## **Executive summary**

What happens today in education profoundly influences the lives of individuals and the health of whole communities for decades to come. Yet, educational decision-making is mostly about dealing with pressing immediate issues or seeking more efficient ways of maintaining established practice, rather than about shaping the long term. Using scenarios offer one highly promising way to redress this imbalance. To show how, this new volume in the OECD's Schooling for Tomorrow series is both theoretical and practical.

#### 1. Creating and using scenarios to make a difference in education

Part One identifies key issues and priorities where futures thinking can make a real difference in education, drawing on insights from many fields. It combines authoritative scholarly overviews and practical lessons to be applied.

Personalised, equitable schools and the scenario approach

> Jay Ogilvy reflects on methods and the different uses of scenarios. In comparing features of education and business, he suggests that educators, faced with strategic choices, prefer talk over action whereas business people tend to opt for immediate action. The discussion elaborates three different uses of scenarios: to provoke strategic conversation; to stimulate genuinely new, visionary thinking; and as a motivator for getting unstuck. He contrasts positive with negative scenarios and proposes that both are needed, albeit with different considerations and uses.

> The second part fills in content and illustrates the methodological points. Ogilvy argues that schools bear the scars of their birth in the agricultural and industrial eras. He shows how parallels can be drawn between the challenges facing school decision-making and those of "precision farming". He calls for a much more sustained realisation of equity and equality as essential in

the Information Age when access to knowledge is fundamental. And, he argues for applying market principles much more systematically to schooling.

System thinking and sustaining change – building capacity

Leading educational thinker on innovation and change, Michael Fullan, advises that thinking about the future is not enough for decision makers in education; it is also necessary to conceptualise how to change current systems in specific, powerful ways. He adopts the distinction between *technical problems* which the existing knowledge base can cope with and *adaptive challenges* which current knowledge cannot resolve. It is about the latter that he sees the value of the futures work in education. "Systems thinking" is needed but to be practically useful, practitioner-based system *thinkers* must be developed.

The key to moving forward is to enable leaders to become more effective at leading organisations toward greater sustainability who in turn will guide other leaders in the same direction. Fullan defines and then discusses eight elements of sustainability: i) public service with a moral purpose; ii) commitment to changing context at all levels; iii) lateral capacity-building through networks; iv) intelligent accountability and new vertical relationships; v) deep learning; vi) dual commitment to short-term and long-term results; vii) cyclical energising; and viii) the long lever of leadership.

Value and supply trends leading to educational scenarios

Jean-Michel Saussois presents basic features of scenarios as "ideal types" and the steps involved in developing them, looking at both their evolution and applications in the business world and their relevance and value for educational decision-making. He suggests that demanding assumptions are involved, especially when the exercise is one of international comparison. This may be considered as about matching the *map* and the *territory*, where to design a scenario is to act as a "map-maker".

Saussois presents a two-dimensional framework within which to analyse the trends and futures for schooling – the shifting *values* about where schools belong in the social fabric and the *delivery or supply* function of schooling. The values line goes from where education is socially oriented to where it is individualistically oriented as schooling is geared to its "clients"

as consumers. On the supply line, schools are viewed as closed or open. The four quadrants from these two dimensions combined are labelled the "conservation" scenario (closed + social), "survival" scenario (closed + individual), "transformation" scenario (open + social), and the "market" scenario (open + individual).

A cross-sectoral typology of scenarios and their uses

> Philip van Notten defines "scenarios" as: "consistent and coherent descriptions of alternative hypothetical futures that reflect different perspectives on past, present, and future developments, which can serve as a basis for action". Many of the studies he reviews were carried out in other sectors – such as in environment, energy, transport, technology, and regional development – and thus are valuable to those in education who may be unfamiliar with them.

> He then proposes and discusses in the main part of the chapter a typology of scenario methods. This is divided into three "macro" characteristics – goals, design and content – and ten "micro" characteristics within these broad categories. This typology demonstrates the diversity of scenario approaches and the ways and contexts in which they are used, as well as the outputs they produce.

> Van Notten discusses the organisational arrangements which can help make scenario exercises effective, described as "cultures of curiosity", and advocates the value of very long-term thinking.

Futures studies as a discipline and the "possibility-space" approach to scenarios

> Riel Miller presents the field of futures studies, interest in which is shaped by the speed and complexity of change, and draws a number of parallels with the study of history. He describes the problems with our search after greater predictive accuracy: one is of adopting forecasting methods that depend on extrapolating the past; another is that preoccupation with what is likely can obscure other futures which may appear less likely but which are possible and potentially more desirable. Scenarios have the potential to overcome some of the pitfalls of predictive approaches and hence can be a valuable tool for strategic thinking.

Scenarios based on the modelling of trends or of clarifying visions – "trends-based" and "preference-based" scenarios – may sometimes share similar limitations as predictive approaches and so constrain "out-of-the-box" thinking. Miller presents the "possibility-space" approach as an alternative which builds scenarios through steps: determining or defining the key attribute of the scenario's subject; sketching a space using the primary attributes of change of that attribute; and identifying distinct scenarios within the defined possibility space.

Successful scenario processes – guidelines for users

This chapter by Jonas Svava Iversen gives a user-oriented view of a range of scenario methodologies. He presents scenario methods in terms of four critical phases, giving insights about successful practice and potential pitfalls:

- *Mapping and delineation* of the subject matter is a critical first step giving focus and helping to ensure good design.
- *Identification of critical issues and trends*: analysis may draw from different scientific fields and the participation of experts to provide insights and new perspectives.
- Creating scenarios. Iversen sub-divides this core part of the chapter into five: i) identification of drivers; ii) consolidation of trends; iii) prioritisation of trends; iv) identification of scenario axes; and v) actor analysis.
- Using scenarios looks at three main uses developing shared knowledge, strengthening public discourse, and as a tool to support decisions –, commenting on the contexts when these arise and some of the best ways of achieving them.

Iversen concludes by stressing the importance of creating ownership and making sure that scenario procedures are clear for all participants; he argues for a broadly-based and inclusive approach.

## 2. Futures thinking in action

Part Two presents examples from initiatives in England, the Netherlands, New Zealand and Ontario, Canada, which have used scenarios in practice to address on-going reform agendas. It concludes with insights for the future from leading experts on the basis of these initiatives.

Using scenarios to build leadership capacity – the English FutureSight project

> FutureSight is a multi-partnership English initiative developed with OECD. The purpose has been to build capacity for futures thinking through practical applications to help school leaders shape, not just guess at, the future. It has been used with leaders from schools in very different circumstances, senior organisation officers, older secondary students, and senior policy makers. The chapter describes both the tool itself and how it was developed and used. It is based on a four-module cycle, which:

- Explores key trends and sees where they might go ("a stone rolling").
- Experiences the scenarios from different perspectives ("making it real").
- Gives tools to analyse and reach consensus over an ideal composite scenario ("towards a preferred future").
- Compares current practice and policy and the ideal ("re-engaging with the present").

The discussion reports detailed feedback given by the participants to the FutureSight experience.

Futures thinking as an arm of decentralised innovation in the Netherlands

> The Dutch government's educational steering philosophy combines decentralisation and more autonomy for schools, with a greater influence for stakeholders. There are multi-year policy plans giving a vision for each sector of education, both in the short term (four years) and the longer term (eight to ten years). Two initiatives have featured in the OECD "Schooling for Tomorrow" programme.

> One is about capacity building for visionary leadership through the events on futures thinking organised by the Dutch Principals Academy. Scenarios similar to those in Ontario (Chapter 10) have been used with mixed groups of primary school leaders to stimulate creative thinking, and to address fundamental questions about school design: Why should one learn? What does one have to learn? Where and how can one learn? How can learning be organised? How can learning be supported in the future?

The second project focuses on one example of a radical innovation in schooling – Slash/21 – which rests on a particular vision of the future, with two core concepts: the rise of the knowledge society and increasing individualisation.

System-wide rethinking of schooling – the New Zealand Secondary Futures programme

The New Zealand Secondary Futures initiative is working towards a vision for secondary education by: *creating space* to contemplate the future; *providing tools* to resource thinking about the future; *sharing trends* for the future direction of New Zealand society; *sharing information* about possibilities to make more students more successful; *eliciting people's preferences* in relation to the future of the education system; *supporting change* by taking information out to others. This initiative has taken a unique approach to protecting the independence of the process by appointing four "guardians" with high profiles in the educational and non-educational fields.

The themes and key questions emerging from Secondary Futures have been combined into a matrix which provides the structure for ongoing conversations, investigations and analysis. The matrix also serves as a virtual filing cabinet – an online repository for information gathered during the course of the Secondary Futures events and as a reservoir of stimulus material to sustain educational rethinking.

Creating dialogue and capacity to rethink "Teaching as a Profession" in Ontario

In the English-speaking school system in Ontario, the "Teaching as a Profession" initiative developed and adapted scenario tools for a series of workshops. The background was a tense period when consensus had been difficult and the initial task was to use scenarios to help forge dialogue on a key policy issue.

The Ontario project uses a multiple-scenario strategic planning framework which identifies desirable futures and the strategies for achieving them. It has used modified OECD scenarios, now relabelled Redefining the Past, Breakdown, the Community-focused Model, Macro Models, and Breakthroughs in Complexity Science. The project has engaged an increasingly wide variety of experts, teachers and others to clarify how

alternative ideas about schools and schooling will have consequences for teaching as a profession. It is expected to lead to the identification of preferred scenarios together with robust strategies to further policy discussion and decision-making.

The "seventh scenario" for the future of Ontario francophone schooling -Vision 2020

> The Vision 2020 initiative has proved to be timely given that Ontario's francophones had gained access to school governance at the end of the 1990s yet amidst concern about assimilation and the erosion of their unique culture. The Ministry, French-language educational institutions, and the various partners in education, felt the need to assess their progress, define the challenges they face in delivering quality French-language education, and reflect on the future of French-language education in Ontario.

> The scenario-based approach to visualising the parameters of the school of tomorrow has proved valuable as a means to develop the capacity to think about the future. From a starting point of the OECD six schooling scenarios, this initiative has worked towards its own seventh scenario of the future of French-language schooling. The Vision 2020 project will not conclude before the end of 2006, but it is expected to lead to the development of an operational vision for French-language schooling as a minority system.

Leading thinkers reflect on the practice and potential for education of futures thinking

> The rapporteurs of the June 2004 Toronto Forum were called upon both to advance general priorities for futures thinking in education and to comment on the particular volunteer system they had followed. Their contributions show how much store they place in the potential of the futures thinking approach but they are also struck by the complexity of educational change.

> Charles Ungerleider focuses particularly on value questions – the ways of using futures thinking to clarify those values at stake and the relations, including conflicts, between them. Raymond Daigle asks whether much current reform is often "tinkering at the edges", so that scenarios might help in more fundamental re-definitions. Walo Hutmacher argues the need to consolidate the evidence base for such approaches, and to use robust analytical tools rather than move quickly to normative debate.

Hanne Shapiro echoes these positions and calls for the scope of futures thinking stakeholders and methodologies to be broadened. Tom Bentley distinguishes between and discusses the "inward-facing" and "outward-facing" aspects to futures thinking in action. He considers how scenarios can help trigger different thinking but that this is a particular challenge as regards policy makers themselves, who need both futures analysis that is robust and relevant and need to engage in a setting which enables them to be candid and open-minded about their existing commitments.

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