

PART IV

How to go about it?

Some tools to shape the future

The influence we have on the future makes it worth investing time in exploring in a systemic manner what we truly want and what is possible.

It is hard, if not impossible to determine what factors have caused the current state of affairs. Likewise, a complex interplay of social, cultural, political, scientific, technological and natural factors shapes our future.

Our choices, however, can also influence events and processes that may change the future. This potential influence on the future makes it worth investing time to explore in a systemic manner where we are heading to and in which direction we would like to evolve. For schooling, this means asking ourselves: What kind of educational system is evolving? Is this what we want for

future generations? Or should we adjust the current path of development towards something more desirable?

A range of future-oriented methodologies help us to see more clearly what the future may bring and explore options for shaping the future, in terms of what we want and what is possible.

This Part explains how the *Schooling for Tomorrow* scenarios and Trends Tool can be used and what it takes to do so (Sheets IV.2-3). It then gives a brief overview of typical steps in the scenario development process (Sheet IV.4) and lastly it provides some short snapshots of other future-oriented methodologies that can either stand alone or be used in combination with scenario development (Sheet IV.5).



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Using the *Schooling for Tomorrow* scenarios

The *Schooling for Tomorrow* scenarios are above all *tools*: tools for reflection, tools for collaboration, tools for innovation and transformation. This is the source of their power for building capacity and leadership. Scenario development enables policy-makers and school leaders to think ahead, beyond the straitjackets of everyday tasks, about the forefront of their fields.

→ Why use them?

While a scenario cannot put the “right answer” or ideal solutions on the table, it can help policy-makers and school leaders in many ways:

Bring together a wide cross-section of stakeholders

It is often hard to get stakeholders together, especially if they come from various sectors, have different interest and when the objective lies beyond immediate concerns. Scenario development offers a means to establish dialogue and a structure for substantive debate. It can also help provide a neutral space where parties with opposing views can find a shared vision of the future.

Explore options and advance strategic choices

“It is better to heal than to cure”. It is better to anticipate change than merely respond to it. Scenario development can help people to anticipate threats, grasp opportunities, see choices, spot the unexpected and evaluate potential actions. By sharpening the awareness of long-term alternatives, scenarios help people to make better decisions today.

Widen the intellectual horizon

An important added value of scenario development lies in its participatory methods, which help people go beyond traditional boundaries of their dialogues and thinking. Participants are challenged to imagine themselves in another place (the future) and to “step into others people’s shoes”. Most importantly, scenario development helps participants challenge “group think” and examine the values and assumptions that one takes for granted.

“The real voyage of discovery consists not in seeking new landscapes but in having new eyes.”

Marcel Proust

PART IV: HOW TO GO ABOUT IT? – USING THE SFT SCENARIOS

→ What it takes

Involving people with both a marginal and central stake in the issue to be examined is a criterion for success.

To ensure that the use of scenarios is fruitful it is of key importance for stakeholders to participate in their creation. Although interesting scenarios may be developed by individuals or small groups, their effectiveness as instruments for change is restricted.

Any societal transformation involves and affects a wide range of actors and interests. Sometimes even a single actor can block a transformation process. Involving those with even marginal stakes in the issue at hand will greatly increase the chances of success.

People with experience

First and foremost, scenario development requires input from those with direct classroom experience: teachers and school leaders. These practitioners know how policies translate into practice. They are the ones who deliver the valuable thinking behind the scenarios with up-to-date knowledge of how schooling and learning takes place. The process at hand will determine which social contexts and environments the practitioners should be drawn from.

People with knowledge

For scenarios to be credible, they must be built on reliable sources and knowledge about trends both in the education sector and in society at large. If the team lacks this expertise, it should be brought in from outside at appropriate stages in the process. This input is crucial when choosing the focus of the scenario, building it and testing it. Contributions from outside are also useful to “give new blood” to a process and moderate the tendency to confirm “group thinking”.

People with influence

It would be ideal to have key decision-makers involved in the whole process, especially if the issues affect policy, but unfortunately they typically cannot spare enough time for full involvement. As they are crucial for the project's long-term impact, it is well worth investing time and energy to prepare and digest messages that should get across to the decision-makers.

People with added value

While knowledge, experience and influence pertaining to the subject are essential, a successful team also needs certain general skills. For example, effective facilitators are crucial for bridging gaps between groups, encouraging creativity and teamwork as well as creating a positive atmosphere. Strategic thinkers are needed to keep the team on track when it strays. Good communication and writing skills are required to get the team's ideas out to a wider audience.

Convincing people of the potential benefits of *futures thinking* sometimes takes time, but it is time well spent. Likewise, a deep understanding of the stakeholders' needs is the key to helping them see how the process can help and, even more importantly, for making sure that it carries fruit.

Using the *Schooling for Tomorrow* Trends Tool

The *Schooling for Tomorrow* “Trends Tool” is an inspiration to building the scenarios on trends that occur in education and its wider environment. It is a kick-starter for helping scenario processes explore the trends relating to its specific subject and its local and wider environment. Building scenarios upon carefully identified trends improves the robustness and realism of scenarios.

→ Why use trends?

However open-minded we may regard ourselves, we all have ideas about what the future might be like, often based on our prejudices and preferences.

U.K. Report 2005

A successful *futures thinking* initiative will not merely be a comfortable ride in a familiar neighbourhood; it will bring the participants into unexpected realms of the possible future. To achieve this requires thorough analysis of trends in education, the local environment and the outer world.

Trends analysis is the key to creating powerful, robust scenario content. In addition, trends analysis also helps erasing prejudices and opening minds of participants by identifying the interrelatedness between developments that they are aware of, but not necessarily relate to the subject matter.

Basing scenario content on trends analysis ensures that they are:

Plausible	Logical, consistent and believable
Relevant	Highlighting key challenges and dynamics of the future
Divergent	Different from each other in strategically significant ways
And challenging	Questioning fundamental beliefs and assumptions

To qualify as a trend, a phenomenon must show a continuous direction of development for a significant period. Other developments are fluctuations that may have little long-term impact. Trends are also characterised as moving in a direction such as *more*, *the same*, or *less*, though possibly varying in certainty and consistency.

➔ What it takes

The trends and drivers that directly and indirectly influence the scenario's subject are identified by collecting and analysing data, including consultation with relevant stakeholders. Various methods are used for the analysis, each one with its own advantages for developing perspectives and insights that will inform the scenarios.

Methods to gain new perspectives and insights

Desk research is relevant and feasible in most cases, since on any given subject there will be a range of information available. Desk research helps to map out the bigger picture behind the issues to be examined. It involves a wide variety of sources, such as the Internet, government ministries and agencies, non-governmental organisations, international organisations and companies, research communities and on-line and off-line journals. "Horizon Scanning" can emerge from a desk research and be enriched through small group discussions of experts (Sheet IV.5). This is a more or less systemic examination of potential threats, opportunities and likely future developments regarding the subject matter.

Extrapolation from historical trends involves assessing potential developments for the future by building on historical data and information. Trends are, however, rarely unambiguous, as they react to new events and other trends. The environment in which a trend will further develop is always different from that of its past. Therefore a straightforward projection of a trend into the future is unlikely to be reliable. The interdependence of trends and new future events can be taken into account by using methods such as "Trend Impact Analysis" (Sheet IV.5).

Consultation with experts in various fields provides new perspectives and insights. Experts can be involved through in-depth interviews, telephone interviews and focus group discussions. One future-oriented methodology, the "Delphi analysis", specifically supports structured brainstorming with experts (Sheet IV.5).

Engaging participants in the trends

While the data analysis is typically done by a small team, the main group participating in scenario creation (Sheet IV.4) should have a chance to familiarise themselves with the consolidated analysis and provide feedback on the identified trends through a general discussion. This will complement the analysis by filling in gaps, describing how the stakeholders themselves experience and perceive the trends and showing how the trends are manifested in schools.

Basic considerations for scenario development

The goal in using scenarios is to reveal the dynamics of change and to use these insights for the broader objectives of the *futures thinking* initiative. These broader objectives should drive all decisions about process design, methods and tools in the stages of scenario development. Important choices must be made at the outset to serve the ultimate purpose.

➔ Defining the basics

The scope and design of a scenario development process must be guided by four overall considerations:

- The goal of the scenario analysis
- The working capacity and culture of the participants
- Available resources
- The context in which the scenarios will be used

The design may favour either “divergent” or “convergent thinking”. *Divergent thinking* is the intuitive approach that involves a creative elaboration of ideas. *Convergent thinking*, on the other hand, is the goal-oriented, analytical, observational and deductive process. The goal of the design is to combine creativity with rigour. The balance of divergent and convergent thinking will depend, in part, on the following choices:

- Quantitative (figures, data, statistics, etc.) versus qualitative information (reports, interviews, discussions etc.).
- Inclusive approach (participatory methods) versus exclusive approach (work by individuals or small groups).

Scenario analysis can range from very *simple* to quite *complex*. Scenarios for exploring a given subject tend to be relatively simple and intuitive compared to scenarios for pre-policy research, which are usually less intuitive and more complex.

A well-designed future study carefully balances *convergent thinking* with *divergent thinking* so that the process is explorative and creative, yet rooted in facts and explicitly stated rational assumptions.

PART IV: HOW TO GO ABOUT IT? – BASIC CONSIDERATIONS

→ Making the scenario process fit the purpose

The purposes of scenarios range from “exploration” at one end of the scale to “support for decision-making” at the other. The position of the different uses on this scale should be reflected in the design, methods and tools used in all stages of the scenario process.

1 Developing a shared knowledge of the environment

The exploratory elements of scenario development are extremely valuable in policy and administration. They address the deeply rooted, culturally-based assumptions that often exist regarding the world and how it works. Working with scenarios in relation to a particular subject may help the participants to challenge and re-conceptualise their understanding of the issues at hand and the dynamics and trends that drive their development.

The major goal of the scenario in such a context may “simply” be to challenge existing understandings of the dynamics within one environment and in relation to one subject. A relatively quick and undemanding design may suffice, as the main objective is to understand the driving forces and not necessarily to carry the process forward to problem-solving.

2 Strengthening a public discourse

The goal of a scenario development process may be to establish public discourse on a range of subjects and to involve as many stakeholders as possible. In this case, framing the issues in multiple scenarios could provide valuable tools to support the public discourse.

In this context, it may be favourable to include stakeholders at an early phase of the scenario process, as it would encourage them to take ownership of the process and disseminate the results at a very early stage. This situation requires a robust and resource-intensive process design, since many information sources and stakeholders are involved. Scenarios require greater consistency and precision when used to support public discussion or as components in larger communication strategies.

3 Supporting decision-making processes

Scenarios are also used to support decision-making on complex issues with long-term implications. This requires very well-researched, robust scenarios with large amounts of quantified data. Interviews with key personnel and focus groups should be devoted to broadening the understanding of the subject and the possible trade-offs that various choices may entail. As strategic decisions will be taken on the basis of the scenarios, the group must be absolutely clear about both the level of uncertainty in the driving trends and dynamics and how they may be influenced.

Other future-oriented methodologies

The *Schooling for Tomorrow* approach is one of several possible approaches to futures work. Other future-oriented methodologies and techniques can be used individually or in combination with others, including as part of a scenario development process. Here is a selection of a few major methodologies which can contribute to a systematic examination of the future.

➔ The Delphi method

The Delphi method is an exploration technique that facilitates the collection of information and knowledge from a group of experts on a specific issue.

It follows a structured and iterative process, in which a series of questionnaires is sent (or handed) to selected experts. Each round of questionnaires includes all of the participants' earlier responses, presented anonymously and the participants can modify and adapt their own statements as they see fit. This usually leads to a consensus forecast on future trends, with multiple expert opinions converging to a single position.

The interactions among participants are controlled by a monitor who filters and analyses the questionnaires. Each round of questionnaires is prepared based on the analysis of the responses to the prior one.

The Delphi method is suitable for scenario development because it feeds the process with the perspective of one group of stakeholders, thereby enriching the multi-disciplinary exercise of identifying trends.

➔ Horizon scanning

Horizon scanning is about finding early signs of potentially important developments through a systematic examination of potential threats and opportunities, with emphasis on new technology and its effects on the issue at hand.

The method calls for determining what is constant, what changes and what constantly changes. It explores novel and unexpected issues as well as persistent problems or trends, including matters at the margins of current thinking that challenge past assumptions.

Horizon scanning is often based on a desk research – comprising database and hard-copy literature reviews, as well as Internet searches. It can also be undertaken by small groups of experts who are at the forefront in the area of concern: they share their perspectives and knowledge with each other so as to “scan” how new phenomena might influence the future.

A solid “scan of the horizon” can provide the background to develop strategies for anticipating future developments and thereby gain lead-time. It can also be a way to assess trends to feed into a scenario development process.

➔ Trend impact analysis

Trend impact analysis is a simple forecasting approach that extrapolates historical data into the future, while taking into account unprecedented future events.

This method permits an analyst to include and systematically examine the effects of possible future events that are expected to affect the trend that is extrapolated. The events can include technological, political, social, economic and value-oriented changes.

The point of departure is the “surprise-free” projection based on historical data, assuming an absence of unprecedented future events. Expert opinions are then used to identify future events that might cause deviations from the surprise-free projection and calibrate their likelihood and potential strength. A “high-impact” event would strongly affect the trend, positively or negatively, compared to the surprise-free projection.

By combining surprise-free extrapolations with judgments about the probabilities and impacts of selected future events, trend impact analysis provides a solid basis for building scenarios.

➔ Overview

This general division of futures work into boxes can be misleading because future-oriented methodologies are often adaptable to specific purposes and can combine several aspects at the same time. Nevertheless, it is possible to specify the dominant characteristics of each methodology.

Futurists distinguish normative forecasting from exploratory forecasting. Normative work is based on norms or values. Hence, normative forecasting addresses the question: what future do we want? Exploratory forecasting explores what is possible regardless of what is desirable.

Qualitative and quantitative methods can clearly be distinguished, but also combined and help orient the scenario approach towards convergent and divergent thinking (Sheet IV.4). The table below informs also whether the methodologies are appropriate for stimulating stakeholder engagements, testing robustness of trends and drivers and spotting the unexpected.

	Evidence based	Quantitative	Qualitative	Normative	Exploratory	Stakeholder engagement	Testing robustness	Spotting unexpected
Scenario method	X	X	X	X	X	X	X	X
Delphi method	X		X	X	X	X		X
Horizon scanning	X	X			X			X
Trend impact	X	X	X		X			

Sources: Foresight Toolkit U.K. and The AC/UNU Millennium Project