In the early 1980s, the Reagan administration’s *A Nation at Risk* (National Commission on Excellence in Education, 1983) became a catalyst for subsequent decades of conflict and dissonance in education, couched as sweeping educational reform. At the time, they desired to control and predict test scores through the standardization of content and industrialization of curriculum delivery. It’s clear now, after the painful failure of No Child Left Behind, that one-size-fits-all curriculum isn’t quite making the cut. As a result, the standardization movement was met with a new movement: one that values differentiation, individualization, and personalization.

Ironically, the implementation of differentiated and personalized learning retains some of the flawed educational hallmarks of the late 20th and early 21st centuries. One might think that a response to standardization, intended to address the shortcomings of the industrialized mindset, would deindustrialize education. Instead, the industrialized model for education has merely been reborn in a new form. Enabled by technology, industrialized learning is now applied on an individual basis. Instead of a lecture-based, didactic style of teaching consumed by a class of twenty or more students, didactic instruction is now enacted through digital means, plodding children through educational videos and accompanying activities, mirroring the same passive consumption that a one-size-fits-all curriculum might. It’s just now done in an individualized manner, euphemistically labeled as *personalized learning*. 
This digitized response to standardization and industrialization has not been designed to address systemic barriers: It was not initiated with the intent of rebuilding the faulty ideological foundation on which the standardized era was built, one that prohibits so many students from accessing an equitable education. Instead, this response has taken the flawed large-scale practices of industrialized education and made them all the more complex by individualizing the tracks on which our students are sent. In order for personalized learning to transform the education system, a strong ideological foundation must be built first to address systemic barriers and avoid the mistakes of past initiatives. It must restore equity and humanity in our classrooms by centering people—not technology.

When we closely examine the standardized era of the late 20th and early 21st centuries and this current era of technology-powered personalization, we see that both are defined by an obsession with controlling, predicting, and comparing the United States’ quantitative education outcomes with other countries’. This is not done with an intrinsic purpose of truly bettering our education system; it is, instead, done with a fear of losing our perceived standing as the world’s primary hegemonic power. We equate our success in quantitative educational outcomes with our success as a nation. This need to control, predict, and compare has engendered a toxic culture of achievement that plagues the education system. It adds pressure, generates anxiety, and counterintuitively stunts our growth as a society.

Despite our fervor to measure, control, and predict every aspect of education, most aspects of education defy quantification. Take a moment to reflect on the ephemeral nature of a classroom’s tender moments: the quizzical conversations that bubble among engaged and curious learners, the moment a child’s insightful comment changes the direction of a lesson, or even the frustrating interactions where you and your students struggle to understand one another. These cannot be controlled; in fact, the power of these moments lies within their ephemerality. They are powerful because they are unpredictable and undeniably learner driven.

Our perceived need to control and predict is what has most heavily influenced the technology-powered personalized learning movement. I saw it firsthand when I was hired to work for a start-up network of schools in Silicon Valley. At first, I was enamored with my company’s philosophy of personalized learning. We hypothesized that, by rigorously collecting data, we could curate individualized playlists of activities, theoretically allowing as many curricula in the classroom as there were children.

Over my three years there, I learned just how flawed this hypothesis was. If it had worked, educational outcomes would have soared, teachers would
have flocked to work at our schools, and, in fact, they might still be open today. The reality, however, was that the company closed all of its schools as of 2019, succumbing to the pressures and failures of this brand of personalized learning.

These expectations for personalized learning were drowned in myths related to personalized learning (see Figure 1.1). I hope to clarify these misconceptions and share a more nuanced vision for personalization that’s humanized, lessening our dependence on digital technology and supporting individuals in witnessing their agency and autonomy, all while still finding belonging within a collective community of learners.

**Figure 1.1: Five Personalization Myths**

<table>
<thead>
<tr>
<th>MYTH 1</th>
<th>MYTH 2</th>
<th>MYTH 3</th>
<th>MYTH 4</th>
<th>MYTH 5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Personalizing learning means that curriculum must be individualized.</td>
<td>Personalizing learning means that curriculum must be interest based.</td>
<td>Personalizing learning lies within the teacher’s locus of control.</td>
<td>Technology is necessary when personalizing learning.</td>
<td>Digitally driven personalization paves a path to equity.</td>
</tr>
<tr>
<td>Curriculum must be designed so all learners can access it.</td>
<td>Interest and engagement are not synonymous.</td>
<td>Personalizing learning is a partnership between educators and learners.</td>
<td>It can help, but only in a way that humanizes the classroom and preserves human connection.</td>
<td>To restore equity, we must focus on inclusive practices that remove barriers to learning.</td>
</tr>
</tbody>
</table>

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**MYTH 1: PERSONALIZING LEARNING MEANS THAT CURRICULUM MUST BE INDIVIDUALIZED**

It’s intuitive, but misguided, to conflate personalization with individualization. If these terms were synonymous, it would imply the more individualized learning is, the more personalized it will be. In a society that values fierce individualism above all else, it’s controversial to suggest that it’s possible to over-individualize learning, but I assure you it is.

It’s not that seeing and honoring the individual is bad. In fact, I argue that it’s critical to humanizing personalization. That said, over-individualizing
learning can be detrimental to equitable learning in the classroom. It robs children of the opportunity to serendipitously collide with like- and unlike-minded peers; it strips learning of its social and emotional elements; it removes the need for the child to build self-efficacy, autonomy, and independence. The latter is of utmost importance. Learning is most meaningful when it builds autonomy, but too often, personalized learning models that focus on curricular individualization do so on behalf of the child, as opposed to in partnership with the child. These models rely heavily on adaptive technology that assigns lesson after lesson to children, making learning experiences no more mindful or learner driven than the one-size-fits-all lessons from a textbook or whole-class lecture. Instead, this approach to personalization creates learners who are dependent on a device, acting in direct opposition to learning experiences that build agency and autonomy (Hammond, 2014).

Degrees of individualization can, of course, improve the classroom. However, as I learned during my time in Silicon Valley, the returns on individualized learning eventually diminish. Instead of depicting this relationship between individualization and personalization as a linear graph, I display it as an inverted U, illustrating these diminishing returns (see Figure 1.2). In layperson’s terms, it is possible to have “too much of a good thing” (Gladwell, 2013; Yerkes & Dodson, 1908). In essence, this heightened level of individualization has the potential to depersonalize the visceral human experience of learning. This is especially true for technology-driven personalization.

Some argue that technology-driven personalization could allow for more opportunities for individualized feedback and increased responsiveness to the individual child. This, however, presumes that a digital program can provide the same quality of feedback as a sentient teacher. It also overlooks the importance of partnering with learners to build learner agency. By providing

Figure 1.2: Assumptions Versus Reality

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open-ended tasks, stepping back, and watching our students productively struggle, we create opportunities for independent learning and self-reflection. Technology-driven curriculum will not necessarily provide this productive struggle, especially if the content is delivered in a rote manner; it is, instead, open-ended, complex tasks that will create challenge and provoke inquiry and dissonance in children.

James Nottingham (2017), author of *The Learning Challenge*, refers to this productive struggle as the “learning pit,” based on a concept originated by Butler and Edwards (see Figure 1.3). In the first step of his process, children encounter a *concept*. Afterward, they fall “into a pit” through cognitive conflict and internal dissonance. This is where productive struggle begins. To climb out of the pit, students *construct* knowledge through feedback and autonomous problem solving, and by the end of the four-step process, they *consider* the stages they’ve just gone through and reflect on their process. Many automated personalized learning tools do not allow for this, robbing children of this valuable process and, by proxy, limiting opportunities for autonomous learning.

![Figure 1.3: The Learning Pit](https://example.com/learningpit.png)

*Source: James Nottingham, *The Learning Challenge* (Corwin, 2017). © James Nottingham*
Abandoning this conflation of individualization and personalization, meanwhile embracing a learner-driven philosophy that allows for productive struggle, creates a sustainable model for personalized learning: it necessitates engineering a learning environment where there are opportunities for children to converge around a common task or provocation, as well as diverge into small groups or individual work. In all three of these cases, inherently personal learning can take place. I call these the three dimensions of personalized learning, which we’ll explore in the next chapter.

What’s most important is that, while there are differences between the terms individualization, personalization, and differentiation—yet another term that is often confused or conflated with personalization—all three are helpful in restoring equity and humanity to our classrooms.

Barbara Bray and Kathleen McIlravy (2014, 2017), authors of Make Learning Personal and How to Personalize Learning, illustrate differences between personalization, differentiation, and individualization through their PDI chart. “[Personalization] is learner centered,” the chart says. “The others are teacher centered.”

I have a slightly different opinion. To me, personalization, differentiation, and individualization are interrelated; they all play a critical role in the classroom. Teachers must engage in the process of differentiation to engineer environments where all learners can access learning experiences. “Differentiation is a teacher’s response to a learner’s needs,” says Tomlinson (1999), author of The Differentiated Classroom. This definition of differentiation, from the source herself, illustrates that differentiation is likewise learner centered and actualized through a nuanced knowledge of learners’ identities and needs.

Individualization is similar. By definition, individualization is the process of giving an entity unique or individual character. In our case, it means giving a unique character to learning. While it’s true that individualization can be teacher or technology centered, especially when web-based, adaptive applications get involved, individualization can also be learner centered. For instance, children can individualize their own learning through their agency, allowing them to become partners in the process of personalization.

However, this doesn’t have to mean that the curriculum is individualized. It can be much simpler and more sustainable than that. By using open-ended and project-based tasks engineered for diverse groups of learners, curriculum becomes individualized through a child’s interpretation of or approach to a complex problem. It is in this way we see that personalization, differentiation, and individualization are not orthogonal. A differentiated learning
environment supports all learners in accessing equitable experiences, allowing them to play a role in individualizing the content through their agency. It is this process—not the process of individualizing curriculum—that humanizes personalization in our classrooms (see Figure 1.4).

**Figure 1.4: Differentiation, Individualization, and Personalization**

![Diagram showing the process of differentiation, individualization, and personalization.](image)

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**MYTH 2: PERSONALIZED LEARNING MUST BE INTEREST BASED**

Many believe that meaningful learning must be linked to a child's interests. This simply is not true. When children start school, they are five years old and have hardly scratched the surface of the world’s many languages and literacies. In fact, they have hardly begun to get to know themselves. To only teach to their interests would be a travesty. It would rob them of the opportunity to learn about unfamiliar topics; to build a diverse schema for later learning; and to see the value in learning about unfamiliar, seemingly uninteresting topics.

Meaningful engagement is defined by an investment and participation that grows out of intrinsic motivation, not an interest-based curriculum. In Pink’s (2009) book *Drive: The Surprising Truth About What Motivates Us*, he identifies three major inputs to intrinsic motivation: Intrinsically motivated people feel a sense of autonomy, meaning they can exercise freedom to make decisions within socially defined constraints; they experience mastery, or the sense that they are continuously improving; and they understand the purpose behind what they’re doing.

The personalized classroom, therefore, needs to be designed to help children witness their agency and autonomy; to help them see, understand, and verbalize their performance and progress; to help them understand how learning is relevant to their lives so that when something strikes a passion in them, they can explore it with independence.
Chapter One: Personalization Myths

Myth 3: Personalized Learning Is Only the Teacher’s Responsibility

I’m a firm believer that if you’re doing more work than the twenty or more students in your class, then you’re doing too much. Your kids should be working harder than you during the school day. It is, after all, their education.

By sharing the responsibility of personalizing learning with children, we suddenly see the engagement, investment, and intrinsic motivation we hope for. Our duty, then, becomes less about making children learn and more about partnering with learners, creating environments and curricula that allow children to ask questions, construct ideas autonomously, and engage with peers in conversations around learning.

To achieve this, we select or construct multi-ability tasks (Boaler, 2015; Cohen & Lotan, 1997) that allow diverse groups of students to converge around common content so they may learn with one another. Students begin to ask one another questions, challenge each other’s thinking, and otherwise shape lessons through their interactions and responses.

Partnering with students isn’t a matter of simply giving kids more control; instead, it requires the mindful identification of roles and responsibilities in the classroom. In Figure 1.5, you can see a sample of what these roles and responsibilities might look like, but ultimately, because every classroom is different, yours may look slightly different, too.

<table>
<thead>
<tr>
<th>Figure 1.5: Roles and Responsibilities for Personalization</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Teacher</strong></td>
</tr>
<tr>
<td><strong>Curriculum Development</strong></td>
</tr>
<tr>
<td>• Use grade-level standards to select or create open-ended tasks and projects.</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td><strong>Assessment</strong></td>
</tr>
<tr>
<td>• Create student-friendly assessment criteria using grade-level standards.</td>
</tr>
<tr>
<td>• Adjust assessments based on student feedback and input.</td>
</tr>
</tbody>
</table>

(Continued)
In a classroom that humanizes personalization, teachers become facilitators. While teachers should be encouraged to make decisions about the direction of the curriculum, taking into account grade-level standards, students should play an active role as co-constructors of knowledge, empowered to shape the curriculum through their questions, ideas, and feedback. These roles complement one another by design, creating a continuous cycle of conversation—a productive learning exchange between teacher and learner that sustains itself over time.

<table>
<thead>
<tr>
<th>Instruction</th>
<th>Teacher</th>
<th>Learner</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Lead minilessons or facilitate classroom discussions (including morning meetings and community building).</td>
<td>• Journal about tasks.</td>
<td>• Self-select books, writing topics, strategies, and tools within collective classroom constraints.</td>
</tr>
<tr>
<td>• Maximize small-group learning and conferences for coaching on learning habits and formative feedback.</td>
<td>• Share ideas and feedback to share funds of knowledge with classmates and teacher.</td>
<td></td>
</tr>
<tr>
<td>• Partner with students to remove barriers to learning through supports and scaffolds.</td>
<td>• Advocate for oneself when experiencing obstacles or barriers.</td>
<td></td>
</tr>
</tbody>
</table>