

# Crash Course in How Tech Can Support Student- Centered Learning



## What you'll learn here

Educators recognize the potential of every student, and they work hard to meet each student's unique learning needs. But 73 percent of classrooms have students with reading levels that span four or more grades, and 72 percent of classrooms have students who need disability accommodation.<sup>1</sup> Combine this with a future that demands new skills, and student-centered learning takes on new urgency.

In this e-book you'll learn about the many aspects of student-centered learning—also called personalized learning—which will give you the basis for building your own student-centered approach.



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## Let's define it

Personalized, or student-centered, learning provides a path to success for every student, with or without technology. All students are unique in how they learn. Their learning is influenced by academic, emotional, social, and other factors. Understanding these factors and offering learning opportunities that resonate for each student opens the path to a transformed learning system.

Every student has tremendous potential to achieve things that will help their own life, their communities, and the broader world. Personalized learning is about unleashing that potential. This e-book has ideas about how your school can start the journey to individualizing learning for every student.



# 02

## Why personalized learning right now?

Most teachers already work hard to meet every student where they are. With the time they have, teachers try to give individual feedback, challenge the high achievers, and support those who need it through one-on-one attention. It's hard to manage this without tools and resources.



## Two things are making student-centered learning imperative right now:



Fewer than 50 percent of today's students will be prepared for tomorrow's fastest-growing jobs.<sup>2</sup> Student-centered learning gives them the best chance of acquiring the skills needed for the future.



With advances in technology as well as ease of access and use, teachers can save time to transform their classrooms. They can now more easily support personalized learning while empowering students to take charge of their own education.

Research shows that teachers can repurpose up to 30 percent of their time by using technology.<sup>3</sup> This lets them focus on individualized instruction across the classroom, reaching every student. The time has never been better for personalized learning.

# 03



## But first, teach the teachers

To successfully roll out a personalized learning initiative, four teacher-focused pieces must be in place:

- ✓ A pedagogical model that articulates what personalized learning means in your school or community. It might emphasize student voice, choice, and collaboration.
- ✓ Ongoing professional training to share the personalized learning model.
- ✓ Teacher collaboration in online and site-based learning communities.
- ✓ Technology training and tech support aligned with the model.

Teachers and schools need time to learn new practices, and over time a personalized learning strategy will have greater impact as all the players implement these practices. Training teachers in instructional strategies that are student-centered and collaborative will result in more of those strategies being used. As teachers take ownership of their own learning, they'll share their experiences and best practices with other teachers—whether on-site or via online communities. This helps teachers become more open to ideas about how to integrate technology in ways that cultivate student voice, choice, and collaboration—which is often the beating heart of personalized learning.

## Then, tech the teachers

One of the fastest ways to predict the success of a technology program in a school is by looking at whether teachers are given the technology first, with a structured program to help them use it for “personal benefit.”

“Personal benefit” means teachers have a reason to use the technology because it makes their life easier and more productive, and it helps them design more interesting learning activities, have more fun, or become more connected. Providing teachers with devices and collaborative software early on lets them share best practices, build lesson plans together, and connect across different schools. This is a critical part of successfully implementing a student-centered learning plan.





# 04

## Meeting the whole student

Getting to know every student is the only way to effectively meet them where they are and truly personalize their learning in a way that empowers them to take ownership of their own learning. Understanding students' interests, tapping into their passions, cultivating social and emotional skills, and developing a sense of inclusion are keys to personalized learning.

There are four touchpoints that help you connect with a student. Within each of these points, teachers can get clarity on what the student needs. When all the touchpoints are put together, a complete picture of the student emerges and student-centered learning falls into place.





## Where is the student starting?

This touchpoint is about recognizing the baseline capabilities and comprehension levels of each student. Every learner is unique and their ability to learn is shaped by many factors. Teachers can do assessments of students across a variety of factors to get an understanding of their starting place, and then do the same assessments at the end of the year to measure progress.

### Real-life example

A teacher learned quickly that while an eighth-grade student was only able to read at a first- or second-grade level, he clearly had very high intelligence and was able to comprehend some of the highest-level text if it was read to him. Taking the time to look beyond his reading level led to a deeper understanding of this student, and the teacher was able to empower him with Learning Tools. He can have class content read to him, so he can digest and learn from information that far exceeds his ability to read it.<sup>4</sup>





## What is the student's social and emotional competency?

According to the Collaborative for Academic, Social, and Emotional Learning, social and emotional learning (SEL) is the process through which students acquire and effectively apply the knowledge, attitudes, and skills necessary to understand and manage emotions, set and achieve positive goals, feel and show empathy for others, establish and maintain relationships, and make responsible decisions. SEL is increasingly important for success in the future. Getting to know where each student stands on the broad spectrum of this competency can help point to specific learning processes so they can grow these important skills.

In a survey conducted by Microsoft's Education team and Economist Intelligence Unit, 80 percent of educators around the world agree that well-being is directly tied to academic success. The majority of respondents felt that technology helped students understand the perspective of their peers, which fosters the development of empathy.<sup>5</sup>

### Real-life example

Many classrooms bring *Minecraft: Education Edition* to their students to help develop SEL. The gaming environment creates a safe place for students to try and fail in a place where they can be comfortable learning and growing from their mistakes. One teacher notes, "When playing *Minecraft*, students must have a level of coordination and cooperation in order to accomplish shared objectives. They're negotiating with one another, strategizing about resources and next moves, and delegating responsibilities. It's really quite remarkable to see."<sup>6</sup>



## Does the student have a voice and a sense of independence?

Self-directed students are more motivated students, and every student should have the same freedom to pursue a new subject or dive deeper into a topic. When students have a choice in their learning, they become more engaged during class time and more empowered to explore subjects on their own. When an environment encourages students to take ownership of their learning, they can shape it in a way that works best for them. This is voice and independence.

### How students can find their voice

Because of technology, “It’s never been easier to start a campaign, to launch a business, to code an app, to find a big data set, and aim smart tools at it,” says educator Tom Vander Ark. This encourages students to explore solutions to real-world problems, which can “build this sense of agency by feeling the success of making a contribution to their community.”



## Is anything preventing the student from accessing learning?

Student populations grow more diverse every year. Traditional teaching targeted to the “average” student is no longer viable. Students with a range of learning abilities and styles can attend the same classes, so schools today rarely have special education or English-language learner classrooms. The desired outcome is a community in which all learners can engage confidently and work together with trust and support.

### Real-life example

A high school student enrolled as an English-language learner and immediately began to struggle in a physical science class because of the language barrier. The teacher began using Microsoft Translator with the student, and he was able to grasp the scientific concepts, participate more in class, and make steady progress. This translation solution removed an intimidating barrier, freeing this student and his peers to focus on learning.<sup>3</sup>

# 05



## Three opportunities for student-centered learning

Many teachers are able to personalize instruction on the fly while class is underway. This can be an effective approach, particularly if teachers have an understanding about the three ways that learning can become more student-centered.

This can also give teachers a point to plan from, as well as prepare them to seize opportunities for student-centered learning throughout the day. That captured moment of personalized learning could make a big difference for the student.

Technology can make it easier for teachers to take advantage of the following three ways for personalized learning.

# 1. What students learn

Every student has specific interests that fuel their learning. Delivering content that captivates is one way to personalize, but how does a teacher do this with so many students in a class? Technology allows convenient access to any content so teachers can create a moment that is ripe for engaging, including, empowering, and supporting every student.

## What this looks like in practice

Students choose from a list of topics their teacher provides, finding something that resonates for them. By choosing their own topic, they take ownership of their learning and let their natural interest motivate them. Students who choose the same topic can work together in small groups so they can share their interest and growing knowledge.

## Microsoft Education tools that can help

Teachers can decide what success looks like by creating a rubric in Teams (or co-creating one with students) that connects the student's learning style to measures of success.

Tailored content can be given to each student via OneNote Class Notebook, which is also a great way for teachers to keep tabs on student activity.

## 2. How students learn

This moment is about how the teacher teaches and could include use of explicit instruction, modeling, manipulative use of multimedia, and classroom practice and group work. Note-taking, questioning for critical thinking, problem-based learning, and varying the amount of teacher and classmate support for the task are all variations that can suit specific students.

### What this looks like in practice

Some students can watch a lecture video their teacher has made, typing comments and questions for others to respond to. Others might read an essay on their device, making notes and highlighting content with a stylus pen to help them remember certain parts.

### Microsoft Education tools that can help

- ✓ Learning tools like Immersive Reader and Translator make it easy for students to access the content.
- ✓ A Flipgrid video discussion mimics the engagement of social media and keeps students involved.
- ✓ A Windows 10 device with a keyboard, pen, touch, voice, and other natural interfaces lets students find their perfect interaction tool. The Windows 10 app Video Editor gives students and teachers the tools to create and edit videos, with support for 3D.

### 3. How students demonstrate their learning

Podcasts, portfolios, art, music, essays, tests, group presentations, writing a screenplay— the ways to demonstrate learning are as varied as the students in a classroom.

Personalizing here can spark a love of learning.

#### What this looks like in practice

A few students might be asked to create a game or an app, while others might create a 3D PowerPoint presentation or write a magazine-like article. Encouraging different ways of expressing what they've learned gives students the power to pick the method that fits their skills and interests.

#### Microsoft Education tools that can help

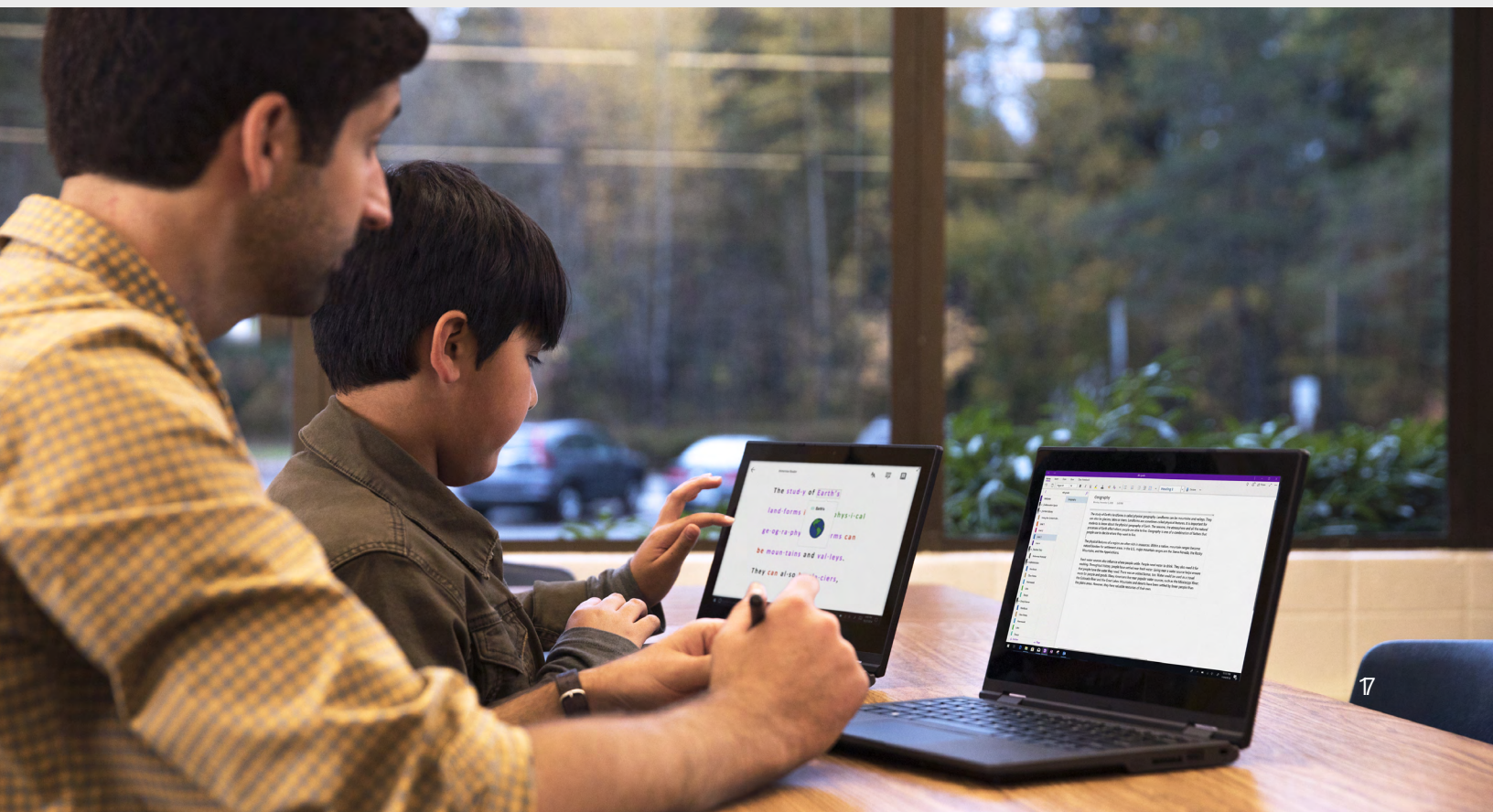
- ✓ Students can build code in *Minecraft: Education Edition* or work with MakeCode or Hacking STEM.
- ✓ Office 365 with Word, Excel, and PowerPoint gives students tools for creatively expressing what they've learned.
- ✓ OneNote Math Assistant lets students work out math problems on their own, showing the steps to calculate the answer. And with Ink Replay, students can rewind and replay to show the teacher their work.
- ✓ OneNote Class Notebook in Teams keeps everyone connected with due dates, assignment criteria, comments, and questions in one place.



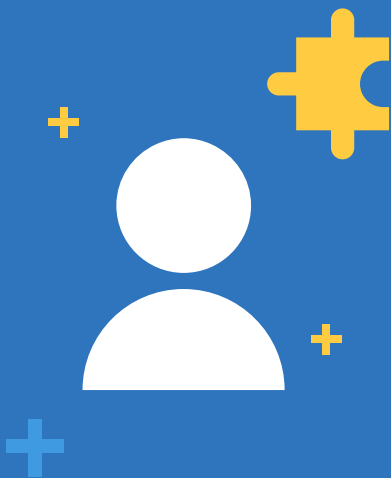
## Individual feedback for every moment

Giving students feedback is a key part of personalized learning, because this is how a teacher can correct the course, support a new direction, or offer encouragement. Forty percent of students feel they don't receive personalized feedback.<sup>7</sup> Teachers need better tools that will help them save time so they can provide students with feedback.

Setting up classrooms with Microsoft Education technology lets teachers engage directly with each student across the three ways of student-centered learning. With technology, teachers can effectively teach a diverse set of learners, enabling students to take charge of their own learning and giving teachers more time to connect with and guide students.



# 06



## Putting it all together

Providing a path to success for every student requires a personalized approach. Getting there with high student enrollment while using traditional methods can be a challenge. Adding technology to the classroom mix can elevate student-centered learning, saving teachers time and giving students more control over their education.

It's helpful to start by breaking down personalized learning into the two considerations we've covered here:

- ✓ Meeting each student where they are
- ✓ The three ways to put students at the center of their own learning

Transforming a school for personalized learning takes time and consideration. Find a pace and a rhythm that work for you.



To learn more about how technology can support personalized learning at your school, [connect with Microsoft Education experts on this topic](#)

<sup>1</sup> "Primary Sources: America's Teachers on Teaching in an Era of Change." Scholastic and the Bill & Melinda Gates Foundation. 2014.

<sup>2</sup> Manyika, James, Michael Chui, Mehdi Miremadi, et al. "Harnessing automation for a future that works." McKinsey Global Institute. January 2017.

<sup>3</sup> "The class of 2030 and life-ready learning: The technology imperative." Microsoft Research. May 2018.

<sup>4</sup> McKnight, Katherine. "Leveling the Playing Field with Microsoft Learning Tools." RTI International.

<sup>5</sup> Holzapfel, Barbara. "Emotion and Cognition in the Age of AI: New research from Microsoft Education and The Economist Intelligence Unit." Microsoft. February 2019.

<sup>6</sup> "How Minecraft Supports Social and Emotional Learning in K-12 Education." Getting Smart Research Report. June 2017.

<sup>7</sup> "Advancing Achievement and Equity: Growing Evidence from Fresno's Personalized Learning Initiative Report." Microsoft Research. 2018.