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The connected classroom

How Canadians see the evolution of education

A Citizen Compass report

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CONTENTS

4 What are Canadians saying about education in Canada?

7 Why do Canadians want digital education?

10 Digital: Redefining the traditional classroom

14 Conclusion

15 Methodology

16 Contacts

Citizen Compass

Education is the route to developing productive people, strong economies and healthier societies.

Just like other sectors, technology is changing the way services are delivered. In our third edition of Citizen Compass, we explore Canadians' perspectives on digital education.

Similar to findings from our other studies about e-service in the public sector and the virtualization of health care, we found respondents are eagerly anticipating new models of education delivery. Digital education has the potential to lower costs, improve collaboration and personalization and ultimately, better prepare students for the future.

In the pages that follow, we explore how participants in this study perceive the current state of education in Canada and what they expect the future to look like.

This report helps you address

1. How parents, teachers and students perceive the current state of education in Canada
2. How Canadians are using technology in learning now
3. What benefits Canadians believe are associated with digital education
4. Where Canadians expect to see digital education in the future

About the project

Citizen Compass is our citizen engagement initiative designed to provide Canadians with the opportunity to express their opinions and ideas on the future of services through informed participation and deliberation.

Over a three week period, 1910 Canadians participated to address the central question posed in this project, “What does the future of education look like?”

The research was conducted through our research tool – the Choicebook, which took respondents through an interactive experience. They learned about digital education, explored important questions related to the issues and thought through what services they would be interested in after being presented with some of the advantages, disadvantages and trade-offs involved.

For the purposes of this report, the findings focus on the qualitative and quantitative results stemming from the Choicebook, and will help identify how emerging channels of delivery can be developed to address what Canadians need and want.

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What are Canadians saying about education in Canada?

The multi-screen world we live in has dramatically changed the way we interact, develop and learn. This is evidenced by the toddler who can't yet read, but knows how to interact with an iPad or in the proliferation of social media and the impact this has had on the way we communicate with one another. Technology has had a huge impact on how we expect to receive information and services. Expectations for services to be delivered digitally will only will only increase in years to come.

Like many other services in Canada, the education sector faces a number of challenges:

- ***Managing costs:*** The price tag on a university degree is hitting record highs. The Canadian Centre for Policy Alternatives predicts tuition and other compulsory fees to triple in the next year from rates in 1990. And while Canada ranks very well in the OECD's Program for International Student Assessment (PISA), we also rank fifth-highest in the cost of tuition out of the same 34 member countries. At the same time, costs are climbing, leaving administrators with few alternatives to manage expenditures while maintaining high-quality learning.[1]

- ***Delivering personalized learning:*** At all levels, a fundamental shift is taking place in the delivery of more personalized, active and collaborative learning. Many studies are challenging the traditional pedagogy and suggest that new learning models exist that can improve learning outcomes. To respond to students' needs for more personalized learning, new tools are required to support this approach.[2]

- ***Preparing students for the digital world:*** Just as technology is changing how we interact and learn, it's also becoming a key skillset required to enter the workforce. Today's digital natives expect more from their formal education. How are we adapting our programs to deal with this generation of learners?

1 CBC News. September 11, 2013. University tuition rising to record levels in Canada. www.cbc.ca/news/canada/university-tuition-rising-to-record-levels-in-canada-1.1699103. Accessed May 14, 2014.

2 National Center for Postsecondary Improvement. 2000. Learning styles: Student preferences vs. Faculty perceptions. http://www.stanford.edu/group/ncpi/unspecified/student_assess_toolkit/pdf/learningstyles.pdf. Accessed May 8, 2014.

Layer these challenges over what respondents had to say about their experiences with the education system in Canada, and a clear theme surfaces: Canadians believe digital education has the potential to improve learning outcomes and help manage costs.

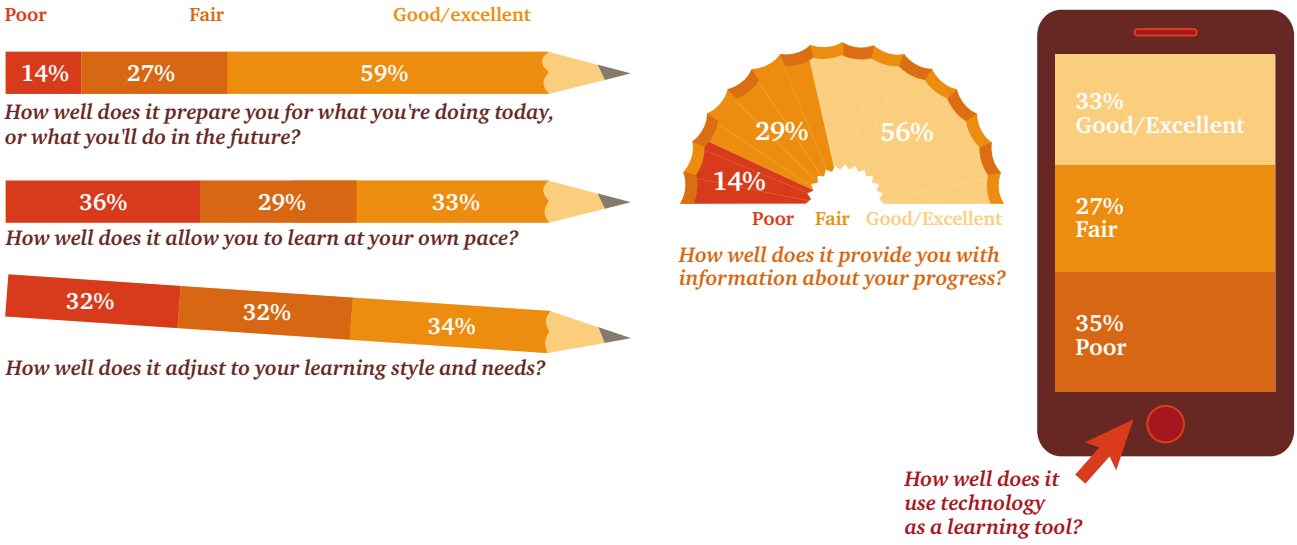
Overall, Canadians are generally satisfied with their personal experiences with the education system. They're particularly positive about how the education system has prepared them for work and with how schools have communicated their progress. But when it comes to technology and personalized learning, there's room for improvement.

Top three areas we see for improvement

1. Learning at one's own pace
2. Using technology as a learning tool
3. Adjusting to different learning styles and needs

When comparing the data across age groups, respondents between 18-29 years of age, rated their preparedness for the future the lowest, at 33%. While younger respondents were also the most positive about the use of technology in the classroom, more than half would like to see technology used more effectively.

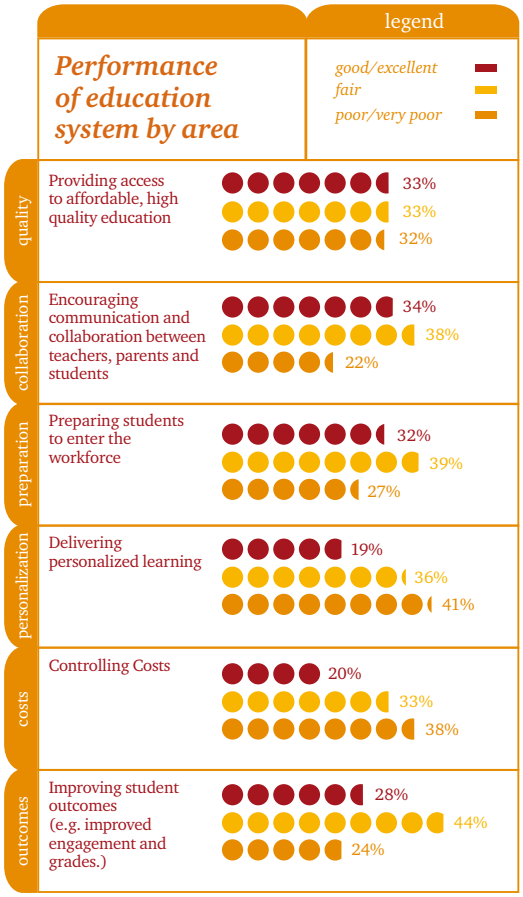
Personal experience with the education system



Performance

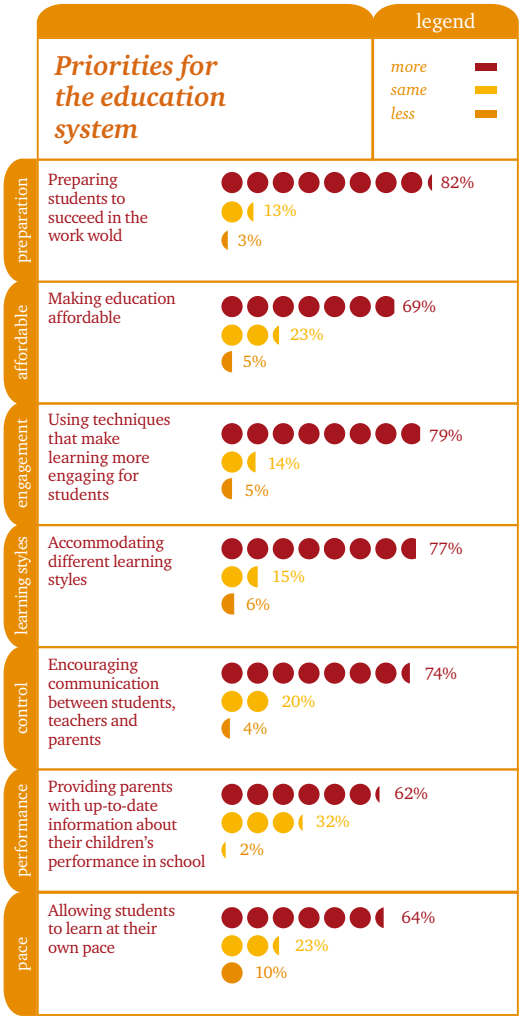
When asked to rank the performance of our education system and then asked to rank where we can improve its delivery, Canadians send a very clear message.

Ranking the highest in performance is the system's ability to provide access to affordable, high quality education and how it fosters collaboration between students, teachers and parents. The lowest ranking indicators are managing costs and delivering customizable learning.



Priorities

Canadians told us they'd like decision makers to focus on several key areas of improvement. They believe the system could be doing more to prepare students to enter the work world, lower costs, implement new techniques make learning more engaging and to better accommodate different learning styles.



Why do Canadians want digital education?

While Canadians told us that they're generally satisfied with the education system in Canada, they see digital learning as an opportunity for improvement. As a whole, Canadians are well aware of digital learning, with nearly 60% indicating that they were familiar with the term. For the public as a whole, the current experience with digital education is focused on submitting assignments online, testing, and self assessments, with younger respondents reporting the most exposure to these tools.

Canadians see very real, tangible reasons for implementing digital education tools. The top reasons cited include the ability to personalize learning, quicker access to new and updated materials, more flexibility in choosing courses and lower cost of attending post-secondary institutions.

What's digital education?

Digital education changes how learning is delivered. It's about focusing on the needs of students and being able to offer personalized approaches to improve learning outcomes. We asked respondents to consider two different approaches that add new technologies to expand student experiences.

Virtual learning allows schools to deliver lessons online and from a distance using different devices. These devices can include laptops, tablets and mobile smartphones, among others. See our example on page 10.

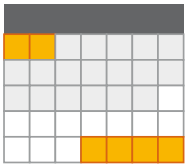
Blended learning offers a mix of e-learning and traditional teaching techniques aimed to improve student results. Face-to-face teaching is supplemented by content accessed online. See our example on page 12.

Overall, Canadians see digital education as a positive force for change. They believe digital education will improve access to education, personalized learning and increase learners' understanding of technology. What's more – across the various subgroups – parents, students and teachers see little negative impact to education delivery. It's clear that people want to see these tools implemented. They anticipate it'll change traditional face-to-face interactions, but they won't compromise the quality of education they've come to expect from traditional delivery models.

Top three reasons for wanting more digital education tools

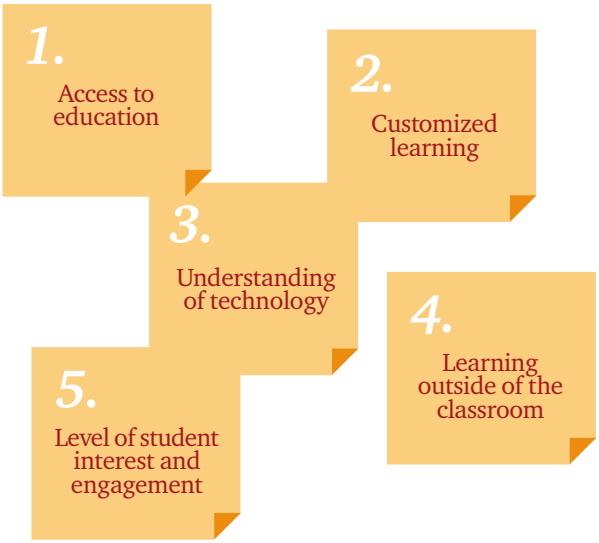
Personalized learning for students

New and updated material in real time



More flexibility in choosing courses

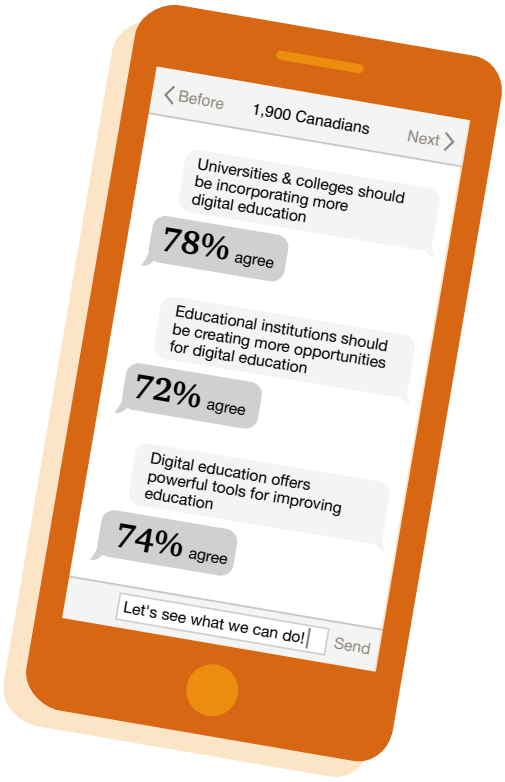
Top five areas digital education will have the most impact



When asked about their attitudes regarding digital education, it's clear that Canadian's aren't just ready for technology transformation, but they expect it to improve current learning environments.

What's interesting to note is that for parents, this is even more pronounced. At nearly a 10 point difference from student and teacher perspectives, parents see digital education as being beneficial to learning for themselves or for a family member, and are 6% more likely to believe that digital tools should be implemented at the primary or secondary levels.

Attitudes about digital education



Attitudes about digital education by group

	Students	Parents of K-12	Teachers
Digital education offers powerful tools for improving education	72%	72%	72%
Educational institutions and government should be creating more opportunities for digital education	68%	75%	71%
Universities & colleges should be incorporating more digital education	75%	81%	77%

Digital education: Re-defining the traditional classroom

After asking Canadians about their overall understanding and opinions about digital education, we asked them about emerging delivery models to examine their reactions to these concepts in practice.

Virtual learning: Massive Open Online Courses

First, we asked Canadians what they thought about Massive Open Online Courses (MOOCs). MOOCs are one of the biggest developments in education in recent years. They're courses that are open online to an unlimited number of participants, designed to attract both serious students and the general public. They often don't have pre-requisites and anyone can enroll. Some classes are taught through video recorded lectures, others are taught on a live stream where students can submit questions and comments through a chat feature. While some MOOCs aren't graded or for credit, other MOOCs are, and you're evaluated based on assignments and other assessments.

Dino 101

The University of Alberta's Dino 101, Canada's first ever for credit, and the world's first paleobiology MOOC, allows learners to study at their own pace. Open to more than 15,000 students from around the world, UAlberta's Dr. Phil Currie leads this 12 lesson course filmed at museums, labs and dig sites.

The course is available for free anywhere in the world (without credit), for credit for a modest fee, or to UAlberta students online or in class. Consisting of video lectures, integrated quiz questions and tests after each unit, students have the opportunity to learn from leading experts in dinosaurs from the comfort of their own home. And all they need to participate in the experience is an "internet connection and a sense of adventure."

Learn more about Dino 101 in the June, 2014 edition of education matters.

When asked to compare learning through a MOOC with the traditional classroom model, Canadians see one key differentiator: the ability to learn at their own pace. When asked if they would consider taking a MOOC, 77% said they would. They believe MOOCs outperform traditional learning models by being more flexible, more cost efficient and a way to learn outside of the classroom. However, Canadians place a high value on the accreditation they receive through the traditional system. When we presented a MOOC as a lower level certificate and not a degree, the option becomes significantly less appealing.

MOOC as a certificate vs. degree

The greatest concerns Canadians see in the delivery of education through a MOOC is a lack of in-person contact with peers, and a small group—16%—say they're skeptical about the quality of a MOOC.

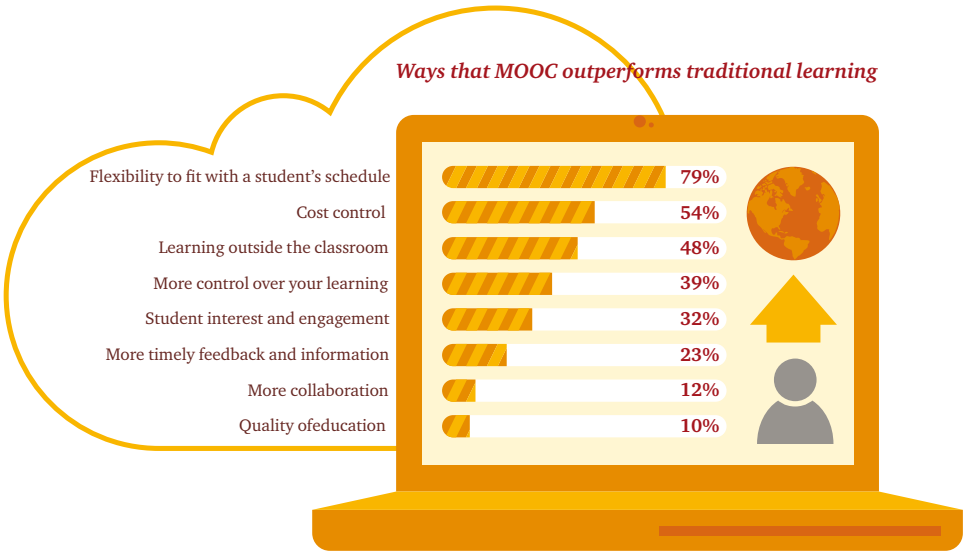
Highlights

77% would consider taking a MOOC as part of their post-secondary education

79% believe a MOOC outperforms traditional learning by being more flexible

50% would be concerned with the lack of in-person contact with peers and professors

Ways that MOOC outperforms traditional learning



Blended learning at Mohawk College

Human Resources and Skills Development Canada has found that innovative blended learning can improve teaching and learning, allow greater flexibility for learners, and helps enhance resources. At Mohawk College, face-to-face learning delivered in classrooms, lecture halls and labs is being supported by regular online activities like quizzes and video learning.

Some of the benefits include: improved flexibility, the convenience to access course content from a variety of devices, and helping learners familiarize themselves with the same technologies they'll use in the work world.

Blended learning doesn't mean less work for students or for teachers, it's simply a way to deliver learning that responds to students changing needs.

Blended learning: Mixing technology into the traditional classroom

Next, we asked participants to consider blended learning. Blended learning is just that – an education delivery model that blends the traditional brick-and-mortar, face-to-face classroom method with digitally mediated learning activities. An example of this is the flipped classroom that combines student self-study online with in-classroom labs or lectures. This approach gives students more control over time, place and pace of study.

When asked if they would attend a facility that blends traditional and digital learning, nearly 40% of respondents said they would definitely, while another 48% said they would consider it. They told us they see blended learning as a way to customize, have more control and use technology in their learning. They believe blended learning out performs traditional models by being more accommodating of different learning styles, providing individuals with more control, reducing costs of delivery and improving learners' understanding of technology.

Again, it's evident that Canadians value the quality and accreditation of education, because when presented with an option for a simulation-based diploma program versus a lower level certification, the latter option becomes less appealing. Not surprisingly, the two greatest concerns with blended learning are less expert guidance and lower quality of education.

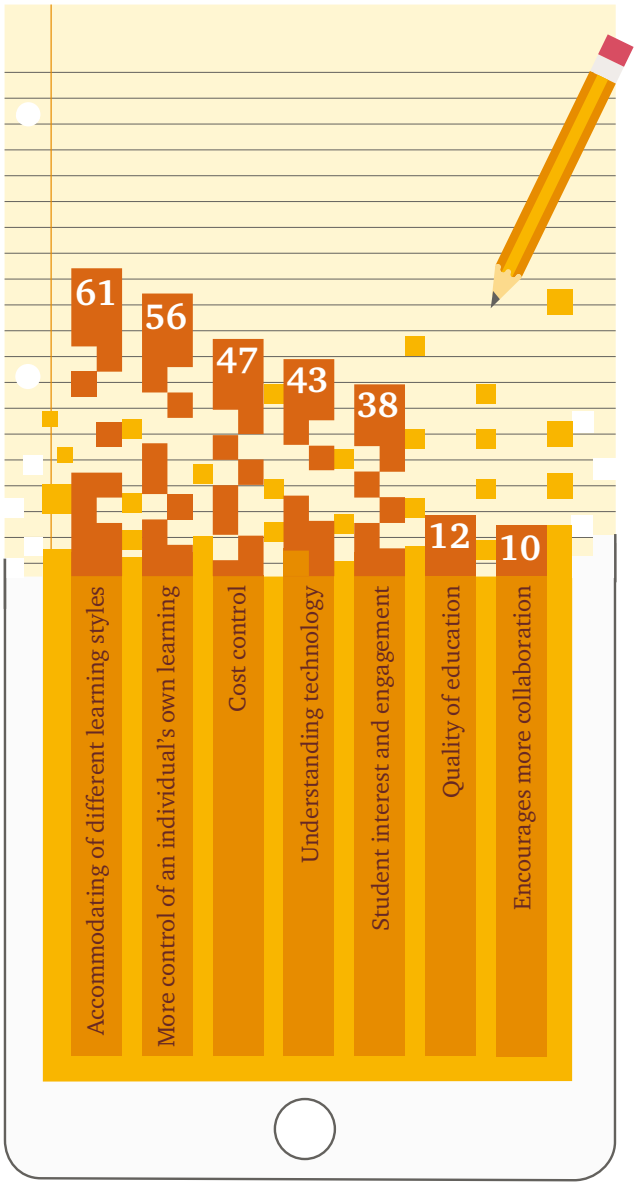
Highlights

86% would consider enrolling in a program that blends traditional and digital learning

35% believe blended learning provides more personalized learning

26% would be most concerned about the lack of face-to-face interaction with teachers

Ways that blended approach outperforms traditional learning



Conclusion

The rate at which technology is becoming a driving, disruptive force within all sectors is turning traditional models of service delivery upside-down. From an education perspective, this is having significant impacts on how we personalize learning, collaborate and how we prepare students for the future. Canadians expect to see digital education improve the system in the following ways:

- Help personalize learning, provide faster access to materials, and present learners with more flexibility.
- Improve access to education and understanding of technology; thereby better preparing students for their futures.
- Incorporate more digital tools and create more opportunities for collaboration.

Parents, students, teachers and changes in the employment market are driving the need for the education system to adapt. Making the right decisions now will have a significant impact on an institution's ability to find cost efficiencies and ultimately, to remain relevant. Service delivery transformation takes time and resources, but with the right strategy in place, the value Canadians expect from the promise of digital education can be realized. Following this report and based on these findings, we'll provide our insights into what decision-makers should be thinking about in order to respond to these changing needs.

Better prepare students for their futures	82%
Make education more engaging	79%
Accommodate different learning styles	77%
Make education more affordable	69%

Harvard Business School professor Clayton Christensen has predicted that as many as half of the more than 4,000 universities and colleges in the US may fail in the next 15 years. The growing acceptance of online learning means higher education is ripe for technological upheaval.

Methodology

The data presented in this report are based on a representative probability-based sample drawn from the Ekos ProbIt online panel. Respondents were randomly selected to participate in this study. The Choicebook is an advanced survey tool that provides participants with an opportunity to explore issues and make informed decisions.

The strategy was to get a sample that would reflect the population of Canada so we supplemented the group by several additional oversamples (young Canadians, students, families with young children). The general public Choicebook was completed by 1910 randomly selected people.

A sample this size has an associated margin of error of 2.24%, 19 times out of 20. To supplement the teachers that are in the general public sample, an additional 335 teachers and university professors completed the Choicebook. The combined teacher database, which is analyzed separately from the general public sample, has 636 respondents who are, or have at one point been, employed as a teacher, professor or other form of educator.

Interested to learn more about the findings?
Contact a local public sector professional to request a briefing.

For more information, please contact:

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