FutureTense

ADAPTING CANADIAN EDUCATION SYSTEMS FOR THE 21ST CENTURY

ACTION CANADA

ACKNOWLEDGMENTS

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EXECUTIVE SUMMARY

Canadian education systems rank among the best in the world, resulting in a highly-skilled labour force and competitive industries. However, the challenges associated with the twenty-first century have placed new demands on Canada and, by extension, Canadian education systems. In particular, these systems are now tasked with educating a generation that faces an unprecedented pace of social, economic, and technological change.

In an effort to equip students with the skills and knowledge necessary to prosper in such an environment, provincial governments across Canada have begun to implement education strategies that focus on developing specific competencies which collectively fall under the rubric of 21st century learning. The objective of 21st century learning is to build capacity in areas that promote a resilient society capable of effectively adapting to rapid change. It represents a shift in emphasis from the instruction of facts to a model which focuses on competencies such as critical thinking, character, creativity, innovation, as well as digital and computer literacy.

This report takes stock of efforts by five provincial governments to adapt their respective elementary and secondary education systems to incorporate 21st century learning models. It reviews provincial education policies then presents the results of a survey commissioned as part of this report and fielded to teachers in each of the provinces under examination – all with a view to better understanding the extent to which 21st century learning is being implemented within Canada.

Our examination reveals three key findings. First, the application of 21st century learning across provinces is largely inconsistent. Provincial disparities exist both in terms of how 21st century learning is articulated in policy, but also how it is applied in the classroom. Second, the survey results indicate a significant and positive association between teacher education and the facilitation of 21st century learning in the classroom. Third, the survey results also indicate a relationship between the active use of information and communications technology (ICT) and other 21st century learning competencies.

The principal recommendations that emerge from these findings include the implementation of a cohesive national strategy with respect to 21st century learning as well as an increased emphasis on teacher education and professional development. Improved interprovincial coordination, preferably by way of an established and competent national body such as the Council of Ministers of Education, Canada (CMEC), would facilitate knowledge sharing and collective policy making. Increasing professional development opportunities and establishing 21st century learning resources for teachers are practical, actionable, and high-yield strategies for promoting core competencies in Canadian classrooms.

"THE OBJECTIVE OF 21ST CENTURY LEARNING IS TO BUILD CAPACITY IN AREAS THAT PROMOTE A RESILIENT SOCIETY"

INTRODUCTION

> ## *"CHANGE IS EXPONENTIAL...*
>
> ### *CONTRARY TO THE COMMON-SENSE 'INTUITIVE LINEAR' VIEW. SO WE WON'T EXPERIENCE 100 YEARS OF PROGRESS IN THE 21ST CENTURY—IT WILL BE MORE LIKE 20,000 YEARS OF PROGRESS (AT TODAY'S RATE)."*
>
> ### *- RAYMOND KURZWEIL*
> #### *FUTURIST AND DIRECTOR OF ENGINEERING AT GOOGLE*

Fuelled primarily by technological advancements and geopolitical developments, the pace of change in the twenty-first century exceeds even that of the Industrial Revolution.

The implications of increasingly rapid change are wide-ranging and present myriad economic and social challenges. While global in scope, the challenges associated with an accelerated pace of change have already begun to manifest in the Canadian context. A 2004 report by the Human Resources and Skills Development Canada (HRSDC) Federal Labour Standards Review Commission made the observation that:

...the notion of a 'job for life' is in rapid decline. Today's worker will have on average approximately three careers and eight jobs over a lifetime. Also, working arrangements and employment relationships are changing, becoming much less standardized and more complex.[1]

In order to remain competitive in an increasingly sophisticated and integrated global economy, Canadian industries must be able to efficiently and effectively adjust to emerging technologies, practices, and environments. This places new demands on the labour market for a dynamic workforce that is highly adaptable in the face of change. But the implications of accelerated change are by no means limited to the economic context. The consequences of historically unprecedented shifts in areas such as climate, technology, and demography are – at a minimum – tantamount to those in the global economy. By extension, they too demand resilient societies capable of adapting to new situations.

Canada can best prepare for the challenges associated with the accelerating pace of change by equipping Canadians with the skills necessary to operate effectively in response to our increasingly dynamic world. As education systems are the primary vehicle for learning in a society, they are an obvious focal point for analysis.

Education systems in most industrial societies have historically focused on the direct instruction of facts and methods. However, this model of information delivery has changed substantially as a result of new technologies that enable unprecedented access to knowledge and information. In this context, the role for education systems is no longer as dispensers of knowledge, but rather facilitators of learning. In order to ensure that Canadians are resilient in the face of rapid change, education systems must be adapted to "prepare students for jobs that have not yet been created, technologies that have not yet been invented and problems that we don't yet know will arise."[2] To do so requires a paradigm shift in which teaching students answers gives way to teaching them how to ask the right questions, evaluate information critically, and communicate effectively.

This report takes up the concept of 21st century learning as a means of meeting the challenges of education in the fast pace of the current era. It examines how policy makers and practitioners in provinces across Canada are applying 21st century learning and offers recommendations based on its observations.

21ST CENTURY LEARNING

In response to changing demands on education systems, a discourse has emerged in education studies under the rubric of 21st century learning.

Developed by a diverse array of stakeholders in the field of education, 21st century learning emphasizes a suite of so-called core competencies deemed critical in preparing students for the challenges of the contemporary era. These competencies are not intended to displace conventional subjects of study, but rather to complement existing pedagogy with a view to offering students a blend of content knowledge, specific skills, expertise, and literacies. They include, but are not limited to, competencies such as critical thinking, problem solving, communication and collaboration, computer and digital literacy, creativity, character, and innovation.

While there is a general consensus among education stakeholders as to the value and benefit of 21st century learning, its terminology and associated discourse has been broadly and at times inconsistently interpreted and applied in public policy. Alternately referred to as 21st century skills, there is some variance to the precise makeup and configuration of skills, expertise, and literacies espoused by different proponents of 21st century learning. The U.S.-based Partnerships for 21st Century Skills, for example, clusters 21st century learning into four student outcomes: core subjects and 21st century themes, learning and innovation skills, information, media and technology skills, as well as life and career skills.[3] Canadian-based C21 Canada identifies seven core 21st century learning competencies: creativity, innovation and entrepreneurship, collaboration, communication, character, culture and ethical citizenship, as well as computer and digital technologies.[4]

Many of these competencies are neither new nor specific to the twenty-first century; critical thinking, for example, has its origins in the Socratic method. Computer and digital literacy is nascent by comparison, but no less relevant in the present context. 21st century learning calls attention to competencies – both old and new – considered essential for success in the foreseeable future. Furthermore, it emphasizes the importance of an interdisciplinary approach to learning. Access to technology, for example, is in itself insufficient so long as its application is limited to a specific domain.

Proponents of 21st century learning are not limited to academics, policymakers, and teachers. A recent report by the McKinsey Centre for Government found that employers place a very high value on soft skills, which "encompass such a wide range of concepts, from personal characteristics (confidence, temperament, work ethic) to social and cognitive skills (communications, problem solving)."[5]

"MANY OF THESE COMPETENCIES ARE NEITHER NEW NOR SPECIFIC TO THE TWENTY-FIRST CENTURY."

METHODOLOGY

Given that the pace of change represents a fundamental challenge to the future prosperity of Canadians, and taking stock of the promise of 21st century learning for meeting this challenge, this report offers a preliminary evaluation of the extent to which 21st century learning is incorporated into Canadian education systems.

Much of the work that has been done on the 21st century learning agenda in Canada is around making the case for implementation. As demonstrated, however, there is near-consensus among policymakers and practitioners with respect to the value of 21st century learning. This report therefore endeavours to move the conversation forward towards a national action plan for implementation, drawing insight from successes and shortcomings to date.

As education systems in Canada are primarily provincial jurisdiction, the report undertakes a review of a sampling of five Canadian provinces, namely Alberta, British Columbia, New Brunswick, Ontario, and Quebec. These cases were selected on the basis of variance in their respective education policies, access to public documents, and available research partnerships. These cases were selected on the basis of variance in their respective education policies, access to public documents, and available research partnerships. Furthermore, they collectively comprise 88.4% of the Canadian population.[6] The cross-section of core competencies that were selected for analysis is as follows:

• Creativity, entrepreneurship and innovation: students are taught to take risks, to view failure as an opportunity to learn and persevere in a new way, to take initiative and be self-motivated;

• Critical thinking: students are taught to consider information with an open mind and a capacity to challenge and form their own conclusions;

• Computer and digital literacy: students are taught to harness the power of modern technology safely and appropriately as an integrated part of their education and life; and

• Character: students are taught to be global citizens, to collaborate with others, and to demonstrate ethical behaviour towards others and their environment.

The report examines the salience of these core competencies in provincial education policies and practices. This is achieved by way of two complementary methods. First, key texts relating to education policies from each of the sampled provinces were reviewed to ascertain the presence or absence of the core competencies being examined. Second, a survey fielded to teachers in each of the provinces being studied was analyzed with a view to identifying the extent to which 21st century learning is incorporated into classroom instruction.

The report draws conclusions from the findings of both the policy review and the teacher survey and makes recommendations accordingly.

"THIS REPORT OFFERS A PRELIMINARY EVALUATION OF THE EXTENT TO WHICH 21ST CENTURY LEARNING IS INCORPORATED INTO CANADIAN EDUCATION SYSTEMS."

POLICY REVIEW

A review of provincial policy and discussion documents reflects the lack of clarity in the 21st century learning discourse. While the texts examined in this report demonstrate support and even enthusiasm among provincial governments for 21st century learning in terms of its principles, there is little consistency between provinces as to its substance or goals. Each province emphasizes different competencies related to 21st century learning and, in addition to language that is at times vague, the texts generally offer insufficient guidance in the way of policy operationalization or implementation.

What follows is a brief review of provincial government texts that pertain to 21st century learning, with a focus on the particular cross-section of core competencies under examination in this report.

"EACH PROVINCE EMPHASIZES DIFFERENT COMPETENCIES RELATED TO 21ST CENTURY LEARNING."

>> ALBERTA

Snapshot of 21st century learning

• *creativity, critical thinking, computer and digital technologies, character all present within provincial education strategy*

• *implicit emphasis on innovation*

• *support for teacher education and development*

The Alberta Education Program makes reference to 21st century learning competencies – including creativity, critical thinking, computer and digital technologies, and character – under the rubric of 'competencies for engaged thinkers and ethical citizens with an entrepreneurial spirit.'[7] While student assessment strategies are not directly indicated, examples of ideal student performance and outcomes are provided.[8]

Computer and Digital Fluency is identified as a separate subject area as a means of highlighting its importance, not to suggest that it should be a stand-alone subject. This interdisciplinary approach is in keeping with 21st century learning practices.

Innovation is not clearly referenced in Alberta's education strategy, but the skills discussed in these documents suggest that innovation is important, even though the term is not formally used nor the concept explicitly encouraged.

The Alberta Ministry of Education offers support to teachers through research support, grants, and other initiatives that build on the idea that teachers learn best from other teachers.[9]

>> BRITISH COLUMBIA

Snapshot of 21st century learning

- *emphasis on innovation through the Premier's Technology Council*
- *integration of 21st century learning into provincial education strategy*
- *education plan currently in development, so no clear policy exists at present*

British Columbia has integrated 21st century learning into its provincial education strategy. The Ministry of Education makes consistent references to 21st century learning and articulates its aims in education as being oriented towards challenges of the future.[10]

BC's education policies are currently in the process of being harmonized into a single policy document, the pending BC Education Plan, signalling a transition in the province's approach to education. In the absence of a comprehensive education strategy, inferences are drawn from available supporting documents,[11,12,13] which suggest an increased emphasis on 21st century learning competencies such as creativity, innovation, critical thinking, and character.

Furthermore, a recent report from the Premier's Technology Council, which was formed in 2001 to provide advice on technology-related issues, outlines an educational plan that speaks to the need for 21st century learning in BC's education systems moving forward.[14] It is expected that the findings from this report will be reflected in forthcoming BC Education Plan.

>> NEW BRUNSWICK

Snapshot of 21st century learning

- *technology-focused 21st century learning plan introduced in 2010*
- *fall of incumbent government in same year has unclear implications for policy direction with respect to 21st century learning*
- *currently no clear policy on skills students will learn, or view to the future*

The education system in New Brunswick is divided into two parallel but separate linguistic sectors that are responsible for their own curriculum development and assessment, which has implications for a cohesive education strategy. Furthermore, the transition in government following the 2010 provincial election has introduced an element of inertia into the preceding momentum in education policy.

On September 15, 2010, the Department of Education (Anglophone Sector) released a document entitled *NB3-21C: Creating a 21st Century Learning Model of Public Education,*[15] which was meant to be a three-year implementation plan for 21st century learning in the New Brunswick education system. This document, although heavily focused on computer and digital technologies, clearly highlighted the need for the education program to broaden its pedagogical objectives in order to include a wide array of cross-curricular skills, including all four identified for the purpose of this report. However, since the 2010 election, it has been unclear whether this plan will be renewed or left behind as a new series of policies focusing on organizational changes of the New Brunswick education system is underway, including an action plan for early childhood education - *Putting Children First* - the goal of which is to better prepare young children for the future.[16]

One element of the plan to move to a 21st century learning model was implemented before the initiative was put on hold. All of New Brunswick's 7,500 teachers were provided with a notebook computer for professional use to enhance instruction as part of a program called Notebooks and Professional Development for Teachers.

>> ONTARIO

Snapshot of 21st century learning

- *emphasis on critical thinking and character*

- *lack of attention to computer and digital technologies*

- *minimal focus on creativity, entrepreneurship and innovation*

On January 22, 2013, Professor Michael Fullan, Special Advisor to the Premier of Ontario, released a discussion paper entitled *Great to Excellent: Launching the Next Stage of Ontario's Education Agenda*[17] on how the province can incorporate higher-order learning into its schools. While all the competencies of interest for the purposes of this report are highlighted in Fullan's paper, it remains descriptive and the implementation relies on a great deal of knowledge and expertise assumed to already be present in the system.

Though the current Ontario education program does not formally discuss the use of the 21st century learning competencies in its policy documents, it does provide a clearly defined set of critical skills through the Ontario Skills Passport framework. The framework provides a set of guiding terms and examples to aid teachers in their instruction and assessment strategies.[18,19] It sets out a series of benchmarks that students must reach, measured on a scale of 1 to 4 in each skill set.

The framework does not include any skills related to character development, instead focusing on 'hard skills' that it anticipates will be requisites for future employment. Character is discussed in separate reports which highlight the important qualities that the education system should foster in students, as well as the ways character development can be integrated into the existing curriculum. [20]

The policy documents also forgo a substantive discussion of computer and digital technologies. Though referenced tangentially throughout the texts, it is not clear how or in what way digital literacy or media literacy will be effectively integrated into the curriculum.

>> QUEBEC

Snapshot of 21st century learning

- *21st century learning integrated across the curriculum as 'cross-curricular competencies'*

- *no update to computer and digital technologies policy in the last decade*

- *no references to innovation*

The Quebec education program has engaged with 21st century learning competencies or, as the Ministry of Education refers to them, 'cross-curricular competencies.'[21,22] As early as 1994, the Quebec government published *Preparing Our Youth for the 21st Century*, which highlighted the urgent need to take into account major shifts such as internationalization, globalization, the information explosion, rapid technological development, and the growing complexity of social life. A redeveloped elementary education program was released in 2001 and has remained in place since then. The secondary education program was launched in two installments: in 2004 and in 2007. All three programs adhere to the same philosophy: schools must see that students develop generic abilities that are solidly grounded in an organized body of knowledge to respond to the complex, multidimensional world we live in.

Evaluation criteria are clearly identified for all competencies and for different assessment levels. Although computer and digital technologies skills are identified separately from other 21st century learning competencies, it is clear that they are intended to be used across the curriculum. However, an updated policy that reflects the innovations in technology over the last decade would be an important consideration given the fast-paced developments in this sector. Furthermore, although creativity and entrepreneurship are clearly present in the documents, references to innovation are absent.

TEACHER SURVEY

Provincial education policies offer insights into governments' desired outcomes and the importance attributed to these outcomes. Evidence from the preceding section implies a policy emphasis on 21st century learning, albeit varied by province. However, best practices with respect to the implementation of policy objectives in this domain remain largely underspecified. Assessing the operationalization of education policy thus requires practitioner insights.

Teachers are well-positioned to assess the extent to which provincial curricula and classroom practices promote 21st century learning. To that end, an online survey was fielded to teachers in the provinces examined in this report, i.e. Alberta, British Columbia, New Brunswick, Ontario, and Quebec. The survey was launched on December 20, 2012 and closed on January 14, 2013, during which time it garnered 902 respondents. While mindful of the fact that respondents to online surveys are inherently self-selected, respondent representation across and within provinces as well as by other indicators – including age, teaching experience, gender, language, grade level, and subject of study – was sufficiently proportional to the general population to merit consideration of the survey results. The survey focused on the same core competencies as were examined in the policy analysis, i.e. critical thinking, creativity and innovation, character, and computer and digital literacy. Preliminary findings from the survey are outlined below.

Critical Thinking

The survey asked teachers to assess the extent (in percentage terms) to which the curriculum in their province emphasized description, analysis, and evaluation, with more emphasis on the latter elements being suggestive of a curriculum that fosters critical thinking in the classroom. Teachers in British Columbia report more emphasis on description than any other province (see Figure 1).

The survey findings demonstrate that teachers with graduate degrees and those who take professional development courses are positively associated with higher reported levels of analysis and evaluation in the curriculum, and lower levels of description. It can be reasonably inferred from this finding that teachers with advanced training are more likely to interpret their respective curricula as promoting critical thinking and develop their lesson plans accordingly.

Figure 1: Critical thinking by province
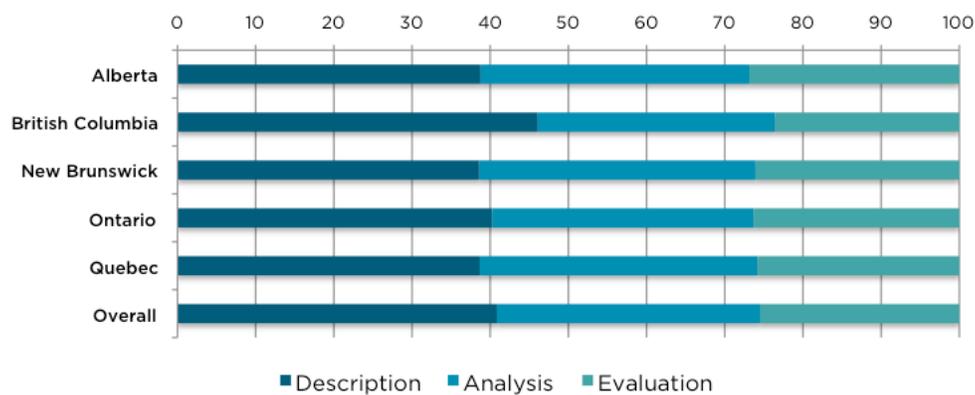
Computer and Digital Literacy

Among the most salient – albeit somewhat intuitive – survey findings with respect to computer and digital literacy was that that teachers who reported higher rates of information and communications technology (ICT) use in the classroom were those who also reported more frequent personal use of such technologies. Availability of ICTs in schools was a strong predictor of classroom use, but so too was ICT training. It can be inferred from these findings that teachers will use technology in the classroom when it is readily available and they have adequate training.

The necessity of teacher education is emphasized in the provincial breakdown of reported student ICT use in the classroom (see Figure 2). Notwithstanding efforts by the former Liberal government in Quebec to integrate interactive whiteboards into classrooms or providing teachers in New Brunswick with notebook computers, the reported use of ICT in classrooms in both these provinces significantly trails that of Alberta, British Columbia, and Ontario. One hypothesis derived from these results is that, absent sufficient teacher training, more technology in schools is unlikely to translate into more ICT use in the classroom.

The survey findings also suggest that a teacher's age is not a significant predictor of student ICT use in the classroom. Controlling for age, teaching experience is correlated with ICT use in the classroom. This implies that younger teachers are no more likely to engage in more classroom ICT use than older teachers; rather, more experienced teachers demonstrate a greater propensity to develop methods for integrating technology into their classrooms.

Finally, the results indicate a positive association between ICT in the classroom and other competencies, such as critical thinking. This suggests that, while technology is not the end in itself, it is a key enabler of 21st century learning.

Figure 2: Classroom ICT use by province
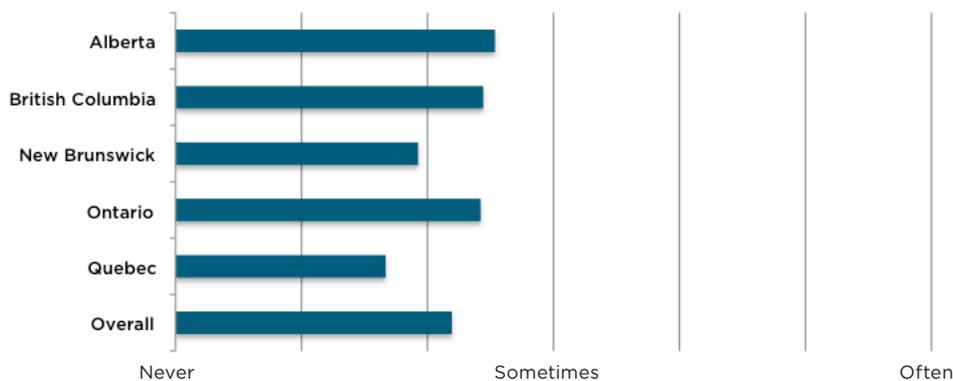
Character

Survey respondents were asked to assess the importance their respective curricula attribute to character development. They were also asked to offer their personal views on the amount of emphasis that should be placed on character development in the classroom. The results, which are consistent across provinces, indicate that teachers attribute more importance to character development than they feel the curriculum does.

Respondents from Quebec and Alberta generally indicated that their curriculum places a higher importance on character development than those from other provinces in the sample. Ontario respondents indicated a lower curricular emphasis on character development than respondents from any other province in the sample, despite Ontario's education policy documents having the highest number of references to character development.

The survey results also indicate that the longer teachers have been teaching the more likely they are to emphasize the importance of character.

Furthermore, respondents generally felt that the curriculum puts a greater onus on teachers than parents in terms of fostering character.

Figure 3: Character development by province

Alberta
British Columbia
New Brunswick
Ontario
Quebec
Overall

Not important   Very important

■ Individual Teacher Emphasis ■ Perceived Curricular Emphasis
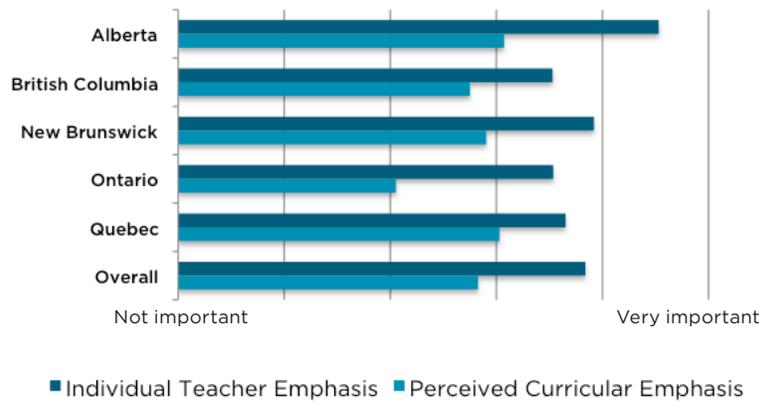
Creativity

In an effort to gauge creativity in the classroom, survey respondents were asked a series of questions that assess emphasis on creativity as well as more conventional modes of instruction. They were asked to respond both from their personal perspective as well as based on their perceptions of the curriculum. The results showed less variance by province than any other competency examined in this study, but in overall terms demonstrated a perception by teachers that their respective curricula are more focused on conventional modes of teaching and less on creativity than teachers themselves would prefer (see Figure 4).

As with each of the other 21st century learning competencies examined in this report, the correlation between teacher experience and creativity is significant, but this may be the result of a structural dynamic in Canadian education systems. Thierry Karsenti of the Université de Montréal attributes this finding to new teachers in Canada typically being assigned the most challenging classes. "Airline pilots, for example, don't get the toughest flights when they start; they get the easiest ones," explained Karsenti. "In teaching it's the opposite. When you're more experienced you get more advanced groups and more enriched groups."[23] Karsenti also noted that new teachers are focused on content and classroom management; experienced teachers are more familiar with the teaching content and can therefore devote more time to other areas.[24]

Figure 4: Creativity versus convention

Creativity

Convention

Not important   Very important

■ Teachers ■ Curriculum
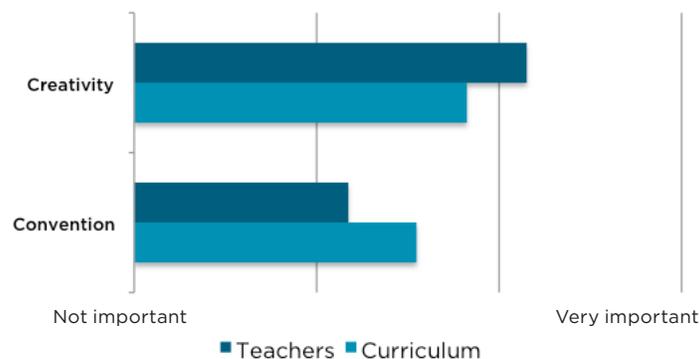
CONCLUSIONS

The findings of both the policy review and the survey analysis indicate significant disparities between provinces with respect to the application of 21st century learning.

While the policy review demonstrates an acknowledgement on the part of provincial governments as to the importance of 21st century learning, approaches to implementation are highly varied. Furthermore, few of the policy documents reviewed in this study have been formally implemented and there are substantial discrepancies between the mandate outlined in these texts and classroom realities.

The results of the teacher survey complement the assertion that variance between provinces is significant across most of the competencies examined in this report. In other words, provinces vary not only in terms of their policy instruments, but also in terms of their classroom practices.

A consistent finding in the teacher survey across competencies was the positive association of teacher development with higher indicators of 21st century learning in the classroom. Teachers who engage in professional development and growth opportunities are more likely to report higher levels of 21st century learning in their classrooms.

RECOMMENDATIONS

Two principal findings emerge from the research undertaken in this report. First, there is little in the way of interprovincial coordination around 21st century learning. This is both a missed opportunity for knowledge sharing and transfer and a structural inefficiency that sees each province replicating the work of the others, resulting in redundant resource allocation. Second, the benefits of teacher education and professional development for the facilitation of 21st century learning in the classroom are apparent from the teacher survey results. Teacher education should thus clearly be a focal point in the operationalization of policies related to 21st century learning. Based on these inferences, we offer the following recommendations.

1. ESTABLISH A 21ST CENTURY LEARNING SECRETARIAT AT THE COUNCIL OF MINISTERS OF EDUCATION (CMEC)

Interprovincial coordination in the area of 21st century learning could dramatically increase returns on the investment currently being made by individual provinces. CMEC's role as "a forum to discuss policy issues; [and] a mechanism through which to undertake activities, projects, and initiatives in areas of mutual interest"[25] makes it ideally situated to take on a national leadership role in the domain of 21st century learning.

The establishment of a 21st century learning secretariat at CMEC would offer the following contributions:

A. Policy coordination

As evidenced in this report, conceptual confusion with respect to 21st century learning has resulted in diluted policy mandates and problematic policy implementation. CMEC can establish a national framework for 21st century learning, setting common language and definitions so as to enable meaningful, actionable goals and develop a shared set of best practices.

B. Research and analysis

CMEC can develop a central repository of research related to 21st century learning and draw on the provincial experiences to suggest effective strategies for policy operationalization and implementation.

C. Compliance monitoring

CMEC is already tasked with developing and reporting on education indicators and is thus well-positioned to establish – in consultation with provincial stakeholders – national standards, measurable outcomes, and evaluation metrics related to 21st century learning. It can provide regular monitoring of provincial compliance with set benchmarks as means of aiding provinces in tracking their progress.

D. Advocacy

CMEC can serve as a consolidated platform for providing national direction on 21st century learning. It can engage the federal government, civil society, and international organizations.

2. PRIORITIZE TEACHER EDUCATION AND PROFESSIONAL DEVELOPMENT

While the findings of the teacher survey clearly demonstrate a positive association between teacher education and 21st century learning, provincial strategies for 21st century learning place little direct emphasis on teacher education. Teachers should be a central focus in the operationalization of policy related to 21st century learning, with particular attention to the following:

A. Integrate 21st century learning modules into teachers' academic training

A taskforce should be established – perhaps by CMEC – with the aim of undertaking a full review of education faculties at Canadian universities to assess the extent to which they prepare teachers to facilitate 21st century learning. The goal of the taskforce should be to develop a set of national recommendations for incorporating 21st century learning modules into teacher education programs.

B. Increase professional development opportunities for teachers

Teachers should have regular access to professional development opportunities, particularly in the area of 21st century learning. Professional development should be seen as a continuous and meaningful part of the teaching profession.

C. Create an online 21st century learning portal for teachers

The evidence presented in this report and elsewhere suggests that teachers are largely supportive of 21st century learning initiatives in principle. However, ambiguous government policies and a lack of direction with respect to implementation create confusion as to what 21st century learning looks like and how it can best be practiced in the classroom. An online portal that serves as a central access point for the dissemination of knowledge and resources related to 21st century learning (e.g. webinars, sample lesson plans, discussion boards, etc.) would offer pedagogical aids and practical examples that would substantially aid the facilitation of 21st century learning in Canadian classrooms.

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TASK FORCE MEMBERS

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