



UNLEASHING POTENTIAL, HARNESSING POSSIBILITIES:

AN ODYSSEY OF CREATIVITY,
INNOVATION & CRITICAL THINKING

AN ACTION RESEARCH STUDY BY THE
OTTAWA-CARLETON DISTRICT SCHOOL BOARD



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THREE GOOD THINGS TO KNOW

Before Reading this Report

1 This report is written in plain English, in a style that is designed to be inviting and inclusive of all stakeholders. Imagination, creativity and innovation, on which this report focuses, can best be achieved when all stakeholders are encouraged to provide their unique insights and contributions. As today's school communities extend well beyond a classroom's walls (and, thanks to technology, well beyond our geographical borders), this report has been written and designed so that anyone—regardless of whether they work in the field of education or not—can easily read it, understand what it means for them, and join in the conversation.

2 This report has no ending. As we further nurture our approach to innovation and creative thinking, our knowledge base is continuously enriched and forever evolving. Therefore, this report can capture only a snapshot of our journey to Lead the Way to Creativity (Lead the Way). As such, this report is meant to act as both an introduction and an invitation to our interactive hub of growing resources and information at www.leadthewaytocreativity.com.

3 You're invited to become a part of something extraordinary. Whether you're a student, teacher, administrator, parent, employer, business owner, not-for-profit volunteer, community leader or someone who is simply intrigued by creativity and innovation in education, we invite you to join us. In addition to the resources, ideas and research results available at www.leadthewaytocreativity.com, you can provide your own examples or ideas about how to foster creativity and innovation in the classroom and beyond; find out about events; and encourage friends, family and colleagues to contribute to the dialogue. Our initiative is open to everyone.

We hope you will join us.

“MAN CANNOT DISCOVER
NEW OCEANS UNLESS
HE HAS THE COURAGE
TO LOSE SIGHT OF THE
SHORE.”

André Gide, French author and winner of
Nobel Prize for Literature



GREAT THINGS ARE HAPPENING

at the Ottawa-Carleton District School Board

"ALONE WE CAN DO SO LITTLE; TOGETHER WE CAN DO SO MUCH."

Helen Keller, American author, political activist and lecturer

In the spring of 2012, when the Ottawa-Carleton District School Board (OCDSB) sent out a request to our employees for examples of creativity, innovation and critical thinking with which to illustrate this report, we were delighted to be inundated with more than 200 detailed responses. These amazing examples crossed all subject areas, various staff departments, and internal and external partnerships across the District.

We also asked those who were submitting the examples to tell us what conditions were in place to make these creative and innovative initiatives flourish. Overwhelmingly, these conditions included leadership, support and encouragement, an environment that supported a willingness to take risks and try new things, and a collaborative effort.

One of the hardest things we had to do was narrow down a small enough sample of these initiatives to fit in this report. Every time we tried to reduce the number of examples, the list simply grew longer. We finally gave up, and decided that if we couldn't fit as many as we would like, then we'd share all of them online. So while you will find a broad but small sample in this report, we will also be working to post these initiatives online. Once done, we invite you to share the insight of all 200+ creative initiatives, including video interviews with participants, photos and more, all neatly organized on our leadthewaytcreativity.ca website.

We know that you, too, will be amazed.



FOREWORD

“IMAGINATION IS MORE IMPORTANT THAN KNOWLEDGE. FOR KNOWLEDGE IS LIMITED TO ALL WE NOW KNOW AND UNDERSTAND, WHILE IMAGINATION EMBRACES THE ENTIRE WORLD, AND ALL THERE WILL EVER BE TO KNOW AND UNDERSTAND.”

Albert Einstein, physicist and Nobel Prize winner

Have you ever wondered what makes a person brilliant? Here’s an experiment you might want to try: jot down the names of three or four people who you believe changed the world for the better. Chances are good that at least a few of the names you come up with will be people who weren’t considered brilliant at all by their peers, critics or teachers at the time.

Consider Leonardo da Vinci. You may have heard that he sketched out plans for a helicopter, although the machine he designed would have been incapable of flying. What fewer people know is that he also designed a hang-glider—one that would have worked if it had ever been constructed.¹ Imagine how different today’s world might be, if the invention of flight had taken place some two centuries earlier than the Montgolfier brothers’ launch of their hot air balloon. But da Vinci’s peers felt

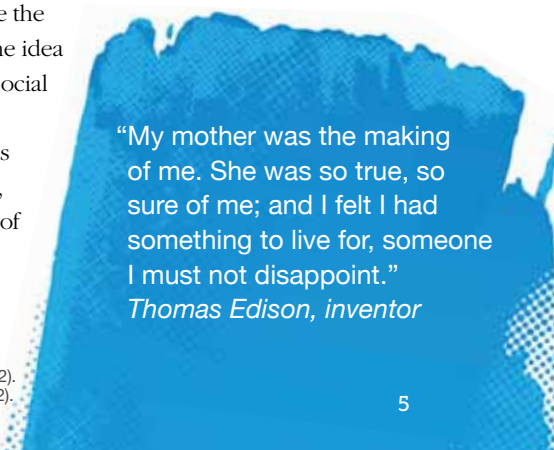
his ideas were too impractical, and so flight in the Renaissance, along with hundreds of other da Vinci inventions, never got past the drawing board.

Thomas Edison’s teacher called him “addled,” and his official schooling came to an inauspicious end after only three short months. Edison was then home-schooled by his mother, and eventually went on to claim 1,093 American patents, some of which changed the world in significant ways. Interestingly, it wasn’t a change in Edison’s abilities or his intelligence that brought about this remarkable transformation, but simply a matter of someone having faith in his abilities: “My mother was the making of me. She was so true, so sure of me; and I felt I had something to live for, someone I must not disappoint,” he once said.²

When chemist Stephanie Kwolek invented Kevlar in 1965, she had volunteered for a project that none of her colleagues seemed interested in, and then accidentally created a solution that seemed to have the wrong chemical properties. She is quoted as saying, “I think someone who wasn’t thinking very much or just wasn’t aware or took less interest in it would have thrown it out.”³ But Kwolek persevered, and Kevlar is now used in more than 200 applications today, including bulletproof vests that have saved thousands of lives—all because Kwolek wasn’t afraid of making a mistake.

Brilliance doesn’t have to appear on such a grand scale, however.

You may not be able to name the people who came up with the idea for the microwave, Twitter, social programs, or the system that makes your human resources department run so smoothly, but you recognize the value of their ingenuity nonetheless.



“My mother was the making of me. She was so true, so sure of me; and I felt I had something to live for, someone I must not disappoint.”
Thomas Edison, inventor


¹www.bl.uk/onlinegallery/features/leonardo/leonardo.html (accessed August 30, 2012).

²www.philosopedia.org/index.php/Thomas_Alva_Edison (accessed August 30, 2012).

³www.web.mit.edu/invent/www/ima/kwolek_bio.html (accessed August 30, 2012).

The examples are endless, but one point becomes clear: we tend to define brilliance as the ability to come up with innovative ideas and new ways of doing things—a type of imaginative thinking that goes beyond the ability to memorize facts or formulas. And while human history already stands in testament to the beneficial changes that innovation can bring, today’s leaders in business, government and not-for-profit organizations are recognizing that our world’s future success also depends on new ways of doing things. They are increasingly calling for imagination, creativity and innovation in employees, volunteers, community leaders and citizens.

This presents an exceptional and unprecedented opportunity for educational systems to not only step up and answer the call, but to also research and determine exactly how we can best help learners of all ages to become the creative, engaged, critical thinkers needed for our future.



“I discovered over the years that I seem to see things that other people did not see. If things don’t work out I don’t just throw them out, I struggle over them, to try and see if there’s something there.”
Stephanie Kwolek, chemist

According to *Fast Company* magazine, in its 2011 list of the World’s 50 Most Innovative Companies, businesses achieve success today by doing things differently from the way in which they have been done before:

“Today’s business landscape is littered with heritage companies whose CEOs battle their industry’s broken model with inertia, layoffs, lawsuits... How many of these companies will be dominant in 2025? Few. That world will be ruled by the kinds of companies on this list. They’re non-dogmatic, willing to scrap conventional ideas... They’re willing to fail... They know what they stand for... by making home-viewing as easy as possible, Netflix walloped Blockbuster, which thought its business had something to do with stores.”⁴

The Canada School of Public Service is also calling for the creation of environments that nurture and foster creativity. Its recently released *Creativity at Work: A Leadership Guide* spells out why Canada’s federal government needs to make this move: because society is moving from an Information Age to an Age of Creativity. The continual generation and application of new ideas is now the cornerstone of sustained economic competitiveness and cultural vibrancy.

At the same time, internationally recognized leaders in the field of education stress that creativity is an essential skill that today’s students must have for the future. Sir Ken Robinson, best-selling author of *Out of Our Minds: Learning to be Creative*, says: “We will not succeed in navigating the complex environment of the future by peering relentlessly into a rearview mirror.”⁵ Similarly, Daniel Pink says that we need to start teaching children to prepare them for their future, and not for our past.

An added advantage of creativity is engagement. Environments that encourage and value creative thinking tend to be more

⁴www.fastcompany.com/most-innovative-companies/2011 (accessed August 30, 2012).

⁵Ken Robinson, *Out of Our Minds: Learning to Be Creative* (United Kingdom: Wiley/Capstone, 2011), 3.

enjoyable places to work and learn. They also encourage commitment and personal satisfaction in a task—a valuable way to motivate students and to help businesses to become employers of choice for top talent.

So how, then, with such a demand to develop more creative minds, can educational systems help students, the community, governments and organizations embrace the new Age of Creativity and foster the conditions under which imagination, creativity and innovation can flourish?

The answer is complex. First, how do you define creativity? Second, how do you move beyond the commonly held belief that creativity belongs to the realm of the arts, and isn't really relevant to science, health, world peace, public relations and business? And finally, just what are the methods, techniques and best practices to teach or foster creativity in the classroom, the business boardroom and in the greater community?

While many organizations are just now beginning to explore the possible answers to these questions, the Ottawa-Carleton District School Board (OCDSB) embarked on this journey several years ago, in 2005. Our journey has been, and continues to be, a thoughtful, comprehensive approach to transforming the District into a creative learning organization. The OCDSB approach has supported leadership initiatives and efforts to encourage creativity throughout our workforce, including innovative approaches and practices used by our teaching staff to inspire curiosity and engagement in each of our students.

In fact, the OCDSB has become a leader in North America in this field, and we are today being invited to participate in and speak at conferences attended by industry leaders in the fields of business, education, government and others who seek to embed creativity, inventiveness and inspiration into classrooms and throughout their organizations.

Student engagement works in mysterious ways

Students learn better when they feel engaged in the subject matter, so knowing how to engage students is an important topic in the field of education today. At the OCDSB, schools are discovering that sometimes finding the answer to student engagement just takes a little detective work.

For students in Grades 2 and 3 at Avalon Public School, for example, learning became a real-life detective adventure on the first day of school, when each student was handed their very own detective kit as they walked in the door. Under the heading of “Mission Possible,” the teachers organized the students’ curriculum into the framework of an elaborate mystery.

During the course of the year, each student was required to work as a private investigator, earning his or her investigator badge while working through different stages of inquiry in the classroom. One such challenge involved discovering who was sending them emails complaining that they were having too much fun while learning. Another involved Skyping with a “professor” in Paris, to help him make a machine for moving his discovery from one floor to another.

Thanks to the enterprise and initiative of the teachers of Avalon Public School, “Mission Possible” indeed proved to be a very engaging and exciting experience for their students, and a memorable exercise in inquiry-based learning.

This report outlines the steps of that journey, its discoveries, how the journey supports the OCDSB mission, vision and strategy, and what we need to do next to further instill creative environments in our classrooms, schools, organizations and communities. Like all journeys that seek pivotal change, however, there is no final destination, but rather a goal to continuously take our achievements one step further. This report is therefore meant to become a living document, which will provide regular updates, news, resources and more at www.leadthewaytcreativity.com.

We hope you enjoy the journey.

Why is creative thinking so important for today's students?

Many experts believe that our society has now moved past the Information Age and into the new Creativity Age. According to best-selling author Daniel Pink,⁶ the jobs that offered North Americans security and a reasonable wage in years past are fast disappearing due to the Three A's:

- Abundance – the dizzying speed at which new products and customization now enter the market means businesses must continually innovate to stay alive
- Asia – manufacturing and customer service jobs are being outsourced to more economical labour markets
- Automation – software and online expertise are replacing professional occupations

Yet at the same time, North American schools continue to focus heavily on skills that, while still essential, need to move beyond the Agricultural or Industrial Ages. Pink says that to enable our students to compete, we need to start teaching to prepare them for their future, instead of our past.

⁶Daniel Pink, *A Whole New Mind: Why Right-Brainers Will Rule the Future* (New York: Riverhead/Penguin, 2005).

LEADING THE WAY:

The First Important Steps

“CURRENT SYSTEMS OF EDUCATION WERE NOT DESIGNED TO MEET THE CHALLENGES WE NOW FACE, THEY WERE DEVELOPED TO MEET THE NEEDS OF A FORMER AGE, REFORM IS NOT ENOUGH; THEY NEED TO BE TRANSFORMED.”

Sir Ken Robinson, PhD, Professor Emeritus of Education, University of Warwick

In 2011, when new provincial health and safety standards required that eye-wash stations be installed in every school, maintenance and custodial staff with the Ottawa-Carleton District School Board (OCDSB) stepped forward with an idea for an installation plan that would cost significantly less. A few schools were outfitted with the design, and subsequent reviews by a number of different authorities identified that a more complex solution would be required. What is noteworthy about this example is that the facilities department encouraged staff to implement this kind of problem-solving approach knowing that not every idea will be successful. While it wasn't possible to move forward with the idea, it nevertheless demonstrates the kind of thinking the OCDSB wants to encourage.

Had the requirement for eye-wash stations come prior to 2005, chances are that the custodians would not have presented their idea. While an OCDSB employee census conducted that year, entitled “Leadership: A School District Initiative,” did reveal some positive attitudes towards leadership in the school district, it also showed that many groups of employees felt marginalized and disconnected, and that informal leadership—such as the kind the custodians displayed—was substantially undervalued.

Clearly, employees were saying that there were opportunities for improvement.

Custodial leadership keeps the OCDSB in top shape

An OCDSB school is a hive of activity, serving the needs of hundreds of people every day. For the ones who keep it all in working order—OCDSB custodians—no challenge is too great.

With 157 schools and administration buildings to maintain, ranging in age from brand-new to built more than a century ago, OCDSB custodians are ably supported by the Mentoring Program for Facilities and Plant Operations every day. This program assists in the training of plant personnel in daily operations, mechanical, heating, grounds, play structures, administration, staffing, interpersonal skills and more.

With the bulk of custodial staffing on evening schedules, only limited time is available to establish good mentoring relationships. This is addressed by encouraging staff to recognize their own unique creative skills and strengths. With encouragement from senior staff, supervisors and chief custodians, staff are enabled to take on formal or informal leadership, both to realize their own potential, and to achieve the common goal of the District—the success of OCDSB students.

While creating a more positive work environment for employees is a worthwhile goal in its own right, the OCDSB was also aware that making a dedicated effort to improve the workplace culture would lead to other powerful gains as well. Creating positive, engaging work environments for employees would also support our focus on creating more positive, engaging learning environments for our students.

As Teresa Amabile and Steven Kramer point out in *The Progress Principle*, based on the number-one breakthrough idea from the *Harvard Business Review*, it's not simply a coincidence that in 2008, revenue-generating powerhouse Google was ranked in the top five among *Fortune* magazine's most admired companies and in the top five for the best companies to work for. In their words, "...work-related psychological benefits for employees translate into performance benefits for the company."⁷

Just as importantly, finding innovative solutions depends on a collaborative approach—on including ideas and insight from across the District. This helps to ensure that solutions are viable and appropriate for our global market and our increasingly diverse Canadian society; furthermore, studies show that diverse teams actually produce more creative ideas than teams in which everyone shares a similar background.

According to Jeffrey Baumgartner of Innovation Tools, this is because our minds attempt to organize information in a structured way, and therefore our brains tend to look for information and past connections that are related to a particular problem when finding a solution. Therefore, a homogenous team will likely come up with similar solutions to those they have used in the past, while a more diverse team, with different life experiences, will be more likely to view things from several different perspectives.⁸

Thus, the OCDSB devised a plan of action to address the recommendations of our Leadership study and to make a sincere

⁷Teresa M. Amabile and Steven J. Kramer, *The Progress Principle: Using Small Wins to Ignite Joy, Engagement, and Creativity at Work* (Boston: Harvard Business School Publishing, 2011), 3.
⁸www.jpbb.com/report103/archive_20101117.php (accessed August 30, 2012).

effort to transform the culture of the District into one that engages and harnesses the abilities of everyone connected to it.

To inform and guide these efforts towards creative and innovative leadership throughout the District, two key documents were developed and adopted: the Leadership Narrative and the Guiding Principles of Creative Leadership. (To view the full documents, visit www.leadthewaytocreativity.com.)

The OCDSB Leadership Narrative states:

Leadership is exemplified by people who are able to impact those around them in a positive way. Our leaders are energetic, empathetic, motivated, trustworthy, knowledgeable and good communicators. Our leaders share a common vision in their commitment to all students. Our leaders understand that their role is one of support. They lead by example, they seek input, and they listen. As an organization, we encourage and foster these qualities. In challenging and prosperous times, we are defined by the relationships we build.

The Guiding Principles of Creative Leadership include the following tenets:

- Each individual has unique creative capacities and ideas that need to be recognized, valued and tapped into;
- By harnessing these individual capacities, the organization will be enriched and invigorated;
- The culminating effect will be to achieve a culture of engagement in which people feel valued and engaged in an environment that embraces ongoing learning, fostered through internal and external dialogue and learning;
- This learning context will provide the optimal conditions in which we can reach and teach all of the children in our care, enabling them to become successful global, digital citizens with strong creative and critical thinking skills and an appreciation for diversity.

Once the guiding principles were created, the District started its action plan to shift the culture into alignment with the vision of these documents. One of the most dynamic achievements was the development of Lead the Way events, a conference series that acknowledges and promotes the importance of informal leadership, and how the unique creative capacities of all OCDSB members are needed for the success of the District and for improved student learning.

Lead the Way events have featured presentations by local and internationally renowned thinkers with expertise in the fields of innovation, imagination, creativity and education, such as Daniel Pink, Sir Ken Robinson, Margaret Wheatley, Richard Florida and Sir John Jones. While these events sought to enhance the capacities of all the people in the District, we also recognized that the engagement of the broader community would be pivotal in enriching thinking and learning across the District. The OCDSB thus developed the strategy to reach out to multiple sectors across Ottawa and beyond, providing opportunities to learn together. The District began to work with multiple partners, internal and external, national and international, across diverse sectors. These partnerships included businesses, the public service, government agencies, universities and colleges, not-for-profit organizations, hospitals, police services, arts and science organizations, the trades, and many others.



Helping students make the connection to a career in technology

If Ottawa is to maintain its position as a technology leader, then it's critical to have a sustainable flow of new talent from which local businesses can draw. With enrollment declining in post-secondary technology courses, the Ottawa High School Technology Program (OHSTP) was created to help high school students explore leading-edge technology and career possibilities under the mentorship of industry experts—a program format found to have significant impact with students.

Working in partnership with numerous organizations and receiving extraordinary support from dedicated project partners and sponsors, OHSTP allows students to experience state-of-the-art labs and interactive sessions with leading computer industry professionals. The program is further enriched by visits to research labs, computer software companies, ICT/digital media workplaces and local colleges and universities.

During the program, high school students develop computer learning games, as teachers and industry mentors from IBM, RIM, Macadamiam and many others provide inspiration and support. Students from Grades 3 and 7 act as user groups, providing valuable feedback on design preferences and prototypes. The program offers students unique networking opportunities with college and university staff and leading industry mentors, as well as the chance to learn about college and university programs that can lead to a technology career. To find out more, visit www.ottawatechstudents.com.

Building on a Strong Strategy, and Doing it W.E.L.L.

The groundwork undertaken by the Lead the Way initiative is now embedded in the OCDSB's 2011–2015 Strategic Plan. In particular, there is a focus on four key priorities: Well-Being, Engagement, Leadership and Learning (W.E.L.L.). These priorities will also help to support the OCDSB's Vision and Mission. To view the individual objectives of the Strategic Plan and the defined actions within each, please visit www.ocdsb.ca.

Our Vision is to:

- inspire educational excellence in our schools, which are important community hubs reflecting local needs;
- engage students, staff and parents in the learning process; encouraging the full potential of every student;
- draw from, and contribute to, the talent and rich diversity of the Ottawa community.

In many cases, students who have had difficulty succeeding in a regular classroom have discovered their passion through this program, and for the first time, are able to lay down a concrete direction for their lives.

Our Mission, which is Educating for Success—Inspiring Learning and Building Citizenship, includes developing a culture in which:

- all members are welcome and challenged to be creative and contributing members;
- all members feel valued and respected;
- the success and creativity of our District is recognized and celebrated;
- student achievement is improved through focused instructional practice, effective use of data, and strategies that challenge all schools to make significant gains in student achievement, no matter where they start.

The next section of this report explores how creativity is defined, and outlines the connections between creativity and employee and student engagement.

KEEP CALM AND READ ON

Change almost always comes with some trepidation. One of the primary concerns about adding imagination, creativity and innovative thinking to an already full curriculum is how to ensure students will still master the basics. As it turns out, environments that encourage creative thinking actually help participants to focus because they are more engaged in the learning process. Creative thinking requires knowledge, and involves critical thinking, evaluation and problem-solving.

Program helps students lay a solid foundation for life

To engage students and help keep them in school, the OCDSB's Elizabeth Wyn Wood Secondary Alternate Program provides a unique experiential learning opportunity: the Construction Projects program. Wyn Wood is one of four schools offering the program, where students are given the opportunity to work on a residential construction site, framing a house, which is eventually completed by other contractors and sold. The program partners with local builders Minto, Tamarack and, at Wyn Wood, Mattamy Homes. Through this practical, real-world learning, students gain two Construction Technology credits and two Cooperative Education credits, and achieve a number of valuable safety certifications that give them advanced standing towards securing a career. In addition, many students discover that they love working with their hands, and excel in this type of environment.



DEFINING CREATIVITY

"CREATIVITY IS THE PROCESS OF HAVING ORIGINAL IDEAS THAT HAVE VALUE."⁹

Sir Ken Robinson, PhD, Professor Emeritus of Education, University of Warwick

Imagination. Creativity. Innovation. How do we define what it is we want to achieve?

While many are in agreement that we need to foster creativity if we are to succeed across all fields, finding consensus on just what creativity entails is more elusive. Two challenges also arise. First, we need to increase awareness that imagination, creativity and innovation can be applied to all subjects, not just the arts. Second, there is the question of how we teach, measure and assess creativity. How do we know when creativity has been achieved? How do we even define it?

At a time when many are seeing creativity as the catalyst for evolutionary change, the scope of creativity itself is evolving. No longer confined to the arts, the majority of definitions characterize creativity as being much broader—something that can be applied to finding solutions in fields as diverse as science, medicine, public relations, engineering, space exploration, agriculture, human resources, education and more.

For an idea to be considered creative, most definitions say that it must have one or more of the following three characteristics: the idea must be original, it must have value, and it must be acted upon.

The concepts of originality, newness and innovation are included across virtually all definitions of creativity. For example, Merriam-

Webster's Dictionary describes creativity as "the ability to make new things or think of new ideas; having the quality of something created rather than imitated," while dictionary.com says it is "the ability to transcend traditional ideas, rules, patterns, relationships, or the like, and to create meaningful new ideas, forms, methods, interpretations, etc.; originality, progressiveness, or imagination." Encyclopedia Britannica says creativity is "the ability to make or otherwise bring into existence something new, whether a new solution to a problem, a new method or device, or a new artistic object or form...the term generally refers to a richness of ideas and originality of thinking."

While less common, the imperative that a creative idea must also have value is becoming increasingly incorporated across definitions. According to Wikipedia, for example, "...creativity refers to the phenomenon whereby a person creates something new (a product, a solution, a work of art, a novel, a joke, etc.) that has some kind of value." The Canada School for Public Service Action-Research Roundtable on Creativity defines creativity as "a new and worthwhile idea that is applied to improve the way an organization works,"¹⁰ while Sternberg and Lubart, in *Defying the Crowd*, say "a product is creative when it is (a) novel and (b) appropriate... The bigger the concept, and the more the product stimulates further work and ideas, the more the product is creative."¹¹ Other definitions describe creative solutions as needing to be not only original, but effective.

Given the tight budgets, timelines and competitive landscapes in which today's businesses, governments and organizations operate, it's no wonder this second definitive aspect of creativity is gaining momentum. No one can afford to generate creativity simply for the sake of creativity; defining creativity as something that has value adds rigour to the process of finding viable solutions.

⁹Ken Robinson, *The Element: How Finding Your Passion Changes Everything* (New York: Viking Penguin, 2009), 67.

¹⁰www.publications.gc.ca/collections/collection2008/csp-s-efpc/SC103-23-2006E.pdf (accessed August 30, 2012).

¹¹Robert J. Sternberg and Todd I. Lubart, *Defying the Crowd: Cultivating Creativity in a Culture of Conformity* (New York: Simon & Schuster, 1995).

Finally, some believe that to be defined as creative, an idea must actually be implemented. Linda Naiman, who is the founder of Vancouver-based Creativity at Work and recognized internationally for developing creativity, innovation and collaborative leadership in organizations, says "...creativity involves two processes: thinking, then producing. Innovation is the production or implementation of an idea. If you have ideas, but don't act on them, you are imaginative but not creative."¹²


At the OCDSB, we've added a fourth component to the definition of creativity: appreciative inquiry

At the OCDSB, we agree that defining an idea as creative includes the three characteristics of originality, value and implementation. However, in our research, we have found that while many definitions described creativity as a generator of solutions to problems, no other definition included the concept of appreciative inquiry.

As described by Frank J. Barrett and Ronald E. Fry in *Appreciative Inquiry: A Positive Approach to Building Cooperative Capacity* (2010), appreciative inquiry expands creativity beyond the boundaries of problem-solving to "...a strength-based, capacity building approach to transforming human systems toward a shared image of their most positive potential."¹³ In other words, most exercises in creativity take a problem-based approach to the world; creativity is the tool we use to come up with solutions to solve problems, whether it's a new transit system that addresses traffic issues or a cure for cancer. Adding appreciative inquiry to our definition, on the other hand, breaks away from the problem-centred view and inspires us to use creativity to focus on discovering "what could be" through transformation and change. We believe that the addition of this fourth characteristic makes our definition of creativity unique.

As we continue on our Lead the Way journey, our definition of creativity includes something that:

- is original, new, innovative;
- has value or the capacity for effectiveness;
- is or can be practically implemented or created;
- can be used to solve problems or has applied appreciative inquiry techniques to catalyze positive transformation and change.



For a comprehensive "at-a-glance" chart comparing several different definitions of creativity, please visit our website at www.leadthewaytcreativity.com

¹²www.creativityatwork.com/what-is-creativity (accessed August 30, 2012).

¹³Frank J. Barrett and Ronald E. Fry, *Appreciative Inquiry: A Positive Approach to Building Cooperative Capacity* (Taos Institute Publications, 2005).

WHY LEADERS ARE SAYING CREATIVITY IS CRITICAL

"IF YOU WANT TO BUILD
A SHIP, DON'T DRUM UP
PEOPLE TOGETHER TO
COLLECT WOOD AND DON'T
ASSIGN THEM TASKS AND
WORK, BUT RATHER TEACH
THEM TO LONG FOR THE
ENDLESS IMMENSITY
OF THE SEA."

Antoine de Saint-Exupéry,
French writer and pioneering aviator

According to Roger von Oech, author of *A Whack on the Side of the Head: How You can Learn to be Creative*, the average person will take over 2,600 tests, quizzes and exams by the time they finish college.

Von Oech explains the problem with this heavy focus on testing:

*"Much of our educational system is geared toward teaching people to find 'the right answer'... This may be fine for some problems where there is in fact one right answer. The difficulty is that most of life isn't that way. Life is ambiguous; there are many right answers—all depending on what you are looking for. But if you think there is only one right answer, then you'll stop looking as soon as you find one."*¹⁴

Leaders from across industry sectors, all levels of government and social organizations are saying that the demand for innovation, creative thinking and appreciative inquiry is on the rise.

For example, in its *Action Research Roundtable: Creativity at Work: A Leadership Guide* (2006), the Canada School of Public Service says:

*"The continual generation and application of new ideas is now the cornerstone of sustained economic competitiveness and cultural vibrancy. Likewise, to achieve their primary goals, organizations are becoming more reliant on the creative contributions of its people. The challenge of helping people live up to their creative potential requires a more sophisticated array of leadership skills and a supportive environment."*¹⁵

The reasons behind this growing trend are many.



¹⁴Roger von Oech, *A Whack on the Side of the Head: How You Can Learn to be Creative* (New York: Warner Books, 1998). ¹⁵Ibid.

Sir Ken Robinson, Professor Emeritus of Education, University of Warwick, says our educational system was originally created to meet the requirements of the industrial economy. Therefore, when it came to teaching, subjects were given priority according to which were deemed most valuable in serving this economy. Language, math and science topped the hierarchy—as well as providing the student with the ability to perform rational, logical thinking processes. Now that we are no longer living in an industrial age, Robinson says we must rethink the current educational structure to make education more relevant to today’s world¹⁶:

1 Make education personal to the student. Everyone has strengths, and everyone has the ability to be creative. Focus on each individual student and the special contributions he or she can make.

2 Build a culture of understanding and tolerance. Our diverse, global society means students must have cultural proficiency.

3 Ensure our educational system is aligned to our economic system. Our economic growth and development is dependent on our educational system, and students need to learn the practical and creative skills required to stay competitive in the international marketplace.

Robinson, like several of his peers, believes we have now left the Information Age and moved into what is being called the new Age of Creativity or the Conceptual Age, and this new reality needs to be better reflected in the way we prepare students for the future.

It should be noted that throughout the past ten years, there has been massive systemic change to teaching and learning for students in classrooms in Ontario, moving away from the model described by Robinson. The Ontario curriculum is founded on big ideas in

each subject area from kindergarten to Grade 12. Teachers are expected to use their professional judgment to create engaging learning tasks for students that fall within the parameters of the defined curriculum. In the OCDSB, this has been highlighted in the Board Improvement Plan for Student Achievement. For the past three years, one of two key strategies has been to enhance creative and critical thinking in our classrooms.

This strategy appears to be helping. According to international test scores, Ontario ranks as one of the top jurisdictions in the world for student achievement in reading, science and mathematics (PISA, 2011). Similarly, provincial test scores for students in our district have been steadily increasing (EQAO, 2011).

One of the best-known and passionate advocates of this movement is Daniel H. Pink. In his 2005 book *A Whole New Mind: Moving from the Information Age to the Conceptual Age*, Pink outlines how today’s North American educational systems are constructed to prepare students for our past, rather than for our future. He explains how skills that use linear thinking were well-suited to serve the Agricultural, Industrial and Manufacturing Ages, but more creativity and inventiveness is needed to support the demands of today’s complex, fast-paced world—a world where information is accessible to all in seconds via the click of a mouse.¹⁷

In the book he wrote a year later, *A Whole New Mind: Why Right-Brainers Will Rule the Future*, Pink says there are three main reasons we are now in the Conceptual Age, and explains why it is imperative to teach students imagination, creativity and innovation if they are to compete in this new world:

- **Abundance:** Our standard of living has risen to the highest level of material well-being in history, with solid middle-class wealth that would have been unimaginable even just a few generations ago. Rather than leading to a sense of satisfaction and fulfillment,

¹⁶Robinson, *The Element*. ¹⁷Pink, *A Whole New Mind*.

however, this abundance has fostered a demand for more choice and personalization. It's not enough to simply have a cell phone—it must be the slimmest, best-looking cell phone, and customized with all the bells and whistles to the individual's needs. Improvements and changes in technology and other products now occur in leaps. For businesses, this means they must continually come up with new products, services and other innovations, just to compete in the game.

- **Asia:** With the new global supply chain and enabling technology, Pink says it's not just manufacturing jobs that are making their way overseas. Any kind of work that can be completed by following a set of instructions, including traditional white-collar jobs such as accounting, sales, training, customer service and law, can be off-shored to other countries where labour costs are lower. Moreover, the size of the educated middle class in Asia is huge and growing. Pink points out that if just 15% of India's population enters the upper middle class, it will create a competing professional pool of 150 million people, dwarfing the entire U.S. workforce.

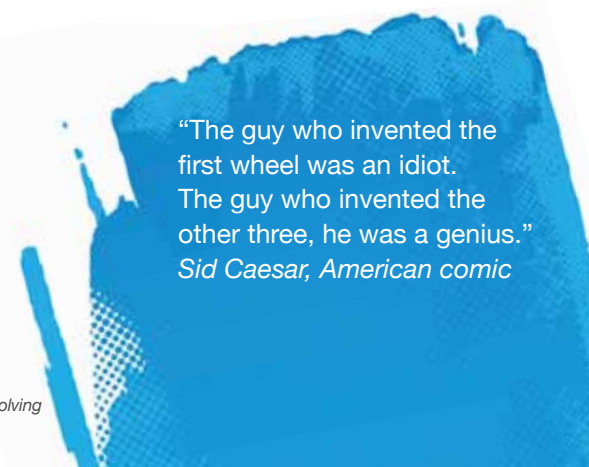
Ironically, these white-collar jobs are the type of work that Canadians traditionally aspired to, and that our educational system has been constructed for, in the belief that these jobs would secure a stable, middle-class income. This is no longer the case today, but Pink says history shows us there is an upside to change, as the Conceptual Age frees people to do more creative, interesting work. For example, when automation replaced workers during the Industrial Age, people didn't simply stop working. The transition brought new jobs, and today we have jobs that previously didn't exist, from website designers to massage therapists.

- **Automation:** Just as many jobs can now be performed more economically by workers in Asia, Pink says many left-brained (logical, sequential tasks) can also be done by computers. Pink points out that a century ago, machines like forklifts and conveyor

belts replaced muscle and lessened the need for physical labour. Today, software and online programs are replacing some of the functions that were performed by professionals in the sought-after jobs of only a generation ago. Even in Canada, you can find websites offering online divorces, wills, medical advice, bookkeeping, accounting and tax services. But computers have yet to be able to perform creative tasks or innovate, and these are the skills that will provide Canadians with an economic edge in the new global market.

Janet E. Davidson and Robert J. Sternberg, in *The Psychology of Problem Solving*, noted that there are two kinds of problems—those that are well-defined and those that are ill-defined.¹⁸

Pink and others say that in the past, most problems people encountered in their careers were well-defined: how long will the train take to reach the station if it's travelling at 25 km per hour? How much flour do I need if I want to double the recipe? How much money will I make if I sell five units? If I can process three units per minute, how many can I process in one hour? The goals and obstacles are clear, the problem is solved through a simple formula, and there is typically only one right answer.



“The guy who invented the first wheel was an idiot. The guy who invented the other three, he was a genius.”
Sid Caesar, American comic

Today, however, the types of problems people are being asked to solve are exponentially more complex. With these “ill-defined” problems, additional information and barriers may not be readily apparent; there may be a variety of stakeholders who have different goals and who hold different views of what a satisfactory solution could be; and there may be a number of different paths to a solution, each with its own set of pros and cons.

The challenge now, according to Pink, is to ensure that students understand the big picture, and that our educational systems and curricula are preparing students with the practical and creative skills necessary to tackle both well-defined and ill-defined problems. By doing so, we ensure they can thrive in the new Age of Creativity.

Sir John Jones, a speaker and author who was knighted in 2003 for his contributions to creativity and education, gave an insightful presentation on this opportunity at the OCDSB Spring Leadership Conference in April 2012. Like Pink, Jones believes that most curricula have not significantly changed since first being constructed to prepare students to become the workers required by the Agriculture and Industrial Ages. One example he expanded on was the emphasis in many school jurisdictions on rote learning, memorization and testing of facts—a system that was necessary during those earlier eras. With today’s Internet search technology (e.g. Google), however, that kind of knowledge—and virtually all such knowledge—can be stored and retrieved instantly via the web, leaving our brains free for more creative and innovative thinking. Jones claims that only by creativity and innovation will we make ourselves valuable in the global marketplace.

Spinning out a whole new web of resources

The Internet has changed the way the world learns, and at the OCDSB’s Lisgar Collegiate Institute, teacher Nour Harriz engages students through 24/7 interactive learning and creative online applications.

Harriz develops websites for the various courses he teaches, including activity-based lessons for every expectation in the curriculum; links to other websites that support the work, such as graphing calculators and algebraic systems; and links to YouTube tutorial videos where students can search videos by topic and get private lessons.

Harriz also posts online class Google Docs, which invite students to ask and answer questions others post, state their personal understandings of concepts, and collaborate on tasks even after school hours. This forum allows his students to express their knowledge, improve their communication skills, and become more caring and cooperative.

Through the creative use of online resources, students can discover and make use of the resources that help them learn to their best potential. At Lisgar Collegiate Institute, technology empowers students to become teachers themselves, and ultimately, lifelong learners.

How to make this shift is the big question. While the concept of human creativity has been around since the Renaissance (before that, only divine beings were considered capable of creative achievements), it was only in the latter part of the 20th century that researchers began studying how to foster creativity and creative environments.

As a result, there is still much to be discovered and learned in this field. Ontario and the OCDSB began making this shift to creativity, innovation and critical thinking in classroom instruction a number of years ago. What's different about our school district is that we see this not only as a shift in instructional practice, but also as an entire organizational shift. The OCDSB has taken the opportunity to "lead the way" in finding the answer to its own question: "Under what conditions do healthy and creative individuals and organizations flourish?"

This section of our report has examined why educational and business leaders are saying creativity and innovative thinking are essential today. The next section will explore the ways in which some leaders suggest we achieve this, as well as what the OCDSB has learned on its own seven-year journey in search of the answer to the question above.



MAPPING OUT OUR JOURNEY

"FIRST COMES THOUGHT;
THEN ORGANIZATION
OF THAT THOUGHT INTO
IDEAS AND PLANS; THEN
TRANSFORMATION OF THOSE
PLANS INTO REALITY. THE
BEGINNING, AS YOU WILL
OBSERVE, IS IN YOUR
IMAGINATION."

**Napoleon Hill, American author and
advisor to President Franklin D. Roosevelt,
1933 to 1936**

After the Ottawa-Carleton District School Board's 2006 report, *Leadership: A School District Initiative*, revealed a District-wide perception that leadership could stand to be improved, the OCDSB embarked upon a new journey to foster leadership at all levels within our community.

At this point, one might well ask how leadership is connected to helping students learn to be creative and innovative. As it turns out, experts believe that to foster creativity, one must first foster leadership and establish environments conducive to creativity. Without effective leadership, people rarely become engaged and passionate about what they are doing, and without engagement and passion, creativity cannot be cultivated.

Culinary Arts Program caters to real-life experiences

When Kent Van Dyk started the first OCDSB Culinary Arts Program at Longfields-Davidson Heights Secondary School, he wanted to do more than teach his students how to cook. As an advocate of sustainable food practices, he wanted to whet their appetites for eating foods grown locally, as well as learning about where food comes from and how to grow their own.

With the enthusiastic support of staff and students and agency grants, three large raised beds were created to grow a variety of vegetables and herbs, which are used in the dishes the students create. Van Dyk also ensures his students have opportunities to learn through real-life experiences, including working with master chefs in the community and catering events with up to 500 participants, including events for Lead the Way.

The long-term project will soon see fruit trees planted as well, including cherry, apple and pear. Van Dyk also hopes to partner with homes for seniors in the area and enable students to tap into their knowledge about growing and preserving food.

Thus, effective leadership at all levels is essential to driving change, fostering the kind of environments in which creativity thrives, and supporting the goals of the OCDSB. Immediately following the 2006 District Leadership report, Leadership, along with Learning and Community, became the three pillars that formed the guiding framework for all activities and initiatives for the OCDSB's 2007–2011 strategic plan, *Learning, Leadership and Community: A Focus for Our Future*. In the 2011–2015 strategic plan, *Public Education: Doing it W.E.L.L.*, leadership is again a focus as one of four key priority areas: Well-Being, Engagement, Leadership and Learning.

The 2011–2015 strategic plan is also the umbrella for several key initiatives that are inextricably linked to these goals, and to fostering an environment in which creativity can flourish. These include:

- **The Character Development Initiative:** This initiative lies at the heart of our learning organization and describes a foundation of key characteristics upon which individual and organizational learning can effectively take place.
- **The Diversity and Equity Framework:** Our goal is to be a culturally proficient organization that recognizes diversity and responds positively to that diversity, in an open and inclusive learning environment.
- **The Curriculum and Instruction Initiatives:** These initiatives focus on setting the conditions in classrooms and schools that will maximize the opportunity for all of our students to achieve success in their education, considering the characteristics and abilities of each individual learner.
- **The Wellness Initiatives:** These initiatives highlight the importance of creating a respectful and courteous environment in which the well-being and health of all individuals is paramount.

- **The Leadership Vision:** The goal of this initiative is to create a culture of engagement, founded on four principles that provide a unifying framework:

- Each individual has unique creative capacities and ideas that need to be recognized, valued and tapped into;
- By harnessing these individual capacities, the organization will be enriched and invigorated;
- The culminating effect will be to achieve a culture of engagement in which people feel valued and engaged in an environment that embraces ongoing learning, fostered through internal and external dialogue and learning;
- This learning context will provide the optimal conditions in which we can reach and teach all of the children in our care, enabling them to become successful global, digital citizens with strong creative and critical thinking skills and an appreciation for diversity.

In addition, the OCDSB is dedicated to fostering well-being, engagement, leadership and learning (OCDSB Strategic Plan 2011–2015) beyond the classroom at all levels of the organization and to promoting creative and critical thinking (OCDSB Board Improvement Plan for Student Achievement - BIPSA, 2011-12, School Improvement Plans for Student Achievement - SIPSA, 2012-13) in an inclusive, safe and caring environment with emotionally intelligent and culturally proficient leaders. The OCDSB strongly believes our students will be more engaged in their learning if we create the conditions necessary to promote a healthy and creative organization.

District-wide collaborative project helps character-building take root

Both children and adults often learn by example, and former Director of Education Barrie Hammond was well-known as a leader who exemplified the OCDSB's ten character attributes: integrity, respect, fairness, responsibility, perseverance, optimism, cooperation, empathy, acceptance and appreciation.

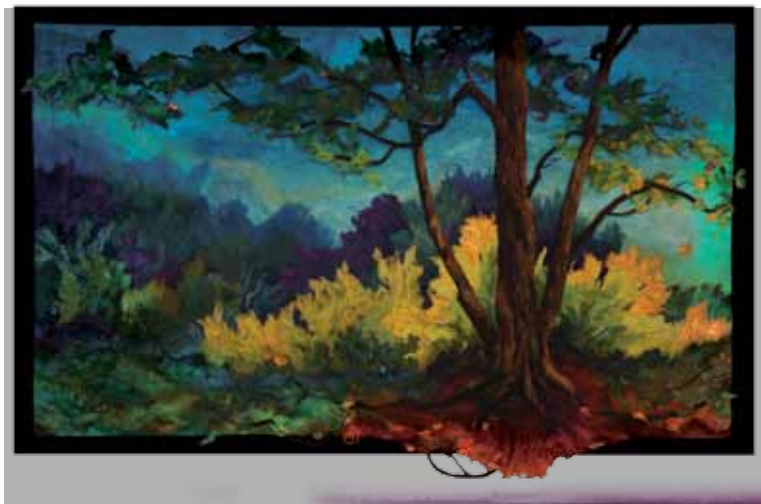
When it came time for Hammond to retire after 43 years of service to the Board, there could no more fitting tribute than a collaborative, district-wide project to make a quilt based on those character traits. Inspired by artist Esther Bryan's Quilt of Belonging, students, teachers, custodians, managers, principals, receptionists, administrative assistants and many others decorated more than 300 fabric leaves, which were then carefully stitched into a five-metre-tall (16-foot) fabric artwork created by Esther Bryan.

Entitled *Growing Our Character*, all ten character attributes are represented in the roots of a tree, signifying that, as in real life, positive character traits take root and grow to become strong, powerful and beautiful. The artwork is now proudly displayed in the Boardroom at the OCDSB head office, providing a creative expression and vibrant visual reminder of our values in a place where our leadership team makes key decisions.

We've Added a New Goal: To Share Our Knowledge and Results

Many other school boards and organizations are starting to see the importance of and need for leadership, imagination, creativity and innovation. As an organization we have already been involved in this journey for seven years, and our work and learning to date has become recognized as a benchmark.

As such, it is our goal to collaborate and share our findings, insights and research with other groups. We hope this report and its accompanying website will serve as an initial guide to our insights and ideas, and that all interested groups can work together to share their goals, insights and progress. In this way, we hope to build a better future for our students and all Canadians in an increasingly complex and global environment.



EXPERTS' BEST PRACTICES TO FOSTER A CREATIVE ENVIRONMENT

"FOR INNOVATION TO FLOURISH, ORGANIZATIONS MUST CREATE AN ENVIRONMENT THAT FOSTERS CREATIVITY; BRINGING TOGETHER MULTI-TALENTED GROUPS OF PEOPLE WHO WORK IN CLOSE COLLABORATION TOGETHER — EXCHANGING KNOWLEDGE, IDEAS AND SHAPING THE DIRECTION OF THE FUTURE."¹⁹

Linda Naiman, founder of Creativity at Work, providing creativity and innovation expertise to businesses in America, Europe and Asia

Throughout its journey in establishing a culture of creative leadership, the OCDSB consulted and collaborated with several renowned experts about the qualities of effective leadership and how to foster a creative environment, in addition to conducting our own research. In this section, we will summarize some of the main findings and seven common themes these experts present, which have helped to shape our own goals and pathway for our journey.

As most experts generally agree on what is required to foster creativity, we will begin with these main themes first. At the end of each theme,

we will outline how educational systems in general can become a vital part of the “creativity supply chain,” playing a role in helping organizations, businesses, governments and societies foster and tap into creativity and its many benefits.

In the next section, we will summarize the results of our own research and ideas, and what we have been doing to foster creativity and leadership in our schools and across all levels of the OCDSB.

Seven Best Practices

1 Embrace creativity and the benefits it can offer. As seen in the previous sections, creativity and innovative thinking are now considered essential for success across business and government sectors. The global marketplace is increasingly competitive, not only for consumer dollars, but also for scarce resources and money to fund social programs. Companies, countries and economies that come up with new products and new ideas to overcome social challenges will be the ones that thrive. And yet, while most business and government leaders agree that imagination, creativity and innovation are desperately needed and can bring huge benefit, there is still a reluctance to embrace them.

Experts generally agree that there are three main reasons for this reticence. First, there is a widely held misconception that creative thinking is not a manageable or measureable process, or one to which rigour can be applied. In a similar vein, creativity can be viewed as contrary to the current obsession with productivity, process and return on investment. In countless companies and organizations, rigid processes attempt to guide an activity through a predetermined course of action, ending with the correct predetermined outcome. Any deviation from the process, or the idea that there could be multiple routes to success or multiple outcomes, is seen as counterproductive.

Likewise, creative endeavours tend to have a medium- to long-term pay-off, and some ideas will fail altogether. Especially in today's

punishing global economy, tight budgets and shrinking human resource departments can make managers wary of devoting time and resources to an innovative venture that might pay off in the future, when they are being assessed on their current performance and contribution to the company's bottom line for this quarter. Given the choice between the immediate and measureable outcomes of ramping up productivity and cutting costs, creativity can be seen as extraneous to the organization's goals—nice to have, but not essential to the core business. Ironically, this kind of thinking comes at a time when creativity has never been more essential to most companies' continued survival.

By the same token, creativity takes time, and employees who are “just thinking” don't appear to be very busy or productive to their productivity-conscious managers. There is a lack of trust that an employee who is staring off into space or doodling ideas on a notepad is actually working, or making a meaningful or practical contribution to the company's bottom line. Increasingly heavy workloads, tight deadlines and frequent overtime not only rob a workforce of the time required for creativity, but also deplete the physical and mental energy available for such endeavours.

Finally, there is a significant lack of knowledge regarding how to go about becoming a creative business, government or organization. The transition to the Age of Creativity has not only been abrupt, it has also been affected by the global economic downturn of the mid-2000s, making companies, governments and organizations even more determined to cling to the familiar and rely on measures that have worked in the past, rather than strike out into unfamiliar territory and perceived risk.

To succeed, companies must understand that time spent searching for innovative ideas is necessary. This time is not “wasted”—it is the only way the company can improve and move forward. Companies must commit to change, guided by strong formal and informal leadership, and create an environment within their organizations

that fosters creativity and innovative thinking. Management needs to be more comfortable with creativity, to understand the amount of work involved in innovative thinking, and to ensure that organizational structures, processes and restraints don't choke the life of any creative initiatives or motivations. The focus cannot be so much on productivity that there is no time left in the day for quiet reflection and thinking. There should be regularly scheduled downtime for innovative and creative initiatives.

The role educational systems can play:

With creativity and innovative thinking embedded across the curriculum, educational systems could instill the benefits of creativity from an early age, as well as teach the techniques and management practices that help to foster a creative environment. Once creativity and critical thinking become accepted and ubiquitous in the classroom and school environment, they will be more naturally accepted as essential components within the organizational environment.

In fact, in their latest report, “How the World's Most Improved School Systems Keep Getting Better” (November 2010), management consultants McKinsey & Company identify innovation and peer collaboration amongst teachers and principals as key themes for jurisdictions such as Ontario in their journey from great to excellent.

2 **Support diversity to enhance creative thinking.** Research has repeatedly shown that diverse teams are more likely to succeed in generating creative and innovative ideas. According to Frans Johansson, author of *The Medici Effect: Breakthrough Insights at the Intersection of Ideas, Concepts and Cultures* (2004), the reason is simple. Team members tend to draw on their experiences and knowledge to generate new ideas; a team that is homogenous will obviously have less to draw on than a team that combines different disciplines, backgrounds and areas of expertise.²⁰

²⁰Frans Johansson, *The Medici Effect: Breakthrough Insights at the Intersection of Ideas, Concepts and Cultures* (Boston: Harvard Business School Publishing, 2004).

In the OCDSB, we've learned that diverse teams have a powerful impact on enhancing instructional practice in the classroom. Our teachers, instructional coaches and school leaders work together to create interesting learning tasks, review student work and discuss appropriate teaching strategies. Our focus on creative leadership now acknowledges the important role of teamwork for all employees throughout the organization.

Teresa M. Amabile, Edsel Bryant Ford Professor of Business Administration at Harvard Business School, adds that organizations that accept and encourage multiple and diverse social identities within an individual (such as female and engineer, Asian and American, for examples) can also enhance creativity because people can draw on their different realms of knowledge and experience associated with each identity.²¹

As such, the OCDSB recognizes that the Age of Creativity is an opportunity to create a truly inclusive and collaborative world order, probably unlike any seen before. Everyone has the ability to be creative; the world needs ideas and insights from all people if we are to succeed collectively. The Age of Creativity can tear down the "great divides" that existed when only certain characteristics or skill sets were valued, as in previous ages. For example, whereas the Information Age worshipped the younger generation for its perceived technological prowess, thus marginalizing older workers and making them feel less valued, the Age of Creativity welcomes all, and values the different perspectives individuals have to offer.

At the same time, a global community and evolving communications technologies pave the way for even greater diversity and collaboration. Collaboration is no longer bound by the walls of a boardroom or the borders of a nation; individuals and groups from around the world and from all walks of life can share information, ideas and insights to find solutions.

Building a community at Queen Elizabeth

Each OCDSB school faces its own unique set of challenges, and poverty is one challenge often evident in urban areas. To that end, in 2008–2009, the OCDSB's Queen Elizabeth Public School became part of a joint initiative by the Elementary School Teachers' Federation of Ontario and the Ontario Ministry of Education to investigate poverty in inner-city schools.

At Queen Elizabeth, a dedicated team works with a lead teacher to develop and sustain resources to complement character-embedded lessons, as well as develop family nights, parent workshops, arts presentations and community partnership endeavours. With the aid of a Ministry grant, and in partnership with the Boys' and Girls' Club, many opportunities for student growth are provided, such as recreational activity days, family recreational evenings, a homework club, primary activity recess and field trips. The school's snack program has been expanded, and a breakfast program established as well.

Queen Elizabeth has been re-established as a productive, diverse and safe community hub. Students at the school are participating and learning while feeling valued, safe and welcome.

²¹Teresa M. Amabile and Mukti Khaire, "Creativity and the Role of the Leader," *Harvard Business Review*, October 2008.



The role educational systems can play:

Educational systems have long been a natural environment for teaching tolerance and cultural proficiency. This is especially true during the past several years, given the focus on measures taken to address bullying. Moreover, children tend to learn better in environments where they feel safe, welcome and respected. As we welcome people of all backgrounds and make diversity a natural part of the school environment, diversity and cultural proficiency will also become more widely practiced in the community and more frequently embraced in organizational life.

The OCDSB is committed to realizing this cultural shift in our classrooms and workplaces. The groundwork has been laid through a focus on providing opportunities for students and staff to learn about cultural proficiency, emotional intelligence and restorative practices. Also, the OCDSB Community of Character attributes, collaboratively developed by staff, community and students, provide a standard of behaviour to which all individuals in the OCDSB hold themselves accountable. In order to ensure that all stakeholders have a voice in the OCDSB, multiple communication strategies, including advisory committees, surveys and information sharing meetings, have been established.

3 Flatten hierarchies. Typically, organizations are structured in a top-down hierarchy, with clearly delineated roles and reporting streams. This type of structure can create a number of barriers to creativity and innovation. The most obvious is that those at the top level of vertical hierarchies are typically tasked with coming up with ideas, while those on the lower levels are charged with simply carrying them out. This means that the vast majority of the minds within an organization don't have an opportunity to contribute ideas. That includes those on the "front lines," who tend to see first-hand the inner mechanics of the organization, and could provide unique insight into creative solutions and innovations.

Vertical hierarchies also tend to breed "rankism"—a tendency to endorse and give more favourable assessments of ideas based on the rank of the person providing it, rather than on the idea's actual merits.

To foster creativity, organizations must recognize that good ideas can come not only from all levels of an organization, but also from outside of it. Hierarchies should be flattened, and ideas generated from multi-functional and multi-ranking teams. Organizations should also look at opportunities to structure projects through networks (Wikipedia is an example of a networked project), rather than vertical hierarchies.

The role educational systems can play:

Just as educational systems can play an important role in encouraging and enhancing diversity and cultural proficiency, they can role-model and teach the concept that everyone has abilities, talents and good ideas, regardless of their background, age or rank.

In addition, educational systems can help to build flatter, networked hierarchies by providing access to the technology that gives all people an opportunity to participate in creative endeavours, regardless of their location.

Similarly, as educational institutions increasingly collaborate and form partnerships with the community, business sectors, governments and social programs, they can continue to break down barriers and invite all stakeholders into the creative and appreciative inquiry process. Schools, colleges and universities draw people in and connect them to each other; they are a common meeting place in almost every community. Moreover, educational institutions are connected to each other, forming a vast, global network that no other institution can match. Using this already established connectivity, educational systems can play the leading role in bringing people together from all walks of life, and in ensuring every individual has access to the means to express their ideas and contribute their skills, knowledge and special talents.

Greening the schoolyard sprouts enthusiasm and creativity

When OCDSB's Adrienne Clarkson Elementary School won a free tree, it planted the seed for a greening program that was already branching out at other schools across the District. Wanting to ensure that the free tree flourished, the school looked into a series of workshops by Evergreen, which provided the inspiration for a series of schoolyard improvements, supported by students, staff, parents, the school council, volunteers and a number of corporate sponsors and City of Ottawa grants.

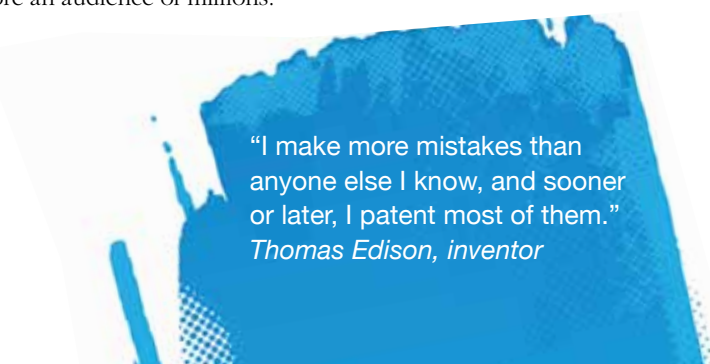
One Evergreen consultant spoke with the children in every class from Grades 1 to 6 about how they were using the yard and what improvements might be made from their perspective. A survey was also sent to parents and staff. It was decided the first step would be to improve the maintenance of the existing trees and gardens. Later, garden boxes, a berm, boulders, trees, hedges and 16 shade trees were installed. Kindergarten staff and students planted vegetables and "mystery seeds" in the new garden boxes. Grade 10 students also painted the pavement with colourful games and art.

The greening encourages the children to appreciate and become responsible for their schoolyard environment. Staff noticed a change in the way that the students were using the space in the yard immediately—the play changed and became more varied and focused.

4 Give people permission to experiment, fail and make mistakes. The Canada School of Public Service's *Action-Research Roundtable – Creativity at Work: A Leadership Guide* includes a vivid example of how the fear of making mistakes can stifle not only creativity, but also progress. The guide presents the case of Benjamin Zander, a music teacher and the conductor of the Boston Philharmonic Orchestra. While music is considered one of the most creative undertakings there is, Zander found that "many of his students were limiting themselves because of an anxiety over how they would be graded." Afraid of making a mistake or standing out unfavourably, the musicians played by the book: "Instead of pursuing their passion with zest and vigour, the musicians were languishing in mediocrity," Zander said.²²

Graduation from school and professional validation didn't seem to break the habit. Zander observed that players in his orchestra exhibited the same limiting fear, which prevented them from achieving their full potential. Only by convincing his students and his players that it was all right to take a risk was Zander able to help them progress.

Organizations can hardly be blamed for having an increased fear of failure in this day and age. In an increasingly fractured market, mainstream media channels are looking to expose corporate errors as a way to increase viewership and therefore advertising revenue. Although social media increases creativity by enabling increased participation and access, it also enables anyone with a cell phone to be a reporter, with mistakes displayed instantly and permanently before an audience of millions.



"I make more mistakes than anyone else I know, and sooner or later, I patent most of them."
Thomas Edison, inventor

²²Ibid.

Interestingly, success and growth can actually make an organization even more averse to mistakes and risk-taking, and therefore less creative. Once an organization achieves a particular goal, it tends to want to repeat that success, using the same formula that worked in the past. This formula becomes ingrained as a process, and as growth occurs and more people are employed by the organization, all must be indoctrinated into the process. Deviations from the process are seen as errors and are typically frowned upon.

But as Daniel Pink, Sir Ken Robinson, Sir John Jones and many others agree, there is no such thing as a mistake-proof organization. If organizations are to benefit from new ideas and moving beyond the status quo, they need to give their people more autonomy and make it safe to experiment and safe to fail, fostering a view that failures are more about “lessons learned” than mistakes.

The role educational systems can play:

Educational systems are well-acquainted with testing—they pretty much invented it. While no one would argue that some forms of testing and evaluation are required to monitor students’ progress and certify proficiencies, many would attest that the overriding focus and importance given to standardized test scores today needs to change if we are going to foster innovative thinking in our schools. Not only do some tests assess only a limited and narrowly defined set of knowledge, but the weight given to them also encourages a limited and narrowly defined curriculum—one that does not teach students the full range of skills they need to compete and succeed in today’s world.

Benefits multiply in Junior Math Initiative

We can all learn how to learn better—students and teachers alike. That’s the lesson taken from the Junior Math Initiative, an OCDSB Grade 4 action research study that assesses the impact of ongoing descriptive feedback on student learning, and the proper balance of collaborative inquiry and processes of inquiring for growth of educators.

In the study, selected Grade 4 students and teachers across the OCDSB filled out mathematical attitudinal surveys. Teachers in a designated intervention group met for one full day every other week to receive direct instruction in mathematics content and assessment practices. Those in a control group received direct instruction in content, but not in assessment. Collaborative Inquiry Learning in Mathematics (CILM) sessions were held bi-weekly in classrooms, with all participants present to deliver the co-created lesson.

As a result, all participants reported significant improvement in attitudes and a higher level of confidence in mathematics instruction and curriculum delivery. A professional learning community has been established in which teachers are working together to explore best practices, within a well-established support network. And teachers from every class reported growth in their students’ understanding of number sense and numeration, as well as improvement in their own knowledge, skills and understanding.

As the entities that are most heavily involved in evaluating students' progress and success, educational systems must lead the way in re-examining how their progress is assessed. By diversifying the methods they use to evaluate progress and motivate students to succeed, educational institutions can further encourage inclusiveness of all skills and abilities and their inherent benefits to society. This will encourage experimentation, creative thinking and appreciative inquiry to make our students more competitive and innovative, and model more constructive evaluation methods for other organizations to follow.

It should be noted that this work has begun in Ontario and the OCDSB. Unlike many educational jurisdictions around the world, Ontario has a large-scale testing program that allows students the opportunity to demonstrate their thinking on short- and long-response questions rather than relying solely on multiple-choice questions. As a district, the OCDSB has focused on broadening methods of assessment and evaluation in all subject areas and at all grade levels to ensure that students can demonstrate the full extent of their learning.

5 Know when and how to impose controls on the creative process. Making it safe to fail and loosening the processes, bureaucracy and controls that tend to choke innovation doesn't mean that creativity is promoted for its own sake, or that it doesn't require hard work and rigour. Going back to our definitions of creativity from earlier in this report, the products of creative thought also need to have value (which may not be immediately apparent) and need to be put into use before they can be termed creative.

Fortunately, the part of the creative process that is bound to be the messiest is also the safest: the initial stage, when creative thinking and fresh ideas are still at the sketching-out point. Even here, there are techniques that can be applied to making the creative process more effective. For example, brainstorming meetings tend to work

best if participants are briefed well before the meeting, so they can have time to think about the problem or situation beforehand; the size of the team is kept small and manageable; and the team members come from diverse backgrounds.

At later stages of the process, ideas can be assessed and evaluated, and the more promising ones can move on to the next stage. Effective controls and checks and balances can then be applied to allow for the flexibility of experimentation while still keeping costs, safety, resources and the like under control.

The role educational systems can play:

Like testing and assessment, there is a similar need to re-examine processes and controls and ensure that they serve their intended purpose without becoming so onerous and rigid that they don't allow for creativity, spontaneity or custom-fitting lessons and curricula to better suit the academic and socio-economic needs of individual students and learners.

6 Embrace new forms of leadership. Just as all people are capable of being creative, and good ideas can come from any level within an organization, leadership is not confined to the top ranks. To foster a creative environment, formal and informal roles of leadership must be recognized and encouraged throughout the levels of an organization.

In order to recognize and foster leadership, however, we must first determine what leadership looks like. How good leadership is defined is evolving. First, as mentioned, leaders can no longer be identified simply because of their rank in the company. Not everyone with leadership capabilities will—or is even interested in—climbing the corporate ladder to take on a formal leadership position. To succeed, organizations must flatten hierarchies and tap into the leadership capabilities available to them at all levels.



Secondly, the roles and tasks of a leader are changing. A successful leader is no longer someone who simply gives orders to be followed. Rather, he or she presents the goal that needs to be achieved and then provides workers with the autonomy to find solutions and see the task through.

Moreover, while we traditionally think of leaders as those who have achieved success, the new leader is one who facilitates the success of others. Rather than employees working to serve their leader, the leader is there to serve the employees—to foster and support workers within a healthy, successful, creative working environment. Leaders, either formal or informal, can best help an organization succeed if they mentor, motivate and inspire employees and colleagues to their highest potential.

Evolving leadership structures can seem threatening to some. With flattened hierarchies, scheduled time for thinking, freedom to make mistakes and more worker autonomy, how can managers ensure that any work will get done? But as you'll see in best practice #7, environments that foster creativity also foster a strong work ethic.

The role educational systems can play:

In the classroom, teachers have long understood the value of recognizing the unique qualities and capabilities of each child, and encouraging them to take on leadership roles in situations where they can shine. In addition to continuing to shape the leaders of tomorrow, educational institutions must now make more of an effort to practice what they preach, by recognizing, rewarding and making use of the talents of their informal leaders. As a hub representing community, diversity, collaboration, partnerships and global connectivity, schools can reach beyond their walls and play a role in modeling community-wide—and even worldwide collaboration.

At the same time, schools can also begin to demonstrate the rewards of creative thinking, by sharing their success stories and

highlighting the benefits of effective formal and informal leadership. By encouraging faculty, staff and students to take the time necessary for creative thinking, the stigma attached to creativity and so-called “non-productive” work will be significantly reduced, and it will be easier to instill creative thinking practices across all sectors.

At the OCDSB, elementary and secondary students are encouraged to practice their leadership skills. As just one example of many, students have taken to researching, developing and implementing eco-projects across the district in ways that broaden and enrich their experience of the curriculum. Such examples that share the process of learning and celebrate student work across the district are critical to valuing the learner.

7 Have fun. In today's serious business world, this route to creativity and innovation may seem too simplistic and even counterintuitive to what is supposed to be, after all, *work*. But as Confucius said, “If you find something you love to do, you'll never have to work a day in your life.” Allowing employees to spend time on projects of their own choosing is a successful path to innovation that is now being employed by such thriving companies as 3M, Google and FedEx.

Passion is a key ingredient to success and in fostering a creative environment. When people are allowed to do the things that they are passionate about and do work that is meaningful to them when they feel engaged, when their work environment is enjoyable, healthy and stimulating, they're usually motivated to work for the simple joy of doing so. And when it comes to motivation and work ethic, creative individuals actually choose to pursue more difficult and challenging tasks, as Mihaly Csikszentmihalyi explained in *Flow and Creativity*.²³

²³Mihaly Csikszentmihalyi, *Flow: The Psychology of Optimal Experience* (New York: Harper Perennial, 2007).

The role educational systems can play:

Virtually all parents have had at least one experience where their child feigns an illness to get out of going to school. It would be interesting to know how many parents have had the opposite experience—sick children who attempt to feign wellness because they so enjoy going to school.

Enjoyment and engagement not only make learning and work more satisfying, but people who are engaged in their school or work environment are more productive and better able to learn.

Schools have a significant opportunity to help students become more engaged both in their education and, later, in their chosen careers. By inviting students to bring their imagination, creativity and innovative ideas into the classroom, teachers can help students discover what they are passionate about, and where their true talents lie. With this personal insight, students could not only become more engaged by exploring their passions in school, but will more likely be able to identify and choose which career paths would give them the most enjoyment and satisfaction in life.

What's brewing in the Putman Creative Labs?

Major corporations like Google, Apple and FedEx are discovering that some of their most creative innovations and ideas come about when employees are given time to work on things that interest them—rather than only work that is assigned to them. So when the administrators at the OCDSB's J. H. Putman Public School first opened up the library to students during Friday lunch hours, there was only one rule: no homework!

Instead, administrators invited students to "... start a club, create a podcast, make a movie—the space and time are yours!" Little did they know that demand to work in the "Putman Creative Labs" would soon grow from Fridays only to five days a week.

Putman Creative Labs is an open, supervised space where students are encouraged to create and collaborate. The school provides the space, support, supervision and access to school equipment, while the students supply the energy and the ideas. A few of the activities currently happening in the lab include a sewing club, a glee club, the "Voice of the Pumas" online school magazine, modding of "Minecraft" video game, dance choreography, the "Doctor Who" Fan club, a ukulele jam, a writing club, Pivot animation, and Bitstrips comic-making.

LEADING THE WAY TO CREATIVITY:

The OCDSB Research

“NEVER DOUBT THAT A SMALL GROUP OF THOUGHTFUL COMMITTED CITIZENS CAN CHANGE THE WORLD. INDEED, IT IS THE ONLY THING THAT EVER HAS.”

Margaret Mead, American cultural anthropologist

While the Ottawa-Carleton District School Board (OCDSB) conducted an extensive review of current studies and consulted with several experts in the fields of creativity and critical thinking over the past seven years, we recognized early on that there is no one-size-fits-all solution that can be applied across all organizations to foster a creative environment.

Moreover, while we can adopt and adapt many of the experts' best practices, as a school board serving the Ottawa-Carleton region, we understand that we have our own unique set of requirements, challenges and opportunities that our solutions must address.

With this in mind, we knew it was necessary to conduct some of our own research as well. As we had already consulted with renowned creativity experts who are often in the headlines, we decided our research should focus on consulting with experts who are in the frontlines—the teachers, students, staff, parents, partners, community leaders, social program administrators, business owners and many other stakeholders who strive to help us reach our goals across our District every day.

Our research was conducted under four main initiatives, which are each described in more detail below.

1. The OCDSB Report on Leadership Survey, Fall 2006
2. The OCDSB 2010-2011 Employee and Student Diversity Census
3. The OCDSB Lead the Way Campaign, Ongoing
4. Call for Creative Initiatives, Spring 2012

The OCDSB Report on Leadership Survey (Fall 2006)

In the fall of 2006, the OCDSB conducted an extensive and very enlightening survey about leadership amongst its employees. As we must seek to encourage and support our people at all levels to practice leadership if we are to create an engaged, creative environment, this information provided us with a better understanding of how leadership is understood and practiced within the District.

Two central research themes were incorporated into the study:

- defining the ideal characteristics, behaviours and consequences of leadership;
- exploring the current practice of leadership and experiences, including how leadership, both formal and informal, is supported by the District.

The results from this study were highlighted in a report called “Leadership: A School District Initiative,” which can be viewed in full at www.leadthewaytocreativity.com.

The study was successful in meeting a number of objectives. First, it identified a strong consensus within the District on the characteristics of a leader. The ideal leader is someone who:

- is defined relative to one's relationship with those around them;
- is not defined by status or authority or even expertise, but by one's ability to enable and empower others;
- is accessible, approachable, supportive and empowering;



- motivates, is inclusive of others' opinions, and offers guidance;
- builds and unites teams in a common vision;
- recognizes the contributions of others and appreciates their efforts.

Second, the research identified two valuable ways that the District could provide supports to help foster leadership.

- In addition to programs that focus on enhancing individual leadership abilities, there need to be processes that encourage leadership practice within the school community on a continuous, daily practice basis;
- The supports to engage in leadership need to be more equally distributed among the school community.

Third, the research identified ways to foster and support informal leadership, to ensure the District continues to enjoy creativity's many benefits and contributions.

- The District must recognize informal leaders;
- Informal leaders must have opportunities to participate in leadership activities, including strategic planning and decision-making;
- Informal leaders must be recognized for their contributions.

The knowledge gained from this study provided an excellent base from which to build our leadership competencies, as well as our ability to develop and implement more effective leadership initiatives and programs. Following the study, four primary "next steps" were identified and implemented.

1 A Leadership Narrative was developed that captured the understanding of leadership for the school community, providing legitimacy to the OCDSB's understanding of leadership and embracing the concept that leadership comes from all levels: leadership is not a title, but a practice.

The Leadership Narrative states:

"Leadership is exemplified by people who are able to impact those around them in a positive way. Our leaders are energetic, empathetic, motivated, trustworthy, knowledgeable and good communicators. Our leaders share a common vision in their commitment to all students. Our leaders understand that their role is one of support. They lead by example, they seek input, and they listen. As an organization, we encourage and foster these qualities. In challenging and prosperous times, we are defined by the relationships we build."

2 On an ongoing basis, best practices are being explored to help develop processes that are designed to encourage the practice of leadership continuously, at all levels. Some examples include the development of a Compendium of Ideas to encourage and capture more dialogue and connectedness between the District's many stakeholder groups; the implementation of a Principal/Vice-Principal Intern mentoring program; and a Leadership Awareness Campaign to increase awareness and engagement surrounding the importance of leadership across the District.

3 New ways are being implemented to recognize the contributions of those who engage in leadership activities.

4 There are increased efforts to include leaders from all levels in decision-making processes and provide supports for informal leadership.

The OCDSB 2010–2011 Employee and Student Diversity Census

As outlined previously in this report, diversity is an essential foundation to creative thinking. While research has proven this, it also makes logical sense that a more diverse group, with different skill sets, backgrounds and life experiences, will be able to come up with a broader range of ideas than a more homogenous group.

In the Ottawa-Carleton region, we are fortunate to have a highly diverse cultural population, thus giving us a superlative opportunity to support and enhance creativity within all stakeholder groups across the District. Canadian Census results show that between 1991 and 2006, Ottawa's overall population of Canadian citizens increased in ethnic and linguistic diversity:

- Ottawa has the largest Inuit population outside of the North.
- Ottawa's Aboriginal peoples increased by 50 per cent.
- Visible minorities grew by nearly 40 per cent, to one out of every six Ottawa residents.
- The population whose mother tongue is neither English nor French grew by 25 per cent, to one of every six Ottawa residents.

At the same time, if we are to optimize student achievement, research and common sense also tell us that students learn better when they feel they are in a safe, welcoming environment that values the unique contributions each individual has to offer. The Ontario Ministry of Education has acknowledged the need to further integrate this increasing diversity into our learning and operational policies and practices. In 2009, the Ministry released its *Equity and Inclusive Education Strategy: Realizing the Promise of Diversity*. This strategy's vision, goals, guiding principles and focus areas are all in alignment with the OCDSB's learning, leadership and community priorities.

To fully tap into this significant resource for creativity, as well as ensure we were providing a safe and welcoming environment, we wanted to better understand the unique demographic and psychographic composition of both our employee and student bodies. In 2008, the OCDSB Diversity and Equity Framework was established, and in 2009, the OCDSB Diversity and Inclusion Task Force was created, providing a forum to gather diverse voices within the District to support the development of the Framework. The Task Force includes some 35 representatives from a wide range of stakeholder groups, with a mandate to "...explore and recommend ways to strategically integrate diversity, equity and inclusive principles and practices in the OCDSB's learning, leadership, and community engagement objectives, goals, and priorities."

During the last two years, Task Force members enhanced their understanding of the District's programs, services and organizational culture through:

- student panels;
- joint meeting with the Student Senate;
- site visits to Queen Elizabeth Public School and Longfields Davidson Heights Secondary School;
- presentations and discussions with OCDSB staff on leadership initiatives, learning support services, accessibility and the District's strategic planning process;
- invitations to Cultural Proficiency Training, special presentation by Sir Ken Robinson and the Leaders' conference with Daniel Pink.

Task Force members have been instrumental in providing diverse perspectives and feedback to the development of instruments, policies and communications strategies, and are focusing on developing recommendations to help to integrate, align and measure equity and inclusion across the District's well-being, engagement, leadership and learning priorities. The

recommendations aim to help guide the evolution of the District's Diversity Framework, enhance the District's Business and School Improvement planning process, and ensure there continues to be a strong voice providing advice on matters of equity, diversity and inclusion. Showcasing some of these achievements and initiatives, the recent Spring Leadership Conference focused on *Equity, Diversity and Creativity: Critical Connections*.

Other priorities under the Framework included a Workforce Census and a Student Survey, designed to shed light and insight on the demographic and psychographic makeup of the staff and student bodies, and well as to explore students' experiences at school, such as in relation to bullying and having a sense of belonging. In 2010, the OCDSB conducted the census of its employees, followed by a survey of students from JK to Grade 12 in 2011.

Like a small number of education systems throughout North America, the OCDSB designed its Student Survey to get to know their students better. The research asked questions about:

- place of birth, age, gender, exceptionalities;
- family (ethnic background, religion, education);
- learning environment (experience at school, sense of belonging);
- safety (at school and in community, experience with bullying);
- learning supports (parental engagement, homework, community programs).

The results of the research are being used to explore how the Board of Trustees and senior administration can achieve the Board's diversity and inclusion vision, and how to align and integrate diversity throughout the organization.

The OCDSB Lead the Way Campaign and Events

The OCDSB has hosted several significant events to foster and support imagination, creativity and innovation, including opportunities to participate in workshops and hear from renowned keynote creativity experts such as Sir Ken Robinson, Daniel Pink and Sir John Jones. These events and celebrations are attended not only by employees, but also students, parents, community members, employers and representatives from many other stakeholder groups.

These well-attended events have also provided the perfect forum to conduct more research. At each event, participants (between 300 and 500 for each event) were asked the following question:

What are the conditions under which healthy and creative individuals and organizations flourish?

At some events, participants were asked to write down their ideas for these conditions on cards; at others, they participated in group brainstorming sessions, with about 40 tables of eight to 10 people.

Finding the Common Conditions

The results of this research—literally thousands of submitted ideas—were compiled, recorded and categorized. The most common conditions provided under which healthy and creative individuals and organizations flourish are as follows:

- **A safe and positive environment:** An environment must allow for, and even encourage, constructive risk-taking and critical thinking. Individuals must have the freedom to explore other options and to make mistakes without criticism or judgment.
- **Time to create:** People must be allowed to take the time to be creative, including scheduled time to learn, think, reflect and explore new ideas.



- **Autonomy and empowerment:** Organizations need to trust the people within them, respect their abilities, and avoid micromanagement. People will be more motivated if they have the freedom to set their own goals, and self-direct their tasks in achieving those goals. People need to see progress and understand how they are contributing to the big picture.
- **Respectful and trusting culture:** An environment that constantly reinforces mutual tolerance, respect and empathy in teaching, learning and working relationships, where differences and diversity are celebrated, will be an environment that fosters imagination, creativity and innovation.
- **Open communication, feedback and recognition:** Creativity is dependent on regular communication that is honest, open and two-way. In particular, people need feedback on performance and visible acknowledgement and praise for progress, including hearing the words “thank you” for their contributions.
- **Methods/tools/resources supported by professional development:** Practical training, education and development must enable the use of tools and methods that support creativity in the classroom and the workplace.
- **Leadership:** Leadership must be visionary, purposeful, trusting, supportive, balanced and visible; it must seek input without micro-managing.
- **Purposeful environment:** Teachers and students must understand the *why* or the reasoning behind a lesson, policy or idea. This understanding will make it more likely to be supported and embraced.
- **Teamwork and collaboration:** Everyone needs to be pulling in the same direction, with strong connections among schools, a culture of sharing, and interdisciplinary work linkages that leverage a variety of skills and strengths.
- **Passion:** Creativity is more likely to flourish if those within an organization are passionate, committed, engaged and inspiring.

Putting the Research into Action

In addition to providing input on the conditions that foster and support creativity, participants also recommended ways that these conditions could be implemented across the District. Once again, thousands of ideas were submitted, and these have been categorized into i) actions that could easily be implemented over the short term or immediately (“low-hanging fruit”), and ii) actions that are being implemented over the long term. These ideas include:

Short-term Actions

- Open up dialogue and start a conversation about creativity with staff, parents and students. Invite everyone into the conversation.
- Provide feedback for ideas.
- Tap into the wisdom of our people at all levels. Share best practices.
- Think about our leadership practices. Start with the person in the mirror.
- Come up with ideas to foster creativity in the classroom.
- Include creativity discussions and projects at staff meetings.
- Schedule regular time throughout the year to foster conversation, ideas, and collaboration.
- Keep learning fun and enjoyable; engage students.

Longer-term and Ongoing Actions

- **Incorporate scheduled time for creativity for students, teachers and staff.** Build thinking time into student lessons, staff meetings and professional development days. Have regular activities at staff meetings and development sessions that are geared towards trust-building, open dialogue and risk taking.
- **Allow teachers freedom and professional discretion to explore creative projects;** allow students opportunities to explore their ideas and be creative.

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- **Build understanding of creativity.** Consciously seize and create every opportunity to explore and develop the concept of creativity within our school context.
 - **Create opportunities for all staff to see best practices in action.** This includes higher-order questioning, collaboration and communication.
 - **Create a District-wide February professional development day** for all faculty and staff to share our common vision.
 - **Encourage and foster the student voice** through forums and other avenues that invite students to share their ideas and input.
 - **Create curriculum links through the Board Improvement Plan for Student Achievement (BIPSA) and School Improvement Plans for Student Achievement (SIPSA)** so that imagination, creativity and innovation are pervasive, rather than just an add-on or separate “creativity” module in the curriculum.
 - **Enable cross-curricular connections** by brainstorming ways that courses already scheduled at the same time can collaborate on a project or unit.
 - **Discover and harness the passions** of those in our professional communities. Take the time to understand the motivations of those we work with and find a way to share and connect with staff.
 - **Examine existing models** in other school districts and find out how others are finding ways to incorporate creativity and critical thinking into the regular school day.

Call for Creative Initiatives (Spring 2012)

An environment that fosters imagination, creativity, innovation, student engagement, diversity and achievement must not only encourage and support these initiatives, but celebrate them as well. With a goal to begin building and celebrating a library of best practices that could be shared among teachers, staff and the community, a request was sent out across the District in the spring of 2012, asking for examples of creativity and “neat things” happening in classrooms and at all levels of the District. The response was outstanding, with nearly 200 documented and detailed examples of imagination, creativity and innovation submitted in only a short period of time. Some of these submissions have been included throughout this report, and all submissions are being processed to be included on the www.leadthewaytcreativity.com website.

This section provided a high-level overview of the OCDSB’s own research into what is required to foster creativity for our students, faculty, staff and community stakeholders. The following section explores possible next steps that could be taken to further incorporate creativity into our classrooms and across the Board.



BRINGING IT ALL TOGETHER:

How Imagination, Creativity and Innovation Support the OCDSB Strategic Plan

"IF EVERYONE IS MOVING FORWARD TOGETHER, THEN SUCCESS TAKES CARE OF ITSELF."

Henry Ford, American industrialist

Throughout this report, we have explored why imagination, creativity and innovation are now considered must-have capabilities for students, businesses, social programs and governments in today's increasingly complex global society. In this section, we provide an overview of how this initiative also helps to support the accomplishment of the objectives outlined in the OCDSB 2011–2015 Strategic Plan.

As previously outlined, the OCDSB 2011–2015 Strategic Plan, *Public Education: Doing it W.E.L.L.*, promotes the four priority areas of Well-Being, Engagement, Leadership and Learning. As we have seen in this report, the environment and conditions that support imagination, creativity and innovation dovetail perfectly with the environment and conditions that support these four areas.

Fostering Well-Being and Creativity both include:

- creating safe, caring environments where everyone feels welcome;
- recognizing and valuing the unique capabilities of each individual, and understanding that everyone has strengths and contributions to make;
- recognizing and celebrating the value of diversity; developing cultural proficiency;
- creating a balance of work and life, so that people have the time and mental and physical energy to commit to generating creative ideas.

Fostering Engagement and Creativity both include:

- inviting all stakeholders in our educational community to collaborate with us, including parents, students, staff, and other community members, which has strengthened our collective capacity as well;
- developing effective partnerships with organizations that can enrich our school communities;
- recognizing we are global citizens; engaging in provincial, national and international initiatives.

When reviewing the list of strategies to foster engagement compiled by the Critical Thinking Consortium (TC²), which has extensively studied ways to embed inquiry-minded, critical thinking in the classroom, it's apparent how these habits support engagement and well-being. The OCDSB has been in partnership with the Critical Thinking Consortium for the past two years. Our teaching staff, instructional coaches and school leaders are working collaboratively to implement the following practices in all classrooms.

- **Daily, frequent assessment for learning:** Providing students with continuous, non-intrusive feedback on their learning, and supporting them in making thoughtful, fair-minded assessments of their own learning and behaviour, and that of their fellow students.

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- **Effective classroom questioning:** Engaging students in focused, probing classroom discussions through use of effective questions and prompts.
 - **Teaching for conceptual understanding:** Using various teaching methods to ensure that students understand and can work with the concepts that are at the foundation of each subject.
 - **Using visual sources and modes of representation:** Using visuals to teach students and teaching students to interpret visual information sources and use visual forms to effectively represent their ideas to others.
 - **Interrogating written text:** Supporting students in learning to critically read various fictional and non-fictional texts—both digital and print.
 - **Teaching to students' talents and needs:** Planning and delivering challenging lessons that scaffold learning for students of varying abilities.
 - **Considering multiple lenses and approaches:** Supporting students in learning to examine ideas and problems using alternative approaches and from different points of view.
 - **Embedding student choice:** Supporting students in exercising thoughtful, fair-minded choices in their own learning and actions.
 - **Self-regulated skill development:** Supporting students in acquiring a repertoire of strategies and competencies that they can apply independently and purposefully in school and beyond.
 - **Nurturing collaborative thinking:** Supporting students' inclination and ability to consult and effectively think through problems and issues with others.
 - **Engaging learners:** Organizing instruction around meaningful objectives, questions or narratives, and using authentic situations and tasks to engage learners.

Fostering Leadership and Creativity both include:

- effective leadership, both formal and informal, is considered one of the most essential conditions to fostering an environment conducive to creativity;
- the OCDSB's emphasis on both formal and informal leadership has encouraged and inspired all stakeholders to feel a genuine part of the organization, and recognize that we are *all* a contributing part of our students' success;
- inviting student input, and involving students to present their points of view and participate on panels for the Lead the Way campaign and other initiatives, has celebrated and enhanced student leadership.

Fostering Learning and Creativity both include:

- the enhancement of instructional practice to encourage and support creative and critical thinking skills;
- creative and innovative practices that have surfaced through this initiative which have allowed cross-departmental synergies, as well as authentic collaboration between home and school to take place, contributing to both student achievement and student well-being;
- the data collected from the Student Survey data that can be used to develop and support a safe and caring environment, another essential condition for creativity to flourish.

The Next Steps

Our journey to imagination, creativity and innovation is well underway and ready to further support the OCDSB Strategic Plan. While mapping out exactly what those next steps are is beyond the scope of this report, we'd like to invite everyone to join the conversation of where we go from here.

We invite you to visit www.leadthewaytocreativity.com to find regularly updated events, reports, initiatives and more. We hope you will find it inspiring.

Summary to Date

Most research papers provide a summary at the end. Ours is a "Summary to Date" because as was explained in the introduction, we think of this work on creative leadership as a journey, one that will continue in our school district.

However, without a doubt, this is a benchmark point in our journey. Our District's work began with two parallel processes for enhancing creativity in our organization—one for students and one for employees. Our recent work has seen the merging of these two efforts. As a result of this action research, we now have an OCDSB definition of creativity. We also have defined the conditions under which our students and our staff can do their very best work. Our job will be to ensure that these conditions are present in every classroom and in every workplace in the District. We believe that this work will have a significant impact on our core business—improving student achievement and well-being.



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"IMAGINATION IS MORE IMPORTANT THAN KNOWLEDGE. FOR KNOWLEDGE IS LIMITED TO ALL WE NOW KNOW AND UNDERSTAND, WHILE IMAGINATION EMBRACES THE ENTIRE WORLD, AND ALL THERE WILL EVER BE TO KNOW AND UNDERSTAND."

Albert Einstein, Nobel Prize winner for physics

