

But What about College?

**The Good News about
Mastery Learning and the
College Process**



MASTERY SCHOOL
of HAWKEN

RE DESIGNING
HIGH SCHOOL

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Introduction



In the years between these two images, the world has changed fundamentally. Need evidence? Think of the smartphone that’s actually a library in your pocket. Or the ways the workplace has transformed -- from the assembly line to the operating room. Or the challenges of our era that were the stuff of science fiction a century ago.

Why, then, has school stayed roughly the same?

Reformers have questioned the structure and practices of education for generations, and now a movement is afoot that follows through on the insights of John Dewey and other visionaries from across the eras.

The Mastery Learning movement recognizes that the world students will navigate is profoundly different than the one teachers experienced. It liberates educators to develop strategies and educational experiences that ready students to be productive,

nimble, and ethical agents in our new world. It replaces reductive and counterproductive grading systems with robust and enduring demonstrations of deep learning. It emphasizes doing more than memorizing. It approaches learning in a way that allows students to practice, experience productive failure, and persist to mastery.

Many parents, teachers, and students want a new way forward, which is why the Mastery Learning movement has gained such momentum.

And yet it’s hard for some to fully embrace this new model. What’s in the way? For many parents and students, it seems to come down to one question: **“What about college?”**

While it’s understandable to assume that the college admissions process is an obstacle to Mastery-Based education, many college admissions officers tell us otherwise.

How College Admissions Works

College admissions officers have a very difficult job. They process millions of applications a year. In fact, according to a 2017 report from the National Association of College Counselors (NACAC), applications from first-time freshmen increased 7 percent in 2015-16, which is just one more data point in the story of increased competition in the admission process.ⁱ

“Application volume increases have created a growing burden on admissions office staff who evaluate prospective students for admission,” notes the authors of the NACAC report. “According to Admission Trends Survey (AD) results, the average number of applications for each admission office staff member (excluding administrative staff) is 854. The number of applications per admission officer increases with both applicant selectivity rates and enrollment size.”

Given that some schools spend as little as four minutes evaluating an application, these admissions officers often rely on individual course grades, the cumulative GPA, and standardized test scores to sort applicants. While only 19 percent of colleges and universities accept fewer than 50 percent of applicants, those schools that are selective say that they use grades to help paint a picture of whom they admit to their campuses.

The exception to this rule: when an applicant applies from a high school that offers something beyond grades.

In a study prepared by Hanover Research, we learned that schools that do not use traditional grade-based systems nonetheless have strong college choices for their students. In fact, a number of colleges reported that the absence of traditional indicators actually advantaged applicants because admissions officers were compelled to read applications more carefully and deeply.

According to the Aurora Institute, “Competency-based transcripts provide more information on student mastery of knowledge and skills than the traditional A-F grading scale, so they can provide college admissions officers with clarity on applicants’ college readiness.”ⁱⁱ

A few core concepts of Mastery or Competency Based learning from the Aurora Institute:

Students advance upon demonstrated mastery;

- Competencies include explicit, measurable, transferable learning objectives that empower students;
- Assessment is meaningful and a positive learning experience for students;
- Students receive timely, differentiated support based on their individual learning needs; and
- Learning outcomes emphasize competencies that include application and creation of knowledge, along with the development of important skills and dispositions.

Defining our Terms:

The word “Mastery” can have many denotations and connotations -- not all of which help us understand how to move forward. We use the definition of Grant Wiggins, educational thought leader:

“Mastery is effective transfer of learning in authentic and worthy performance. Students have mastered a subject when they are fluent, even creative, in using their knowledge, skills, and understanding in key performance challenges and contexts at the heart of that subject, as measured against valid and high standards.”ⁱⁱⁱ

Mastery does not mean a student knows everything about a particular idea or is an expert in a particular skill. Instead, the term means that the student can use and transfer the skill or knowledge in meaningful ways.

Schools that use non-graded transcripts have solid track records of college placements. Look, for instance, at Saint Ann’s in Brooklyn, which uses narrative transcripts and has a mission of “education for its own sake, oriented to the capacities of each individual student, free of the encumbrances of formal grading.” And then there’s Carolina Friends that serves the greater Durham-Chapel Hill area and that “uses a non-graded, non-ranked, narrative evaluation system that is personal and comprehensive.” The students at these schools earn admissions offers from some of the world’s most selective colleges and universities.

What we’ve learned is that when admissions officers at selective schools review transcripts and grades, they’re not simply looking at numbers; they’re looking for a story.

“[W]hen you look at admissions from a holistic perspective, you’re much more interested not in the GPA or the grade, but how [the student] got there.” - Zina Evans ^{iv}

Important note: Evans, the vice president for enrollment management and associate provost at the University of Florida, has expressed enthusiasm about the Mastery Transcript that students at the Mastery School of Hawken will use.

When admissions officers at selective schools review applicants, they piece together a narrative about a student’s intellectual and personal abilities, aptitude, and interests. They look for context and for what Stanford calls “intellectual vitality.” Many officers read fast, search for shorthands, scan for indicators. Grades satisfy those needs, but when they are replaced with tools that are more nuanced and substantive, admissions officers dig deeper.

“An admissions office wants to know that applicants have been intellectually challenged, that the school’s courses and learning experiences are rigorous, that the applicant performed well in those courses, and that the applicant is prepared to thrive academically in their program,” writes Stephen Abbott, Director of Public Engagement for the Great Schools Partnership. ^v

Skeptics doubt that colleges will spend the time to understand a student when said student is not

College Results for Un-graded High School, St. Ann’s

Saint Ann’s School in Brooklyn “embraces a commitment to education for its own sake, oriented to the capacities of each individual student, free of the encumbrances of formal grading. At the same time, we are unabashedly committed to excellence in all that we do.” Their students thrive at some of the most selective colleges and universities in the world.

(List used with permission).

FIVE YEAR MATRICULATION

5 or More Students	2 Students (cont’d)
Yale University	Syracuse University
Brown University	27 University of California, Los Angeles
University of Chicago	21 UNC, School of the Arts
Wesleyan University	19 University of Toronto
Oberlin College	17 University of Vermont
Princeton University	14 University of Wisconsin, Madison
Bard College	12 Wellesley College
Harvard University	11
Vassar College	11 1 Student
Pomona College	10 Adelphi University
Stanford University	10 Allegheny College
University of Pennsylvania	10 American University
New York University	9 American University in Paris
Tufts University	9 Berklee College of Music
Columbia University	8 Bowdoin College
Williams College	8 Bryn Mawr College
University of Southern California	7 Bucknell University
Amherst College	6 Carnegie Mellon University
Cornell University	6 Case Western Reserve University
Dartmouth College	6 Clark University
Haverford College	6 Colby College
Middlebury College	6 Davidson College
Swarthmore College	6 Deep Springs College
Emory University	5 Denison University
Northwestern University	5 Duke University
Skidmore College	5 Emerson College
Smith College	5 Georgia Washington University
University of Michigan	5 Georgia Institute of Technology
	Grimmell College
4 Students	Hamilton College
Barnard College	Hampshire College
Pitzer College	Lewis & Clark College
Reed College	Macalester College
Scripps College	Massachusetts Institute of Technology
	Mount Holyoke College
3 Students	Occidental College
Bennington College	Ohio University
Johns Hopkins University	Parsons School of Design
Oberlin College/ Oberlin	Rochester Institute of Technology
Conservatory of Music	San Francisco Art Institute
UNC, Chapel Hill	Sarah Lawrence College
University of St Andrews (UK)	School of Visual Arts
University of Virginia	SUNY, Buffalo
Washington University in St. Louis	The Juilliard School
	Tulane University
2 Students	United States Merchant
Bates College	Marine Academy
Boston University	United States Naval Academy
Carleton College	University of California, Santa Barbara
Colorado College	University of Cambridge (UK)
Georgetown University	University of Miami
Harvey Mudd College	University of Pittsburgh
Kenyon College	University of Rochester
McGill University	University of Twente (Netherlands)
Rensselaer Polytechnic Institute	Vanderbilt University
Rhode Island School of Design	Villanova University
Rice University	Wake Forest University
School of the Art Institute of Chicago	

reduced to a three digit GPA. Here’s what Harvard University had to say about that in an *Edutopia* article published in January 2018:

“We are accustomed to academic reports from around the world, including those from students who have been privately instructed and even self-taught,” said Marlyn McGrath, Harvard University’s director of admissions, replying via email about the transcripts. “In cases where we need additional information, we typically ask for it. So we are not concerned that students presenting alternative transcripts will be disadvantaged because of format.” ^{vi}

When Grades Don’t Even Sort Anymore

The truth is that high schools need to help college admissions officers understand what applicants have accomplished and how one applicant differs from another. Historically, grades have tried to accomplish this feat, but they are far from the only tool -- and they are becoming increasingly unreliable.

In fact, grades have become a blunt and, some argue, almost meaningless sorting tool. According to one study, “in 1998, 38.9 percent of high schoolers

had an A average. By 2016, the rate had increased to 47 percent. Meanwhile, the average SAT score fell from 1026 to 1002 on the 1600-point scale.”^{vii}

And it’s not just high schools that are experiencing grade inflation; according to the same article, “the median grade at Harvard, one of the most exclusive and rigorous universities in the world, is an A-. The most common grade is an A.”

Grade inflation, though, is only one part of the problem with a point-based system -- and, arguably, the less consequential one. Scholars have written extensively about the ways grading systems actually decrease the effectiveness of school. A few highlights:

- **Grades tend to reduce students’ interest in the learning itself.**
(Beck et al., 1991; Milton et al., 1986; Benware and Deci, 1984; Butler, 1987; Butler and Nisan, 1986; Grolnick and Ryan, 1987; Harter and Guzman, 1986; Hughes et al., 1985; Kage, 1991; Salili et al., 1976).
- **Grades tend to reduce students’ preference for challenging tasks.**
(Harter, 1978; Harter and Guzman, 1986; Kage, 1991; Milton et al., 1986)
- **Grades tend to reduce the quality of students’ thinking.**
(Butler, 1987; Butler, 1988; Butler and Nisan, 1986; Grolnick and Ryan, 1987; Anderman and Johnston, 1998).

We’re seeing a general consensus that grades are an inexact sorting tool that misses and hurts too many students. And yet inertia and fear prevent most schools from considering a different path forward.

Until now.

If Not Grades, Then What?

Thanks to Head of School Scott Looney’s leadership and tireless pursuit to make school more human and humane, Hawken founded the non-profit organization, **The Mastery Transcript Consortium**. The venture started as a small effort to reimagine how we might tell the story of a student’s high school career and quickly caught fire.

The MTC is now a rapidly growing movement comprised of nearly 300 public and private schools around the world. It is dedicated to changing the transcript in order to clear room for teachers to change the way they teach.

The indications are that colleges and universities will embrace the Mastery Transcript because this innovation serves their interests too. After all,

colleges want talented, adaptable, healthy and enthusiastic students just as high schools and parents do.

According to Laura McKenna, “...colleges—the final arbiters of high school performance—are signaling a surprising willingness to depart from traditional assessments that have been in place since the early 19th century. From Harvard and Dartmouth to small community colleges, nearly 80 U.S. institutions of higher learning have weighed in, signing formal statements asserting that competency-based transcripts will not hurt students in the admissions process.”^{viii}

At its essence, the Mastery Transcript is a digital distillation and portfolio that captures a student’s mastery of specific skills, knowledge areas, and habits of mind. Think of it as a deep website of student work whose homepage provides a high level overview of achievement that a college admissions officer can read and understand in around two minutes.

Students will learn in deep and enduring ways because they will persist to mastery. “Their work will also show strength and distinction in their field of study,” notes Renee Bischoff, Hawken’s Director of College Counseling. “Colleges will appreciate these examples as measures of quality and fit with the school’s programs.”

In schools that use the Mastery Transcript, students earn Mastery Credits when they submit significant evidence of learning to a panel of teachers who assess the work based on a clearly articulated achievement standard. The work either earns a Mastery Credit or it doesn’t.

In the traditional educational model, all students are expected to learn at the same pace and take assessments at the same time. In Algebra, both the student with the B- and the student with the A move to the next course even though only one has ostensibly mastered the content and skills that the course aimed to teach. It’s almost as if the system was designed not for education but for sorting.

In the mastery system, on the other hand, students earn credits only when they provide ample evidence that they've met the clearly articulated mastery standard. Mastery-based education leads students to keep learning, rather than simply moving down the assembly line.

To make the process of evaluating these multidimensional Mastery Transcripts manageable for admissions officers, the MTC is developing “a technology platform that allows the complete record of a student’s credits, institutional standards and performance evidence to be submitted to college admission offices for evaluation,” according to the MTC website. “This electronic Mastery Transcript will allow college admission officers to dive deep within a transcript to see the specific standards of the sending high school and actual evidence of student work and mastery, thus giving depth and transparency to the student’s work record.”

To ensure that the Mastery Transcript will work for admissions officers, the MTC is designing the

Mastery Transcript in partnership with colleges and universities. They’ve established a higher ed working group that includes representatives from a dozen private and public institutions, including the University of Florida, the University of Michigan and Swarthmore College.

“If [the Mastery Transcript Consortium] gets this right, it could change everything for schools,” said Emily Rinkema,^{ix} “We wouldn’t have to play by the old rules anymore. We could communicate what students can do in a much more accurate way.”

Put another way: “Personally I think The Mastery Transcript would be a great thing,” said Karen Richardson, Dean of Admissions at Princeton University. “It would allow us to understand students’ stories in a deeper way.”^x

What About the ACT/SAT?

Ultimately, college admissions officers have to make choices among applicants, so it makes some sense to assume that, without GPAs and course titles, they may rely even more on the ACT and SAT results. That may be true for some colleges, but the critical question is whether a Mastery-Based school can prepare students to succeed on these exams as it also prepares them to be citizens of consequence in the world.

The answer is no. We think a Mastery-Based education can actually prepare students **better**.

As the charts below detail, the ACT and SAT mirror the disciplines of traditional high school in structure and content:

OVERVIEW OF SAT TEST SECTIONS ^{xi}		OVERVIEW OF ACT TEST SECTIONS ^{xii}	
Reading	<ul style="list-style-type: none"> • 5 multiple-choice questions • 65 minutes • Passages or pairs of passages (literature, historical documents, social sciences & natural sciences) 	English	<ul style="list-style-type: none"> • 75 multiple-choice questions • 45 minutes • Tests grammar, punctuation, sentence structure & rhetorical skills
Writing & Language	<ul style="list-style-type: none"> • 44 multiple-choice questions • 35 minutes • Grammar, vocabulary in context, and editing skills 	Math	<ul style="list-style-type: none"> • 60 multiple-choice questions • 60 minutes • Algebra I & II, geometry and some trigonometry
Math	<ul style="list-style-type: none"> • 58 multiple-choice questions (broken up into a 20-question No-Calculator section and 38-question Calculator-allowed section) • 80 minutes (25 minutes for the No-Calculator section, 55 minutes for the Calculator-allowed section) • Algebra I & II, geometry and some trigonometry 	Reading	<ul style="list-style-type: none"> • 40 multiple-choice questions • 35 minutes • Four passages with 10 questions about each passage
Essay	<ul style="list-style-type: none"> • 1 essay • 50 minutes • Read a passage and explain how the author builds a persuasive argument 	Science	<ul style="list-style-type: none"> • 40 multiple-choice questions • 35 minutes • Questions on science-based passages presented with graphs, charts, tables and research summaries
		Writing	<ul style="list-style-type: none"> • Writing test is optional • 1 essay, 40 minutes

How do students succeed on these exams? Certainly, they demonstrate a general knowledge of specific elements of English, math, and science, but, importantly, they possess abilities to manage time, think strategically and critically, and solve problems.

In fact, the makers of the SAT -- The College Board -- explicitly state that their exam is essentially a skills exam with questions that intend to test a student's ability to think logically, read carefully, synthesize information, apply past knowledge and more. ^{xiii}

While the ultimate purpose of Mastery-Based schools is to educate students to thrive and serve as citizens in the real world, they will also equip students with the knowledge and skills that these exams aim to assess and go far beyond them.

Ample research suggests that students grow more when they learn actively, apply and transfer knowledge and skills, and find meaning and relevance in their work. Students at a Mastery-Based school won't leave Algebra with a B-; they will develop their algebraic reasoning through various challenges and pursuits until they produce enough evidence to persuade a panel that they've truly mastered the content and skill. ^{xiv}

In the end, standardized test scores will reflect rather than drive learning.

Mastery Learning in College

When students leave a Mastery-Based school and arrive on a college campus, they will do so equipped with a broad set of transferable and enduring skills and a deep knowledge base. They will walk into freshman orientation confident and capable as a result of their high school career filled with learning by doing, experiential learning, and problem solving.

Some wonder how these students will respond, then, if they find themselves in a lecture hall and a program that tests them incessantly in order to sort them with the grades that they've freed themselves from during their high school years.

First, students in a Mastery-Based school will learn to adapt to various environments, so we feel confident that they will adjust to a traditional college experience with ease.

Second, we also believe they will learn to expect more and will therefore seek higher ed experiences that continue to stretch, engage, and inspire them in ways that their Mastery-Based high school did. We think many of them will also be thought leaders on the development of new experiential and real-world curriculum at their schools.

While understandable, it is a mistake to assume that the traditional structure is the only let alone best way to teach students the content and skills that the ACT and SAT aim to measure. The truth is that traditional schools actually have a poor track record in preparing students for these exams. In 2018, the national composite average for the ACT was a 20.9 out of 36, and the 90th percentile average was a 28. ^{xv}

Percentile*	English	Math	Reading	Science	Composite
90th (excellent)	29-30	28	31	27-28	28
75th (good)	24	24	25	24	24
50th (OK)	20	19	20	20	20
25th (poor)	14-15	16	16	16-17	16
10th (very poor)	11	14	13	13	13

What do these scores mean?

First, they tell a story of unproductive failure. They say that the traditional content-driven, teacher-centered, stand and deliver, test and test again model is designed to under-educate the vast majority of students. After all, the traditional model prepares fully half of America's students to score below and only ten percent to meet the admission standards of selective colleges and universities.

Second, even at the top level, these exams are only a small part of what makes an applicant interesting to a selective college. "At the most competitive colleges, high test scores can be viewed as 'necessary but not sufficient,'" notes Adam Ingersoll, Principal and Co-Founder of Compass Education Group. "It is extremely difficult to gain admission to Stanford with a low SAT score, but getting a great score is far from a guarantee of admission. The net effect of the growth at the top ranges is to make a high score more essential but less sufficient." ^{xvi}

And so, the story of a student matters more than the score.

Increasingly, colleges and universities are shifting their programs in the same direction. According to a 2014 *Atlantic* article, at least 200 colleges and universities have initiated competency-based education programs. ^{xvii} Other institutions have adopted project-based methods to great effect. “For 27 years,” notes Eric Mazur, a Harvard University physicist in a 2017 article in *Physics Today*, “all I had done was to take something that was broken and try to patch it by making the class experience more interactive so students are not just dozing off. I hadn’t tackled the intrinsic lack of motivation.” ^{xviii}

But then he embraced a project-based approach and “followed three principles from Harvard Business School: test relevant skills, make projects relevant to the real world, and incorporate a component of empathy or social good...Initially I was limited in my imagination...but it’s not that hard to come up with social good motivators ...The students are interested because they realize that in learning physics they can do something meaningful.”

Many colleges and universities recognize the same shifts that high schools recognize, namely that we have an opportunity to redesign school so that it responds to our era and that shifts education from a passive experience to an active pursuit.

The Year 2030

Ten years after the Mastery School of Hawken opens, the world will certainly have changed, but in what direction, driven by what forces? Perhaps the rise of Artificial Intelligence will shift the world of work even more profoundly. Perhaps the climate crisis or population growth or extinction rates or other calamities will alter the very planet we occupy. Or perhaps opportunities for personal fulfillment, entrepreneurship, or social mobility will allow our young graduates to chart paths we can’t envision today.

We can guess, but we don’t know for sure what the future will bring.

What we can guarantee, though, is that young adults will need skills, knowledge, and mindsets that the Mastery School will nurture deeply and intentionally. We can predict that they will need to collaborate with each other, develop creative solutions to complex problems, adapt to unpredicted shifts in the landscapes they occupy.

The crisis facing the country isn’t that we lack students who know how do school well; it’s that our education system is designed to prepare them for a world that has largely disappeared. The Mastery School will prepare students to thrive in the college process, on college campuses, and most importantly, in the world beyond the four years after high school.



The Hawken Advantage

Hawken students thrive in the college process with the support of a team of experienced and networked counselors who help them identify colleges that fit and stretch them. Students at The Mastery School of Hawken will enjoy the same benefits and results with a dedicated counselor on site.

Hawken students are **more than twice as likely** to get into top national universities and liberal arts colleges.

The Top 10 National Universities and Top 10 Liberal Arts Colleges According to U.S. News & World Report	U.S. News 2009-2018 Admit Rate ¹	Hawken 2009-2018 Admit Rate	The Hawken Advantage
Harvard University	5.9%	20.4%	246%
Stanford University	6.2%	25.0%	306%
Yale University	6.8%	26.8%	291%
Columbia University	7.3%	27.9%	281%
Princeton University	7.7%	28.8%	277%
Massachusetts Institute of Technology	8.7%	30.0%	245%
Claremont McKenna College	10.9%	50.0%	359%
University of Pennsylvania	11.8%	25.8%	119%
Swarthmore College	12.9%	69.2%	439%
Duke University	13.0%	20.4%	57%
Pomona College	13.1%	33.3%	154%
University of Chicago	13.3%	55.3%	317%
Johns Hopkins University	13.6%	36.1%	166%
Amherst College	13.9%	33.3%	139%
Bowdoin College	15.1%	44.4%	193%
Northwestern University	15.9%	31.9%	100%
Williams College	17.4%	44.4%	156%
Middlebury College	20.0%	29.4%	47%
Carleton College	23.4%	73.7%	215%
Davidson College	23.5%	37.5%	60%
Wellesley College	33.5%	42.9%	28%
AVERAGE ²	12.0%	32.7%	173%

Endnotes

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