

Future of Data in K-12 Education

Design Challenge: Technology Access Foundation

The power of any given community is that it has the ability to represent, support and advance its members. When we think about the future of assessment, we believe we have people in our community to guide the discussions and inform instructional priorities which will guide the experiences of its students and the products of their education. In our local community of Seattle, one of those scholars is Dr. Wayne Au, Dean of the College of Education at the University of Washington's Bothell campus. Every community has people like Dr. Au, who noted the reality of how standardized tests remove context from learning in assessments:

The whole basis for standardized testing is to be able to make (supposedly) fair and objective comparisons between students, teachers, school, districts, states, and countries. To do so, we give the same standardized test, in as similar conditions as possible (same amount of time allotted, same exact directions read out loud, maybe using the same computer program, in a quiet-as-possible space), to different students in different classrooms. The whole premise is that if we minimize as much context as possible, then we can make valid and meaningful comparisons between students taking the same test. In turn, policymakers can then assert that one student outperformed another student. In essence, in order to operate as a tool for comparison, standardized tests deny large amounts of local context, local variability, or local difference, in order to establish a common measurement that can reach across a wide range of locations/contexts.¹

However, students come from different communities and have different learning styles and cultures – none of which are accounted for in standardized tests. In addition, there are many assumptions made about the quality of instruction needed for students to pass standardized tests such as:

- Teachers covering all standards and having the content knowledge, training, and support to keep them current on best pedagogical practices.
- Teachers instruct all students in an equitable manner and in ways that engage all students in learning.
- Students have learned and retained the skills being tested.
- Students who have immigrated to America have achieved enough acquisition of English language and American cultural knowledge/experience to understand what the test questions are referring to.

Underlying the benign discussions about instruction and testing are the personal, social, and academic stigmas created for students who don't pass standardized tests, and the unreasonable expectations placed on those who do.

Washington Middle School (WMS) is a well-known "high achieving" school nestled in the recently gentrified, historically Black community in Seattle. Students come from all backgrounds, and they are academically segregated, which in their case means they are racially

¹ Au, W. (2023) *Unequal by Design – High-stakes testing and standardization of inequality*. Second edition.

segregated as well. In 2019, over 60% of WMS students were in the highly capable (HC) program, and 90% of them are white and Asian, while most of the remaining students in the general education program are Black, Latino and Filipino. When affluent parents are looking for a school for their children, they look at SBAC test scores first. The highly capable students skew the scores for WMS, making it look more successful than other schools, but when you peel back the covers, a different story is revealed.

Like many schools, when students enter WMS, their SBAC and Measure of Academic Progress (MAP) scores are reviewed for placement in classes based on proficiency levels instead of consideration of actual academic ability. Asim, a seventh-grade student, has never passed the SBAC and has been in remedial classes since 4th grade. While the HC students are taking world language, music (orchestra, jazz, choir, drumline), and art, Asim and his peers are being double dosed in math and reading (often with no real difference in content) in the interest of getting them to pass the SBAC. The best part of Azim's day is when he attends his after-school programs where he's learning to code, fabricate in the Makerspace, build robots for competitions, and explore STEM industries. He feels accomplished, smart, and capable, instead of feeling stupid and unseen like he does during school. When Asim comes home, he tends to his younger siblings, does his chores and homework, then retreats to his room to read one of the many books his older sister gave him about prominent figures in the Black community – one of their favorite topics to discuss as a family. Asim's parents are completely confused as to why he is unable to pass the SBAC – after all, they know he's an avid reader, actively participates in family discussions, is a technophile and his classroom grades are all As and Bs – and his teachers don't have the capacity to explain the difference and they don't dare explain that his SBAC scores are causing limitations in his education options.

It is often said that society's issues show up at the school door. When students are facing issues like poverty, achievement motivation, bullying, and suicide, it requires a different approach to educating them. They need an environment where teachers can still cover the learning standards in their pedagogical practices and fosters relationships that understand the complex situations students find themselves in. Considering the whole child, teachers can tailor in student experience outside of school to give a more balanced and relevant approach to learning. There are some teachers across the country who painstakingly designed standards-based lessons in a way they can address the learning styles of each of their students. Unfortunately, their students will be assessed the same way at the end of the school year – in a single timed test that assumes students learned and retained the skills being tested, creates anxiety, doesn't serve students who need more time, and only covers a snapshot in time a month before the end of the year – often leaving the students and the teachers to be labeled as failures when they don't pass. Students who do pass do not fare much better because typically once they are shown as "passing" they are not prioritized in terms of instruction and their educational experience becomes stagnant unless they have been identified as highly capable.

When schools spend time focused on teaching what will be on the state tests, they miss out on the most important aspects of education such as creativity, critical thinking, collaboration, communication, and emotional intelligence which are important to highlight for students like Asim. Asim clearly has talents that are not being recognized in his school environment and he has interests that can be integrated into the learning, but none of his teachers have the wherewithal to bring in curricular content that interests him and his peers, and even if they did, the students would not see standardized test content that accurately reflects their regional,

ethnic, and economic background, leaving them (particularly those where English is their second language) to spend more time during the timed test trying to decipher much of what the test questions are asking.

There is a perception that teachers can use the test results to create lesson plans that benefit students, but the results aren't available to teachers until August (at the earliest), even though the entire system is electronic. In addition, so many important district and school decisions like funding allocations, school takeovers/closures, teacher placement, teacher evaluations, student classroom assignments, student promotions/graduation, etc. are based on test score results. These types of decisions may cause schools to narrow the curriculum, and teachers may focus on teaching to what's tested, thereby ignoring, or paying minimal attention to all the other aspects of student development. The ultimate price is paid by students who, starting from third grade, may have their entire academic trajectory determined by how they performed on the test, impacting their self-esteem and ability to realize their full potential.

Fortunately, Asim had a better outcome because his family was able to rally behind him and provide a better educational experience for his high school years. Even though he entered high school only passing two SBAC test since 3rd grade, he was not tracked because the school centers equity and uses project-based learning as a core part of their pedagogy. His teachers spent the first few months of school using multiple methods of assessing his knowledge and skills based off the learning standards. From there they developed an academic plan to prepare him for his post-secondary life. He was able to take electives, play sports, join the competitive speech team, and even participate in a program at the local cancer research company, including internships. He once again didn't pass all components of the SBAC but was able to present a competency-based portfolio of learning so he could graduate. He attended and graduated college with a BA in Public Health and Writing, then continued to receive a Master of Public Health degree. Now he's a research analyst at a cancer center in the community he lives in.

Clearly, tests are not a predictor of success, and often the content and the way they are administered make them a deterrent to success for marginalized students.

We Must Change the Assessment and Accountability Requirement

The primary objectives for the policy change are a reduction/elimination of bias and the de-emphasizing of high stakes testing consequences. The requirement, guidance, and approaches to assessment and accountability may need to be updated, since the standardized tests are designed to be representative of student performance and do not consider the whole child or the multiple ways in which they can articulate their "knowing", thereby the assessment structure will require a wider range of measures. These can be captured through portfolios, projects developed through project-based learning (PBL), performance tasks, and teacher observation. If true innovation is to be considered, an expansion of who is involved in the assessment and accountability system/process could also be broached. These systems could be developed and implemented by a diverse stakeholder group. This process would not only align assessments to national but also communal goals which connects the school more directly to the community in which it is situated. With an elevated level of customization, there would need to be a system put in place to ensure validity and reliability of the measures and the assessment of students' learning.

There are some districts and independent schools that have already begun the work of developing holistic ways to look at and assess students. This work is happening in pockets and with high levels of success and growth for both students and teachers. These districts should be hailed as leaders in this area as they chart paths for authentic assessment. We are suggesting building upon those learnings to a broader audience for the sake of students and authentic learning, thereby serving as structural/implementation exemplars when considering how to scale the innovative practices we are proposing.

A Vision for the Future of Assessments

This proposal for policy change aims to serve several outcomes which focus on development and transfer of learning, equitable instruction and assessment practices, and community engagement with schools and education.

A portfolio-based assessment system would encourage educators and school leaders to **center authentic evidence of learning**. This can provide a more comprehensive view of a student's abilities and strengths than a single test or assignment. A study published in the *Journal of Educational Psychology* found that portfolios can increase student motivation and engagement and can provide a more comprehensive view of student learning than traditional standardized assessments². This would mean that students would be assessed using statistically stronger application-based methods over "moments in time," giving a better status of student learning both individually and collectively.

Portfolio-based assessments require students to **reflect on their own learning process**, to think about what they have learned, and how they have learned it. This can help them identify their strengths and weaknesses and see their progress over time. A study published in the *International Journal of Educational Research* found that portfolios can improve students' self-reflection and self-assessment skills and can provide valuable information about student understanding³. This would mean that formal assessments would provide better insights into a student's ability to apply learning and skills to a wide variety of contexts as opposed to isolated situations with little context.

An additional outcome of portfolio and project-based assessment is the **development of interdisciplinary connections**. Portfolios provide a flexible and inclusive platform for students to showcase their learning and to demonstrate their mastery of a wide range of content areas and skills. This can help to promote interdisciplinary learning by encouraging students to make connections between different subjects and to apply their learning in real-world contexts.

Furthermore, portfolio or similar assessment methods **enhance the transfer of learning** to new contexts. When students can reflect on their learning, they can identify connections between what they have learned in different contexts and apply their knowledge in new situations. A

² Abrami, P. C., Venkatesh, V., Meyer, E. J., & Wade, C. A. (2013). Using electronic portfolios to foster literacy and self-regulated learning skills in elementary students. *Journal of Educational Psychology*, 105(4), 1188–1209. <https://doi.org/10.1037/a0032448>

³ Andrade, H., & Valtcheva, A. (2009). Promoting Learning and Achievement through Self-Assessment. *Theory Into Practice*, 48(1), 12–19. <http://www.jstor.org/stable/40071571>

study published in the Journal of Educational Research found that portfolios can support transfer of learning by helping students to see the relevance of their learning and to apply their knowledge to new and complex problems⁴.

Portfolio-based assessments can help to **create a culture of collaboration and cooperation** in the classroom. By working together on portfolios, students can see the value of collaboration and can learn to appreciate each other's strengths and contributions. A study published in the Journal of Educational Assessment found that portfolios can help students build collaborative skills by providing them with opportunities to work together on projects, to share their work with one another, and to receive feedback from peers and teachers⁵. This can help to build a positive and supportive learning community and can encourage students to work together more effectively in the future.

Portfolios can also serve to enhance equitable practices and assessment methods by allowing students to **emphasize their diverse strengths and interests** in their evidence of learning. This can help level the playing field for students who might struggle with traditional standardized assessments, which historically rely on cultural and social knowledge and contexts which are not always part of BIPOC experiences. Portfolios allow students to showcase their unique experiences, perspectives, and cultural backgrounds through their work. This can help **validate the experiences and perspectives of students of color** and show that their cultural identities are valued in the classroom.

A long-standing criticism of standardized tests is the value placed only on a specific, limited, and time-bound demonstration of knowledge. Portfolios can include a variety of work products, such as projects, essays, and performances, which can provide opportunities for students of color to demonstrate their understanding in ways that are meaningful to them and that may not be captured by traditional standardized assessments. Unlike traditional forms of assessment, such as standardized tests or written exams, portfolios allow students to demonstrate their understanding and mastery of a subject through a variety of mediums, including but not limited to written essays, oral presentations, visual projects, and hands-on demonstrations. The proposed assessment method supports **recognizing and valuing various, non-traditional forms of knowledge**.

Finally, portfolios provide a way for families to see a student's work and to understand the student's progress over time. Portfolios can help families to better understand the standards and expectations for student learning, and to see how their child is meeting these standards. By providing families with regular access to their child's work and progress, portfolios can **increase transparency and communication between families and teachers**. This can help to foster a sense of partnership and collaboration between families and schools and can encourage families to take an active role in their child's education.

⁴ Dunlosky, J., Rawson, K. A., Marsh, E. J., Nathan, M. J., & Willingham, D. T. (2013). Improving Students' Learning With Effective Learning Techniques: Promising Directions From Cognitive and Educational Psychology. *Psychological Science in the Public Interest*, 14(1), 4–58. <https://doi.org/10.1177/1529100612453266>

⁵ Cicmanec, K. M., & Viechnicki, K. J. (1994). Assessing Mathematics Skills Through Portfolios: Validating the Claims From Existing Literature. *Educational Assessment*, 2(2), 167–178. https://doi.org/10.1207/s15326977ea0202_4

Better Prepared Students for Post-Secondary and Civic Participation

We have continually developed a profile of the ideal college student, professional, and civically engaged individual without acknowledging there is very little we do in K-12 to prepare students for this ideal. Our focus is constantly on meeting the expectations of the curriculum and passing tests.

Having a more well-rounded method of assessments starts with having a well-rounded pedagogy where key skills are transferable in multiple environments, independent and critical thinking is fostered, and the value of learning is presented as an iterative process that encourages reflection and metacognitive learning for students. By putting the focus on communal problems students get an opportunity to cultivate answers and solutions to those problems, building in civic participation early on. Teachers can move away from rote learning and help students go through a journey of self-discovery as a learner and how to explore vs being told what and how to think and having that not reflect one's culture or identity.

Through this method of teaching, there are multiple opportunities to assess students daily in a variety of ways, giving more opportunity to support student academic improvement, leadership, communication, and preparation for secondary school.

By having more well-rounded instructional and assessment practices, our students will gain the skills they need at each stage of their academic career. We will produce critical thinkers, problem solvers, ideators, creators, and leaders.

There is No Growth Without Change and There is no Change Without Compromise

There are several potential negative consequences for a shift in the assessment system to a structure that includes multiple measures which are created, administered, or evaluated by numerous stake holders throughout the year. Unlike the current assessment structure that provides standardized questions across the United States, the proposed structure is not a one stop shop where everyone takes the same test. There are many students and teachers comfortable with this status quo, as such this process may feel foreign to them. For those currently in the teaching profession, new professional development will be required and there is no assurance that districts can provide necessary training for them to be successful. Additionally, colleges of education and teacher certification programs will need to be restructured to account for more diverse teaching and instructional methods required to diversify assessments. On a technical level, there will be a need for a bank of exemplars to guide instruction and assessments. Finally, there is no current guide as to how teachers could be evaluated in such a structure.

Over the course of the last 20 or more years, the United States has found itself no longer in the top spot internationally. Depending on the data, the United States has the number one educational system in the world but students' performance on math, science, and reading when compared using the PISA (an international standardized test) shows that we fall solidly in the middle of countries administering this assessment (i.e:37th in math). If we are going to continue to cultivate leaders in all different sectors, we need to be thinking about how we are educating and preparing students in new and innovative ways. What we are doing now is limiting kids, even those who pass the standardized tests by funneling them based on

performance. This practice is not preparing us for the future. We have an opportunity to redefine how students learn by structurally shifting teaching and assessment practices. These shifts can ground teachers in the work they see as authentic and meaningful, bringing respect to the career of teaching while fundamentally changing the role of teachers to become facilitators in students' cultivation of their own learning.

Keeping the Chamber Foundation's Foundational Principles in the Forefront

The outlined proposal adheres to the identified founding principles in the following ways:

1. All students can learn, and all deserve to be held to high expectations and deserve to be served by a system that can meet their personal needs.

As cited, the proposed assessment system supports a more individualized and student-centered approach to determining student learning strengths and areas of growth. All students deserve to be seen as capable and held to high standards. As portfolio systems and project-based assessments are based on student need, interests, and strengths, the proposal upholds this principle and provides students with the opportunities that are deserved to learn, grow, and engage in their community.

2. Information regarding school and district inputs and student educational outcomes is critical for students, teachers, parents, and policymakers.

Portfolio and project-based assessments are designed to center authentic evidence of learning in a manner that all listed stakeholders and community members can access and understand, making education inherently more equitable and relevant. The assessment of a student's learning becomes more holistic and demonstrates growth over time which is a more valuable metric than "moment in time" approaches which center only one type of educational outcome and form of intelligence. In turn, school and district inputs would yield stronger, more long-term educational outcomes for students, families, and communities.

3. A federal role is critical for establishing guardrails to ensure that all students can access a high-quality education.

The role of the federal government in this proposal would serve two major functions:

- Set the minimum requirements for portfolios and their entries, as well as support building system capacity for assessment and instruction.
- Develop and maintain a repository of exemplars at all levels, informed by diverse communities and stakeholders.

By building these systems and supports, the federal role in education would help guide communities and districts to focus on meaningful learning and authentic assessment practices which increase access to high quality and rich educational experiences.

4. Education funding shall strive for quality and equity, meaning students who the system has historically underserved shall have the most resources applied to their educational experience.

A common trend in educational funding has been to provide funding for “enhancement” experiences at higher performing schools and to limit funding for lower-performing schools to only “rigorous” curriculum in core content areas. This practice is fraught with inequity and veiled institutional racism, as these low performing schools statistically have a population with a majority of students of color. Student-centered approaches enable teachers to teach and assess each student in ways that incorporate their interests, communities, and experiences. Due to the deficits of funding for the most historically underserved populations, created by decades of redistricting and punitive funding practices, additional funding would need to be reserved specifically for schools with a high demographic of students of color and/or free/reduced lunch. By focusing funding on initiatives to train teachers and administrators in the use and assessments of portfolios and community engagement, the education accountability system changes the emphasis of assessment to authentic learning and application over memorization and testing skills.

5. Information and transparency into the K-12 system’s performance shall expand access to high-quality learning opportunities. It shall allow resources to be targeted to improving low performing schools and also allow students and families to select other public options if their school is not meeting their student’s needs or interests.

Portfolio and project-based assessment systems have the capacity and ability to increase transparency around student learning as they are accessible and student centered, allowing for more robust and meaningful conversations related to a student’s knowledge, skills, and interests than traditional standardized test reports.

It is Time to Give Teachers Tools to Authentically Assess Student Achievement

Educators are always thinking about how to make learning interesting, relevant, and engaging for each and every student. They do this by utilizing their interests, passions, and problems in their lessons and learning activities. It is jarring, then, for assessment policy and processes to be entirely removed from the context of communities and the students, particularly when funding, resources, and support can be on the line for schools who do not perform well.

It is our assertion that assessment policies and practices should better align to what we ask teachers to do for students, and that evidence of learning should be a direct outcome of a lengthy learning process over a moment in time test. In this way, we seek to make assessment meaningful, rich, and valued by students, educators, and communities, and to support students in their development as critical thinkers, problem solvers, ideators, creators, and leaders.