

MEASURING SKILLS THAT MATTER

FROM ASPIRATION TO ARCHITECTURE



FEATURING

Cañon City Schools, CO

Liberty Public Schools, MO

Northern Cass School District #97, ND



Carnegie Foundation
for the Advancement of Teaching

Measuring Skills that Matter: From Aspiration to Architecture

How High Schools Are Making Durable Skills the Standard, Not the Slogan

Almost every American high school today has a portrait of a graduate. The portraits hang in main hallways and open strategic plans. They name the durable skills — collaboration, communication, persistence, critical thinking — that, every district insists, will matter most to a graduate's adult life. The question is whether anything in the structure of school requires a student to develop those skills before they earn a diploma.

For most schools, the answer is no. The bell schedule is built for coverage. The transcript is built for credits. The report card is built for courses. None of them were designed to attest that a graduate has developed the very capacities that the portrait insists matter most. The portrait is aspiration. The diploma is seat time. The two run on parallel tracks and seldom cross paths.

The Carnegie Foundation and XQ's Future of High School Network (FHS Network) brings together 24 school systems working to move American secondary education beyond the limits of the Carnegie Unit — the century-old system that measures learning in seat time rather than demonstrated competency. Across the network, systems work together, undertaking R&D to tackle shared challenges.

This story follows three systems in the Network that are focused on skills that matter, with each building a different answer to the same question: What does it take to make the words on the portrait become the framework that decides whether a student graduates?

In rural North Dakota, every senior presents a capstone on how the durable skills of the district's portrait have shaped them, and the examples are not classroom exercises — graduates describe training coworkers older than themselves, illustrating children's books for community members, leading teams of learners across the globe. In suburban Missouri, every student carries a credentialing wallet of badges and reflections that travels with them into LinkedIn, scholarship applications and their first interview after graduation. And in Colorado, no senior earns a diploma without completing a year-and-a-half project — AP scholar and struggling reader alike — because durable skills, in the district's view, are not optional for anyone.

Northern Cass School District #97, North Dakota:**MIXED INTO THE BATTER**

On Portrait of a Learner Capstone days at Northern Cass School District #97, the seniors present, and the community comes in to listen. One graduate describes training the older coworkers at her job. Another describes illustrating a children's book for a community member and using the conversation to navigate a question of shared vision. Yet another describes assembling and leading a team of learners from across the globe on a graphic project. These are, Beth Head — Personalized Learning Director — says, the best days of the year. They are also proof of a decade of work.

Northern Cass sits about 20 miles north of Fargo — a single PK–12 building serving roughly 700 students drawn from six small, rural communities. It is the system in the Skills That Matter community with the longest record of sustained work on durable skills — close to a decade of it. The work began around 2016 in a Teacher Leadership Academy cohort, where a master's-level conversation about differentiation produced a question that has remained the through line: “If we’re doing what’s best for one learner, why are we not doing what’s best for all?”



In 2019, the district released its Portrait of a Learner — deliberately not a Portrait of a Graduate. The distinction carried an argument. A graduate portrait describes the student who walks across the stage. A learner portrait describes who that student is becoming, year by year. The portrait began with five attributes shaped by community and employer input, and the district built sets of competencies within each.



Northern Cass is now consolidating. Years of parallel frameworks — the state competency set, the CTE set, the original Portrait of a Learner, and a refined set developed with an outside partner — had begun to feel like layers laid on top of instruction rather than woven into it. The district's current work with Carnegie focuses on collapsing the layers into a single coherent framework. Head describes the move in kitchen terms: Durable skills should be “mixed into the batter of every class instead of sprinkled on top.”

In a high school science unit on waves, the content standard — sound waves, light waves, the physics of propagation — is the vehicle. The durable skill is the focus. A student who loves football generates an essential question linking the acoustics of a stadium to the physics of waves. Another student fascinated by the Titanic builds his question around the sonar mapping of the wreck site. Each spends weeks producing a research-driven podcast. Two rubrics travel with each project — one for the content standard, one for the durable skill of inquiry and research — and the durable-skill rubric carries the continual feedback. The standard is assessed once. The skill is practiced, named and developed over time.

Head is candid about what this kind of teaching surfaces. Durable skills are not linear. A student may be excellent at time management one day and unable to manage time at all the next — which is, Head observes, the truth of the skill in any adult life as well. A student might recognize herself, honestly, as a problem-solver who finds math harder than history. The work of teaching durable skills is not a march toward proficiency: It is the continual surfacing of how a student is actually growing.

Northern Cass School District #97

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The evidence beyond graduation reinforces the pattern. When Northern Cass surveys alumni, one word appears more often than any other: advocate. Former students describe themselves as able to advocate for how they learn, what works for them, and what they need. “That is something we don’t hear from schools that don’t embed competencies,” Head observes. The work is not meant to produce a list of traits students can recite. It is the language graduates use to describe themselves.

Liberty Public Schools, Missouri:

AN OPERATING SYSTEM FOR A GRADUATE



A few years ago, a Liberty graduate completed an internship at a local theater. He then left for college, and once there, he applied for a job alongside hundreds of other candidates. He was the one they hired. When he wrote back to Liberty's career navigators, he did not credit the internship itself. He credited the practice, repeated through four years of high school, of being asked to articulate what he had learned and how he had changed. The internship had shaped him. What had made him hireable was the ability to describe the shaping.

Liberty Public Schools sits in a suburb of Kansas City — 19 schools, roughly 1,000 graduates a year, more than 300 local business partners. About 75 percent of Liberty graduates enroll directly in college, and many leave high school with an associate's degree in hand through the district's early college program. The academic outcomes were strong enough that Liberty's leaders could have declared the work done. They did not.

Twelve years ago, when Dr. Jeremy Tucker arrived as superintendent, he organized his entry plan around a single question: "What does it mean to be learner-centered?" He worked the question out with his leadership team using concentric circles — the learner at the center, surrounded by the school,

surrounded by the community. Each ring carried its own set of attributes. The answers, taken together, described what a district organized around the student — not the subject, the building, or the schedule — would actually have to do.

The district translated those answers into a Portrait of a Graduate: a five-part framework — academic, personal, professional, entrepreneurial and cultural — containing roughly three dozen skills and dispositions, each of them defined. Liberty deliberately did not write those definitions in-house. A community World Café, surveys and focus groups surfaced the skills the community valued, and the definitions were anchored in external frameworks from the DeBruce Foundation, the Mid-America Regional Council's Common Sector Competencies, and the World Economic Forum. The reason was practical, in Dr. Tucker's words: avoiding the trap of "the three of us just wordsmithing."

The skills then had to move into classrooms. Dr. Julie Moore, Assistant Superintendent of Innovation and Learning, who leads the district's curricular work, describes the instructional principle in plain terms: "Don't go and do something new. Just look where you already do this, because you already do it in your classrooms." Where students were already collaborating in a foods lab, the work was to call it collaboration and assess it. Where students were already problem-solving in trigonometry, the work was to teach them to see themselves as problem-solvers. Buildings borrow practices from one another and adapt — what Dr. Moore calls "stealing like an artist."

The signaling architecture runs alongside the instructional one. Every Liberty student holds a portfolio through a platform called SchoolLinks, with artifacts uploaded against each of the five Portrait areas, paired with student reflections — often in video — that name the skills practiced. Juniors and seniors carry a credentialing wallet where badges accrue for market-value asset experiences: internships, client-connected projects, industry credentials. The portfolio and wallet are designed to travel with the student after graduation. Liberty is one of several districts attached to a regional goal: that nearly 100,000 Kansas City-area high school graduates will have earned a market value asset by 2030.

The signal does not always travel cleanly. Regionally, admissions counselors and employers understand what a market-value asset is and what a badge conveys. Outside the region, the signals collapse. Dr. Tucker has begun to speak openly about the "need for a glossary" attached to the new transcript — a key explaining



Liberty Public Schools

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what these elements mean and why they matter, for the admissions counselor, the Army recruiter and the prospective employer. The familiar framing — rigor or employability — Dr. Tucker simply refuses. “In our approach, the answer’s both. And it’s both for every kid.”

What Liberty is building, finally, is visible in the texture of a school day. Walk through one of the district’s high schools at midmorning, and the school does not look like a building. It looks like a small city. Students are at internships and at early college. Some are returning from a client-connected project site. Some are headed to football practice. Some are writing in study halls, and some are presenting in classrooms. The school is organized around people balancing real obligations and real time. That, Moore says, is the point. The living of it — the moving between — is the real-world learning.



Cañon City Schools, Colorado:

NOT A POSTER ON THE WALL

On one day each spring, the only students at Cañon City High School are seniors. The juniors come in to watch. External professional consultants — each an expert in the field of a student’s project — sit on the panels. Every teacher is grading. Every senior, one by one, presents a year-and-a-half capstone project. No senior at Cañon City graduates without it.

In 2016, the district decided that the capstone — a research-driven, community-anchored, peer-evaluated demonstration of durable skills — would be a graduation requirement for every student. The class of 2021 was the first cohort to face the requirement. They were also the cohort that lived through the pandemic during its implementation. District leaders considered delaying. They chose not to, on the reasoning that if the requirement were deferred for that class, it would never be required for any. The capstone has been a graduation requirement for every senior since then.

The logic behind the requirement is central to how the district talks about durable skills. Many Colorado districts use the capstone as a graduation route for students who cannot pass the SAT. Cañon City uses it as the graduation route for everyone, on the argument that durable skills — inquiry, communication, collaboration, self-direction — matter just as much for the AP scholar as for the student who struggles on a standardized test. “It was equitable to teach all students durable

skills,” Madison Tortessi, Director of Career and Technical Education, explains, “because all students need those in order to be successful in the workforce.”

The capstone sits inside an architecture of college credit and work-based learning that is itself unusual. About half of Cañon City High’s staff are adjunct professors for Pueblo Community College, and about half of the school’s course catalog is taught for concurrent credit. Ninety-six percent of graduates leave with at least one college credit. The average graduate leaves with about 40 — nearly the weight of an associate’s degree. Every graduate has also completed a 60-hour internship with one of roughly 250 local business partners. In the state’s so-called Big Three of postsecondary readiness — concurrent enrollment, industry-recognized credentials and work-based learning — Cañon City has added a fourth pillar. It calls the combined set the Big Four. The fourth pillar is the capstone.

Early capstones revealed a problem: Students were assembling a year-and-a-half project in the two weeks before the presentation. A doctoral researcher from the University of Colorado’s Center for Assessment, Design, Research and Evaluation (CADRE) surfaced the pattern. The district responded by adopting Unrulr, a platform designed to make sustained learning visible. Every student post is time-stamped, and a year of learning accumulates as a visible timeline. Posts can be tagged against the district’s traits and skills — a research post against inquiry, a community-outreach post against communication, a revision post against perseverance. The platform travels with the student after graduation. Portfolios housed in Google Drive, the state’s recommended alternative, disappear when a student’s school email expires: Unrulr does not. Group capstones are themselves a considered choice. Most districts that allow capstones require them to be individual work.





Cañon City Schools

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Cañon City allows groups of up to five students, on the framework's own logic. "How hypocritical is it to say that collaboration is one of our traits and skills if we don't allow group capstones?" asks Bill Summers, Gunnison Watershed School District Superintendent and former principal for Cañon City High School. The structural protections are built in: Groups hold peer evaluations early and often, a "divorce clause" allows members to separate if the work is not being shared, and final grades are individually adjusted based on peer ratings.

The capstone is also reshaping what teaching looks like across the building. Summers describes the trap of traditional high school teaching: A teacher "scared of the panic, not being in control of teaching" becomes, over 30 years, a "lecture, test, grade robot." The capstone is the opposite of that — passion-based, project-driven, ungovernable in a single class period. To make space for it, the district replaced parent-teacher conferences at the high school with a project-based learning expo. Roughly 75 booths fill the gymnasium, each backed by a 70-inch screen, each staffed by students from every grade level. The Advanced Placement chemistry teacher and the freshman culinary arts teacher recently

presented a joint project on the chemistry of food preparation — boba, Dippin' Dots, crème brûlée — with juniors and seniors teaching freshmen the chemistry behind a chemical reaction in a dessert. Teachers walk the floor and compare their work to that of their colleagues. The accountability is lateral and public.

The capstones reach outward by design. Every student must work with a professional consultant who is an expert in the field — not a family member and not a school staff member. A graduate named Mackenzie built a capstone on native bee habitats and produced a documentary film, which went on to win a capstone competition at the University of Denver in her senior year of college and is scheduled to air on Rocky Mountain PBS. A graduate named Dimitri built a capstone on a 3D-printing business, completed his internship at a local engineering firm, and now runs the intern program at that firm — placing Cañon City students in the seat he once held. “A portrait of a graduate is not a poster of skills on the wall,” Tortessi says. “It is the framework students are assessed on daily, and they can’t graduate till they do.”

The Common Thread

Rural North Dakota, suburban Missouri, central Colorado. Seven hundred students, 16,000 students, one Colorado high school where every senior must complete a year-and-a-half capstone in order to graduate. A district almost a decade into the work, a district built around a superintendent’s entry-plan question and a district at the leading edge of its state’s policy reform.

It isn’t a portrait or a platform that connects them. It’s a conviction that durable skills are not the second-tier outcomes of high school — softer cousins to the academic content that actually counts — but the capacities that a graduate carries into every adult decision that follows.

Each district has had to bend something that was not designed to bend. Northern Cass has had to consolidate four overlapping competency frameworks into one and rebuild a learning management system around skills that its current platform was not built to track. Liberty has had to invent a credentialing wallet, a second-page transcript and a shared lexicon a region can read — then build the regional coalition to read it. Cañon City has had to retire parent-teacher conferences, replace its rubric platform, defend group capstones, and persuade a community that a year-and-a-half project belongs in every senior’s required path to graduation.

Across these three systems, insights are emerging that may prove useful to the broader field. First, naming a skill is not the same as building one; the portrait of a graduate is the easy part, and the architecture that produces a graduate who fits the portrait is the work. Second, the most durable skills work is structural, not rhetorical. It shows up in rubrics, in platforms, in graduation requirements, in the design of an evening event that replaces parent-teacher conferences. And third, the credibility of durable skills work depends on a system's willingness to assess and signal what students have actually done — to answer, when asked, what the framework means and what a student had to do to demonstrate it.

In Northern Cass, work is being done to have durable skills mixed into the batter of every class. In Liberty, they are built into a credentialing wallet designed to travel with students into the next chapter. In Cañon City, they are the basis on which seniors earn their diplomas. Durable skills, in these systems, aren't an aspiration. They're a graduation requirement. The portrait is not a picture of who a graduate is supposed to be. It is the framework that decides whether a student graduates.

That distinction — between what a school says it values and what a school is built to require — is what the Skills That Matter focused learning community exists to make possible. Northern Cass, Liberty, and Cañon City are three answers. They are showing what it looks like when a school decides to mean it. And they show three paths to the future of high school.



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LEARN MORE



Cañon City Schools, Colorado

Across all grade levels, student achievement goes beyond content mastery. The district is intentional about helping students grow as whole people, which is why we their Portrait of a Graduate outlines the 14 essential Traits and Skills the team believes every graduate should embody. At Cañon City High School, all students have opportunities to explore career pathways of interest while gaining skills needed to be successful in any life endeavor, and while enjoying many traditional high school experiences valued by students and the greater community. Students engage in internships, apprenticeships, and instructional pathways that reflect their personal vision. Every student completes a Capstone project before graduation—an authentic demonstration of their learning journey, built on collaboration, contribution, and real-world readiness.

Learn more at: <https://www.canoncityschools.org>.



Liberty Public Schools, Missouri

Liberty Public Schools serves the residents of approximately 85 square miles in Clay County. Located just northeast of Kansas City, the school district serves more than 12,300 students in preschool through 12th grade. Liberty Public Schools has worked to answer the question, “What does it mean to THRIVE?” in their strategic plan and Graduate Profile. Informed by from parents, students, teachers, and the business community, Liberty Public Schools identified essential skills that students need to be successful during their time not only in Liberty Public Schools, but also in their pursuit of college, work, or armed service opportunities.

Learn more at: <https://www.lps53.org>.



Northern Cass School District #97, North Dakota

Northern Cass School District #97 serves 740 PK–12 learners across six rural North Dakota communities, with 35% of students open-enrolling from outside the district. Northern Cass takes pride in providing big school opportunities in a small school environment, anchored by a commitment to world-class culture and a belief that every learner deserves to be valued as an individual. Over the past eight years, Northern Cass has built a nationally recognized personalized competency-based learning (PCBL) system, while expanding community partnerships and wraparound services to support the whole child.

Learn more at: <https://www.northerncassschool.org>.



Carnegie Foundation for the Advancement of Teaching

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Learn more at: www.carnegiefoundation.org.

The Future of High School Innovation Series is made possible by our generous funders, including XQ, Walton Family Foundation, Siegel Family Foundation, Bezos Family Foundation, Youth Thriving Through Learning Fund, Britebound and the Hewlett Foundation.

