The complexity of the education system
as seen by the Conseil supérieur de l'éducation

Summary

March 2025

Québec

You can consult this document at www.cse.gouv.qc.ca.

♻ This document is printed on paper containing 100% of recycled fiber.
100 %

In its report on the State and Needs of Education 2023-2025, the Conseil supérieur de l'éducation (CSE) has two objectives. First, it seeks **to demonstrate the complexity of the education system and the contribution of the CSE's unique perspective**, which has proven to be an effective tool for analyzing challenging issues in the field of education in Québec and tracking their evolution. Secondly, it wishes to enrich the work of the organizations which, as stipulated in Bill 23, will be tasked with studying the education system: the Conseil de l'enseignement supérieur (CES), which will result from the transformation of the CSE, and the Institut national d'excellence en éducation (INEE)

Through a historical review of the evolution of the Québec education system since the Parent Commission, this report illustrates its growing complexity over the decades. In keeping with the desire to make education accessible to all, especially for those groups traditionally less well served than others, educational services have had to adapt and transform to keep pace with the diversification of the learning population. At the same time, expectations of the education system have grown and multiplied on the part of a population that is better educated and more socially and culturally diverse than in the past, and in which different conceptions of the aims of education coexist. Added to this is the loss of widely shared traditional reference points and the retreat of moral authorities in favour of an emphasis on the development of individuality, which has challenged social consensuses.

In this changing context, the question of the aims of education arises, as there is no public consensus on their definition. It has also become increasingly difficult to harmonize educational programs, parental expectations and the individual needs of learners and society. **The complexity that defines today's education systems stems from the need to meet diverse expectations and manage a partially decentralized and fragmented organization, while navigating in a context of constantly evolving social values and reference points**.

In its report, the CSE explores ways of tackling the exceptionally complex problems—known as "wicked problems"—facing Québec's education system. The Conseil sets out to demonstrate the contribution of its unique cross-sectional and systemic approach to addressing these issues, which has made it a vital player. The report concludes that this approach has proved judicious, making it possible to analyze many of the wicked problems facing education in Québec and to track their evolution over the past 60 years. The exercise of defining complexity sheds light on the past work of the CSE and can inform the future work of the CES. In the CSE's view, collaboration between the two future organizations (CES and INEE) would preserve the advantages of a cross-sectional, systemic vision to grasp the full complexity of education. This collaboration would also benefit from being extended to other organizations and individuals.

1 Defining the complexity of the education system

The first chapter defines the "wicked problems" model developed by design theorists Rittel and Webber in the 1970s, and demonstrates its relevance to understanding the challenges of education. This model describes extremely complex issues that are impossible to resolve definitively. Unlike "tame problems," for which specialists can agree on a definition and a solution, wicked problems are characterized by a lack of consensus on their definition, by their evolving and conflictual nature, and by the transitory nature of the solutions that can be found for them. Problems such as poverty and climate change cannot be solved once and for all; they change over time, depending on the actions taken to reduce them. Conversely, building a skyscraper or even a city of skyscrapers is a tame problem, because the difficulties to be solved and the solutions to be found are known to the specialists.

Wicked problems transcend conventional problem-solving approaches such as scientific analysis or linear reasoning, which come up against an obstacle right from the problem-definition stage. Thus, the concept of a wicked problem underlines the need to mobilize dialogue, collaboration and experimentation to tackle the issues, despite the impossibility of providing solutions that would put an end to the problem. It provides a framework for understanding and representing the extraordinary complexity of certain issues, so as to guide stakeholders in managing them. It is a realistic, rather than pessimistic, approach that highlights the magnitude of the challenges facing modern societies and their governments.

Systems thinking is an essential tool for tackling this complexity. Unlike analytical thinking, which breaks down a system into its parts in order to understand it, systems thinking examines the interconnections and dynamics of the system as a whole, enabling decisions to be guided by the goals sought and the levers influencing the system.

Faced with heterogeneous societies, modern education systems must respond to complex expectations and manage wicked problems. These require a global vision, as isolated solutions can have unforeseen effects. A collaborative approach involving various stakeholders (governments, communities, specialists, etc.) is needed to arrive at a shared definition of these problems and acceptable solutions, depending on the situation. Many aspects of education have been analyzed through the prism of wicked problems, including pedagogy, special education, classroom behaviour, access to education in remote areas, dropout prevention, digital integration and learning assessment.

Therefore, **collaboration between organizations or individuals from diverse backgrounds, supported by systems thinking, represents the most effective way of managing the "wicked problems" of education**, as illustrated by the CSE's approach presented in the second chapter.

2 Understanding the complexities of education: the Conseil supérieur de l'éducation's perspective

The second chapter describes the CSE's unique perspective on the Québec education system as a whole, from preschool to university, including adult and continuing education. It also describes the CSE's modus operandi, which enables it to reach consensus among members from all levels and sectors of the education system to produce the briefs and reports it submits to the Ministers of Education and Higher Education.

The uniqueness of the CSE's perspective stems from its ability to examine the education system, in whole or in part, to understand various issues, including wicked problems—what we might call its **cross-sectional, systemic approach**. Recognized for its adaptability, transparency, autonomy and efficiency, the Conseil compares favourably with international advisory bodies. Its structure guarantees gender parity, diversity and inclusion, fostering informed consensus on complex issues. Its work, published in full transparency and accompanied by popularization tools, is accessible to the general public.

The CSE fulfills a **triple mission**. It performs a **democratic** mission by including the voice of citizens in its deliberations, a **political** mission by advising the Ministers of Education and Higher Education, and an **educational** mission by making its briefs and reports accessible to the general public. Founded on three pillars—scholarly knowledge, experiential knowledge and democratic deliberation—its method of reflection enables it to anticipate and address with keen insight the complex issues at stake in the field of education. Moreover, its organizational and financial autonomy enable it to meet ministerial needs without receiving direct political influence. Its in-depth analyses lead to relevant and lasting orientations, as demonstrated by its recent contributions with respect to the teacher shortage and generative artificial intelligence in higher education. The CSE thus embodies a model advisory council capable of anticipating educational challenges and influencing public policy, thanks to its adaptability, efficiency and roots in citizen participation.

Collaboration among stakeholders with diverse expertise, experience and values, seeking consensus on solutions, is the best way to tackle wicked problems. This approach also accurately describes how the Conseil supérieur de l'éducation functions.

3 The CSE's educational values and the evolution of its thinking

Chapter three highlights what the CSE has achieved by turning its cross-sectional, systemic gaze on the complexity of the education system for over 60 years. It presents an overview of the evolution of its thinking, articulated around its core values and its analysis of the education system's governance. The strength of its unique perspective on the education system as a whole is illustrated by its approach to adult and continuing education.

The primary mission of the new education system introduced in the mid-1960s was to increase access to education, especially secondary and higher education, for Francophones, rural and disadvantaged youth, and women. These years were marked by structuring initiatives: construction of schools and *polyvalentes* (secondary schools), creation of CEGEPs and the Université du Québec network, and more, leading to a rapid rise in school attendance. The primary educational values guiding the CSE's work at the time were democratization and access. However, the goal of accessibility was only the first step: quality of training and educational success also had to be part of the equation. The CSE's educational values evolved to include them. The triad of "access, educational success and quality" has been at the heart of its thinking since the late 1980s, and influenced the reforms begun in the 1990s.

Later, the CSE saw equity, rather than equality, as the means to achieving its vision, and began advocating access to educational resources based on learners' needs. This development reflected a major transition, as the CSE shifted **from access to school to access to equity** as its central issue. A full report was devoted to the subject, followed by publications on assessment, digital technology and generative artificial intelligence in higher education from an equity perspective.

In recent years, the Conseil has placed **inclusion at the heart of its educational vision**, seeing it as the key to equity and universal access to education. Inclusion is not limited to students with disabilities or those with adjustment or learning difficulties, but extends to the entire school population, recognizing the diversity of educational needs and paces of learning. In this way, the educational success of each and every individual becomes the main criterion for the quality of the education system. However, a number of obstacles arise when trying to implement this ambition. For example, the difficulty of integrating students with special needs into regular classes complicates the application of the educational reform undertaken in the 1990s, and highlights the fragile adherence to the principles of inclusion rooted in social justice. The CSE recognizes that the challenges of inclusion go beyond the education system and require wide-ranging action, particularly in the fight against poverty and exclusion. However, the **ideal of an inclusive education system remains a central objective for the CSE**, with the aim of enabling each and every individual to **achieve their full potential** through conditions conducive to lifelong and life-wide educational success.

3.1 The CSE's perspective on the education system's governance

The CSE's vision of the education system's governance has evolved as the system has changed, moving from an initial stance advocating the centralization of powers to decentralization, and then to a quest for balance. In its early days, the CSE supported centralization to coordinate the creation of the public education system, which ensured a certain equality in access to education across Québec. However, in the 1980s, it advocated decentralization in order to increase the autonomy of local authorities, stressing the need for local empowerment. This movement gained momentum in the 1990s, marked by reforms and a greater delegation of powers to educational establishments. The CSE then supported greater autonomy for colleges and universities, but with accountability requirements. Today, it notes a trend towards recentralization, notably with the transformation of school boards into school service centres, which limited the autonomy of local authorities during the COVID-19 pandemic.

In short, the CSE advocates a model in which the government sets the broad orientations and ensures consistency within the education system, while local authorities manage day-to-day educational services. It warns against excessive independence for schools, which could exacerbate social and educational inequalities, and insists on a balance between centralization and decentralization to guarantee effective and inclusive governance.

3.2 The CSE's perspective on adult and continuing education

The CSE stresses that the diversity and complexity of adult and continuing education go beyond the framework of formal education systems, making the management of this offer all the more complex. Its commission dedicated to this question brings together experts from a wide range of backgrounds to enrich the deliberations, enabling the integration of diverse perspectives and thus contributing to a more comprehensive vision of adult education issues. One of its key features is its integration of the non-formal adult education sector, which includes community organizations. The CSE considers **continuing education** to be both a right and a responsibility, necessary to meet the needs of a constantly evolving knowledge-based society. However, inequalities persist, particularly in the expression of needs and access to services. What's more, skills acquired in informal contexts are not easily recognized. The CSE advocates standardizing the **recognition of prior learning and acquired competencies**, regardless of how or where they were acquired, if the individual can rigorously demonstrate them.

Lifelong and life-wide learning is another of the CSE's priorities, proposing a vision of education in which knowledge and skills are never definitively acquired, and where there are no longer any end to the learning journey. Adult education must integrate this perspective, taking into account not only formal training but also informal paths such as popular education and autonomous learning. The education system must adapt to changing needs, and the recognition of prior learning and acquired competencies is a crucial part of this. Adult and continuing education therefore form a complex system in which collaboration between the various stakeholders (formal and non-formal sectors, community organizations, unions, etc.) is essential. It is a good example of the kind of wicked problems that the CSE and its bodies excel at analyzing, in order to come up with viable solutions that are applicable to the Québec context.

4 Educational challenges that call for a cross-sectional, systemic approach

The fourth chapter deals with themes which have not been the subject of a cross-sectional analysis by the Conseil supérieur de l'éducation, but which would benefit from such an analysis in the future, through collaboration between INEE, CES and other organizations concerned with education.

Socialization, an essential mission of the education system, runs through all levels, from pre-school to higher education, through adult and continuing education. It adapts to the growing social expectations expressed by "education for" (sexuality, the environment, citizenship, etc.) in elementary and secondary schools, reflecting the challenges of reconciling shared values and of preparing for an uncertain future. Indeed, in an increasingly diverse society, schools must transmit common values, while promoting social cohesion and inclusion. Adult education and higher education also play a key role in social integration, notably by offering diversified career paths and policies of equity, diversity and inclusion. These efforts, combined with socialization experiences such as internships or extracurricular activities, help prepare learners for professional and social life. An integrated reflection on socialization at all levels of education remains essential if we are to better fulfill this mission in a changing society.

Moreover, in the Québec context, **literacy** is a wicked problem influenced by factors such as pedagogical practices, family background, socioeconomic status and changing social norms. It is not limited to reading, writing and speaking skills, but includes the ability to understand and use language in a variety of contexts to participate fully in society. Québec's linguistic diversity, with its francophone, anglophone, Indigenous and allophone communities, means that the issue of literacy is not synonymous with mastery of French, even though French is the working language. In addition, while French represents an important identity issue for Francophones, it may be perceived differently by other communities. The challenges of mastering the French language are exacerbated by migratory movements, changing digital environments and social expectations. Many students enter higher education with inadequate skills, hindering their success and raising questions about responsibilities for remediation. Despite several reforms, the quality of the French language remains a recurring concern.

At the same time, emerging forms of literacy, such as digital and financial literacy, reflect the needs of contemporary society. These new challenges underline the importance of a cross-sectional analysis that would enable us to understand the needs of learners and assess the continuity of learning French, literacy in the broad sense and new literacies across educational pathways.

Science education aims to develop knowledge, critical thinking and ethics adapted to contemporary issues such as consumerism, health, the environment and digital technology. Yet the CSE has observed that science has long been relegated to the background, especially at the elementary school level, in favour of French and mathematics. Despite the reforms, the science programs often remain complex and not easily accessible. The CSE stresses the importance of updating these programs to keep pace

with scientific and technological transformations, while integrating issues such as climate change and digital culture. At the college level, critical thinking and digital skills are crucial, but there are still gaps between what was learned in secondary school and what is expected of students when they get to CEGEP. Universities, which are responsible for scientific production, need to do a better job of making their publicly funded research accessible to the general public. This educational continuum, starting in childhood, relies on initiating learners to the scientific method early on and ensuring greater continuity from one level of schooling to the next. The development of scientific literacy must be cross-disciplinary, fostering both a solid foundation for all learners and advanced preparation for future specialists. This approach supports informed and responsible citizenship in the face of the growing challenges of a scientific and technological society.

Finally, **Indigenous education**, long marginalized, is now a recognized issue, thanks in particular to the Truth and Reconciliation Commission of Canada, which denounced the role of residential schools in the assimilation of First Peoples. Despite the creation of a Committee on Indigenous Education in 2022, the CSE has not had the opportunity to develop its analysis of these issues, hampered in part by the complex governance of Indigenous education, distributed between the federal and provincial governments, band councils and Indigenous school boards. For example, the Cree and Inuit (Kativik Ilisarniliriniq) school boards, as well as the École des Naskapis, offer programs adapted to Indigenous language and culture, while following provincial standards, whereas non-treaty community schools, under the responsibility of band councils, are keen to have their teachings recognized by provincial education systems. In urban areas, Indigenous young people attending schools in the Québec school system are supported by native friendship centres, which offer homework help and tutoring. Several issues unique to Indigenous education are nevertheless covered by the CSE's mandate and will also concern the INEE and the CES. Cultural safety, essential to guaranteeing an educational environment that respects Indigenous cultures, is one of them. Institutional efforts and staff training are required to create inclusive and adapted environments. In higher education, challenges include isolation, cultural uprooting and limited access to adapted services. Indigenous people remain under-represented in higher education, despite initiatives such as the Kiuna Institution and Springboard to DCS programs. Broader cultural awareness in Québec's education system is crucial to respecting First Peoples' cultures and overcoming educational challenges. A concerted approach mobilizing various social actors is imperative in dealing with these complex issues.

5 Orientations

In the space of 60 years, Québec has gone from being a historically under-educated society to a highly educated one, in which people's expectations of the education system are immense, but also varied and sometimes contradictory. These expectations are linked to well-being, academic performance, preparation for adult life, the promotion of culture and the needs of the economy in a global context of accelerating social, economic and climatic change. On the strength of its long and fruitful experience, the CSE believes that reflection on the future of education in Québec must take into account the following four orientations.

1. Recognize the "wicked" complexity of a universal and inclusive education system based on values, as well as policies, and which must be able to draw on knowledge from research and expertise from practice

The democratization of Québec's education system remains an unfinished project that faces growing complexity. Contemporary challenges, described as "wicked problems," require an approach that recognizes the temporary nature of the solutions to be found, aiming to minimize the negative effects, while maximizing the positive impacts of the various actions. Articulating knowledge from research and practice, while taking into account diverse social contexts, is a judicious approach. The CSE stresses the importance of building a universal and inclusive education system that values equity and inclusion for all learners. Collaboration between specialists and stakeholders from a wide range of backgrounds is essential to establish a consensus, even if only temporary, on educational orientations, thus fostering lasting advances in educational policy.

2. Reconcile accessibility, inclusion and educational success with the performance of learners and of the education system

The CSE's vision for Québec's education system is based on humanist values of access and inclusion, with the aim of fostering educational success and human flourishing. In the CSE's opinion, a high-performing system pulls everyone up by setting high standards. For the government machinery, in a results-based management logic, performance means the achievement of objectives demonstrated by indicators that measure academic success in terms of grades and graduation rates, with less focus on the social and developmental aspects of educational success. The CSE proposes combining these dimensions by promoting high-quality, inclusive education, while establishing performance indicators that can reflect the complexity of educational success in its intellectual, social and emotional dimensions. Such an approach would help strengthen the social consensus around educational values and system goals.

3. Reveal the invisible: Recognize the specific challenges of Indigenous education

Indigenous education requires greater visibility and in-depth analysis of its specific issues, which include cultural safety, essential for Indigenous learners in minority situations within the Québec education system, and access to higher education. The future Conseil de l'enseignement supérieur (CES) will have to continue this work in collaboration with Indigenous organizations, integrating their issues into all its mandates to promote equitable access to education and a better understanding of the specific needs of Indigenous communities and individuals. There is no doubt about the value of retaining a Committee on Indigenous Education within the CES.

4. Affirm the need for collaboration between stakeholders representing the entire education system, as well as social actors involved in education and the ministries concerned, to act on wicked problems in education

A collaborative and democratic approach integrating scholarly and experiential knowledge is essential for developing strong orientations for the Québec education system. While the number, mission or mandates of the advisory bodies may change, it is crucial to maintain the ability to address the wicked complexity of problems that go beyond the education system. In the future, the new advisory organizations will need to exercise their mandates in this spirit, promoting governance based on holistic indicators and cross-sector collaboration to address complex education-related challenges that sometimes go beyond education to touch on other social issues such as employment, poverty and innovation.

Contemporary society welcomes diversity in values and opinions more than previous societies. The result is a growing need to understand the different visions of education that coexist, and to find consensus, however temporary, on the aims of the education system, between the quest for performance and the ideal of equity. The CSE's experience shows that it is still possible, in our plural society, to reach consensus between people with different expertise, values and educational backgrounds when they share a common goal. Once the CES and the INEE are officially operating, their combined efforts will be needed to advise the Ministers of Education and Higher Education, in order to consolidate and update Québec's universal education system as often as necessary, in line with evolving knowledge, social expectations and values.

50-0811-SU