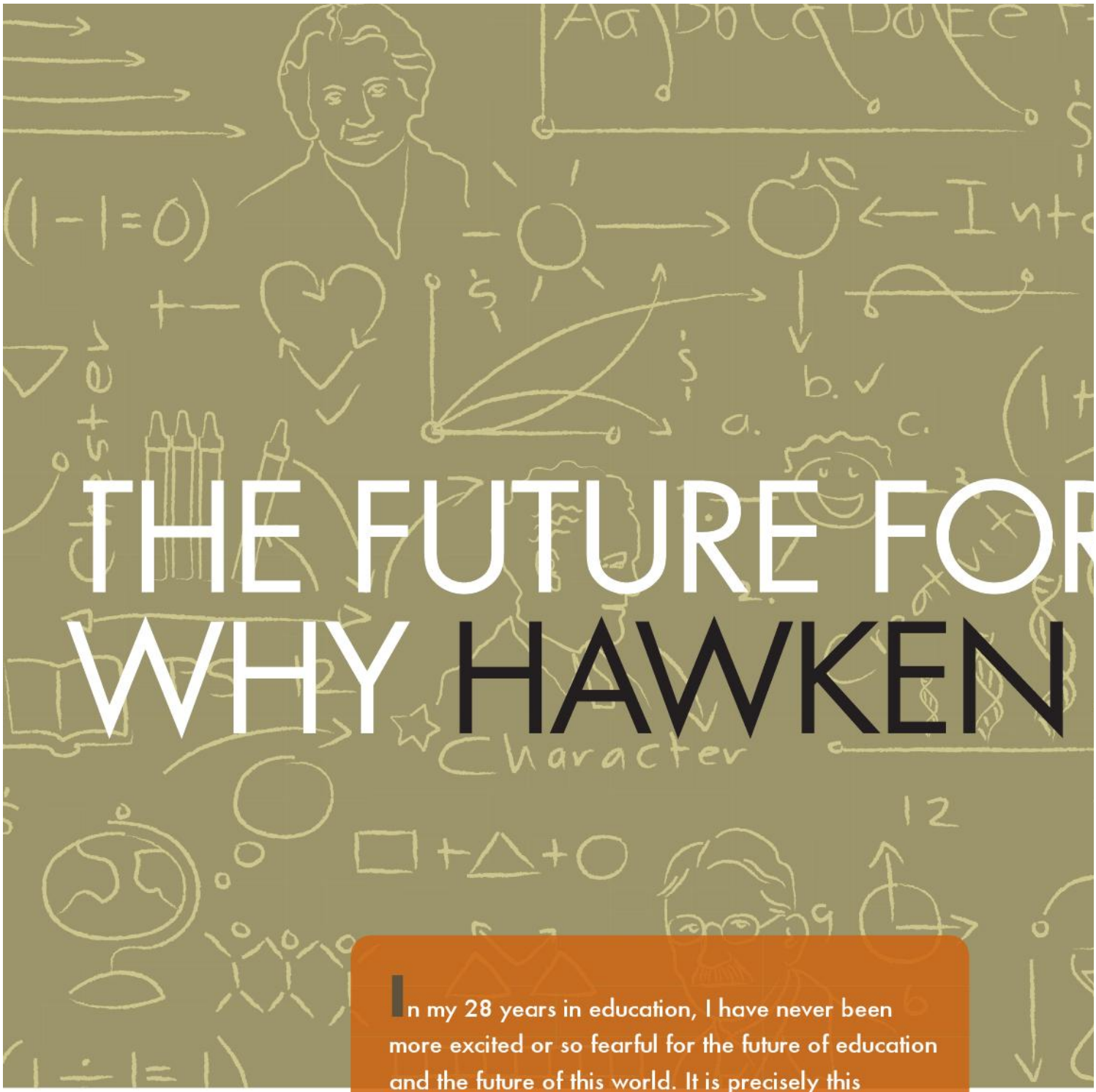


THE FUTURE FOR
WHY HAWKEN

In my 28 years in education, I have never been more excited or so fearful for the future of education and the future of this world. It is precisely this polarity of hope and fear that motivated me to write this feature article, which extends the entire length of this issue of the Hawken *Review*.

R EDUCATION: HAS TO LEAD

Education in America is fundamentally broken. Some of the basic educational practices and assumptions in the United States are simply wrong, and, as a result, signs of distress have been evident throughout our educational system for decades. The public response to that distress? To implement more high stakes testing and greater standardization. Companies like The College Board, Princeton Review and *U.S. News and World Report* magazine have co-opted the selective college admission process so pervasively that they are influencing the direction of American public and private education in ways that directly counter the findings of studies on teaching and learning. Thankfully, there has been an awakening among some schools in the U.S. and abroad, and Hawken School is at the epicenter of that renewal. One of the few schools poised to swim against the tide of our misguided educational practices, Hawken is among an even smaller few that are positioned to lead the way. →

by D. Scott Looney

HOW DID WE GET HERE?

Those who cannot remember the past are condemned to repeat it.
George Santayana, *Philosopher & Nobel Laureate*

How History Can Distort Our Vision & Restrict Our Future: A Story

To frame why the history of education is, in fact, our biggest hurdle, I am reminded of a story that I once heard Ian Jukes, educational futurist, tell.[i]

The story is about an important design flaw in the solid rocket boosters on the space shuttle - the two narrow, missile-like tanks that flank each side of the shuttle. The engineers at the ATK Thiokol Propulsion faculty in Utah would have preferred the solid rocket boosters to be notably wider. Unfortunately, the only way to transport the rocket boosters from the factory in Utah to the launch site in Florida is via railroad track, tracks that have to pass through several mountain tunnels along the way. The booster rockets have to be narrow enough to pass through the mountain tunnels, which are only slightly wider than the railroad tracks, which are always exactly 4 feet, 8 ½ inches apart. Railroad tracks in America are exactly 4 feet, 8 ½ inches apart, because that is the exact spacing used to build railroads in England. Why did English railroad designers use the measurement of 4 feet, 8 ½ inches? That was the measurement that wagon makers used for their axle width. If they used any other axle width, wagon wheels would break on the sides of established wagon wheel ruts in the roads. Where did those rutted roads come from? The first long-distance roads in England were built by the Imperial Roman Empire for use by the Roman military, and have been used ever since. Why did the Romans use the axle spacing of 4 feet, 8 ½ inches? That is the original specification for the Roman war chariot, because it is roughly the width of two horses' backsides. So, the specifications for arguably the world's most advanced transportation system was dictated and compromised by the width of a horse's behind!

> The path of least resistance and least trouble is a mental rut already made. It requires troublesome work to undertake the alteration of old beliefs.
>
> John Dewey
> *Philosopher, Psychologist, & Educational Reformer*

I share Ian Jukes' story because our current education system has a design flaw that, like the space shuttle booster rockets, has a long history. The width of a horse's behind might define and limit booster rockets today, but we should not let the future of educational excellence be defined by our current metaphorical horse's behind: standardization.

From Latin Grammar Schools to the Industrial Revolution

Prior to the advent of Latin Grammar Schools, humans learned through apprenticeship, just as most mammals still do today. A tiger teaches her cub to hunt, and a dolphin her calf to fish. In this natural apprenticeship model, the master (often the parent) was assigned apprentices (often their children), and the master provided individualized tasks, expectations, instructions, rewards, and punishments.

The master understood that each child was different and that apprentices had varying levels of readiness for the tasks they were to be given. The excellent masters thus found ways to ask the apprentice to do the most

that each could handle at the pace that each individual could manage.

It was not until the 14th and 15th centuries that we began to structure and systematize educational processes. Latin Grammar Schools taught priests and monks to transcribe the Holy Bible in Latin script so that each one, as the word of God, was precisely the same. This required a systematic, regimented form of instruction. So at the core of this Latin Grammar School process was conformity, efficiency, and standardization. Originally connected to churches and monasteries, these Grammar Schools eventually evolved into boarding schools and colleges independent of the Church; but they still employed many of the same teaching methodologies. Boarding schools in England like Eton College and

> Education is a natural process spontaneously carried out by the human individual and is acquired not by listening to words but by experiences upon the environment.
>
> Maria Montessori
> *Italian Educator & Physician*

Winchester College were formed in the 15th century to educate the children of the aristocracy, and the Academy model of education was born. Today you can see many remnants of the Academy model in private boarding and day schools, as well as in the public system. The British public school system was modeled after the Academy, and the first American schools, public and private, were clearly modeled after the British system.

The trend away from the individualization of the apprenticeship model towards more conformity and standardization got a huge boost with the convergence of the Enlightenment and the Industrial Revolution. The primary intellectual model of the Enlightenment highlighted deductive reasoning and a study of the classics. Reason and classical knowledge, therefore, defined academic ability. This specific intellectual model of academics was blended with the economic practices of the Industrial Revolution, which focused on efficiency: producing more in less time and for less money. Coinciding with this trend toward efficiency were efforts to bring "compulsory education, paid for by taxation and free at the point of delivery" [ii] to the masses. In America, the movement toward compulsory public education occurred at a time when hundreds of thousands of immigrants arrived on our shores. So the public system of education created in the late 19th century was modeled after a narrow Enlightenment model of intelligence delivered with the efficiency of industrial production.

Many remnants of this industrial model are still used today, even at Hawken: cohorting kids by grade levels; segmenting our complex, interdisciplinary world into discrete academic departments of math, science, English, etc.; and, most problematically, practicing quality control by applying a standard measurement at the end of the assembly process (i.e., standardized testing).

The Rise of Progressive Education

Nature does not develop the child's faculties according to a general plan; and when men attempt to educate children en masse, and irrespective of the discrimination which nature has made in each individual of the group, their efforts must necessarily be futile. In this thought may be found an explanation of mediocrity.
James A. Hawken

The progressive educators of the early 20th century, like John Dewey, Maria Montessori, and James A. Hawken, rejected the industrial model of education. Although the ideals of the progressive educators were radical in their day, they seem like common sense when viewed with a 21st century lens. Among the most common progressive educational ideals are these:

- Every child can learn and has greatness within ("That the better self shall prevail")
- Every child learns differently (Therefore, teachers must be able to teach in multiple styles)
- A school should grow the whole child (intellect & character)
- Learning should be active (learning by doing)
- Teachers should know each child's unique interests
- Intrinsic motivation (sense of accomplishment, community, curiosity, etc.) is more effective and lasting than extrinsic motivation (grades, scores, awards, etc.)

WHAT'S WRONG WITH EDUCATION TODAY?

There is nothing more unequal than the equal treatment of unequal men.

Thomas Jefferson, *Founding Father & 3rd President of the United States*

Standardization vs. Individualization

The multiple choice exam did not exist until Frederick J. Kelly, a graduate student at Kansas State Teachers College, invented the Kansas Silent Reading exam in 1914. Mr. Kelly invented this exam to measure "lower order thinking skills among the lower orders."[iii] He believed that multiple choice exams were useful for targeting the lowest cognitive functions, largely for vocational placement.

By 1926, the Scholastic Aptitude Test (SAT) had chosen multiple choice as its test format, and shortly thereafter it became the primary admission exam for selective colleges. Think about it: Our finest colleges universally adopted a mandatory test that measures lower order thinking skills as one of their primary entrance standards. Equally disturbing was what followed for K-12 education: a series of educational reforms in the direction of standardization – reforms that placed multiple choice exams and other standardized assessments at their center. It seems, then, that educators were focused on a form of testing that was designed to measure only lower order thinking.

This emphasis unfortunately defined the course of modern education in the 20th century. What followed was the recalibration of K-12 education in the direction of teaching to tests of lower order thinking and a movement away from the "whole child" and higher order thinking orientation. "Memorize and regurgitate on command" became a common call-and-response between teachers and students. The complexity of the world and the inherent stimulation of curiosity that complexity engendered were stripped away from the educational model – replaced by a model of compartmentalized standardization where the speed of acquisition of content knowledge, rather than the depth of understanding, was the standard for success. When Frederick Kelly, a disciple of John Dewey, saw what had become of his multiple choice exam, he was appalled, and he spent the remainder of his life fighting against its use, to no avail.[iv]

Most of us understand the need for a firm grasp of lower order thinking skills, particularly at the elementary level. Some things have to be memorized because they serve as building blocks for higher order thinking – like multiplication tables, for example. But by the time students are between 11 and 14 years old, they begin to develop the mental capacity for abstract reasoning – the ability to manage higher order thinking skills like synthesis, analysis, systems thinking, and deductive and divergent reasoning. Our schools fail us miserably when these higher order thinking skills are not appropriately stimulated and nurtured.

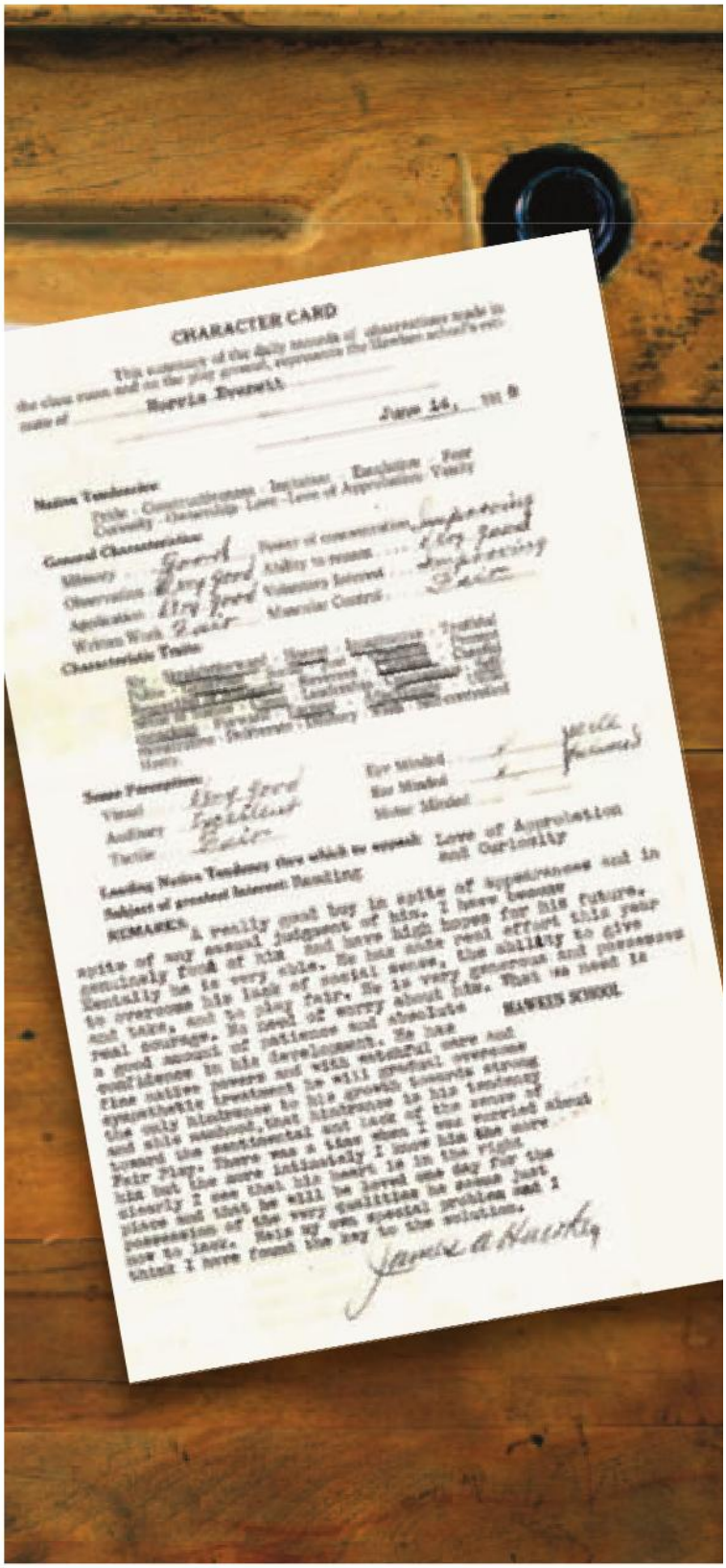
Interestingly, even the College Board is starting to acknowledge this problem, as evidenced by the following quotation from the article "Rethinking Advanced Placement" by Christopher Drew, in *The New York Times*, January 7, 2011:

Next month, the board, the nonprofit organization that owns the A.P. exams as well as the SAT, will release a wholesale revamping of A.P. biology as well as United States history – with 387,000 test takers the most popular A.P. subject. A preview of the changes shows that the board will slash the amount of material students need to know for the tests and provide, for the first time, a curriculum framework for what courses should look like. The goal is to clear students' minds to focus on bigger concepts and stimulate more analytic thinking. In biology, a host of more creative, hands-on experiments are intended to help students think more like scientists.

Undervaluing Non-Cognitive Skills, Also Known As Character Traits

James A. Hawken said about Hawken School, "The main purpose for which the school exists is the development of character." For much of Hawken's history, students did not receive traditional report cards, but rather a "Character Card" on which Mr. Hawken and the teachers articulated how a student was progressing in acquiring character traits like resilience, generosity, courage, creativity, cooperation, and leadership. Mr. Hawken and the other progressive educators of the early 20th century knew that an excellent education had to address the whole child, not simply focus on the traditional academic skills, because only the combination of academic skills and strong character traits would prepare students for college and the real world. The progressive educators, most typified by John Dewey, were largely on target about education; but thanks to the standardization movement migrating to selective college admission practices, there was simply less room in preparatory schools for the development of character, because the pressure to "conform" to the standardization movement was so great.

A large body of research on success and happiness consistently shows that "non-cognitive" skills like cooperation, resilience, creativity, persistence, empathy, sense of humor, and leadership are far better determiners of lifelong success than academic skills. The research validates Mr. Hawken's assertion that character development should be the highest purpose of a school. However, the push for greater alignment with a standardized, content-driven curriculum left less room for school activities not directly related to the acquisition of content knowledge. Spending time in school developing leadership, empathy, cooperation, and creativity often comes in direct conflict with content mastery. Although the best and most creative teachers can find activities that support both cognitive and non-cognitive skills, many schools still devote far too little time and energy during the academic day to the development of non-cognitive skills.



Measuring and Rewarding the Wrong Things

Not everything that can be counted counts; and not everything that counts can be counted.
William Bruce Cameron
(Often attributed to Albert Einstein.)

Students

The most obvious example of measuring and rewarding the wrong things in schools is the overuse of standardized tests, which measure lower order thinking. But that is clearly not the only area where our measurement and rewards systems are misaligned with the research on teaching and learning for students.

Why is it that students will work for hours and hours to master their roles in a play, to prepare for the week-end debates, or to hone their athletic skills for their next game without the use of grades or awards as the primary motivator? Everyone who has worked with students knows the answer: because their motivation is intrinsic. Schools like Hawken do an amazing job of giving students many co-curricular opportunities, which enable them to invest their authentic selves in the direction of their passions. So why can't we also do this within the academic program? I believe we fail to achieve the same level of internally motivated passion in the academic program largely because of two things: too much emphasis on content knowledge; and the overuse of extrinsic rewards, namely letter grades and awards.

At the end of every school year, Hawken's Upper School holds an awards ceremony, during which students are recognized for excellence in the traditional academic subjects: English, science, math, etc. Although I am always happy and proud to celebrate students' hard work, I also have sadness for the many students in the audience who are not mentioned during this long ceremony of public recognition. My love-hate relationship with the Awards Day Ceremony tradition presents an annual challenge as I formulate my closing remarks each year. My message to the students at the 2013 Awards Day ceremony highlights the concerns I have for our overemphasis on both grades and awards **(facing page)**.

Which question leads to greater depth of understanding?[vii]

Normed AP History Question

The Hartford Convention was a manifestation of:
(A) New England Federalist opposition to the War of 1812
(B) New England's desire to end US trade with Great Britain
(C) Northern gratitude to General Jackson for his victory at New Orleans
(D) the War Hawks' impatience with President Madison's conduct of foreign policy
(E) Western resentment against British-backed American Indian attacks

Constitutional amendments enacted during the Progressive Era concerned all of the following EXCEPT:
(A) Imposition of an income tax
(B) Imposition of poll taxes
(C) Extension of suffrage to women
(D) Prohibition of the sale of alcoholic beverages
(E) Procedures for electing United States senators

Teacher Designed History Question

Write a conversation on the topic of liberty between ONE of the following pairs of characters. Choose any format and clearly identify two contrasting points of view about the theme of liberty and at least ONE specific event or situation appropriate to the time period. Consider characteristics (including race, class, sex, occupation, geographical location, age, etc.) that would help you identify your characters. Please feel free to use specific historical figures.

- Massachusetts Bay Colony resident and Virginia colony resident in the 17th century
- Patriot and Loyalist in 1776
- Federalist and Anti-Federalist in 1788-1789
- Abraham Lincoln and a secessionist or Confederate between 1860 and 1865
- Industrialist and reformer in late 19th or early 20th centuries

Hawken Awards Day Message by D. Scott Looney

Delivered on May 31, 2013

For the last few hours, we have had the opportunity to applaud excellence. It gives me, and all the adults in this room who have dedicated themselves to your success, great pride to see all that the students honored today have accomplished.

However, to end this celebration, I would like to make two points to encourage a little perspective. Let me comment on motivation and on character.

It is encouraging and energizing to receive public validation from others in the form of awards or even grades. Your life will be full of moments when you receive extrinsic, or external, rewards for your work.

However, there is a caution I want to share. These types of external, extrinsic rewards are addictive. They are like candy; they taste really good, and, in small doses, are fine.

However, addiction to these types of extrinsic rewards can lead you to measure your own success and happiness only through the lenses that others place upon you. Of course feedback from the external world is important; without it you cannot function in society or have legitimate relationships with others. But an overemphasis on rewards – on awards, grades, promotions, or recognition – can be, in large doses, toxic if it leads you to measure your impact, happiness, or achievement only through the eyes of others.

If your reason for getting up in the morning ever becomes solely trying to achieve praise, recognition, or adulation, you are in trouble. My hope, for all of you, is that your reason for getting up in the morning will always be to make a difference, to impact your corner of the world positively. If you do that with passion, expertise, and hard work, you will no doubt accumulate awards, praise, and promotion. But do not let those external rewards become the source of your motivation. Your internal, intrinsic sense of purpose and meaning have to remain your compass for you to have a truly fulfilling life.

To those who were recognized today: enjoy your hard earned praise; but make certain not to use that to measure your sense of purpose. There are many students in this room who did not get recognized by a specific reward who have had as meaningful impact on Hawken as those who were recognized. Be motivated by your purpose and your impact, not by the recognition from others. Awards and rewards are the icing, not the cake.

My last point: character.

The numerous awards that we celebrated this morning recognize excellence, dedication, and commitment. By celebrating these numerous areas of achievement in a public fashion, we not only honor those individuals for their dedication and accomplishments, but we make a statement of what we, as a community, value. We do and should value academic, artistic, and athletic achievement, as those are some of the core functions of a prep school like Hawken.

However, it would sadden me if in our attempt to recognize some excellence we accidentally devalue the excellence that did not have a category represented today. As a school whose original founding purpose is the development of character, we should also be recognizing ALL the many attributes of fine character, not simply the ones that MOST schools recognize: academics, arts, athletics, etc.

If we truly aligned our awards with our values, we might add awards like these:

- **The Quiet Hero Award**: Making a difference while seeking no praise
- **The Best Host Award:** For going out of your way to make visitors to our community feel comfortable
- **The "I Fessed Up" Award:** For the person who admitted his/her wrongdoing or failure when it would have been easier not to, solely because he or she knew it was the right thing to do
- **The Atlas Award:** For greatest resilience in the face of challenge
- **The Most Selfless Award:** For putting needs of others before your own
- **The Facilitator Award:** For using humor and graciousness to make others feel better and to make social interactions easier for others
- **The "I Cleaned Up the Dining Room Table Even Though My Friends Left It a Mess, Because I Know It Is the Right Thing To Do"** Award

I could go on and on, but I am sure you get the point: that those things that MOST define your character are, in fact, the kinds of things that never show up on the agenda for an awards ceremony.

I would posit that awards for high character, like the ones I just listed, could and should be among the most important things we might have recognized here today. But tradition and time constraints meant that we, in fact, did not. Does that mean the people in this room for whom the "Most Selfless Award" would be appropriate should feel any less terrific about their selflessness because we failed to give them an award? I certainly hope not. To quote our founder, James Hawken: "The main purpose for which the school exists is the development of character."

So to end today's ceremonies, I would like to invite all of you to join me in recognizing those many students in the audience who deserve recognition for acts of high character that we simply failed to fit into one of today's standard categories.

Although students, or anyone for that matter, will always be motivated by a combination of extrinsic and intrinsic rewards, healthy schools should always emphasize the intrinsic over the extrinsic. Unfortunately, that is not usually the case, even at Hawken. The assumptions about what selective college admission offices value have put undue pressure on schools to favor extrinsic rewards, which can be listed as part of the college applicant résumé. It's interesting to note that the research on motivation suggests that students who operate with a high degree of intrinsic motivation actually outperform those who are motivated solely by extrinsic rewards of grades.[v] In other words, one of the benefits of being intrinsically motivated is that students are more likely to achieve at a higher level than students who are simply chasing letter grades.

Teachers

In addition to measuring and rewarding the wrong things for students, we also have a problem with the way we measure and reward faculty and administrators in schools. Because private and public schools are modeled after the original academies, and to a lesser degree higher education, we overvalue and over reward teacher tenure, and undervalue and under reward excellence and commitment. Most compensation models, including at Hawken, place a notable premium on tenure, or simply time on the job. Although experience does matter, there is not a lot of research to show that it matters more than effort and willingness to be aligned with the mission of the school. There is a substantive difference in teaching excellence between a teacher in his or her first couple of years and a teacher in his/her seventh year. However, there is very little support for the idea that a teacher in his/her twentieth year is necessarily stronger than a teacher in his/her seventh. In other words, once the basic skills of teaching are learned (usually in the first 5 to 7 years), it is talent, commitment, and mission alignment that differentiate the superb teachers from the mediocre ones. Then why is it that in nearly all schools the compensation model is a straight salary scale based on years of experience and levels of education? The answer is simply because that is the way we have always done it, and most teachers actually prefer it that way. Attempts at many schools to introduce a merit-based pay system tend to backfire, badly. This is due to several factors: the inability to find a performance measurement for teaching that teachers think is valid; the evaluative role of administrators, making certain types of partnerships harder; and, finally, a sense among faculty that a tenure-based compensation system is fairer than one in which administrators arbitrarily determine excellence. Teachers, like students, are predominantly motivated by intrinsic rewards of teaching, not extrinsic rewards; so as along as the compensation model is fair, teachers tend to prefer it to one in which merit is determined by administrative evaluation. Many schools are not considering alternative models that reward output, workload, and other more objective measures of contribution to align compensation, but this remains a trickier conversation for all schools.

One of the areas of potential growth for rewarding teachers involves creating paths for promotion that don't require a teacher to leave teaching to become an administrator. In the past, it was often the case that when teachers wanted a growth opportunity and/or more compensation, some of the best teachers were "promoted" to administrative roles. The system, in effect, purged the best teachers from the classrooms as a reward. Given that the tasks of teaching and administration can be very different, we sometimes take superb teachers and make them into mediocre administrators. Finding growth paths for teachers to become educational leaders, and compensating them handsomely for that leadership, is one of the areas of focus for many schools moving forward.

The other way that many schools err regarding personnel is by overvaluing harmony over excellence. Since it is difficult to find evaluative tools that are fair, accurate, and acceptable to the faculty and staff, many schools rationalize their patience with mediocrity in the interest of preserving community harmony. Unless a teacher or administrator is clearly harming the school, he or she is retained in order to maintain harmony. In public and charter schools, tenure-based compensation is a given, and the teachers unions make removal of an inferior employee nearly impossible. Independent schools do not have those restrictions, but they largely operate the same way, regardless. We are rewarding tenure, and not addressing mediocrity.

WHO'S GOING TO LEAD?

If not us, then who? If not now, then when?

John E. Lewis, *Author, The Explanation of Age*

Although there is a clear awakening among all educational sectors, most schools are not positioned to take a leadership role moving forward. Each of the main educational sectors faces dramatically compromising hurdles to educational leadership: Public schools are hindered by their construct; parochial schools by finances; charter schools by goals and context; and independent schools by their history. Within the independent school sector, however, there is some hope, because as privately controlled entities, they have the latitude to break from outdated traditions and overcome inertia. I am not suggesting that no useful educational reforms are being created in public, parochial, and charter schools; but I am confident that, in general, their hands are tied far more than ours when it comes to stepping forward to take the lead.

Public Schools

Public schools experience an inequitable distribution of funding through local property tax allocation, making it impossible for schools in poorer areas to take any leadership role in reform. In addition, the social and familiar challenges that come with poverty place a greater burden on the operations of public schools in poor areas. Schools in affluent areas have more resources to affect change, but their "reforms" are primarily focused on "doubling down" on teacher accountability and high stakes student testing.

The push for greater teacher accountability has taken the focus away from professional development for teachers and increased the antagonism between

From "Capitalizing on Complexity: Insights from the *Global Chief Executive Officer Survey*," IBM 2010.

> We all want progress, but if you're on the wrong road, progress means doing an about-turn and walking back to the right road; in that case, the man who turns back soonest is the most progressive.
>
> C.S. Lewis
> *Novelist, Scholar, & Broadcaster*

administrative leaders and the teachers unions. This antagonism prompts unions to protect all teachers against any corrective action, making it nearly impossible to remove ineffective educators. Over time, weak teachers begin to accumulate in the school system, negatively affecting overall morale and contributing to a culture of mediocrity. Furthermore, school choice initiatives have intensified the need to quantify school quality. How? By measuring teacher quality via student results on standardized exams, mostly multiple choice exams. Thus, the whole reform movement measurement system is based on the narrow construct of measuring students' lower order thinking skills. The federal legislation labeled "No Child Left Behind" is the most prominent example.

Parochial Schools

Enrollments in Catholic, Jewish, Protestant, and other church-affiliated schools have, in most areas, been falling dramatically for years. Catholic schools are the largest group of these religiously affiliated schools; parochial school enrollment in the U.S. peaked in the early 1960s, when more than 5.2 million students populated almost 13,000 schools. By 1990, the numbers had dropped to 2.5 million and only 8,700 schools. Between 2004 and 2014, an additional 23% of Catholic schools closed, and enrollment numbers dropped by over 500,000 students.[vi] The parochial school system is currently facing existential financial challenges, not only from dramatic declines in tuitions from enrollment, but also from the decline in cheap labor in the person of nuns. At one time, Catholic schools served as viable and inexpensive alternatives to failing urban public schools. Although some Catholic schools still fill that niche, charter schools are becoming an increasingly popular option.

Charter Schools

Moving forward, the leadership of educational reform may come from the charter schools, but only in select areas. When charter schools are located in an affluent area or can access public sector money, they have a greater opportunity to lead than most public schools. Charter schools in the U.S. are, by definition, a form of public school, as they are largely funded with public money. Although they have more independence than their public school counterparts, their very existence depends on two things that restrict progressive educational reforms: first, they are subject to a great deal of state-level legislation; and second, they are subject to vagaries of public funding and student enrollment. Like public schools, many charter schools have to work with the existing teachers unions, and they face the same challenges in that arena that all public schools face. Charter schools are growing faster than any other sector of the educational industry, with mixed results. They are still subject to far more restrictions than private, independent schools, but their independence signals hope for reform.

I had the pleasure of visiting a charter school that is helping to lead the way for reform: High Tech High in San Diego. This public charter school system is focused entirely on a problem/project-based curriculum, which has been so successful that they currently enroll over 5,000 students in eleven model schools. Rob Riordan, the school's co-founder, put it best: "There are three axioms of public education in this country: separate students from each other based on perceived academic ability; separate minds from hands; and separate schools from the world beyond. We seek to integrate students, integrate technical and academic disciplines, and connect students with the community."[vii] When I visited High Tech High, I saw kids passionately involved in projects that were deeply meaningful to them. I watched them putting great effort into their projects because they were personally connected to the work, not because they wanted to earn a high grade. High Tech High has thrived because it has a few advantages that many charter schools do not: it is located in an educationally progressive area of the country; it is the beneficiary of substantial corporate and private funding; and it is guided by the uniquely visionary and sustained leadership of its co-founders, Larry Rosenstock and Rob Riordan.

However, since most charter schools' primary funding comes from public taxation, the opinion of the general

public, which largely believes in standardization, will continue to hold too much sway for real reform. Only in places where the general public is educationally progressive in its outlook and where the charter school has access to financial resources beyond the local tax base are we likely to see models like High Tech High. Even those schools, however, are generally subject to the same state standards and testing regimes as other public schools, and they require partnership with the teachers union.

Private, Independent Schools Like Hawken

The leadership of educational reform can come from independent schools, but only if they can get out of the way of their own history. By definition, an independent school is a private school that must operate as a non-profit and is governed by a board of trustees. Typically, the only employee of the board of trustees is the head of school, or headmaster, who acts as the agent of the board. As my employment contract with the Hawken School Board of Trustees states:

You will be the chief administrator and educational leader of Hawken School and will have general supervision over the academic and administrative operations of and subsidiary activities sponsored by the School. All administrative, faculty, and staff members' duties will be delineated by you, and these employees will be responsible to you directly or through your designated administrator. You will have final authority to employ, discharge and prescribe the compensation of teachers and other employees in accordance with the policies of the Board of Trustees. You will also have complete jurisdiction over the academic, auxiliary and other programs of the School and the discipline of students; you may, in your sole discretion, admit, suspend or expel any student from the School in accordance with policies of the Board of Trustees.

This broadly defined authority, typically conferred by the board, gives an independent school head of school latitude unlike that of any other educational leadership position in the K-12 sector. Therefore, if an independent school wants to forge its own path forward, few external authorities can stop it. Other than laws that protect student safety (like fire drills and zoning), typically few legislative restrictions have direct impact on the direction of the educational instruction. However, since independent schools charge tuition – and typically a much higher tuition than any other type of private school – restrictions regarding change come mostly from the market.

As independent schools exercise their freedom to develop unique and innovative curricula and programs, they must consider whether students and parents will elect to join the community if their educational programs are dramatically different from those of the public schools. Independent schools have license to do almost anything with their programs, but they can only go as far as their current community and local market will allow. Thus, notable change depends on the acceptance of that change by current parents, students, faculty, and alumni.

Typically, it is difficult to convince parents, students, and alumni that dramatic change is necessary, particularly if the school is highly successful. "If the school was good enough for me, it is good enough for my children," alumni parents might say. Unfortunately, many independent school change efforts are stymied by a

> We were encouraged to be creative, to explore, to experiment so long as we kept in mind our obligation to the pupil to reach certain goals.
>
> Charles Stephens
> *Former Hawken Faculty*

lack of buy-in from current constituents or alumni. That explains why, in spite of the liberty independent schools have to lead educational reform, very few do. More often than not, they are paralyzed by historical inertia and lack permission from constituents. Nevertheless, an effective head of school and board of trustees can leverage constituent loyalty, trust, and resources in an effort to mobilize change.

In instances when a school is positioned to lead change and the head and board have wide community support, it is still rare for an independent school to take the lead in affecting significant change. Reasons may include a lack of awareness that change is needed, a belief that the status quo and the path of least resistance are good enough, a basic lack of courage to challenge the norm, or perhaps some combination of all of these.

WHY HAWKEN HAS TO LEAD

Do not go where the path may lead; go instead where there is no path and leave a trail.

Ralph Waldo Emerson, *American Poet, Essayist, & Philosopher*

Hawken School is among a very small group of independent schools that are well-positioned to innovate and assume national leadership in educational reform in the effort to move from standardization toward greater individualization. Founded as a progressive school, Hawken boasts the original intent, constituent readiness, faculty and administrative talent, and board of trustees' courage and commitment to do things few other schools can attempt. Furthermore, Hawken's influence among other independent schools may enable its success and innovation to serve as an inspiration and model for other schools. There will be a movement, and Hawken should be in the center of that movement because we are in a unique position to do so, and because the stakes are high for the next generation of children.

Permission: The Synergy Between Our Original Intent and Our Constituents' Trust in Innovation

To move Hawken School toward the model of apprenticeship and away from standardization, we do not need to pursue a radical path; we simply need to return home to our original intent. Most of the precepts of progressive educators like James A. Hawken and John Dewey are well-validated by current research on teaching and learning. Essentially, Mr. Dewey and Mr. Hawken had the right answers; we just forgot them. However, neither Mr. Dewey nor Mr. Hawken had any answers with regard to what to do about computers, the internet, global travel, and other 21st century realities. It is up to us, then, to apply their general philosophy while designing modern teaching methods in the midst of those unique 21st century conditions.

During the 2006-2007 school year, in an effort to merge the original intent of the School with our ambitions for the future, the entire Hawken community participated in a process to clearly define our guiding language moving forward. The most significant outcome of that process was the development of our statement of Purpose, Promise and Principles, also known as the Three P's.

Our Purpose: Forward Focused Preparation for The Real World Through The Development of Character And Intellect

What this means is that Hawken School should be constantly evaluating and re-evaluating what we do for children through the prism of readiness. How can we best help these children be ready for the complex, ambiguous, global, interconnected, and challenged future that awaits them? And, equally important, how can we send them out into the world with a sense of obligation to make every community they join better because of their participation?

All of the recent initiatives at Hawken are intended to move our program back toward the "whole child" orientation that Mr. Hawken and the founders of Hawken School envisioned. Even if the College Board cares only about intellect (primarily lower order thinking, at that), it is our obligation and original intent to place equal emphasis on the development of our students' character.

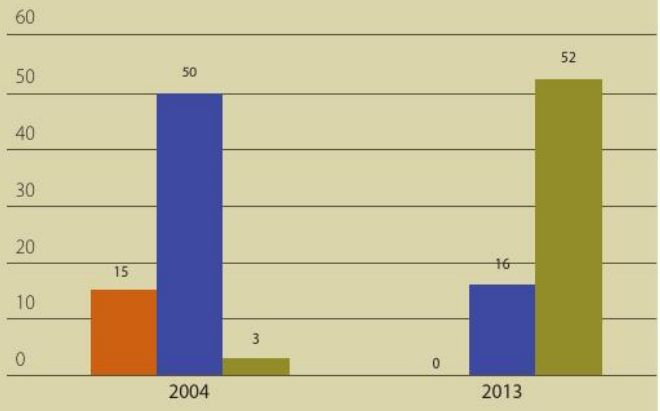
Since 2006, Hawken School has undergone a remarkable period of growth and innovation. As the accompanying charts show (**facing page**), after all of this change, constituents at Hawken are happy, confident, loyal, engaged, and looking forward. The path we are forging is further validated by five straight years of record enrollment, record annual fund returns in both numbers and percentages, record capital giving for two straight years, and achievement of the *Plain Dealer Top Workplaces* designation for two consecutive years (based on a survey of current employees).

Hawken Satisfaction Rankings 2004 -2013

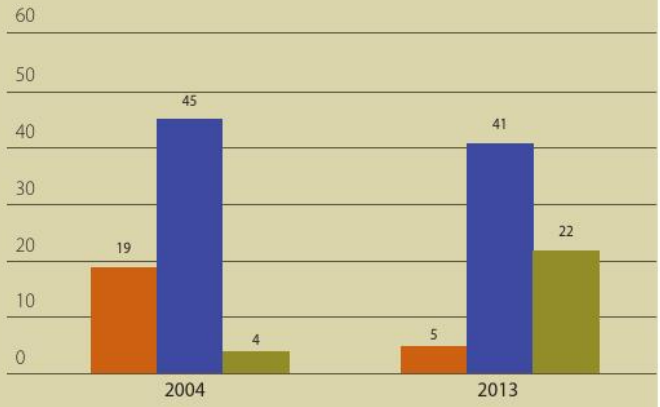
The following charts show Hawken's satisfaction rankings statistically significantly above or below ISACS school averages.

Worse Same Better

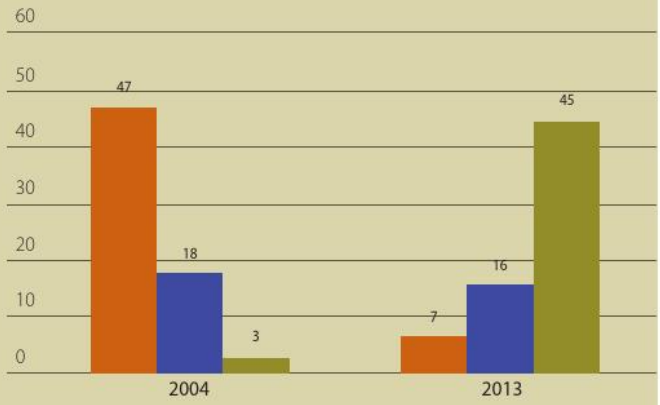
Hawken School **Parent** Satisfaction



Hawken School **Faculty** Satisfaction



Hawken School **Student** Satisfaction



To test the Hawken community's readiness for another round of innovation, I recently ran several workshops for parents and alumni called "The Future of Education." At the end of the two-hour discussion, I asked each of them to take a quick, one question, anonymous survey that asked: On a scale of 1 (not willing) to 10 (very willing), how willing are you to let your child be a participant in pilot programs at Hawken? The average response was 8.6. Although the group of people who show up to a workshop titled "The Future of Education" might have a more innovative skew, I believe the response from that group is largely aligned with the greater Hawken community. This level of trust and willingness to grant the School permission for their children to participate in new, experimental programming underscores the extent to which Hawken is uniquely positioned to innovate (**following page**).

Practice and Talent: Not Our First Rodeo

Often, when my father was trying something challenging, he would say, "Well, this isn't my first rodeo." I always took this to mean, "Trust me, I have lots of prior experience that makes this OK." With regard to educational reforms, few schools in the country have done as much, as quickly, as Hawken. Over the course of the last eight years, the faculty, administration, staff, and board have learned quite a bit about how to move change through a school. And we have done a lot.

Here are just a few of the initiatives we have introduced in the last eight years that align with the original intent of Hawken School:

The Sally & Bob Gries Center for Service and Experiential Learning

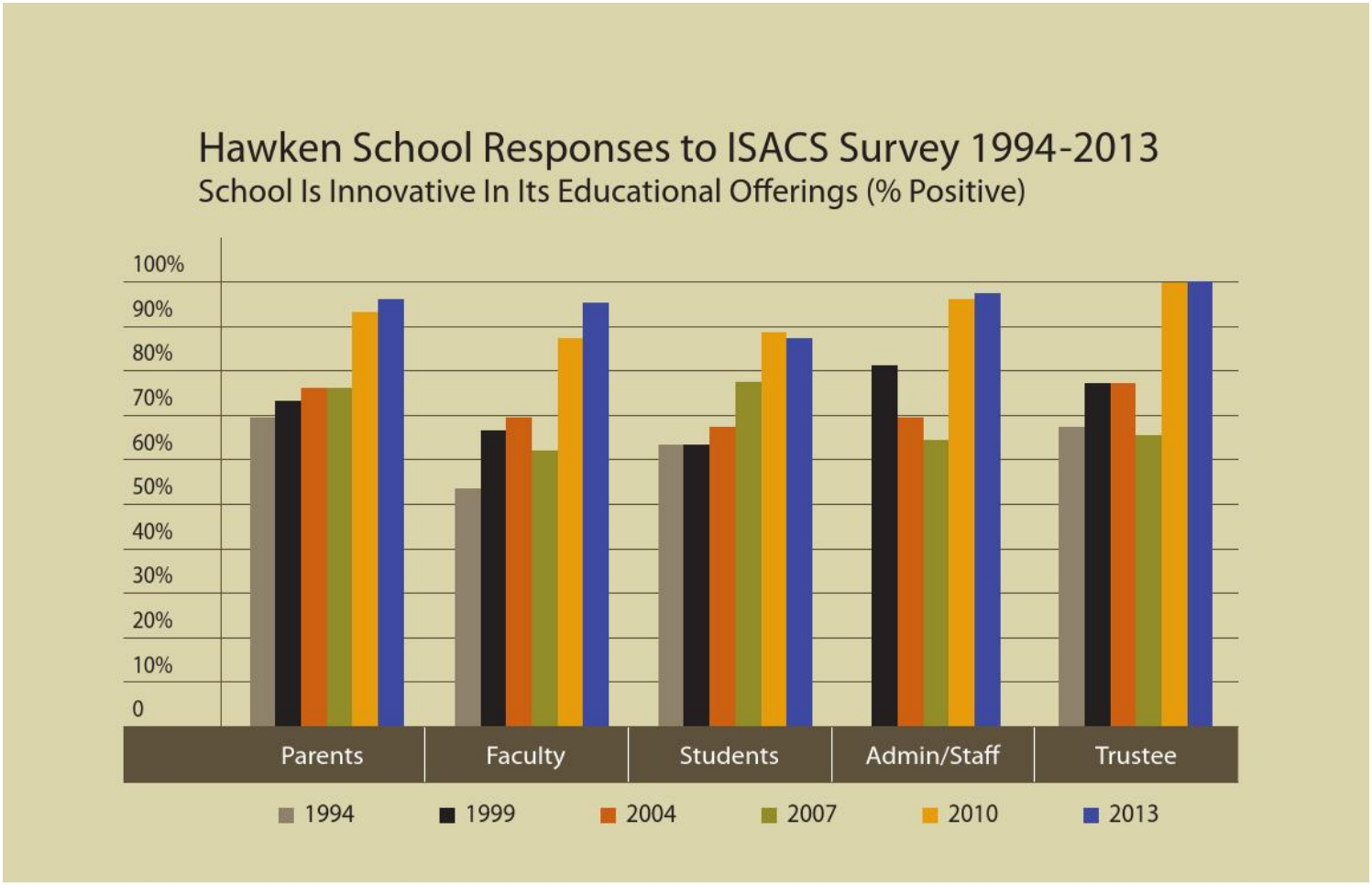
The Gries Center provides designated space for our faculty to help students learn by doing, using both the amazing resources and complex challenges of University Circle and Cleveland as laboratory and studio for that exploratory work.

The Lyndhurst Campus - Lincoln & Hurwitz Halls

Classrooms are organized around a central common space to create a sense of micro-community for students.

Schedule Changes - Intensives

We have restructured our use of time with students, most notably in the Upper School through the creation of Intensive classes. Intensives are intended to provide a deep experience to mitigate the fact that the American high school curriculum has become more about breadth than depth.



The Sydell & Arnold Miller Institute for Entrepreneurial Studies
Launched this past year with an Insights course, rotational course, and an Intensive, The Institute now offers an interdisciplinary, three-credit, honors, semester-long Entrepreneurship Program at the Gries Center.

The Hawken Continuum
A unique curriculum and pedagogy for students in pre-school through 2nd grade.

The Upper School Student Leadership Programs

The Peer Leader Program, where 12th grade students mentor 9th grade students on managing life in the Upper School.

Hawken Integrity Council, making it the job of the students to assist actively in dialogue relating to issues of integrity in the Upper School.

The House System, which divides the Upper School into four houses – Ansel, Bolton, Chester, and Mather – for the purpose of strengthening service, stewardship, and school spirit.

Insights Week
Experiences that provide real-world learning opportunities for Middle School students.

The Global Online Academy
Through this membership, Hawken partners with a network of other forward-focused independent schools around the world, giving our Upper School students access to a course catalog many times broader than what Hawken alone can offer.

These initiatives were implemented as a result of much collaboration, communication, data gathering, analysis, and decision making as we worked to fine-tune our execution. Over time, we have gained enough practice with innovation to take on even bigger reform challenges in the future, and we will do it the right way, as we have in recent years. Each successful innovation to date began as a "pilot" program, which, if successful, then migrated into the core curriculum.

Hawken differs from most schools in that we don't design specialty or satellite programs that are only accessible to a few talented students. Rather, we design our programming for maximum accessibility to our entire student body. Many schools that succeed in creating exciting, innovative programs make them available to only a small percentage of students in order to mitigate risk; moreover, they fail to make the necessary changes in curriculum design and teaching methodology that would be required to connect the program meaningfully to the core curriculum.

Board Courage

In 2007, Hawken School's Board of Trustees approved the acquisition of a property in University Circle (which would become the Gries Center) even though I was unable to articulate fully to them what, exactly, the faculty would do with this new campus. The Board believed, as I did, that if we gave the talented Hawken faculty a new blank canvas to paint upon with the wonderful palette of colors that is University Circle, they would create something magnificent. And they have, and they are. This bold leap of faith by the Board in the faculty, administration, and head of school is rare among private schools. Most private day school boards are largely made up of current parents, who are often afraid of innovation. They would love new programs that work, but they have little interest in having their own children serve as "guinea pigs." Hawken's Board is different in its approach to change, belief in innovation, and trust in the faculty and administration. Hawken's Board has a long view of the arc of the School, and the trustees understand that long-term health and growth require innovation – and living through the growing pains that usually accompany innovation.

Hope and fear are motivating factors in moving change throughout any organization. Hawken's Board of Trustees uses hope as the primary motivator for the rest of the community by putting their trust in the talent of the faculty and administration, while standing strong in the face of short-term parent and student doubts about change. Many independent schools that could be leaders in the educational reform movement do not enter the game, largely because their boards are too risk averse and too influenced by short-term parent concerns. Hawken is notably different in that regard.

An Appropriate Model for Other Schools

One of the goals for Hawken in any change initiative is to provide a model for other schools to follow. Although our primary purpose is to provide the right education for the students at Hawken, I believe our impact can and should extend beyond the 985 students we serve. In many ways, as a well-resourced (but not extravagantly so), mid-sized school serving all grades pre-school through 12th grade, we are an ideal potential model for other schools that are trying to move toward a more progressive educational model. I used to work at Phillips Academy Andover, which, given its nearly billion dollar endowment and fundraising history, has the capacity to do things very few independent schools can attempt. So when Andover does something notable, my peer heads of school tend to think, "Well, that's nice, but we don't have a billion dollar endowment." Hawken's financial profile is above average for a private school, but not so far out of alignment with the rest of our industry that other schools cannot follow our lead.

In addition, Cleveland is a tough market. In New York, San Francisco, and Washington, there are many more students who want to attend private schools than there are seats in those schools. If a school in one of those cities makes a program change that some of their families do not like, the school leaders do not have to worry about the degree to which their enrollment will be affected. In Cleveland, however, there are more private schools seats than there are families interested in those seats. Although Hawken has had five consecutive years of record enrollment and is currently full, most of our competitor private schools are not full, and many are falling dramatically short of their previous high enrollment. When Hawken takes a risk on innovation and succeeds, we can make the compelling argument to other private schools that "If this can be done in Cleveland, it can be done anywhere."

The kinds of innovation and reform we are undertaking at Hawken not only serve our students, but can be exported to other schools. Over the last several years, many schools from all over the country have visited Hawken to learn about our Upper School schedule, our use of the Gries Center, our one-to-one tablet program, and other innovations (**following page**).

Organizations Visiting Hawken

Holton-Arms School, MD

University School of Milwaukee, WI

Winchester Thurston School, PA

Harvard Principals Advisory Council

The Westminster Schools, GA

Northshore CDS, IL

Maumee Valley School, OH

KIPP Academy

Asheville School, NC

The Hill School, PA

Garrison Forest School, MD

Cranbrook Schools, MI

Holy Innocents School, GA

Woodward Academy, GA

Oregon Episcopal School, OR

St. Paul Academy, MN

E.E. Ford Foundation

Park School, MD

Allendale Columbia School, NY

Noble Impact, AR

William Penn Charter School, PA

Essential Capacities for the 21st Century Schools
Committee NAIS Commission on Accreditation

1 Analytical and Creative Thinking and Problem-Solving
- Identify, manage and address complex problems
- Detect bias, and distinguish between reliable and unsound information
- Control information overload
- Formulate meaningful questions
- Analyze and create ideas and knowledge
- Use trial and error; devise and test solutions to problems
- Imagine alternatives
- Develop cross-disciplinary knowledge and perspectives
- Engage in sustained reasoning
- Synthesize and adapt
- Solve new problems that don't have rule-based solutions
- Use knowledge and creativity to solve complex "real-world" problems

2 Complex Communication - Oral and Written
- Understand and express ideas in two or more languages
- Communicate clearly to diverse audiences
- Listen attentively
- Speak effectively
- Write clearly and concisely - for a variety of audiences
- Explain information and compellingly persuade others of its implications

3 Leadership and Teamwork
- Initiate new ideas
- Lead through influence
- Build trust, resolve conflicts, and provide support for others
- Facilitate group discussions, forge consensus, and negotiate outcomes
- Teach, coach and counsel others
- Enlist help
- Collaborate on tasks, manage groups, and delegate responsibilities
- Implement decisions and meet goals
- Share the credit

4 Digital and Quantitative Literacy
- Understand, use, and apply digital technologies
- Create digital knowledge and media
- Use multimedia resources to communicate ideas effectively in a variety of forms
- Master and use higher-level mathematics
- Understand traditional and emerging topics in math, science, and technology - environmental sciences, robotics, fractals, cellular automata, nanotechnology, and biotechnology

5 Global Perspective
- Develop open-mindedness, particularly regarding the values, traditions of others
- Study and understand non-western history, politics, religion, and culture
- Develop facility with one or more international languages
- Use technology to connect with people and events globally
- Develop social and intellectual skills to navigate effectively across cultures
- Use 21st century skills to understand and address global issues
- Learn from, and work collaboratively with, individuals from diverse cultures, religions, and lifestyles in a spirit of mutual respect and open dialogue
- Leverage social and cultural differences to create new ideas and achieve success

6 Adaptability, Initiative, and Risk-Taking
- Develop flexibility, agility, and adaptability
- Bring a sense of courage to unfamiliar situations
- Explore and experiment
- Work effectively in a climate of ambiguity and changing priorities
- View failure as an opportunity to learn, and acknowledge that innovation involves small successes and frequent mistakes
- Cultivate an independence of spirit to explore new roles, ideas, and strategies
- Develop entrepreneurial literacy
- Use creativity and innovation to produce things that are unique and that have value and meaning

7 Integrity and Ethical Decision-Making
- Sustain an empathetic and compassionate outlook
- Foster integrity, honesty, fairness, and respect
- Exhibit moral courage in confronting unjust situations
- Act responsibly, with the interests and well-being of the larger community in mind
- Develop a fundamental understanding of emerging ethical issues and dilemmas regarding new media and technologies
- Make reasoned and ethical decisions in response to complex problems [viii]

WHERE ARE WE GOING?

You never change things by fighting the existing reality. To change something, build a new model that makes the existing model obsolete.

Buckminster Fuller, *American Neo-Futuristic Architect*

The National Association of Independent Schools (NAIS) is an association of over 1,400 private independent schools. Hawken School is a long-time member of NAIS, and I currently serve on its Board of Trustees. Pat Bassett, former President of NAIS, advised educators, "Rather than alignment, there is a growing disconnect among what we know kids need, what schools deliver, and what parents expect."

During Pat's tenure, NAIS created the NAIS Commission on Accreditation and charged that group with developing an aspirational vision for our schools. After several years of work, the Commission identified what schools of the future should be like in a document called The Essential Capacities for the 21st Century (**facing page**).

Although this list of capacities is by no means complete, I believe it represents a reasonably accurate inventory of the skills our students will need for their future. I am proud that Hawken, more than any other school in Cleveland, comes closest to meeting the standards for these competencies; but we are still nowhere near the level of program alignment necessary to be able to claim excellence in all categories. What is stifling our efforts most in moving towards these 21st century competencies are the remnants of the industrial model of education, particularly the way we use time, organize departments, use space, employ technology, organize students into groups, and train our faculty and staff.

In order to prepare students properly for a different future, we need to make some fundamental shifts in our approach to education. In his work, **Sir Ken Robinson** argues that the paradigm shift we need to make in education is from the industrial model to an organic one.[ix] Or more concretely, as the **MacArthur Foundation** research project on 21st century learning suggests, shifts in the specific ways that schools and classrooms operate (**following page**).

So how is Hawken going to make these shifts and develop programs based more on mastery than standardization and efficiency? We will have to do this by slowly, thoughtfully, but persistently, taking on the **"Sacred Cows"** of education. Some of the cows will no doubt survive, hopefully in a modified form, but some will need to die.

As Hawken moves forward with its educational reforms, we will be challenging many of these "sacred cows," which serve efficiency and lower order thinking skills like the pure acquisition of content knowledge. Acquiring content knowledge without context or application in the real world reflects a 19th century approach to education and fails to prepare students for the future, unless their goal is to become a 19th/20th century college professor. I have nothing against college professors (I quite like them actually), but much of the content knowledge they cram into the short-term memory of students will be obsolete by the time the students try to apply it in the world; and that which is not obsolete, but is timeless, will likely be lost over time if student passions are not engaged during the acquisition of that knowledge.

So where does this lead us? Right back to the apprenticeship model, of course. The advantage of an apprenticeship-based educational model is a "no-brainer," so to speak, when viewed through a 21st century lens, because it achieves the following:

- Connects learning to the real world
- Individualizes the pace of learning
- Individualizes the approach to learning
- Is mastery-based vs. time-based
- Creates incremental success, not winners and losers
- Exposes students to complexity
- Is active learning, not passive

Return to the Apprenticeship Model

Do not train children to learning by force and harshness, but direct them to it by what amuses their minds, so that you may be better able to discover with accuracy the peculiar bent of the genius of each.
Plato

For most of human history, children were educated by adults through apprenticeship. The goal of this model was not efficiency or speed, but mastery. The master and apprentice relationship required the master to understand how each apprentice learned, and the apprentice learned by taking on incrementally more challenging, applied tasks. As mastery of one task was achieved by the apprentice, the master added a new, more challenging task. The master supervised this learning until the apprentice could demonstrate consistent mastery. This continued until the apprentice achieved a level of overall mastery that allowed him to become a master himself.

Some trades still practice this model directly, the residency program in medical training and the law review process being fine examples. But for the most part in schools, we have replaced this model with a system that gives students one chance to take a test, which they either pass or fail. Regardless of whether everyone passes, the whole class moves forward to the next task or subject, with the "C" grade indicating marginal mastery and the "A" grade indicating complete mastery. Sadly, in this model, efficiency has replaced mastery. Rather than allow time for all students to achieve complete mastery, we simply move all the students down the assembly line until the buzzer goes off or the course ends, at which point some students are certified as successes and others are certified as failures. In nearly all cases, the "C" students in any class could achieve the mastery of the "A" students if they were granted more time on task.

The outstanding masters knew that in addition to specific knowledge their apprentices would need to develop strong character traits – qualities such as trustworthiness, compassion, and integrity, which are essential to any legitimate trade. Where is the value in being a skilled journalist, for example, if your readers don't trust you? The masters also ensured that student work was not separated from the real world application

Sir Ken Robinson

Industrial Model	vs.	Organic Model
Utility		Vitality
Linearity		Creativity
Conformity		Diversity
Standardization		Customization

MacArthur Foundation

Industrial Model	vs.	Organic Model
Knowing (Content)		Doing (Skills)
Teacher Centered		Student Centered
Individual Work		Team Work
Consumption of Information		Construction of Meaning
Schools		Networks
Single Sourcing		Crowd Sourcing

The "Sacred Cows of Education"

- Separate academic departments
- Grade levels organized by age groups (vs. mixed age classrooms)
- Assessments
- Assessment by letter grades and standardized tests (vs. narrative feedback)
- Timed tests (vs. untimed)
- Multiple choice and true/false tests and quizzes
- Individual achievement assessment (vs. group achievement assessment)
- Teaching (pedagogy)
- Less cohort "whole group" teaching; more individualized approaches
- Greater mix of techniques: simulation, projects, internships, lecture, discussion to address the natural range of learning styles in students
- More technology assisted teaching
- Definition of a classroom (space)
- Single content area courses
- Class size
- Use of Time: Schedule and Calendar
- The boundary between academic and co-curricular activities

and implications of that work. Modern schools separate and compartmentalize education into subjects, to the point where students are often left with the question, "Why do I need to learn this?" By taking students out into the world for more field work, or using technology to bring the world into the classroom, we connect the specifics of student work with the complexity and authenticity of the real world. This complexity and authenticity drive intrinsic interest and curiosity in students. Intrinsic interest, in turn, drives student engagement. And it is my belief that we are most alive when we are fully engaged.

Not only are we most alive when fully engaged, but we are also happiest. Noted psychologist Mihaly Csikszentmihalyi states, "Happiness is not something that happens to people but something that they make happen."[x] His research shows that people are most happy when they are in a state he calls "flow." One definition of "flow" is "an optimal state of intrinsic motivation, where the person is fully immersed in what he or she is doing. This is characterized by a feeling of great freedom, enjoyment, fulfillment, and skill, during which temporal concerns such as time, food, ego-self, are typically ignored." Everyone has experienced "flow" – those moments in life when you are so meaningfully engaged that you lose track of everything but the specific object of your attention in that moment. Children call this phenomenon "play;" adults and adolescents may call it "being in the zone." I call it "full engagement."

Schools tend to be very effective at creating "full engagement" experiences through co-curricular activities like theatre, athletics, and debate; but they fall short when it comes to the academic program. What would full intellectual engagement look like in the academic arena? Students would exhibit passion for ideas and the life of the mind; have a sense of belonging to a greater intellectual community; experience an earned confidence in their own capacities and competencies; think critically and analytically; and, most important, create.

Creation is the most important result of engagement because it gets right to the core of human potential. Internationally recognized educational psychologist Benjamin Bloom created a taxonomy of learning, in which he places "synthesis" or "creation" as the highest of the higher order thinking skills. Similarly, Jean Piaget, renowned developmental psychologist and father of the constructivist theory of knowing, once said: "The principal goal of education is to create men and women who are capable of doing new things, not simply of repeating what other generations have done – men and women who are creative, inventive and discoverers, who have minds which can be critical, can verify rather than accept everything they are offered." The best schools invite, cajole, entice, and otherwise interest students to engage fully. While it sometimes may be necessary for schools to provide extrinsic motivations and strict requirements, encouraging the intrinsic motivations of students provides greater effect and longer lasting impact.

Intrinsic motivation is nurtured by creating an environment where students are provided a meaningful context for learning, shown authentic connections to their own experiences, and given some latitude and responsibility to learn by doing and through trial and error. Intrinsic motivation leads to flow; flow feels like play; play leads to happiness. I am not suggesting that the entire curriculum should consist of things that kids intrinsically like to do; rather, I am suggesting that the best curriculum and pedagogy are based on attempts to channel or create student interest for maximal benefit.

> Education is not preparation for life, it is life itself.
>
> John Dewey
> *Philosopher, Psychologist, & Educational Reformer*

It is my belief that bringing the apprenticeship model back into education is the best way to achieve this type of benefit for students, and, more broadly, to lead them on a path toward fulfillment and happiness. As James Hawken once wrote, "…the leading idea should be the nutrition of feeling. Help the child hear, to see and feel; to wonder, admire and revere; to believe, hope, and love."

WHY NOW? THE AWAKENING

You may delay, but time will not.

Benjamin Franklin, *Founding Father, Inventor, & Political Theorist*

Nearly every educational system in the world right now is actively discussing educational reform. This is not a coincidence. The landscape for our future has shifted dramatically due to the instant access to information that the internet and technology provide and to the shrinking of the global community.

As a result of this shift, the current educational construct, the industrial model, fits the needs of the 19th and 20th century far better than it does those of the 21st century. During the 20th century, it was not only possible, but common, to select one career path and even stay with one company for an entire career; and because the

> The goal of education should be creating men and women who are not simply repeating what other generations have done; who are creative, inventive and discoverers, who can be critical and verify, and not accept, everything they are offered.
>
> Jean Piaget
> *Swiss Cognitive Psychologist*

achievement tracks of 20th century corporations mirrored many of the attributes of the industrial model, traits like consistency, efficiency, compliance, and deference to hierarchy were more highly valued than they are today. It is estimated that during the course of our children's lifetime, they will have several different careers and will change employers many times. In a recent survey, 91% of millennials (born between 1977-1997) expect to stay in a job for less than three years. They are likely to have 6 to 8 different jobs before the age of 38.[xii] Not only will our children have many more career transitions, but they are much more likely to be involved in startup ventures. The new entrepreneurial economy will value traits like creativity, innovation, and anti-compliance far more the 20th century industrial economy did.

In the Academy and Industrial models of education, the primary goal was the acquisition of content knowledge, and thus it was important to carry facts, formulas, and procedures in your head at all times. This made sense prior to the late 20th century, because driving to the library to research specific facts or data was inefficient. With the invention of computers that are networked through a world wide web, however, most of the knowledge acquired in human history (and large volumes of new knowledge produced every day) is almost instantly accessible given the proper technology and research skills. To illustrate my point, consider this: Hawken School's 7th graders can find specific facts about the Civil War and the Periodic Table of Elements with their computers faster than most of our faculty can without computers.

Never before in human history has so much information been as readily accessible as it is today, and the prodigious volume of content knowledge and ease of access are only going to get bigger and faster. Thus, it is simply not an appropriate goal to organize education as an exercise in measuring who can memorize the most knowledge. The goal moving forward has to be more about the development of character and useful skills – skills like learning proper research methods and techniques that lead to the valid use of information on the internet. In the 21st century, learning how to use knowledge has to replace the task of acquiring content knowledge. This necessitates a shift in the teacher's role from that of the sole fount of content knowledge (the "sage on the stage") to that of a coach or mentor ("guide on the side"). This approach liberates both students and teachers to collaborate, problem-solve, and create. We already know what this model should look like: the master/apprentice model.

The pace of globalization due to technology has also changed the landscape of education. In the world our children will know, having meaningful relationships beyond boundaries of country and continent will be the norm. They will regularly participate in group work, in real time and asynchronously, with people all over the world. Think, for example, how this will challenge the Enlightenment model of "The Classics." Classical Western European literature, art, philosophy, and history must remain a part of a liberal arts education, but we have to make room for the best thinking and writing from the southern hemisphere and Asia as well. Humanities education, therefore, must evolve into a study of the shared themes and philosophy of all humankind and less about specific pieces of the Western Canon. In addition, with globalization comes a greater need for the development of cross-cultural competencies (e.g., the ability to deeply understand that other cultures, habits, values, traditions, mannerisms, and approaches to the world are different from our own). Certainly it is impossible for us to teach our students the complexities of all of the various cultures in the world, but it is possible to teach them the universal skills of communication and empathy to ensure that they feel confident in navigating and engaging with new cultures.

> Were all instructors to realize that the quality of mental process, not the production of correct answers, is the measure of educative growth, something hardly less than a revolution in teaching would be worked.
>
> John Dewey
> *Philosopher, Psychologist, & Educational Reformer*

Even Selective College Admission Offices Are Awakening

After many years of overvaluing academic metrics (grades, SAT and ACT scores, AP's), many colleges are changing their admission processes to incorporate assessments of students' "non-cognitive" skills, which might not have been properly weighed. At Tufts University, optional sections of its admission application give students an opportunity to demonstrate creativity. Students can answer creative writing prompts, submit YouTube videos about themselves, or "use an 8.5 x 11- inch sheet of paper to create something. Blueprint your future home, create a new product, draw a comic strip, design a costume or theatrical set, compose a score, or do something entirely different."[xiii]

Taking notice of this trend among college admission offices, the Educational Testing Service (ETS) has created a facility called the Personal Potential Index (PPI) to measure non-cognitive skills. Initially, the ETS added it to the Graduate Record Exam (GRE) for admission to graduate school. The PPI asks students to have faculty members who know them complete a questionnaire that measures six factors: knowledge and creativity, resilience, communication, planning and organization, and teamwork and ethics.[xiv] ETS is developing a Collegiate PPI to be used for undergraduate admission. The teacher reviewers will rate: critical thinking and problem solving, motivation and work ethic, ethics and integrity, persistence and resilience, leadership and teamwork, and communication skills.

Interestingly the College Board rejected a proposal to include ETS's new PPI service in the SAT exam. Robert Shaeffer, Public Education Director of the National Center for Fair and Open Testing, said, "Now they have turned down an opportunity to include the more nuanced information the PPI could provide in conjunction with SAT scores. This pattern suggests that the College Board's highest priority is preserving the market position of its flagship product – the SAT – not providing admission offices with detailed, relevant evidence from multiple sources which could improve their decision making."[xv]

I believe it is just a matter of time before college admission offices compel the College Board to adopt some version of the PPI or another measure of non-cognitive skills. In a recent conversation with Rick Bischoff, Vice President for Enrollment Management at Case Western Reserve University and a current Hawken parent, he told me that CWRU has completely overhauled its application process, specifically to capture more indicators of non-cognitive skills in their applicants. As more colleges like Case Western Reserve and Tufts revise their admission processes to evaluate the whole child, the College Board will eventually follow. Then schools like Hawken, which organizes its programs around more than pure academics, will have the holistic work of its students more easily recognized.

WHAT DOES HAWKEN NEED FOR THIS JOURNEY?

Give me six hours to chop down a tree and I will spend the first four sharpening the axe.

Abraham Lincoln, ***16th President of the United States***

Stirn Hall Front Elevation

Although there has been a lot of change at Hawken over the last eight years, most of the changes have been to prepare for a longer, bigger journey. In order take on any challenging task, it is best to set as many of the preconditions for success in place as possible before moving forward.

In a school, the most important resources for success are time, money, space, and people. Over the last eight years, we have spent a great deal of time and energy rethinking the way we use time and our community's alignment with our forward-focused mission. Both remain works in progress, but we have made tremendous strides. As the constituent satisfaction and workplace satisfaction survey data suggest, there is strong alignment between the faculty, staff, and administration and the mission of Hawken. In addition, we have completed significant work on the schedules of the Lower, Middle and Upper Schools. With regard to space, the addition of the Sally and Bob Gries Center at University Circle enabled us to expand our service and experiential learning work for students and faculty; and the expansion/renovations at the Middle School (Lincoln Hall) and Lower School (Hurwitz Hall) now provide tremendous spaces for active learning. We have made extraordinary progress with time, people, and space, but we still have a few needs to be completely ready for the journey ahead. Moving forward, the two areas of greatest need will be space for the Upper School and funding for innovation.

Stirn Hall

For Hawken to fulfill its mission, we need better and additional academic and common space on the Gates Mills campus. We do not have enough classrooms, large enough classrooms, enough common space, or some of the necessary specialty spaces that our forward-looking curriculum demands (e.g., media production, fabrication lab, and learning commons). Therefore, we have launched a fundraising campaign to raise $24.5 million dollars to build 50,000 square feet of new space and renovate our 55,000 square feet of current space. This campaign was energized when the Hawken Board

of Trustees and Visiting Committee committed almost $8,000,000 to start. The Kelvin and Eleanor Smith Foundation offered a challenge to the community to raise another $8,000,000, which the foundation will then match. When that match is met, the gift from the Smith Foundation will be the largest in the history of Hawken School. The new Upper School building will be named in honor of Life Trustee Howard Stirn and his wife, Cara Smith Stirn.

In order for us to move our teaching at Hawken to a model where students spend more of their time learning by doing than by sitting and listening, classrooms need to be larger. It is not a coincidence that the largest classrooms in most schools are art rooms and science rooms. Everyone understands that you cannot teach art or science without students getting up from their desks and doing some actual art or science. These subjects tend to require active, hands-on work more than other subject areas.

Our current art and science classrooms at Gates Mills are 900 square feet or larger, while the classrooms for all the other subject areas are only 450 square feet. Our Lower and Middle School classrooms average about 850 square feet – so the littlest Hawks have the biggest space, and the biggest Hawks the smallest space. In a high school classroom of only 450 square feet with 16 adult-sized students and their backpacks, only two types of teaching can occur: lecture and discussion. Although these methodologies will have a notable place in our pedagogy moving forward, they cannot be our default instructional method. Our teachers need bigger spaces to do project- and problem-based instruction, hands-on activities, collaborative group work, simulations, performances, workshops, and other more active classroom techniques. Quite simply, active classrooms require bigger teaching spaces.

After funding Stirn Hall, we will likely be looking for funding to support faculty professional development, release time to allow faculty to develop new programs, pilot program launching, and real world learning outside of the traditional classroom setting. The more time students spend solving real world problems, the easier it will be to move our curriculum from one focused on extrinsic rewards to one that intrinsically ignites student curiosity and interest.

Stirn Hall Main Entrance

THIS IS BIGGER THAN HAWKEN

That the better self shall prevail, and each generation introduce its successor to a higher plane of life.

John Lancaster Spaulding, *Co-founder of The Catholic University & Bishop Emeritus of the Diocese of Peoria, Illinois*

Many people have asked me for a shorter, easier way to explain our ambitions for Hawken, and why it is so important to me not only to create a great, forward-focused program, but to do it in a way that serves as a model for other schools. I have a simple explanation, but I always hesitate to share it, since it could deem me worthy of my surname.

But here is the simple explanation …
We are working to save the world.

Save the world? I know, that may seem like an overreach or a cliché, but let me make a case that we are doing nothing less at Hawken right now. To help me make the argument, I enlist the services of the late Margaret Mead, cultural anthropologist, who claimed:

- Human nature is potentially aggressive and destructive and potentially orderly and constructive.
- Our humanity rests upon a series of learned behaviors, woven together into patterns that are infinitely fragile and never directly inherited.
- The solution to adult problems tomorrow depends on large measure upon how our children grow up today.
- We are now at a point where we must educate our children in what no one knew yesterday, and prepare our schools for what no one knows yet.

Or, as she put a little less diplomatically, "Instead of needing lots of children, we need high-quality children."

We live in an extraordinary period of human history, a time in which the challenges of human population growth, environmental threats, economic interconnectedness, and political instability appear to be moving us forward at unprecedented, exponential rates. At the same time, we are witness to a global economy that has seen poverty throughout the world diminish (in relative terms), incredible advances in medicine, technology, and communications, and successful, large scale, multi-national cooperative efforts. The future is a paradox – terrifying, but at the same time holding great promise.

I am sure that throughout history, when looking toward the future, people have felt that they were living in an unprecedented time of challenge, change, and ambiguity. I believe, however, there is something fundamentally different about today. The pace of change has begun to hit the vertical portion of the exponential curve, and, in our children's lifetimes, the challenges now pose a real threat to the existence of our species. (Notice I did not say "all life on earth," as we always can count on the rat and the cockroach.)

I have to believe that any individual or group of individuals who take on these daunting challenges of the future must first possess an extraordinary capacity to see possibilities in the face of ambiguity, and, second, a powerful sense of personal agency. Our mission promises that "Hawken School prepares students to navigate a complex and dynamic world with self-confidence and determination, embrace challenges with disciplined analysis and creativity and engage

others with empathy and integrity." In short, it calls for us to graduate students who are not daunted by the world's challenges and who are equipped to be effective in the world. The promise of our efforts to move the school back to our original progressive intent is not just to provide students with terrific educational experiences and to make them ready for college; it is also to send them out into the world with the capability and moral compass to make a difference that matters. Margaret Mead put it much more succinctly: "Never doubt that a small group of thoughtful committed citizens can change the world; indeed, it's the only thing that ever has."

I am not trying to say that all of our students will change the world. Perhaps most of them will only better some small corner of the world, in a modest way, which collectively will have an impact. And I certainly don't know which of our students will someday be among that small group of future citizens who will change the world. But if Margaret Mead is correct, I do know that how we prepare our students now greatly increases the chance that some of them will be among the group that does change the world. I am also certain that whoever helps this challenged planet benefit from mankind, instead of suffering because of it, will be intellectually skilled, unafraid of ambiguity, full of a sense of agency and efficacy, and centered on the moral belief of a shared humanity.

Our mission calls for us to help raise these children, our students, to be those people. To do that, we have to move Hawken School away from Henry Ford and back toward John Dewey and his disciple, James Hawken. Our cause is twofold: to give students authentic experiences and practice in the real world to prepare them for complexity; and to build their character so they can become the next generation of thoughtful, committed world citizens. Someone has to step up to prepare the next generation of people who will tackle these future challenges, and I believe Hawken must be a leader in that effort. We should not only prepare our students for this challenging world, but provide a model for other schools to follow. Because Hawken is one of the few schools that can do this work, Fair Play dictates that we must. ■

D. Scott Looney was named Hawken's 10th Head of School in 2006. A DePauw University graduate and an influential voice in the independent school arena, he earned his master's degree from Northwestern University. Scott serves as a trustee and executive committee member of the National Association of Independent Schools, a trustee of the Global Online Academy, and was formerly a trustee of the Ohio Association of Independent Schools. He has served on the faculty of the NAIS New Heads Institute and the NAIS Financing Institute Faculty and the Crows Nest Institute for Enrollment Management. He is also formerly the Executive Director of the Midwest Boarding Schools Association. He is a published author and frequent lecturer on the affordability and demographic challenges that face today's independent schools.

Scott and his wife Leslie Short have two sons, Tyler '15 and Zach '17, who currently attend Hawken. Their oldest son, Ryan '12, is a Hawken graduate.

Endnotes:

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