



Canadians for 21st Century
Learning & Innovation

Shifting Minds 4.0

A Metric for 21st Century Learning Systems



SYSTEM PROFILE INDEX



SHIFTING MINDS 4.0

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A Metric for 21st Century Learning Systems

*Surface changes in education will not equip students for the 21st Century: change is needed at the core of educational practice. **Shifting Minds 3.0: Redefining the Learning Landscape in Canada***

How do you create a culture for 21st Century Innovation and Learning to flourish?

System reform requires conditions that support teachers in critically examining evidence of student learning and evolving new pedagogies to deepen learning and engage increasingly complex learning competencies. Transformative leadership is required at all levels to create a collaborative system culture along a continuum of 5 enabling elements: **instructional design, pedagogy, learning environments, governance, and stakeholder engagement**. **The Shifting Minds 4.0 System Profile Index** provides a metric to assess and develop enabling elements for system leaders to create 21st Century environments in which pedagogy innovation and competency-based learning can flourish.

What are shifting roles for Teachers and Educational Leaders?

ROLE OF TEACHERS:

*Teachers serve as activators of personalized student inquiry, working in partnership with students to increase **C21 Canada 7Cs Learning Competencies** to engage deep learning and understanding. Evidence of content achievement is identified in solution-based problem solving. Teachers model the 7Cs in their own learning to create new pedagogy based to address learning profiles and achievement evidence.*

ROLE OF EDUCATIONAL LEADERS:

*Educational leaders engage system-wide articulation and transformation of the 5 system enabling elements in the **Shifting Minds 4.0 System Profile Index** to create a culture of collaboration and innovation for teachers to take risks and build capacity. Administrative support includes ubiquitous WIFI, embedded collaboration time and strategic support for IT training and collaboration and a focus on evidence of student learning.*

How does the Shifting Minds 4.0 System Profile Index transform system culture?

The **System Profile Index** provides a self-assessment framework of performance indicators to align system culture to a continuum of 3 stages, delivering indicators and evidence of the system's capacity for students to develop competencies that lead them to their own learning autonomy:

1. **Articulating** Common Beliefs About Student Engagement
2. **Transforming** Culture and Collaboration for Improved Student Learning
3. **Innovating** Partnerships and Practice for Deep Learning Autonomy

The **Index** provides rubrics for each specific outcome of the System Design Elements defined in **Shifting Minds 1.0: A Vision for 21st Century Learning in Canada**. A continuum of performance indicators is matched to a value of 1 to 3 corresponding to the three stages of development:

The generation of developmental stages and index values targets improvement planning while performance indicators guide the development of system culture and capacity for teacher innovation and capacity building.

THE SHIFTING MINDS 4.0 SYSTEM PROFILE INDEX REPORT

A personalized System Profile Index and Report generates a summary of the indicators selected for each System Element. An Index is assigned based on the number of indicators selected for each question. An overall average matches the System to a stage along the continuum.

Index Values	System Progress
0 to 1.4	Articulating Common Beliefs About Student Engagement
1.5 to 2.5	Transforming Culture and Collaboration for Improved Student Learning
2.6 to 3.0	Innovating Partnerships and Practice for Deep Learning Autonomy

How can the System Leaders use the Shifting Minds 4.0: System Profile Index?

*Superintendents, District Leaders, Principals, Mentor Teachers and Coaches contribute to a collaborative culture of learning inquiry focused on evidence of improved student learning and engagement. The Shifting Minds 4.0: System Profile Index benchmark values and performance indicators can be used in a variety of ways to build the culture and capacity of systems to support teachers in innovating new pedagogies, examining student performance and developing **C21 Canada 7Cs Learning Competencies**.*

- Serve as transformational change leaders, using the Index to co-creating a shared vision with stakeholders and creating enabling conditions for innovations in new pedagogy to flourish
- Establish Innovations in New Pedagogy as a School Plan Goal and create ongoing cycles of planning, action, feedback and reflection to support, monitor and measure progress using the Index values as a benchmark.
- Reflect on Index performance indicators to cultivate a professional learning culture embedded in daily practice that builds on student evidence and requires staff engagement of the 7Cs to develop new pedagogies.
- Create support mechanisms for staff using Index performance indicators, including scheduled time for collaboration, systematic technology training and accessibility to resources and share the results with these with all staff.
- Identify new ways of measuring and promoting student, teacher and school successes that align with deep learning, 7Cs and new pedagogies referring to performance indicators from the System Profile Index.
- Build and reinforce a culture of innovation by using the performance indicators for the 3 stages of System Profile Index, making new practices transparent and addressing mistakes/failure openly as learning opportunities, creating proactive dispositions around risk-taking
- Assign administrative support to maintain student information systems that include learning profiles of aspirations, interests, capacities and needs and provide data for teachers to use in developing new pedagogies.
- Establish an Innovation fund, target system and school expertise in the 7Cs and innovative pedagogy and collaborate with the school and across the district to align with System Profile Index results.
- Create learning partnerships with all stakeholders, peers and system leaders to share practices that advance learning, engage team planning and feedback, and develop the 7Cs in daily practice and formal communication using the continuum of System Profile Index indicators and stages as a guideline.
- Engage regular peer collaboration for teachers to develop effective feedback cycles that promote the learning process, refine the 7Cs and encourage resiliency among staff and students based on System Profile Index results.
- Challenge colleagues, teachers and system leaders in the direction of new pedagogies linked to deep learning using the System Profile Index indicators and benchmarks for self and peer assessment and as a guideline for professional learning.

How can the data and information gathered from the Shifting Minds 4.0: System Profile Index be used?

Governments and Ministries of Education:

Guide the design and implementation of 21st century models of learning across their systems

School Boards and Districts: Guide the design and implementation of district plans, stakeholder engagement, and staff development

Schools: Gather data for school improvement and to guide and support professional development through collaboration

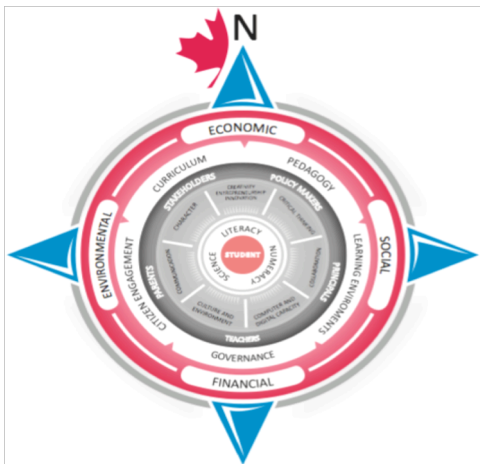
Teachers: Engage self and peer assessment and participate in professional collaboration on how best to achieve 21st Century Competencies

Technology Leaders: Facilitate IT and social media applications to enable and accelerate learning and extend learning and collaboration beyond the classroom

Education Companies: Engage more effectively in the education market and support the education communities with which they are conducting business

Private Sector Companies: Guide the design and implementation of business and industry skills development and recruitment programs to ensure expertise in 21st century competencies

Not for Profit Organizations: Guide the design and implementation of skills development and recruitment programs to enhance 21st century competency expertise within these organizations



REFERENCES:

Shifting Minds 1.0: A 21st Century Vision of Public Education for Canada, 2013 (www.c21canada.org)

Shifting Minds 3.0: Changing the Learning Landscape in Canada, 2015 (www.c21canada.org)

21CLD Learning Activity and Student Work Rubrics, Innovative Teaching and Learning Research, January 2013
<http://www.educatornetwork.com/pd/21CLD/Overview>

A Rich Seam: How New Pedagogies Find Deep Learning, Michael Fullan & Maria Langworthy, January 2014
http://www.michaelfullan.ca/wp-content/uploads/2014/01/3897.Rich_Seam_web.pdf

Define. Distill. Deploy. Adopting 21st Century Competencies for high-impact talent, Heather Barnfield, Guangrong Dai, et. al. January 22, 2014,
<http://www.kornferryinstitute.com/reports-insights/define-distill-deploy-adopting-twenty-first-century-competencies-high-impact-talent>

What Students Know and Can Do Student Performance In Mathematics, Reading And Science Volume I Revised edition, February 2013, PISA, OECD
<http://dx.doi.org/10.1787/9789264201118-en>

The Great Canadian Skills Mismatch: People without Jobs, Jobs without People and MORE, Rick Miner, March 2014,
[http://www.minerandminer.ca/data/Miner_March_2014_final\(2\).pdf](http://www.minerandminer.ca/data/Miner_March_2014_final(2).pdf)

Equinox Blueprint Learning 2030, Michael Brooks and Bob Holmes, April 2014,
<http://www.wgsi.org/sites/wgsi-live.pi.local/files/Learning%202030%20Equinox%20Blueprint.pdf>

Achieving Excellence: A Renewed Vision for Education in Ontario, April 2014
<http://www.edu.gov.on.ca/eng/about/renewedVision.pdf>

Shaping a New Vision for Public Education in Nova Scotia, Nova Scotia School Boards Association, April 2014
<http://www.nssba.ca/news/latest-news/147-nssba-discussion-paper-shaping-a-new-vision-for-education-in-nova-scotia>

Engineering of Learning: Conceptualizing e-Didactics, Mourat Tchoshanov, 2013
<http://iite.unesco.org/pics/publications/en/files/3214730.pdf>

Digital Learning in Ontario Schools The "new normal", Bodong Chen, Kelly Gallagher-Mackay and Annie Kidder, 2014
<http://www.peopleforeducation.ca/wp-content/uploads/2014/03/digital-learning-2014-WEB.pdf>

The Third Teacher 79 Ways You Can Use Design to Transform Teaching and Learning, by Inc. OWP/P Cannon Design, VS Furniture and Bruce Mau Design

SHIFTING MINDS 4.0 SYSTEM PROFILE OF



INSTRUCTIONAL DESIGN

ARTICULATING Common Beliefs about Student Engagement

TRANSFORMING Culture and Collaboration for Improved Student Learning

INNOVATING Partnerships and Practice for Deep Learning Autonomy

The C21 Canada 7Cs, Competencies are infused to support student inquiry and autonomy driven by assessment practices that encourage 21st century instructional design and refined pedagogical practices. It is important that high yielding learning experiences engage competencies that require relevant higher-order thinking skills for students to achieve deeper learning and meaningful understanding.

INDEX

1. Instructional design is focused on student success, assessment-driven and the shared responsibility of all stakeholders of the organization.	Academic and Social Emotional Learning goals, outcomes and targets are articulated in a Strategic Improvement Plan.	Standards for development and continua including literacy and numeracy guide assessment and instruction across the organization.	All staff groups define and share responsibility for the learning and developmental progress and success of all students.
2. The C21 Canada 7Cs, learning competencies, are infused to engage deep personalized learning.	21st Century Learning Competencies required to achieve curricular goals are formally identified and articulated in daily practice.	Students identify their progress on targeted 21st Century Learning Competencies and their impact on learning using feedback from self, peers and teachers.	Teachers and students use a continuum to increase the complexity of 21st Century Competencies so that learning experiences and products require higher-order thinking.
3. Learning outcomes and associated activities engage the 21st century digital learner and are selected to increase instructional time for deep learning and understanding.	Knowledge construction by interpreting, analyzing, synthesizing, or evaluating information is the main requirement of a learning activity.	Curriculum mapping and backward design principles are used to develop inquiry and problem-based instruction.	Students articulate their own learning by demonstrating problem-based solutions relevant to their communities and future life and work.
4. Learning outcomes are rationalized across subject areas to reduce redundancy while strengthening cross-curricular connections.	School teams develop cross-curricular service projects mapping learning outcomes to eliminate repetition and redundancy and relating curricular content and 21st Century Learning Competencies to future life and work.	Student-led service learning and collaboration achieves mastery of short term learning goals and 21st Century Learning Competencies.	Students apply their learning in community-based solutions, global outreach and collaboration with others to achieve greater complexity of 21st Century Learning Competencies and deeper understandings of curricular goals.
5. Digital technologies are harnessed to ensure data generation is dynamic, timely and accurate and used to enhance engagement and collaboration.	IT including social media is accessible and ubiquitous to Wi-Fi on a 1:1 basis, daily as needed.	IT integration in curriculum and access to social media accelerates students into deep learning with increased autonomy.	Learners access IT and social media to extend collaboration beyond the school in addressing societal, environmental or global issues.

COMMENTS:

0.0

PEDAGOGY

Articulating

Transforming

Innovating

Instruction is developed from ongoing observations of performance, conversations with students about criteria and expectations, feedback from peer and self-assessments and personalised through partnerships with students. Teachers gather and use data about their students' learning to inform the engagement 21st century competencies to deepen learning and further understanding.

INDEX

6. Teachers embrace a culture of professional collaboration in aligning and sharing roles and responsibilities to support personalize instruction for students.

School teams are coordinated to establish roles and build relationships that model a proactive disposition towards engaging students in creating knowledge through deep relevant learning.

Multi-level curricular teams and multi-disciplinary school teams share IT-embedded pedagogies and refine criteria to develop 21st century competencies across disciplines.

School teams collaborate regularly to reflect on student performance and achievement, update student learning profiles and construct ways to innovate their practice for improved student learning.

7. Student interest and learning profile data is gathered and used to create developmentally appropriate instruction and resources to align with learner capacity, need and interest.

Student-centred instruction is scaffolded and aligned with students' proximal zones of development.

Literacy and numeracy standards and assessment continua are used to track and support learning.

Teacher-learner relationships reflect the role of student as equal partner with emphasis on reciprocal and peer-teaching to develop metacognitive learning competencies.

8. Project-based learning opportunities and solution-based academic achievements reflect student interest and passion in pursuing deep an relevant learning engagement.

School teams collaborate to design and deliver instructional support to inquiry models which engage students' talents, interests and learning profile needs.

Collaboration and feedback from students, mentors and peers build mutual understanding for students and teachers to develop 21st century competencies to deepen learning and understanding.

Students and teachers engage social media to extend feedback and collaboration beyond the classroom and school day to apply their solutions to problems of value.

9. Digital tools and social media are used fluently and appropriately to engage and support student learning, construct new knowledge, communicate learning and collaborate with others.

Teachers model digital resources and social media to support the development of 21st century competencies for knowledge construction.

Students access digital technology as needed to engage collaboration and knowledge construction.

Students collaborate beyond the school to enhance and communicate their learning through problem-based solutions that address needs in their community.

COMMENTS:

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LEARNING ENVIRONMENT

Children develop first through interactions with their parents, peers and teachers and ultimately with the environment around them A critical link exists between the environment at school and how children learn. Social spaces and the opportunity to make thinking visible can optimize further learning and engagement.

10. Learning spaces are flexible and accessible, allowing opportunities for social engagement, movement, collaboration and the pursuit of personalised learning, creativity and visual thinking.

Learning environments are rich in IT resources for documenting learning along with reference material and instructional materials for differentiated learning support.

Flexible and adaptive space configurations allow for large and small group physical movement, hands-on learning and social interaction.

Design considerations align with student profile needs to optimize learner performance.

11. Networks are designed to facilitate seamless transition between digital devices with full access to the internet and social media.

Ubiquitous access to IT and Wi Fi is available throughout the building to support learning, ensure integrity and safety and allow seamless access.

Student requirements for collaboration are supported by regular adaptations to space configurations and flexible learning time with mobile access available anytime, anywhere.

On-line blended learning and virtual school options can be pursued as viable and relevant options to meet learning needs, talents and interests.

COMMENTS:

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GOVERNANCE

Articulating

Transforming

Innovating

System change requires a culture of support and risk-taking so that educators can reshape the foundations on which their practice is built. Transformational leadership provides a balance between improvement planning and strategic innovation, maintaining stability so that innovations in instruction and assessment can be investigated.

INDEX

12. A System Improvement Plan articulates a 21st Century model including the C21 Canada system enablers and their strategic approach and alignment within the system.

Central governing policies, regulations, communication and practices articulate support for risk-taking, creativity and innovation in the classroom.

A leadership culture of risk-taking and empowerment is evident in professional collaboration of staff.

Stakeholders, including parents recognize and foster 21st Century models of learning in their partnership with the school.

13. A strategic plan articulates IT infrastructure requirements and ongoing support aligned to learning and pedagogical needs.

A plan for 1:1 IT and Wi-Fi access describes infrastructure and support requirements for the system.

IT enhancement of professional development and training support is articulated.

IT enhancement of access extends beyond the school to address societal, economic, environmental and fiscal issues.

14. Leadership is a shared responsibility, distributed to all partners and stakeholders and reflected in collaboration and communication design and implementation processes.

School leaders build time for collaboration into daily practice and leadership is distributed to facilitate coordinated teamwork.

Staff assumes and coordinates lead and support roles, self-directs meeting times and prioritizes agendas on student learning.

The school community recognizes the work shared by coordinated school teams and participates as needed, mirroring the collaborative process in their role as parent partners.

COMMENTS:

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CITIZEN ENGAGEMENT

Parent and community stakeholders serve a stewardship role in the school community in upholding a shared culture of risk-taking, innovation and respect. Parents recognize the impact of 21st century competencies on their children's future and the community appreciates the social, economic and political return on investment to the community-at-large.

15. Parent and community stakeholders engage as partners in 21st Century Learning Models.

21st Century Learning outcomes are articulated in regular communication to parents and the community and modeled in interactions with staff, students and stakeholders. Displays of 21st Century goals and icons are evident in the school.

Staff and students communicate their learning progress with parents on an ongoing basis, engaging parents in feedback and support.

Community members serve as partners in service learning and in developing community-based solutions for inquiry-driven problem solving.

16. A strategy for stakeholder support and awareness of the return on investment of 21st Century Learning models is articulated in the strategic plan in terms of its economic, social, environmental and fiscal impact on the community.

Parents are actively involved in the life of the school as volunteers, committee members, in addition to supporting student learning.

Parents and community members engage shared leadership roles in the school, mirroring 21st Century models of collaboration to support the inclusive goals of the school improvement plan.

Stakeholders partner with students in applying knowledge construction and developing competencies to create solutions that address social, environment or political problems required to thrive in future life, work and play.

COMMENTS:

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SHIFTING MINDS 4.0 SYSTEM PROFILE OF

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**ARTICULATING
Common Beliefs
about Student
Engagement**

0 to 1.4

**TRANSFORMING
Culture and
Collaboration for
Improved Student
Learning**

1.5 to 2.5

**INNOVATING
Partnerships and
Practice for Deep
Learning Autonomy**

2.6 to 3.0

**INSTRUCTIONAL
DESIGN**

0.0

PEDAGOGY

0.0

**LEARNING
ENVIRONMENT**

0.0

GOVERNANCE

0.0

CITIZEN ENGAGEMENT

0.0

**SYSTEM
PROFILE INDEX**

0.00

INQUIRY PLAN

**INSTRUCTIONAL
DESIGN**

PEDAGOGY

**LEARNING
ENVIRONMENT**

GOVERNANCE

CITIZEN ENGAGEMENT