards.

Recommendations:

- **Educators** must incorporate universal design for learning (UDL) into instruction for all students.
- **School leaders** must implement a comprehensive system to monitor student pace and make instructional modifications based on data to keep all students, including students with disabilities, on track. Implementing systems such as a multi-tiered system of supports (MTSS) and using “teacher pacing” are two ways that schools can ensure all students remain on track.
- **School leaders and educators** must have a deep understanding of what content students need to know and then adapt or modify the content accordingly in order to properly educate and support students with significant cognitive disabilities.
- As **school leaders** are implementing competency-based education which relies on new assessment systems, these assessments must be valid, reliable and comparable, and designed with students with disabilities in mind.



Creative educators use personalized learning to motivate and engage students through technology and projects while maintaining high standards for all.

GETTING STARTED: POLICY & PRACTICE RECOMMENDATIONS *(continued)*

5. Where they are used, learner profiles should contain a comprehensive and dynamic snapshot of each learner, and the IEP and the learner profile must be used in concert to inform instruction and guide learning.

Learner profiles have recently been developed to provide educators with a record of each student, highlighting each student's strengths, needs, motivations, and goals. The learner profile can provide important information about students, and guides how an educator instructs and interacts with a student. There is no single, standard learner profile template or document. In fact, learner profiles should never be a static, unchanging representation of a student, as creating a "profile" or labeling a student as being a certain type of learner might actually stifle growth and progress. Instead, just as students are continually changing and growing, learner profiles must be continuously updated to reflect the student's progress and offer an up-to-date snapshot of a student's learning experience. Finally, in order to be applicable across districts and states, all learner profiles must meet in the same minimum standards regarding what information is captured. Portability is important so that, wherever the student might be, educators can access and find meaning in the student's learner profile. Standard information should include biographical information, challenges and strengths relating to learning, interests, goals, and current performance data.

In addition, learner profiles must inform IEPs, which are an invaluable tool for students with disabilities eligible for special education. As they have developed, learner profiles either explicitly incorporate or generally focus on a student's strengths and interests to inform their

learning needs. In contrast, IEPs sometimes focus solely or very heavily on a student's learning challenges. As personalized learning is demonstrating, however, focusing on strengths is just as important as needs. Therefore, IEP teams should approach IEPs in much the same way that they would a learner profile. By incorporating student strengths into the IEP and tailoring instruction, interventions, and learning opportunities to student interests and motivations, educators have an opportunity to improve student learning and increase growth.

Spotlight on Opportunity

In practice, IEPs may be used in a deficit-focused way and can fail to emphasize important information about student's strengths and interests. Nothing in the law prevents IEPs from incorporating student strengths in a stronger way. Therefore, IEP teams should strive to take a strengths-based approach, like most learner profiles do, and provide interventions that address weaknesses alongside offering learning opportunities that build on strengths. This may help IEP teams boost student self-confidence and contribute to greater growth and success.

GETTING STARTED: POLICY & PRACTICE RECOMMENDATIONS *(continued)*

Recommendations:

- **School and district leaders** should ensure that learner profiles are not a static checklist or a compliance document, but instead are an ever-changing and growing resource that provides an up-to-the-minute snapshot of a student's performance, strengths, challenges, interests, and goals.
- **IEP teams** should incorporate a strengths-based and student-driven approach to instruction and learning, modeled on successful learner profile components where appropriate, and should use the learner profile to inform the process of creating and updating the IEP each year.



GETTING STARTED: POLICY & PRACTICE RECOMMENDATIONS *(continued)*

6. Personalized learning systems should create opportunities for students with disabilities to build self-advocacy skills.

Perhaps one of the biggest benefits that personalized learning can offer to students with disabilities is the opportunity to develop self-advocacy skills. Personalized learning can provide an opportunity for students to work with educators to understand how they learn, identify strategies for learning, and take ownership of the learning process. If students develop a deep understanding of what works for them, experience success, and have opportunities to apply a successful learning process in different situations, they will have the confidence necessary to advocate for what they need to succeed. This is especially important for students with disabilities, who need to develop strong self-advocacy skills.

Many students with disabilities will continue to need accommodations when employed, in college, and throughout their lives. Therefore, to thrive in settings like college and career, they need to understand what works for them, and know how to ask for what they need. Therefore, for these students, developing the ability to advocate for themselves is critical to future success. Personalized learning offers a great opportunity to build these skills, which will serve them well throughout life.

Recommendations:

- **Educators** should provide opportunities for students with disabilities to use their understanding about how they learn and what they need in different settings and situations so they can develop the skills required for self-advocacy.
- **Educators** need to build on the self-awareness that students gain from personalized learning to foster self-advocacy skills through the use of explicit instruction and using curricula that help students develop these skills in a safe, supportive environment.
- **Educators, parents, and students** should use learner profiles to inform learning and help students develop self-advocacy skills.

Advocacy is a bigger part of life for students with disabilities than most other students. It is critical that educators strive to help students with disabilities build these skills as early as possible. Fortunately, personalized learning systems require that students engage with and take ownership over their learning and, therefore, offer an environment that is conducive to developing the skills students with disabilities need to become excellent self-advocates.

GETTING STARTED: POLICY & PRACTICE RECOMMENDATIONS *(continued)*

7. Pre-service teacher preparation programs must include components that strengthen beginning teachers' abilities and skills to successfully work with students with disabilities in personalized learning environments.

Personalized learning requires educators to employ new skills in the classroom and brings with it a shift in the role of educators. As teacher preparation programs respond to these changing needs, they must ensure that future teachers are prepared to design content and curriculum for all students, including students with disabilities, and work collaboratively with other experts (like special educators and specialized instructional support personnel) in the school. In particular, these programs must better prepare all teachers to work in general education with students with disabilities in general education settings. Teachers should enter the workforce with skills that allow them to respond to students' needs, appropriately use technology in the classroom, and become facilitators of learning for all students with varying strengths and challenges.

In response to personalized learning, teacher preparation programs must ensure that future teachers are prepared to design content and curriculum for all students, including students with disabilities, and work collaboratively with other experts in the school.

Recommendations:

- **District leaders** should adopt hiring practices that thoughtfully consider and value educator experience in personalized learning and appropriate use of technology for all students.
- **Teacher preparation programs** should offer coursework that provides meaningful, hands-on experience that will prepare teacher candidates to educate students with disabilities.
- **Teacher preparation programs** should offer experiences that prepare teacher candidates' to successfully collaborate with colleagues to meet student needs.
- **Teacher preparation programs** should consider partnering with local districts to provide students with year-long residencies or student teaching programs to gain classroom experience using personalized learning in the education of students with disabilities.
- **Policymakers at the state level** should consider offering "badges" or "micro-credentialing" as a way to incentivize educators to seek higher-level training and reach more advanced competencies related to personalized learning for students with disabilities.

GETTING STARTED: POLICY & PRACTICE RECOMMENDATIONS *(continued)*

8. State and federal education departments should review laws, regulations and policies to ensure that they maximize the potential for students with disabilities to fully participate in personalized learning systems. While some flexibility may be available in these policies, we must not compromise the important rights and protections these education laws provide to students with disabilities.

Existing federal special education laws are critical to guaranteeing students with disabilities access to and meaningful engagement with the curriculum. Practitioners have identified barriers within federal and state laws to successfully implementing personalized

learning for students with disabilities. To the extent possible, these policies should offer flexibility to districts and schools while also maintaining the rights and protections afforded to students with disabilities.

Recommendations:

- **State and federal departments of education** should thoughtfully examine existing laws, regulations, guidance and policies to identify existing barriers to the full participation of students with disabilities in personalized learning systems.
- **The U.S. Department of Education** should issue guidance and clearly communicate that there is flexibility in how schools report on the provision and duration of special education services so that educators can be truly responsive and adapt programs to meet student needs in a personalized learning system.
- In the reauthorization of IDEA, **policymakers** must work with **educators, parents, and advocates** for students with disabilities to identify barriers within IDEA relating to IEP requirements, provision of accommodations, accessibility of technology, and reporting of time and services, and provide solutions in the new legislation.
- **State and federal departments of education** must ensure that accountability systems include students with disabilities and require schools to annually measure and take responsibility for improving student outcomes.
- **State and federal departments of education** must ensure that state and local assessments offer students with disabilities access through appropriate accommodations.

Spotlight on Opportunity

Many laws already contain some flexibility and some state leaders have offered guidance in the past to serve as an example. Schools should take advantage of what is available from these resources to begin exploring how personalized learning can fit into the existing legal framework in their own state.

GETTING STARTED: POLICY & PRACTICE RECOMMENDATIONS *(continued)*

9. State educational agencies (SEAs) must take an active role in the implementation of high-quality personalized learning systems by providing clear and accurate information to districts about how available funding streams may be used to fund personalized learning and by developing technology procurement guidelines that ensure accessibility for students with disabilities.

While schools and districts are leading the way to personalized learning in many places, SEAs serve an important role in the expansion of high-quality personalized learning systems. SEAs must be attuned to district-level innovations so they can inform state-level policies that move personalized learning forward. In addition, SEAs are uniquely positioned to provide support to districts through the issuance of guidance on important topics. First, SEAs must provide clear information to districts on how existing funding streams can be used to implement personalized learning. The shift to personalized learning requires school leaders to have a deeper knowledge of how to use existing funding streams to support this new approach. Personalized learning brings students together in a more inclusive environment, and as a result, money from various funding streams should be used to complement each other and support this approach when possible. There is a great deal of misinformation and misinterpretation about how existing funding streams may be used, and SEAs should fill this knowledge gap to ensure that a lack of accurate information does not result in less innovation within schools.

In addition, SEAs can develop procurement guidelines to ensure the technology used by schools in personalized learning environment complies with existing accessibility standards and laws. All technology used in

personalized learning must be designed using UDL. Technology can and should be designed in a way that optimizes use by all students, regardless of disability. SEAs can take this opportunity to partner with technology developers and vendors in ensuring accessibility in the design of all hardware and software that is used to personalize learning.



GETTING STARTED: POLICY & PRACTICE RECOMMENDATIONS *(continued)*



Recommendations:

- **SEAs** should continue to provide and enhance their outreach to administrators at the school and district level about available funding and how it might be used in effective ways to support personalized learning in their schools.
- **Districts** should designate a staff member who will have a deep understanding of how federal and state funds can be used and will train and support other members of the school community on that topic.
- **States and the federal government** should offer innovative pilots for districts to fund new systems and expand existing systems of personalized learning.
- **States** should develop procurement guidelines to encourage design and creation of software, hardware, and technology using the UDL framework. This technology must be able to serve all students and present content in an accessible way that is tailored to meet each student's needs.
- **State leaders, educators, school leaders, and parents** should encourage vendors to create technology that is not retrofitted for students with disabilities as an afterthought, but is accessible by intent and design and meets federal and state accessibility requirements, including Section 508 of the Rehabilitation Act.
- **Educators and school leaders** who use technology as part of their personalized learning system must ensure that their hardware and software are accessible to and optimized for all students.

GETTING STARTED: POLICY & PRACTICE RECOMMENDATIONS *(continued)*

10. Continued research is necessary to identify how personalized learning can be effective in educating all students.

Personalized learning, while growing and expanding across districts and states, still requires a tremendous amount of research and analysis in order to know how to truly meet the needs of all students with disabilities. Research is critical to addressing the concerns

and challenges facing the field and providing practical, evidence-based solutions that will promote success for students with disabilities in personalized learning systems.

Recommendations:

- **Federal research agencies** must make personalized learning and its implications for students with disabilities a priority.
- For personalized learning to truly benefit students with disabilities, **researchers** – through the use of scientific and applied research – must address critical questions, such as:
 1. The development of on-demand, performance-based assessments that are high-quality, valid, reliable, and comparable;
 2. The use of on-demand, performance-based assessments that are reliable and accurate for accountability purposes;
 3. An understanding of learning progressions for students with varying disabilities;
 4. An understanding of critical competencies, reasonable goals, and rates of progress for students with significant cognitive disabilities;
 5. Identification of successful models of appropriate pacing and assessment for students with disabilities;
 6. Identification of critical competencies required for general educators to appropriately instruct and support students with disabilities in personalized learning settings and the professional development necessary to prepare educators for this task;
 7. Identification of successful models of flexible staffing (use of all professionals in the building), allocation and use of space and resources in large or urban districts; and
 8. Neuroscience developments that can inform our understanding and development of learning progressions and appropriate assessments.



LOOKING AHEAD: THE FUTURE OF PERSONALIZED LEARNING

When personalized learning systems thoughtfully and appropriately address the needs of students with disabilities, they hold the potential to transform learning and build a solid foundation for future success. Educators, school leaders, and policymakers must seize this opportunity to design and implement personalized learning systems with students with disabilities in mind.

APPENDIX A: A DISCUSSION OF SELF- ADVOCACY AND RELATED SKILLS FOR STUDENTS WITH DISABILITIES

Self-Advocacy: A Critical Skill for Students with Disabilities

Personalized learning settings foster an environment where students with disabilities can, with the support and guidance of educators, readily develop self-advocacy skills. All students must be self-advocates at times, but students with disabilities face a greater challenge. In school, students with disabilities (and their parents) must understand their needs and barriers to success and seek appropriate accommodations, supports and services. Many individuals with disabilities will continue to need accommodations in college or in the workplace. They will have to explain to professors, supervisors, and colleagues what they require to be successful. Advocacy is a bigger part of life for students with disabilities than most other students. Therefore, it is critical that educators strive to help students with disabilities build these skills as early as possible. Fortunately, personalized learning systems require that students also engage with and take ownership over their learning and, therefore, offer an environment that is conducive to developing the skills students need in order to become excellent self-advocates.

Building the Foundation: Developing Self-Awareness

Not only must schools build in the time and resources for educators to work with students with disabilities on developing these skills, but the skills must be honed in a progression. First, students must have an understanding of how they learn – a sense of self-awareness. This means that students can describe strategies for learning that lead to their success and identify and anticipate challenges on their learning path. Students with disabilities should not be left to build this understanding on their own, and need the involvement of caring adults and educators as they navigate this process. They must be supported and guided by educators as they explore their own learning preferences and determine what types of instruction and strategies work best for them.



For students with disabilities, developing the ability to advocate for themselves is critical to future success. Personalized learning offers a great opportunity to build these skills, which will serve them well throughout life.

APPENDIX A: A DISCUSSION OF SELF- ADVOCACY AND RELATED SKILLS FOR STUDENTS WITH DISABILITIES *(continued)*

Thinking Ahead: Effective Decision-Making

Personalized learning systems often incorporate an element of student choice and, where choice exists, educators must support students in making those choices. Student choice means that students have a say in how they learn something and even what they learn. For example, students must still meet pre-determined standards or competencies, but students may decide to demonstrate mastery through a project rather than an essay, or they may choose the topic of the essay. Offering students voice and choice in their learning can also increase motivation. A recent study by CAST (not yet published) revealed that when students with intellectual and developmental disabilities were offered reading assignments related to topics of their choice, their level of interest and motivation to read increased.^{vi}

However, certain conditions must apply where students are offered choices. Research shows that offering students a choice in their learning can be a motivating factor when educators tailor the options to students' interests and goals and when the choices are not too complex or numerous.^{vii} Therefore, this student choice and decision-making process must be related to their individual learning goals and accompanied by feedback from and reflection with an educator to ensure that students are making informed decisions.

Taking Ownership: Demonstrating Agency

By making choices in the classroom, students learn to demonstrate agency – their own control – over their learning. Providing students with choice allows them to become invested in and take ownership of their learning and ultimately develop a sense of agency and self-confidence. This is especially valuable for students with disabilities, as self-confidence allows students to adopt a “can-do” attitude or a “growth mindset” and enhances their ability to persevere in their learning when they are faced with obstacles. A recent study by NCLD found that students with learning and attention issues are four times more likely than their non-disabled peers to struggle with self-confidence.^{viii} The study also found that self-confidence is one of the biggest predictors of success for young adults with learning and attention issues.^{ix} Because self-confidence is such an important factor for success in school and life, students with disabilities must be offered opportunities to build that confidence through making choices and exercising agency over their learning.

APPENDIX A: A DISCUSSION OF SELF-ADVOCACY AND RELATED SKILLS FOR STUDENTS WITH DISABILITIES *(continued)*

Putting It All Together: Effective Self-Advocacy

Then, when students learn to take ownership of their learning and develop a deep understanding of what they need to succeed, they can begin to build and sharpen self-advocacy skills.

Self-advocacy includes understanding your strengths and needs, identifying your personal goals, knowing your rights and responsibilities, and communicating these to others.^x Students with disabilities who can self-advocate are able to deeply understand how they learn and obtain the supports, services, and accommodations they need. In fact, NCLD's recent study found that students who participated in their

Individualized Education Plan (IEP) or Section 504 of the Rehabilitation Act meetings were more likely to self-advocate for their needs, receive needed supports and services after high school, and have more positive postsecondary outcomes, including enrolling in postsecondary education.^{xi}

In schools that are using personalized learning, educators must provide students with disabilities the structure and safe opportunities needed to develop self-advocacy skills. These skills will benefit students without disabilities not just throughout their education but also in their transitions to college and career.

A recent study by NCLD found that students with learning and attention issues are four times more likely than their non-disabled peers to struggle with self-confidence and that self-confidence is one of the biggest predictors of success for young adults with learning and attention issues.



APPENDIX B: METHODOLOGY

1. Literature Review

To begin our exploration of personalized learning, we conducted a comprehensive literature review relating to personalized learning and the four specific systems as defined by the Bill & Melinda Gates Foundation. Throughout this review, we collected and thoroughly reviewed more than one hundred written reports by experts and organizations involved in personalized learning, case studies of schools and districts implementing personalized learning systems, newspaper articles exploring the issues and describing innovative and promising work, and journal articles about the science and theory behind this type of education.

2. Workshops with 40+ experts

Over the course of 3 months, we held 9 separate one-hour-long, interactive webinars with experts. We divided the 40 experts into three subgroups. Each subgroup covered the same broad topic of discussion each month, and each month the topic changed.

Three major areas of inquiry with experts:

- a) Classroom level: interactions between student and teacher; special considerations in design or practice for students with disabilities; and benefits, barriers, and opportunities for students with disabilities.
- b) School and district level: school environment, including use of time, school day structure, and allocation of resources and staff; leadership; educator training and professional development; and community and stakeholder involvement.

- c) State and federal level: state and federal practices and policies; flexibility and accountability systems; assessment; research; and funding

Experts included: (1) teachers, special educators, and school and district leaders; (2) researchers and university professors; (3) advocates for students with disabilities; and (4) state and federal policy and practice experts. Following each workshop, we conducted one-on-one interviews with these experts as needed to build our knowledge on important issues that surfaced in the workshops.

3. Site Visits to:

- Brooklyn Lab Charter School (Brooklyn, NY)
- E.L. Haynes Charter School (Wash., DC)
- Thurgood Marshall Academy (Wash., DC)

4. Quantitative Research

To determine parent level of knowledge and interest in personalized learning, we created two surveys.

A) Understood.org Survey. 1000+ responses

In the survey featured on the Understood.org homepage, users were asked to self-identify as an educator, a parent, a professional, a student, or "other." Of the 1000+ responses, more than a third (37%) were parents, more than a quarter (27%) were educators, and the rest were a mix of students, professionals, or other users.

APPENDIX B: METHODOLOGY *(continued)*

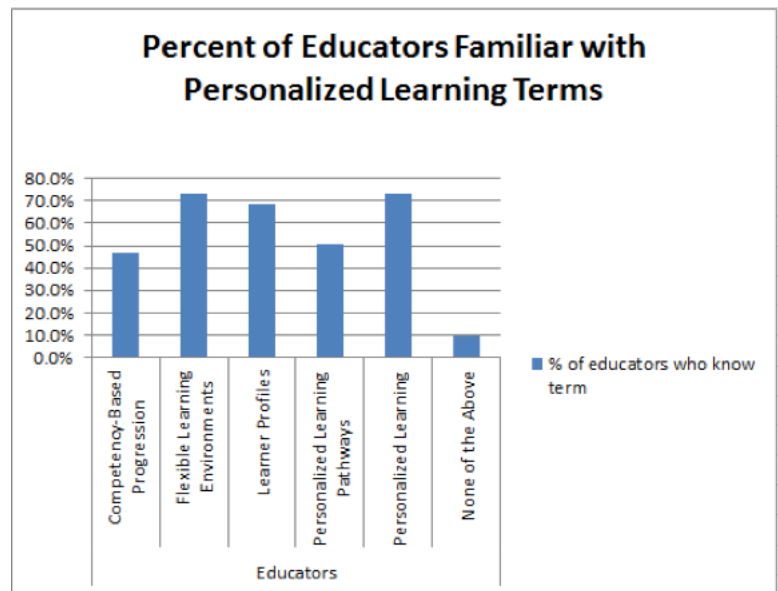
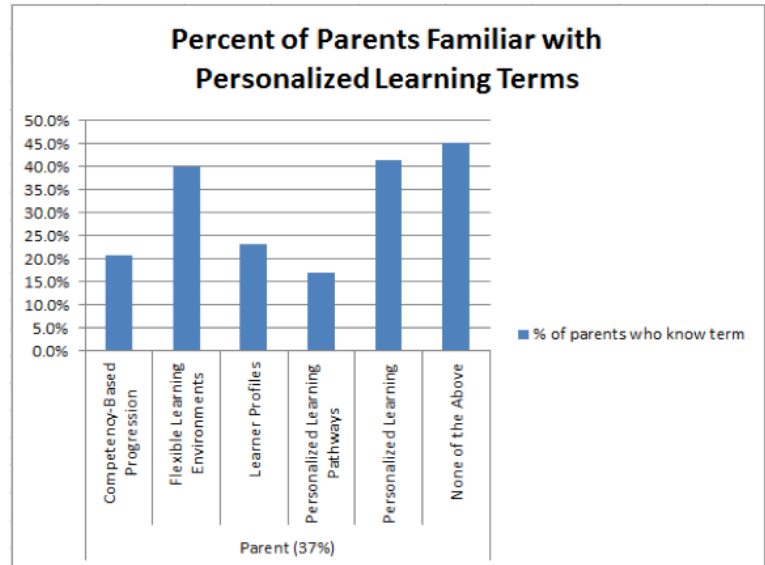
A) Understood.org Survey: 1000+ responses

We then asked users which terms of the following terms they had heard of:

- Flexible Learning Environments
- Learner Profiles
- Personalized Learning Pathways
- Personalized Learning
- None of the Above

Key findings include:

- Educators were most likely to know about personalized learning systems (73%); only 9% had never heard any of the terms listed.
 - More than 70% knew about personalized learning and flexible learning environments.
 - Similarly, almost 70% were familiar with learner profiles.
- **Almost half of all parents knew not a single term relating to personalized learning. In fact, no more than 41% of parents had ever heard any term relating to the topic.**



APPENDIX B: METHODOLOGY *(continued)*

B) **NCLD & Partner Survey: 800+ responses**

The second survey was distributed to individuals who subscribe to NCLD's newsletters and was also distributed by key partners in the disability community. This survey was intended for parents and asked them more than 10 questions about their familiarity with and knowledge of the four types of personalized learning.

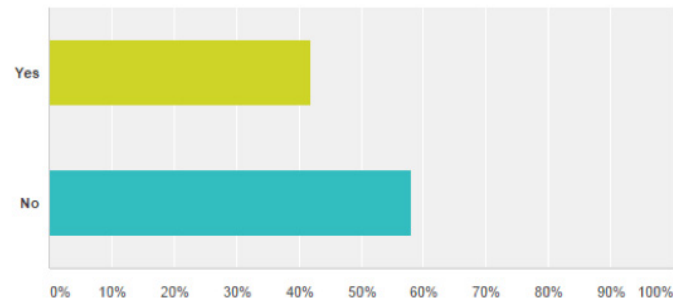
We received more than 850 responses from parents across the country (42 states and several territories), largely from parents with children in public schools (78%) and most of whom were parents of a child with an IEP plan, a 504 plan, or both (79%).

Key findings include:

- Even though 42% of parents had heard the term personalized learning, that number dropped when we asked about the other more specific terms. For example, only 21% had ever heard about competency-based progression. A few more heard about learner profiles (33%) and flexible learning environments (40%).
- **More than half of all parents have not heard about personalized learning, but more than 90% would like to learn more!**

Have you heard about personalized learning?

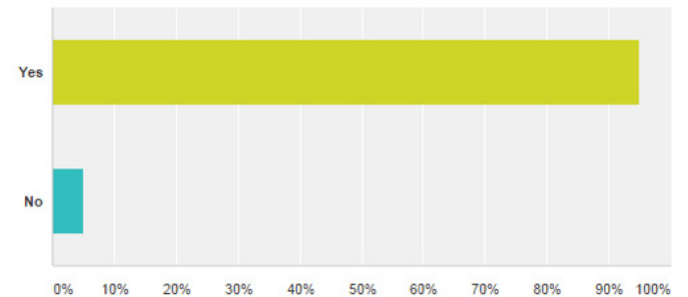
Answered: 856 Skipped: 7



Answer Choices	Responses
Yes	42.06% 360
No	57.94% 496

Would you like to know more about personalized learning?

Answered: 853 Skipped: 10



Answer Choices	Responses
Yes	95.08% 811
No	4.92% 42

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GLOSSARY

Agency	<p>In this context, agency is the ability of students to make choices about their learning. Exercising agency can lead to increased feelings of competence, self-control, and self-determinism.</p>
Competency-based progressions	<p>“Each student’s progress toward clearly-defined goals is continually assessed. A student advances and earns course credit (if applicable) as soon as he or she demonstrates an adequate level of mastery.”^{xii}</p>
Executive functioning	<p>“Skills everyone uses to organize and act on information.” Key executive functioning skills for students include impulse and emotion control, flexible thinking, working memory, self-monitoring, planning and prioritization, task initiation, and organization. ^{xiii}</p>
Flexible learning environment	<p>“Student needs drive the design of the learning environment. All operational elements – staffing plans, space utilization, and time allocation – respond and adapt to support students in achieving their goals. For instance, schools might give teachers more time to deliver small-group instruction by taking away other responsibilities, or they might recruit parents and community volunteers to provide daily after-school tutoring to every struggling reader.”^{xiv}</p>
Learner profile	<p>“An up-to-date record that provides a deep understanding of each student’s individual strengths, needs, motivations, progress, and goals to help inform his or her learning.”^{xv}</p>
Personal learning paths	<p>“All students are held to high expectations, but each student follows a customized path that responds and adapts based on his or her learning progress, motivations and goals. For instance, a school might use weekly updates about a student’s academic progress and interests to assign her a unique schedule that includes multiple learning experiences (or “modalities”), project-based learning with a small group of peers, independent work on discrete skills and complex tasks, and one-on-one tutoring with a teacher.”^{xvi}</p>

GLOSSARY *(continued)*

Personalized learning	“Students’ learning experiences – what they learn, and how, when, and where they learn it – are tailored to their individual needs, skills, and interests, and enable them to take ownership of their learning. Although where, how, and when they learn might vary according to their needs, students also develop deep connections to each other, their teachers, and other adults.”
Self-advocacy	Self-advocacy refers to the ability to understand your strengths and needs, identify your personal goals, know your legal rights and responsibilities, and communicate these to others. ^{xvii}
Self-awareness	An understanding of one’s self and, in this context, how one learns.
Self-determination	Self-determination is the belief that you have control over your life. “Self-determination is a combination of attitudes and abilities that lead people to set goals for themselves, and to take the initiative to reach these goals. Self-determination involves many attitudes and abilities including: self-awareness, assertiveness, creativity, and pride, and problem solving and self-advocacy skills.” ^{xviii}

FOOTNOTES

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