

INTERNATIONAL BUREAU OF EDUCATION

Training Tools for Curriculum Development

# A Resource Pack



United Nations  
Educational, Scientific and  
Cultural Organization



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of Education

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*Training Tools for Curriculum Development – A Resource Pack*

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## UNESCO-IBE

The International Bureau of Education (IBE) is the oldest of all UNESCO institutes. It was founded in 1925 and became the first intergovernmental organization in the field of education in 1929. Fully integrated in UNESCO since 1969, the IBE is the UNESCO institute specialized in curriculum and related issues. The IBE's global and comparative insights into curriculum, combined with its technical expertise and experience, its reach and its networks, make it unique among institutions in the field.

The vision of the IBE as an international Centre of Excellence in curriculum is: a leading UNESCO Institute, widely respected for its specialist expertise, knowledge and networks, and for providing evidence-based information and practical support to UNESCO Member States in valuable and responsive ways. This also means that IBE activities and initiatives are effectively monitored and results measured in valid and appropriate ways.

As a Centre of Excellence, the IBE's mission is to support UNESCO Member States in their efforts to enhance the quality of student learning mainly through initiatives and activities within the following three key action areas: (i) capacity development for institutions and individuals, as well as technical support and advice; (ii) access to curriculum-related knowledge, experience and expertise; and (iii) engagement of stakeholders in evidence-based policy dialogue.

During the period 2012–2017, the overall goal of the IBE is to enhance the quality of student learning by promoting and supporting excellence in curriculum processes and products.

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# Acronyms and abbreviations

<b>AIDS</b>	Acquired immune deficiency syndrome
<b>AISSA</b>	Association of Independent Schools of South Australia
<b>BEAP</b>	Basic Education in Africa Programme
<b>COGs</b>	Connected Outcomes Groups
<b>COP</b>	Community of Practice
<b>EFA</b>	Education for All
<b>ELT</b>	English Language Teaching
<b>ESD</b>	Education for Sustainable Development
<b>FPE</b>	Free Primary Education
<b>HIV</b>	Human immunodeficiency virus
<b>IBE</b>	International Bureau of Education
<b>ICE</b>	International Conference on Education
<b>ICT</b>	Information and communication technologies
<b>INSET</b>	In-Service Education and Training
<b>IPP</b>	Inclusive Practice Project
<b>LCS</b>	Local curriculum subject
<b>NAP</b>	Núcleos de Aprendizajes Prioritarios [Core learning priorities]
<b>NGOs</b>	Non-governmental organizations
<b>NQF</b>	Namibia Qualification Framework
<b>OECD</b>	Organisation for Economic Co-operation and Development
<b>PIF</b>	Policy Investment Framework
<b>PISA</b>	Programme for International Student Assessment
<b>SACMEQ</b>	Southern and Eastern Africa Consortium for Monitoring Educational Quality
<b>SMART</b>	Specific, measurable, achievable, realistic and time-scaled
<b>STE</b>	Science and Technology Education
<b>TALIS</b>	Teaching and Learning International Survey
<b>TIMSS</b>	Trends in International Mathematics and Science Study
<b>UNESCO</b>	United Nations Educational, Scientific and Cultural Organization



# Acknowledgments

The present edition of this *Resource Pack* makes extensive use of materials previously developed under the Curriculum Innovation in Basic Education project, a joint initiative of the UNESCO Asia and Pacific Regional Bureau for Education in Bangkok, funded by the Japanese Funds-in-Trust, and the International Bureau of Education (IBE), Geneva. These materials are available in CD-ROM and web formats exclusively for participants in the Asia-Pacific Network.

We would like to express our appreciation to Renato Opertti (coordinator) and Hugo Labate (senior consultant) for their contributions to the development of this edition by updating and editing the eight modules and the associated resources.

We would also like to extend our thanks to Clementina Acedo and Massimo Amadio for having shared their knowledge and experience and for providing ongoing support as general editors.

Many authors have shared case studies and other relevant documents, allowing us to provide a balanced distribution of diverse perspectives from all UNESCO regions in this *Resource Pack*. We would like to express our thanks to the following individuals for their contributions: Oliver Amwayi, Edith Betty Alfaro Palacios, R. Bajracharya, H. Bajracharya, Rosalía Barcos, Javier Batén López, Angela Cara, N. S. Cho, Philippe de Castro, Danilo De La Cruz, Rosabel Etcheverry, Lani Florian, Dakmara Georgescu, Michele Gonçalves dos Ramos, L. Gregorio, M. Goto, Heidi Holder, Lili Ji, Kadyrbek Kaldybaev, Angela Katabaro, J. H. Kim, P. Luisoni, María del Carmen Malbrán, Larisa Marchenko, Asako Maruyama, E. Mazeyrac-Audigier, Mahmoud Mehrmohammadi, Grace Nandutu, Mina Navvab Safavi, José Pineda Ocaña, Florence Ssereo, Jennifer Spratt, S. I. Ton, Silvia Trias, Francisco Varela, E. Yulaelawati, Iouri Zagoumenov, Ihar Zahumionau, N. Zhou and M. Zhu.

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If we have unintentionally omitted anyone who has collaborated without giving them their due recognition, we apologize and offer our most sincere gratitude for their invaluable assistance.

# Foreword

*Training Tools for Curriculum Development: A Resource Pack* is intended to support specialists and practitioners involved in curriculum reform. As the UNESCO institute specialized in the field of curriculum, the International Bureau of Education (IBE) emphasizes the key role of high-quality curriculum development processes in fostering the excellence, relevance and equity of education.

Since the first edition in 2010, the 2013 *Resource Pack* has been conceptually refined and enriched to include a vast array of learning activities and more than 180 case studies and resources from all regions of the world. It offers a broad comparative international perspective with the view towards deepening a comprehensive understanding of the theory and practice of curriculum change. The eight modules in the *Resource Pack* cover a wide range of factors and dimensions that should be considered in order to improve the quality of curriculum development processes and products.

The *Resource Pack* has been tested as a training resource in Africa (United Republic of Tanzania), Latin America (Uruguay) and Asia (Bhutan). After revisions based on the evaluation results from three pilot trainings, the *Resource Pack* has been crafted into an instrument for conducting long-term, accredited postgraduate courses in curriculum design and development, in partnership with local universities in several world regions. To date, three sessions of the Diploma in Curriculum Design and Development for Latin America and the Caribbean have been successfully completed in Uruguay (2010/12), as well as two sessions for Sub-Saharan Africa in the United Republic of Tanzania (2011/12). These courses have served as an outstanding opportunity to gather additional comments and inputs from policy-makers, curriculum developers, researchers, teacher trainers, supervisors, principals and teachers. The pilots have also helped to deepen our understanding of curriculum reform processes and requirements and challenges, especially the need to strengthen the capacities of curriculum developers so as to foster communities that can share expertise and experience and develop effective policies and practices.

Therefore, the *Resource Pack* is the fundamental instrument employed by the IBE in different regions of the world, and in several languages, to strengthen competencies among a critical mass of stakeholders at the national level who are engaged with curriculum development processes and reform at various levels within education systems. From this point of view, the Diploma promotes an international, comparative perspective on the synergies between educational policies and curriculum proposals, as well as their effective deployment in each and every school and classroom. The Diploma helps to incorporate ideas, concepts and instruments that improve the quality of educational opportunities given the growing diversity of profiles, expectations and student needs.

The IBE endeavours to customize its training tools to the needs of specific contexts and professionals. To date, three versions of the *Resource Pack* are available in English, Spanish and French. There are also plans to translate the *Resource Pack* into other languages in the near future.

New modules have been prepared in collaboration with other agencies, covering important themes, such as education for sustainable development (ESD), inclusive education, teacher training, the use of information and communication technologies (ICT) in education and competency-based approaches.

Developing curriculum training modules with local or regional higher education and teacher education institutes (pre-service and in-service) will be a priority in order to bridge the current gap between the approaches and curriculum strategies in basic education and teacher training.

The *Resource Pack*'s digital format is a user-friendly and innovative working tool for capacity development. Aside from catering for individual consultation, the *Resource Pack* can be tailored for diverse group activities across different levels of the education system.

Through its worldwide Community of Practice (COP) in Curriculum Development, UNESCO-IBE will continue to support, expand upon and diversify the use of the *Resource Pack*. The COP is an appropriate environment for enlarging and refining comparative inter-regional perspectives through the dissemination of case studies on curriculum change and development processes.

I would hereby like to extend our sincere gratitude to the numerous specialists, researchers and officers who have granted copyright permission to incorporate their papers and research findings into the *Resource Pack*. Additional feedback, comments and suggestions regarding the *Resource Pack* are most welcome, as this will help UNESCO-IBE to further enhance and expand its collection of capacity-development tools.

I do hope that the *Resource Pack* will become a useful reference material to assist educational personnel in renewing visions, diversifying strategies and improving practices for quality Education for All (EFA).



Clementina Acedo  
Director  
UNESCO-IBE

# Introduction

The *Resource Pack* caters to education decision-makers, educators, specialists and curriculum developers, as well as other users versed in curriculum issues. These actors can benefit from an international comparative perspective in understanding new trends in the curriculum arena and analysing the decision-making process.

Such trends and the case studies that are used to illustrate key concepts refer to:

- *The planning and development of curricula*: objectives and curriculum frameworks, models for the curriculum-development process, defining objectives and goals, teaching and assessment strategy selection, and the implementation and evaluation of reforms.
- *The administration/management of the curriculum*: leading change, school-based curriculum development, and school and curriculum assessment.
- *Perspectives about teaching and learning*: authentic assessment, student-centred teaching, defining expected outcomes, and the development of an inclusive curriculum.
- *Collaborative participation in the curriculum processes*: involvement of diverse institutions and individual stakeholders, as well as the capacity development that is necessary to guide those processes.

## *The dynamics between curriculum products and processes*

Traditionally, curriculum specialists envisaged curriculum in a confined manner, as a set of products – documents that describe or prescribe content. As such, they were promoting curriculum production as a technical task, designed and produced to lead the education system and often disconnected from society's needs and expectations.

More recently, curriculum developers have paid more attention to the processes that produce quality curriculum products. As a result, they have developed models in which curriculum is constructed and developed through continuous dialogue with a diverse range of legitimate stakeholders, thereby acknowledging what really occurs in schools and classrooms. Within this paradigm, curriculum is understood as a joint educational, political and social product cultivated by institutions and actors inside, as well as outside of the education system.

Some issues explicitly or implicitly addressed in curriculum processes include:

- The epistemic issue: What is knowledge? What is regarded as legitimate knowledge? Who defines what counts as knowledge? Why is it important to learn certain concepts instead of others?
- The equity issue: Who has access, and to what types of knowledge? Who controls the selection and distribution of knowledge?
- The systemic issue: In what ways should the various elements of the curriculum interact to form a coherent product?
- The pedagogic issue: In what ways can knowledge be made available and user-friendly for students?
- The significance issue: How can a link be established between curriculum knowledge and what is meaningful for students' lives and society?

Curriculum development processes that pose these questions and seek to obtain consensus-based answers can lead to high-quality curriculum products that optimize resources and inputs and generate quality outcomes for students. The following table shows examples of some of these products and processes:

**Table 0.1. Curriculum processes and products**

Processes	Products
<ul style="list-style-type: none"> <li>• Curriculum policy dialogue and formulation</li> </ul>	<ul style="list-style-type: none"> <li>• Educational policy documents</li> <li>• National curriculum framework</li> </ul>
<ul style="list-style-type: none"> <li>• Curriculum design</li> </ul>	<ul style="list-style-type: none"> <li>• Curriculum standards</li> <li>• Subject curricula/syllabuses</li> <li>• Localized curricula</li> <li>• National examinations</li> </ul>
<ul style="list-style-type: none"> <li>• Development of learning materials</li> </ul>	<ul style="list-style-type: none"> <li>• School textbooks</li> <li>• Educational software</li> <li>• Rules for the procurement and use of teaching and learning materials</li> </ul>
<ul style="list-style-type: none"> <li>• Evaluation and approval of textbooks</li> </ul>	<ul style="list-style-type: none"> <li>• Guidelines/specifications for textbook development and evaluation</li> <li>• Guidelines/specifications for the selection of ICT products</li> </ul>
<ul style="list-style-type: none"> <li>• Teacher training</li> </ul>	<ul style="list-style-type: none"> <li>• Teacher education curriculum</li> <li>• In-service programs</li> <li>• Handbooks or guidebooks for teachers</li> </ul>
<ul style="list-style-type: none"> <li>• Curriculum management</li> </ul>	<ul style="list-style-type: none"> <li>• Inspection reports</li> <li>• Guidelines for locally-based curriculum development</li> </ul>
<ul style="list-style-type: none"> <li>• Curriculum evaluation</li> </ul>	<ul style="list-style-type: none"> <li>• Curriculum evaluation outcomes</li> <li>• Research reports on curriculum implementation, learning outcomes, etc.</li> </ul>

Source: UNESCO-IBE (2003).

### *The field of curriculum decisions*

There are a myriad of decisions at the technical and political levels that influence the curriculum processes described in Table 0.1. Some of these decisions are preserved in resources that influence everyday practice such as district norms, by-laws, regulations, syllabuses, textbooks and exams. Other decisions are less tangible, or the historical process that led to them has been forgotten, and they take the form of routines, promoted by social habits and unchallenged practices (e.g. the way to organize school space and time, assigning teachers to particular groups of students, preferred ways to interact in classes).

What are the central attributes of this decision network?

- Do the drivers of dynamic processes act at different speeds, and do these processes stem from the interaction of many actors with different perspectives, interests and positions relating to knowledge, culture, teaching and learning?
- How does it operate under certain constraints that define what is possible and what is not? Some of these constraints can be material, but some are also social, cultural and political.
- Can it be envisaged as a jagged terrain of slow historical accretion? Are there some "peaks" that seem immune to change, some "plateaus" where tension, conflict and modifications prevail, and some "valleys" that result from hidden assumptions, prejudices and resistance to change?
- Is it systemic? Do the interactions among players, constraints and the topography make it difficult to foresee the consequences of new decisions and the expected results of change?

### *The role of the curriculum specialist*

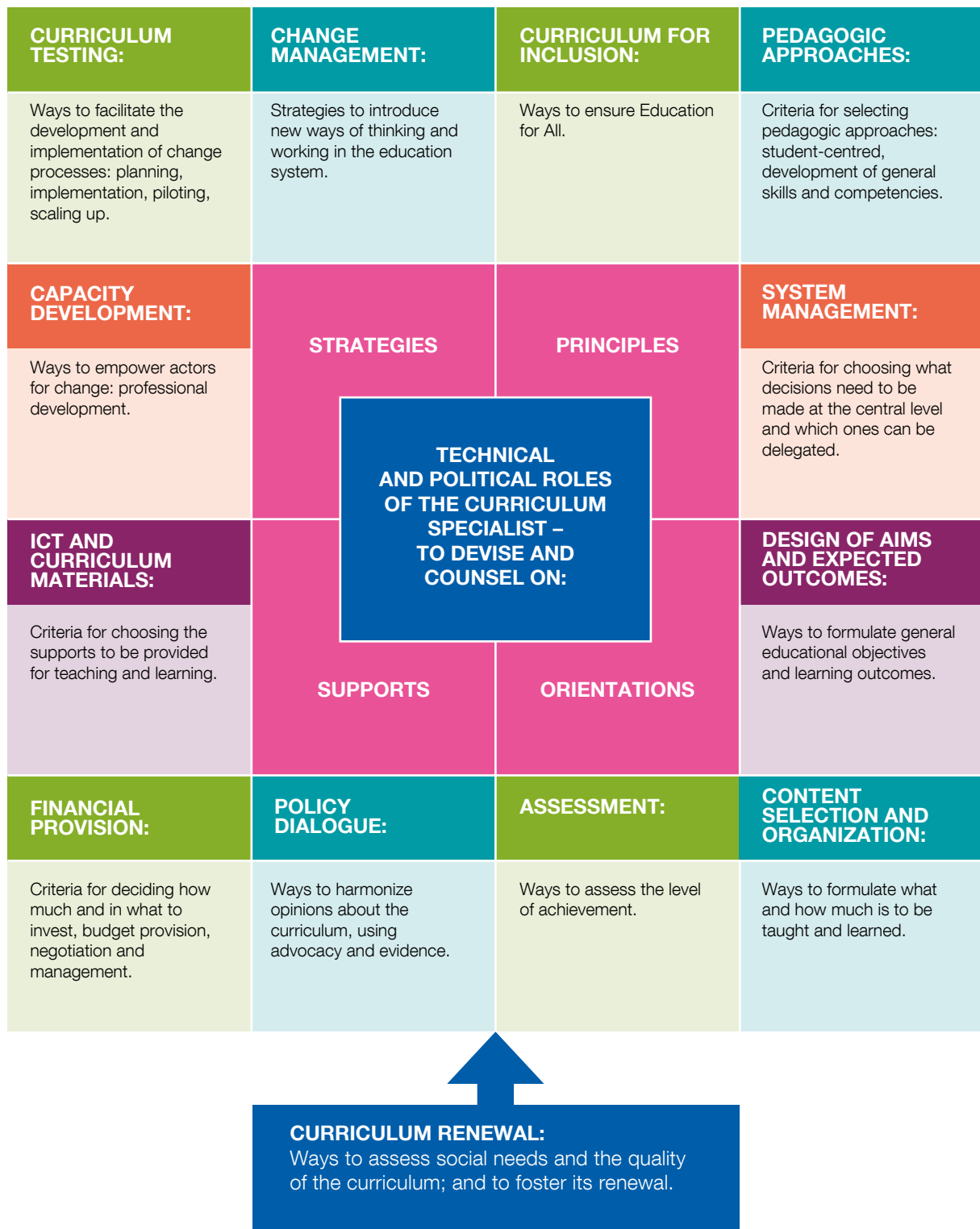
The curriculum specialist must become a reflective practitioner who deliberates and participates in curriculum processes, facing the challenge of navigating this web of decisions to enable pertinent and effective educational outcomes and helping students to develop competencies for the present and future, while simultaneously respecting the culture and identity of a society.

From this vantage point, a "curriculum specialist" must fulfil four main roles regarding curriculum processes:

- 1.** Lead, design or implement dialogue and advocacy opportunities with stakeholders to receive and propose new ideas;
- 2.** Lead or participate in defining "written curriculum": what must be learned, how we formulate results and how we assess the outcomes of learning processes;
- 3.** Lead or orient the processes by which written curriculum becomes teaching and learning practice; and
- 4.** Design and provide the material basis that enables curriculum to work.

Occasionally, curriculum specialists will also need to participate in processes of curriculum renewal and the resolution of certain challenges in different regional or country contexts.

This range of decisions is represented in the following diagram:





A dominant tradition in many countries in the western world throughout the Modern Era and the twentieth century emphasized rational and scientific methodologies and the use of technology to control nature. This trend was mirrored by the development of hierarchical bureaucracies responsible for decision-making and the quest for social progression through the systematic development of “rational” solutions. Today, curriculum specialists experience the legacy of this tradition when societies enter a new phase or condition— decisions are more diffused and their reach is more complex. In these conditions of higher indeterminacy, education systems cannot be conceived in a mechanical way, but rather must be considered an open system, and processes must be managed to deal with the complexity, lack of clarity about how to proceed, and the multitude of options available.

## *Curriculum development*

The curriculum is indeed a crucial component of any educational process. As we enter the twenty-first century, education systems are facing the challenges of the global market and the knowledge economy, while requiring support to foster local cultures and build the social cohesion necessary to sustain a sense of identity and belonging.

Around the world, national education authorities are increasingly addressing the challenge of producing curricula that responds to new and complex demands by developing skills and building competencies that are relevant to local and global needs. Despite some differences in approach, these authorities are generally exploring new solutions to improve the quality of learning outcomes based on curriculum provision that takes into account a variety of criteria, approaches and strategies for teaching and learning.

In the face of these challenges, countries or regions must integrate specific and relevant needs in current curriculum development processes such as the goals of combatting poverty and social exclusion, fostering social cohesion or education for sustainable development, knowing that education has a complex, albeit evident impact on the social processes that produce these setbacks.

Curriculum development, conceptualized as the definition of policies that guide the processes that ensure that knowledge deemed necessary is taught and learned, is a concept that implies going beyond the traditional notion of curricula as mere syllabuses of prescribed content. Indeed, it is commonly suggested that in order to effectively foster learning, educational content, methods and structures (time, physical space, human resources and leadership) need to be permanently adjusted according to evolutions in science, technology, culture, economy and social discourse.

Additionally, due to increased international comparisons of countries through participation in education-based assessments of knowledge and skills/competencies, curriculum and its development processes are publicly challenged, forcing authorities to revise and adjust their education systems and curricula, and adopt “good” policies and practices using international standards as a reference. In general, there is a need for increased dialogue and experience-sharing, not with the intention of promoting a particular model, but rather for learning from both failures and successes, and capitalizing on local experiences and traditions.

# The *Resource Pack*

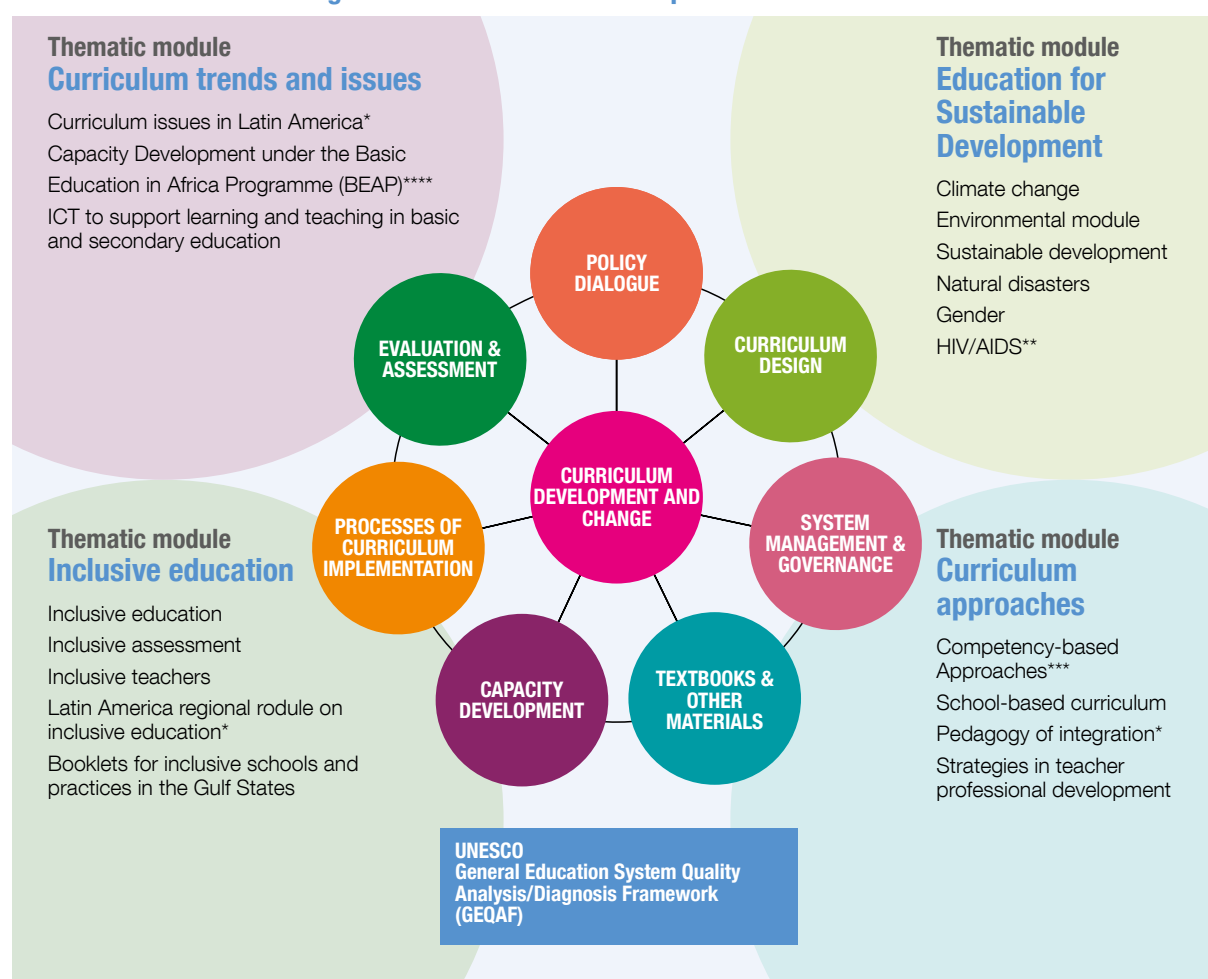
## Objective and structure

As the Introduction suggested, the objective of *Training Tools for Curriculum Development* is to contribute to the development of the capacities of specialists, practitioners and decision-makers in the design, management and implementation of quality-oriented, curriculum-making processes and inclusive curricula.

Rather than imposing pre-defined models or universally prescribing applicable solutions, the IBE facilitates access to a range of experiences and assists curriculum specialists and relevant stakeholders in gaining new perspectives on complex issues so they can make informed decisions by exploring the advantages and disadvantages of different options in compliance with their own contexts and needs.

The *Resource Pack* includes the presentation and discussion of key curriculum concepts, a set of training activities that support curriculum production and exchanges about curriculum issues, as well as a series of analytical documents and case studies from different world regions that include a diversity of approaches, strategies and practices.

## UNESCO-IBE and its Training Tools for Curriculum Development and connected themes:



Source: UNESCO-IBE (2013). \* Available in Spanish \*\* Available in French \*\*\* Available in English and Spanish \*\*\*\* Available in English and French

Several curriculum themes are developed in the conceptual sections through the inclusion of a series of resource documents and various case studies intended for reflection and discussion. A series of activities divided into specific tasks will also assist curriculum developers in visualizing contemporary curriculum development processes, considering:

- Concepts of quality and relevance in education and their implications for curriculum change;
- Curriculum change as a complex and dynamic process, involving a range of stakeholders in the development of a series of products;
- The implications of emerging trends in curriculum change for:
  - Policy-making;
  - Curriculum design, including the structure of curriculum frameworks and subjects;
  - Time and space allocation;
  - Education system governance and management, including resource management;
  - Textbook development, as well as the development of other learning materials and technological supports;
  - Assessment and evaluation;
  - Teacher training and professional development; and
  - Processes of curriculum implementation and evaluation.

The structure of the *Resource Pack* is based on the dimensions of the curriculum “life cycle”. The dimensions are presented here as independent modules that can be read separately or in a circular sequence, starting with any module: Policy dialogue and formulation; Curriculum change; Curriculum design; System management and governance; Development of textbooks and other teaching and learning materials; Capacity development for curriculum implementation; Processes of curriculum implementation; Student assessment and curriculum evaluation.

The resources included in the *Training Tools* seek to develop conceptual understandings about curriculum development and an appreciation for the nature, philosophy and principles of curriculum change as a dynamic and ongoing process. They approach the various dimensions of curriculum change in a way that highlights their interconnected nature, assuming a holistic vision of the curriculum.


As this tool is designed to be used flexibly in a wide range of contexts, the products and processes identified above could be useful in both specific circumstances, as well as most common curriculum development situations.

Finally, this *Resource Pack* is not intended to be a manual that prescribes a sequence of steps to be taken, as no unique solution can be applied in the same way in different contexts. Rather, it intends to concretely orient ongoing work, not by imposing specific models but by providing inspiration and valuable inputs to curriculum developers and other stakeholders.

## ***Methodological aspects of the Resource Pack***

The main attributes of the *Resource Pack* include:

- The development of an international comparative perspective, making extensive use of case studies;
- An open invitation for users to interpret readings, cases and examples in relation to their own context;
- The provision of updated information, documents and policy analyses on curriculum issues, trends and specific topics;
- Opportunities for capacity development through the use of simulations and contextualized learning; and
- Required outputs that can potentially be useful for the user in everyday activities.



## Overview— Presentation of the content in the modules:

### MODULE 1

**Policy dialogue and formulation:** This module explores policy change contexts, first by examining possible triggers and rationales for policy change and then by providing tools for the analysis of strengths and weaknesses in local contexts. It also highlights how to identify stakeholders involved in, and concerned with the education system. It then identifies the range of involvement of potential partners in policy dialogue and formulation, as well as the possible causes of resistance to policy change.

### MODULE 2

**Curriculum change:** This module proposes a comprehensive approach to curriculum change as a dynamic process that must preserve the relevance of learning given social and global transformation, including the need to update the knowledge selected to be transmitted through the curriculum in light of the influences upon curricula at the school level, while working to avoid the dilution of intended curriculum.

### MODULE 3

**Curriculum design:** This module presents a generic structure for curriculum frameworks and examines the relationship between various constituent elements. It provides an overview of different approaches to the process of defining what learners should know and be able to do at the end of various learning cycles based on the formulation of objectives, skills, competencies and/or standards. Each of these approaches has implications for structuring learning content, time and space allocation at the school level, as well as teaching and learning methodologies and assessment methods.

### MODULE 4

**System management and governance:** This module identifies several rationales and modalities for the management and governance of curriculum processes, considering the need to maintain balance between centralization and decentralization in the effective management and leadership at the central, regional and school levels. It explores issues related to the localization of curriculum in specific national and local contexts as a way of ensuring greater responsiveness to local needs and realities.

### MODULE 5

**Development of textbooks and other teaching and learning materials:** This module explores current trends in the policies and processes of developing curriculum materials and presents a variety of models for curriculum developers to consider. It presents the potential roles of various stakeholders, including the central educational authorities, in the production and distribution of teaching and learning materials. Users are invited to consider the frameworks that best apply to their contexts.

## MODULE 6

**Capacity development for curriculum implementation:** This module defines capacity development in the context of curriculum change, as a process of developing the knowledge, skills and insight of individuals and groups engaged in curriculum change and empowering them to engage in policy formulation and to make informed decisions for managing, evaluating and renewing the curriculum. Capacity-building for curriculum change is examined in the context of new teaching and learning approaches, and information and communications technologies. The module highlights the need for carefully-targeted capacity development and locating the priority areas for the empowerment of targeted stakeholders.

## MODULE 7

**Processes of curriculum implementation:** This module aims to explore and clarify possible models of curriculum implementation. It examines a range of issues related to implementation, including planning for the implementation process. The process of piloting new curricula and the possible roles of regional and school-based leadership in introducing new curricula are also explored.

## MODULE 8

**Student assessment and curriculum evaluation:** This module presents student assessment and its impact on curriculum evaluation as an important source of curriculum policy change, including the need for ongoing feedback for curriculum adaptation in the process of implementation. The module then identifies curriculum components that may be evaluated prior to the individual outcomes of students. In the module, evaluation processes and techniques are also revised. For instance, it addresses the issues of who should evaluate, whose opinions are important, the types of qualitative and quantitative data that can be useful, how to gather data and what to do with data.

# The *Resource Pack* Icons

The icons in the left margin of the *Training Tools* are designed to help you identify actions or materials that have been introduced to facilitate your learning. The resources associated with each task are distributed through the digital interactive version of the *Resource Pack*, available to participants of UNESCO-IBE training courses. For more information about UNESCO-IBE's training courses, please contact the institute directly.

The following table offers an explanation of the icons used throughout the *Training Tools*:



## ACTIVITY:

Indicates that participants will be engaging in a series of tasks that require individual or group work. These activities may be supplemented by readings and case studies. They are organized to highlight key themes in each of the modules.



## READINGS:

Refers to the complete list of documents, case studies and worksheets that are included at the end of each module, as well as the list of references that have been cited in the *Training Tools*.



## DOCUMENT:

Indicates that participants will use a supplementary resource that has been written or published by an author or institution. These documents are intended to highlight issues relating to policies and practices in curriculum development.



## CASE STUDY:

Indicates that participants will use a supplementary resource that has been submitted by a previous student of the Postgraduate Diploma in Curriculum Design and Development courses or has been submitted through the UNESCO-IBE Community of Practice in Curriculum Development. These case studies are intended to reflect the experiences of various stakeholders in the areas of curriculum design and development from around the world.



## WORKSHEET:

Indicates that participants will use a handout designed to encourage the development of ideas, planning and problem solving.



## PRODUCT:

Indicates that participants will produce a tangible result based on a specific activity task.



## PORTFOLIO:

Indicates that participants will produce a tangible result that reflects the culmination of a set of activity tasks.



## NOTES:

Refers to the section at the end of each module where participants can record personal ideas and thoughts based on the training session(s) and supplementary resources.



MODULE

# 1



## Policy dialogue and formulation





# MODULE 1

## Policy dialogue and formulation

This module is about policy dialogue – the process of formulating curriculum-related public policies by engaging and consulting with stakeholders. It is these policies which set the fundamental parameters for the work of curriculum developers.

The activities in this module seek to guide curriculum developers through the stages of curriculum policy formulation:

- 1.** Actors and context for dialogue: conducting contextual scans of the education system and larger environment.
- 2.** Consultation processes: how to identify legitimate stakeholders in curriculum and how to engage them in policy dialogue and consultations.
- 3.** Building the political will to advance changes in education: the manner in which curriculum developers can have productive conversations with government decision-makers to achieve support and leadership during the process of curriculum change.
- 4.** Sensitive issues: how countries in various parts of the world have dealt with some politically and/or culturally-sensitive curriculum policy issues to preserve and promote national goals and interests.

Following these activities is a list of resources that contains documents and case studies to which references are made in the activities, as well as complementary reading material.

### *Considerations regarding policy dialogue*

The formulation of educational policies and particularly curriculum policies requires a careful analysis of contexts and situations. This allows for the identification of issues and possible deviations, as well as the evaluation of the feasibility and opportunity to introduce change and development. To legitimize state intervention in curriculum matters, it is also necessary to receive the input of different stakeholders when defining curriculum policies and strategies, with a view towards aligning, harmonizing and balancing issues that often seem to conflict.

The level of social consensus regarding the need for educational change partially determines the feasibility of reforms and their scope. In cases where there is not a strong consensus among the state and other actors in the education sector, considerable institutional energy, time and financial resources will be needed to manage the tensions and conflicts implied in each policy area.

The processes of curriculum design and development frequently involve friction that occurs for a variety of reasons:

- 1.** Curriculum is a source of influence: it firmly establishes the agenda for students, teachers, parents, employers and other stakeholders who are interested in educational outcomes, providing them with a framework to process its content and the significance of the ideas presented. Stakeholders assume that if students are exposed to a uniform curriculum then they will develop similar perspectives on what knowledge is valuable, adopt a particular hierarchy of the knowledge areas and develop specific conceptions and beliefs about them.
- 2.** Curriculum development is a social debate process that involves different stakeholders in the community at the local, regional and national levels. As curriculum reflects ideological, religious, professional, economic, corporate and academic interests, among others, it can provoke ideological disputes and political strife.



It is necessary to understand the distinction between “decision-makers” and “stakeholders”. Decision-makers are individuals or groups who, because of their status or professional position, can make specific decisions about what is going to be taught — and when, how and why. Clear examples include officials responsible for the education system, school principals and head teachers. There are also other less visible decision-makers, such as textbook authors and state agencies responsible for national examinations or for crediting and certifying student achievement.

Stakeholders are individuals or groups who have an interest in an issue and the right to participate in the development of school programmes. In some cases, they may have the authority to ensure that their inputs be considered and implemented. In other cases, they may not have official power, but can employ persuasive strategies, for example, through parent associations or mass media.

There are so many groups that influence curriculum decisions, and they are so different that it is not possible to precisely describe the network of interactions or the spheres of influence they each exercise on different levels of the education system; however, a short list of some of the more influential groups includes:

**Table 1.2. Various groups of influence in the making of curriculum decisions**

Direct stakeholders	Indirect influence
<ul style="list-style-type: none"> <li>• Politicians (Ministers, Secretaries of State)</li> </ul>	<ul style="list-style-type: none"> <li>• Professional teachers’ associations</li> </ul>
<ul style="list-style-type: none"> <li>• Superintendents, general directors</li> </ul>	<ul style="list-style-type: none"> <li>• Textbook authors</li> </ul>
<ul style="list-style-type: none"> <li>• National assessment councils</li> </ul>	<ul style="list-style-type: none"> <li>• Mass media</li> </ul>
<ul style="list-style-type: none"> <li>• Teacher unions</li> </ul>	<ul style="list-style-type: none"> <li>• Educational experts and consultants</li> </ul>
<ul style="list-style-type: none"> <li>• Parent associations and councils</li> </ul>	<ul style="list-style-type: none"> <li>• Pressure groups</li> </ul>
<ul style="list-style-type: none"> <li>• School principals</li> </ul>	<ul style="list-style-type: none"> <li>• Judiciary</li> </ul>
<ul style="list-style-type: none"> <li>• Students</li> </ul>	<ul style="list-style-type: none"> <li>• Research and development organizations</li> </ul>
<ul style="list-style-type: none"> <li>• Academic staff at universities</li> </ul>	<ul style="list-style-type: none"> <li>• Commercial sponsors</li> </ul>
<ul style="list-style-type: none"> <li>• Employers</li> </ul>	<ul style="list-style-type: none"> <li>• Non-governmental organizations, international agencies</li> </ul>

*Keywords:* Analysis of strengths, weaknesses, opportunities and threats; Collaboration; Conflict; Contextual Scan; Consultation; Decision-making; Decentralization; Language Policy; Multicultural Issues; Policy Dialogue; Policy Formulation; Policy Implementation; Rationales for Change; Resistance; Social Cohesion; Stakeholders; Values.

## ACTIVITY 1 Actors and context for change

Before pursuing curriculum changes, it is essential for policy-makers and other stakeholders to have a thorough understanding of: (i) the prevailing educational environment, and (ii) the structure and relations (both formal and informal) between components of the education system.

Governments promote, articulate and in some instances lead and determine the new configuration and regulation of the education system on a long-term basis. By comparison, entrepreneurs, union leaders and other actors have a less consistent impact; sometimes they are concerned with education and want to influence it and other times they delegate all initiative to the state.

Each stakeholder examines problems from their own perspective. For instance, public officers who have political responsibilities (Ministers, Secretaries of State) monitor the government and political systems while intellectuals





## **PRODUCT** Contextual scan



### **TASK 6** Individual reflection

Read the document “Trends towards broader stakeholder involvement in Asia”.

### **TASK 7** Work in small groups

This exercise may be completed individually but is most valuable if completed with a group of participants from a variety of institutions and levels across the education system.

The facilitator distributes a pack of cards that represent various elements of the education system to each group. Groups are asked to organize the cards in a rational way – no further guidance should be offered and the rationale for the organization of cards may be decided by each group. Once the organization has been decided, the group should paste the cards to a flip chart sheet and start marking the connections with single- or double-headed arrows to indicate whether the influence is one-sided or reciprocal.

### **TASK 8** Plenary discussion, non-interactive

1. Group charts are displayed on a wall and the entire group is invited to review them in silence, taking notes.
2. A spokesperson from each group explains the rationale for their card organization to everyone.



## **PRODUCT** Collection of charts showing various relationships within an education system

## **ACTIVITY 2**



## **Design of consultation processes**

The practice of formulating educational policies and developing curriculum in isolation from the community is becoming less common. An important element of curriculum change and development is to identify the stakeholders within the education sector and in the broader community who have legitimate interests in curriculum and to consult with them in ways that reflect the nature of their interests and their levels of expertise and accumulated knowledge. Effective communication, consultation and collaboration are key elements to identify and manage conflict.

Sometimes conflict is unavoidable in change processes, but it can, to some extent, be anticipated and managed by doing the following:

1. Clearly defining the roles for all actors involved;
2. Choosing the right opportunities to make consultations;
3. Developing an effective communication strategy; and
4. Employing strategies to ensure support for policy changes.

In the rationalist tradition of the public-decision theory, decision-making processes are usually represented in a linear sequence:<sup>1</sup>

<sup>1</sup> Braslavsky, C. and Cosse, G. 2006. Las actuales reformas educativas en América Latina: cuatro actores, tres lógicas y ocho tensiones [Current educational reforms in Latin America: four actors, three logics and eight tensions]. REICE – Revista electrónica iberoamericana sobre calidad, eficacia y cambio en educación [REICE – Ibero-American Electronic Journal on Quality, Efficiency and Change in Education], Vol. 4, No. 2e. (In Spanish.)



- Effective stakeholder participation in the decision-making process?
- What expectations will be created by participation in a consultation process?
- Who are the stakeholders that need to be consulted? How broad will the consultation be?
- What will the consultation mechanism be? What type of feedback do policy-makers want or need to receive? What type of feedback is not wanted or needed by policy-makers?
- What implications do the mechanisms for consultation have for finance and institutional capacity?
- At what stage(s) in the curriculum change cycle should consultation take place? How often will consultation take place?
- How will the process manage negative or unwelcome reactions to policy proposals?
- What will be done with the data you collect? How will it be processed? What role will it have in the decision-making process?
- Should the results be published? How should policy decisions be communicated and to whom?



### **TASK 3 Work in small groups**

Use the answers to your questions to draft a policy paper. Refer to the worksheet “Outline of a policy document”.



### **PRODUCT Draft policy paper**

### **TASK 4 Group simulation of consultation**

- 4.1** Participants are divided into two groups, ensuring that, if possible, there are system representatives in each group. One participant is assigned the role of a journalist and may move freely between groups. The following roles are assigned randomly to the other participants:

Group 1: Stakeholders

- Student
- Parent
- Teacher
- Teacher trainer (educator)
- Public officer
- Supervisor and superintendents of local board
- Researcher
- Curriculum developer
- University chancellor
- Employer
- Minister of Education
- Representative of a development agency

Group 2: Curriculum Developers

Curriculum researchers (content developers) specialized in:

- Language and Literature
- Foreign Languages
- Science and Technology
- Mathematics and Computer Science
- History, Social Studies (including Citizenship)
- Creative Arts (Music, Visual Arts, Theatre)

**4.2** All participants think about the role they have assumed and write down the primary concerns and desires of their character in relation to education. They may also wish to reflect upon the likely behaviour of the character whose role they are playing.

**4.3** In groups:

Group 1 prepares a short statement of what each member will say (e.g. “I’m an employer and I have a legitimate interest in the reform of school curriculum because...” and “My main aspirations and concerns for the new curriculum are...”).

Group 2 prepares a series of questions that they would like to ask particular members of Group 1 as part of a consultation on curriculum renewal.

**4.4** Panel session:

Conduct a simulated panel session as might occur during consultations. Panel members (Group 1) begin by taking turns to explain their interest in school curriculum. Members of Group 2 then ask questions to panel members.

**4.5** At the end of the panel session, the “journalist” may present a short report on the content and tone of the discussion. The media report is intended to offer some insight into the ways in which the media, other stakeholders and those on the periphery or outside of the process are likely to perceive the nature of curriculum discourse and planning.



**PRODUCT List of possible questions**



**PRODUCT Account of the external observer**



**TASK 5 Individual reflection**

Read the case studies “The political construction of curriculum reforms: The case of Chile in the nineties” [Construcción política de reformas curriculares: El caso de Chile en los noventa] and “Teachers’ resistance to the implementation of the 7th Revised Curriculum in Korea”. When reading, consider these questions individually before sharing your thoughts with a colleague in the next task:

- What advantages and disadvantages does a centralized decision-making process have?
- How might teacher resistance have been avoided?
- In relation to your own situation, why are teachers the most likely to resist change?
- How are teachers best supported through periods of change?
- What approaches might offer teachers a stronger sense of ownership over change and stimulate their enthusiasm?

**TASK 6 Work in small groups**

Confer with colleagues to generate a list of strategic principles (best practices and methods to avoid) to minimize resistance to change that might be relevant for your context.



**PRODUCT List of strategic principles**

**TASK 7 Work in small groups**

Answer the following questions with specific reference to your own context:

- How can curriculum managers respond to the diverse interests of stakeholders?



- Whose interests should be considered?
- Whose voices are heard and how are they expressed? Whose voices are not heard?
- To what extent may stakeholders be allowed to influence curriculum change?
- When may consultation be considered sufficient for shaping curriculum change?
- How much consultation is enough? Who makes the final decision?



## PRODUCT

### Key issues to consider when planning a consultation

## TASK 8 Work in small groups

Consider adjustments to the policy paper developed in Task 3.

## ACTIVITY 3



### Advocacy before educational authorities

During processes of policy dialogue, a relatively neglected component are the discussions that occur inside official agencies that promote curriculum change. Curriculum developers usually tend to concentrate their activities and points of view on technical issues. They feel pressure to be accepted by the academic community as the source of valid knowledge but they also take solace in the types of discussions related to knowledge and pedagogical matters.

On the other hand, government officials such as Ministers and Secretaries of State must respond to various stakeholders, and usually experience the pressure generated by the public opinion represented in the media or voters near election time. The opportunity to introduce changes to curriculum implies that policy-makers and technical staff engage in productive conversations to advance reforms.

On some occasions, time, energy and negotiations are needed to ensure that the optimal decision has been reached through consensus and received enough support to be implemented at the right moment. This means that a good relationship must exist between the political and technical-professional levels of an administration to avoid wasting political and professional energy, promoting the best environment for each decision process.

Curriculum developers must therefore develop the capacity to present initiatives to policy-makers, clearly stating the main reasons for a particular curriculum decision, including the current problem, the consequences of not taking action, the possible courses of action and evaluations of the possible consequences of each decision from the perspectives of different stakeholders, as well as the budgetary implications.

### *Focus of the activity*

This activity and the suggested tasks help participants advocate for curriculum development or change in order to gain the political support of Ministers of Education and other officers who influence the decision-making process related to educational changes.



## TASK 1 Individual reflection

Review the resource documents “Standing on the shoulders of giants: an American agenda for education reform” and “Learning for all: investing in people’s knowledge and skills to promote development (World Bank)”.<sup>2</sup>

<sup>2</sup> This analytical summary accompanies the complete report “World Bank Group Education Strategy 2020, Learning for all: investing in people’s knowledge and skills to promote development”, available at [www.worldbank.org/educationstrategy2020](http://www.worldbank.org/educationstrategy2020).

Make a list of possible arguments in support of curriculum change that can be convincing for educational authorities.

### **TASK 2** Work in small groups of up to four participants

Imagine that you and/or your group have been invited to make a presentation to the Minister of Education on how curriculum renewal processes in your national/local context might proceed. Using the insight you have gained during the consultation process and the contextual scan of your education system, prepare a presentation to the Minister in which you outline some preliminary ideas and some of the issues that might need to be considered as part of the curriculum change process in your context.

When preparing your presentation you should consider:

- Your goals for the presentation and strategies for achieving them;
- How the Minister might respond;
- Problems the Minister might identify;
- Questions the Minister might ask;
- Information you should have prepared for the meeting; and
- Ways in which you can encourage or persuade the Minister.

### **TASK 3** Work in small groups of up to four participants

Preparation of the presentation:

- 1.** The group should agree on the following:
  - Number of slides;
  - Topic/main idea of each slide; and
  - Sequence of ideas/slides.
- 2.** Each member takes responsibility for a segment of the slides to be presented.
- 3.** Individuals work on each slide using a paper draft.
- 4.** The group develops various sections of the presentation with the help of an information technology (IT) facilitator.

### **TASK 4** Work in small groups of up to four participants

Rehearsing the presentation:

- 1.** Another participant assumes the role of the “Minister” and the rest of the group appoints a spokesperson to deliver the presentation.
- 2.** The entire team may answer questions directed to the “Minister”.



## **PRODUCT** Convincing arguments to present in discussion with Minister

## ACTIVITY 4

### Sensitive issues



Historically, education has been a significant factor in the development of nation-states. Compulsory public schooling has been and continues to be one of the major mechanisms for the integration of children into the political vision of the country.

The series of documents that constitute a national curriculum are not merely technical tools which facilitate the regulation of activity in classrooms. There is also a sense that curriculum is a social contract or agreement defining the types of knowledge, skills, ideals and attitudes which are valued. Hence, there are contexts in which curriculum policy dialogue is an important forum for systematically and coherently debating and defining important national issues.

Many societies are increasingly multicultural, or are recognizing that the dominance of one culture over others may be questionable and challenged. Since curriculum can both reflect and shape social opinion, curriculum developers must understand the dynamics of multiculturalism and the power of curriculum to encourage social stability.

This section addresses two curriculum policy issues which are of particular significance for multicultural societies: language policy and education for social cohesion. These issues have the potential to be either significant problems or significant opportunities to strengthen learning, depending on how they are approached during the curriculum change process.

#### *Focus of the activity*

This activity and the suggested tasks help participants explore potential sources of conflict to be resolved in sensitive situations.

## A. LANGUAGE POLICY

### **TASK 1 Individual reflection**

Read the following extract:

Three principles express UNESCO's approach to language and education:

- To support mother-tongue instruction as a means of improving educational quality by building upon the knowledge and experience of learners and teachers.
- To support bilingual and/or multilingual education at all levels of education as a means of promoting both social and gender equality, and as a key element of linguistically-diverse societies.
- To support language as an essential component of intercultural education in order to encourage understanding between different population groups and to ensure respect for fundamental rights.

Language is not only a tool for communication and knowledge transmission but is also fundamental for cultural identity and empowerment. Respect for the languages of those belonging to diverse linguistic communities through initial instruction in the mother tongue, the encouragement of pluralism and of intercultural, bilingual or multilingual education, access to other value systems and the sharing of knowledge across such cultural borders are essential elements for peaceful cohabitation in the 21st century.

Education in many countries of the world takes place in multilingual contexts. Most plurilingual societies have developed an ethos which balances and respects the use of different languages in daily life.





## TASK 5 Individual reflection

1. Read the case study “Shifting curriculum paradigms in Guatemala: from assimilation to intercultural and multilingual education”.
2. Read the case study “The language situation in Mozambique”.
3. Read the case study “Curriculum for pre-service teacher training in bilingual and intercultural education in Guatemala” [Currículo para la formación inicial docente bilingüe e intercultural en Guatemala].

You may find the following guiding questions helpful:

- How does the issue of language policy in Guatemala differ from that of the last decade in Mozambique?
- What curriculum policy areas contribute to intercultural education besides language policy?
- What are the key elements of language policy in Guatemala? What were those elements in Mozambique during the 1990s?

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## TASK 6 Work in small groups

Working in pairs or small groups, discuss the following questions with specific reference to your own context:

- What are the curriculum policy issues related to language in your situation?
- How do the needs of learners and political issues influence curriculum language policy?
- In what ways can curriculum language policy contribute more effectively to social cohesion?
- Identify areas of potential controversy in language policy in your situation (more specific).

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## TASK 7 Work in small groups

Based on the documents, case studies and your own small group discussions, choose a spokesperson and prepare a report to be presented to the larger group, describing the current language policy in your own context:

- What are the most significant challenges?
- How are they currently being addressed?
- What are the positive and negative consequences of the current approach?
- In what ways can the current policies be changed to improve outcomes in terms of educational needs or social cohesion?



## PRODUCT Report on language policy

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## TASK 8 Plenary discussion

The spokesperson of each small group presents the report to the plenary session and the audience is allowed to ask questions.

## B. SOCIAL COHESION

### TASK 1 Individual reflection

Read the following excerpt and prepare a list of key words.

Social cohesion is a useful framing concept or prism for the analysis of complex policy issues such as curriculum reform. Links between education and conflict are increasingly apparent as this theme has developed into a focus of international study. Education policy and practices can amplify social divisions by fostering suspicion, hostility and ethnic intolerance potentially leading to violence. An increasingly important challenge for curriculum policy-makers is to “contribute to a shared sense of national identity and citizenship which is inclusive and respectful of identity” (Tawil and Harley, 2004). In situations of ethnic conflict, or in cases where countries are undergoing rapid changes due to globalizing forces, processes of educational change need to be sensitive to the role of education in the formation and transmission of collective identity, memory, shared destiny and sense of citizenship.<sup>4</sup>



### TASK 2 Individual reflection

Read the case studies “The school subject moral-spiritual education in pre-university education – Republic of Moldova” and “Development of moral-spiritual education in the Republic of Kazakhstan” and consider the following questions:

- Identify the core values that the implementation of new subjects in Moldova and Kazakhstan seek to promote.
- What consultation policies have been selected to produce and implement the new curriculum in each case?
- What requirements can be envisaged to implement the proposed curriculum?
- How do the processes adopted for the design and implementation of the new curriculum represent a model that is practical and useful in your situation?



### TASK 3 Individual reflection

Read the case studies “Community-based curriculum for confidence-building: inter-ethnic education and violence prevention in Belarus” and “Citizenship education in Northern Ireland: piloting innovation”. Consider the following questions:

- What strategies were used to develop a citizenship programme that could potentially gain acceptance?
- Local and global citizenship is now operating in most schools in Northern Ireland. What are the major practical obstacles to implementation?
- What is the role of the community in the development of the Belarus project? Can you imagine a similar process in your own situation?
- What differences do you see between the approach adopted in Northern Ireland and the one adopted in Belarus?
- What challenges do the Northern Ireland and Belarus situations pose for the development of acceptable syllabuses for citizenship education?

<sup>4</sup> UNESCO. 2004. *Education, Conflict and Social Cohesion*. S. Tawil and A. Harley (eds), Geneva, Switzerland, UNESCO International Bureau of Education.





# List of resources for MODULE 1

## Policy dialogue and formulation

### *Documents*

- Trends towards broader stakeholder involvement in Asia.
- Resistance in policy formulation and implementation.
- Standing on the shoulders of giants: an American agenda for education reform.
- Learning for all: investing in people's knowledge and skills to promote development (World Bank).
- Multilingual contexts: the challenges for education systems.
- Building social integration through bilingual and mother-tongue education.
- The language factor in optimising African education.

### *Case studies*

- Analysis of strengths and weaknesses of the curriculum context in South Korea.
- Republic of Kyrgyzstan – a contextual scan.
- Analysis of the context of Egypt.
- The political construction of curriculum reforms: The case of Chile in the nineties [Construcción política de reformas curriculares: El caso de Chile en los noventa].
- Teachers' resistance to the implementation of the 7th Revised Curriculum in Korea.
- The introduction of national languages in the Angolan education system [A introdução das línguas nacionais no sistema educativo angolano].
- Shifting curriculum paradigms in Guatemala: from assimilation to intercultural and multilingual education.
- The language situation in Mozambique.
- Curriculum for pre-service teacher training in bilingual and intercultural education in Guatemala [Currículo para la formación inicial docente bilingüe e intercultural en Guatemala].
- The school subject moral-spiritual education in pre-university education – Republic of Moldova.
- Development of moral-spiritual education in the Republic of Kazakhstan.
- Community-based curriculum for confidence-building: inter-ethnic education and violence prevention in Belarus.
- Citizenship education in Northern Ireland: piloting innovation.

### *Worksheets*

- Policy dialogue and formulation: a contextual scan.
- Outline of a policy document.



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MODULE

# 2



## Curriculum change



# MODULE 2

## Curriculum change

This module seeks to guide curriculum developers through the several factors to be considered when revising curriculum change policies. The activities in this module are oriented to help curriculum developers analyse:

1. International trends in curriculum change to determine the main directions of current reforms and reflect on what they imply for curriculum development in a given context.
2. The ways in which the need for change can be substantiated, with the aim of obtaining support from various actors; and
3. The argument for using educational quality and its improvement as rationales for promoting change.

Following these activities is a list of resources that contains documents and case studies to which references are made in the activities, as well as complementary reading material.

### *Considerations regarding curriculum change*

While curriculum can be understood as a political agreement, it is also a policy and technical agreement that considers the expectations of a society at several levels— local, national and global— and reflects a system that develops through teaching and learning processes. Indeed, the curriculum is a far-reaching tool that is actualized whenever it: i) sustains and develops educational policies under a long-term perspective; and ii) helps teachers to effectively develop the process of learning.

Frequently, curriculum is treated as the foundation for major educational reforms, as well as the determinant of educational objectives and the related content that will be developed through an array of teaching and learning processes. Such processes are strongly integrated in educational policies and they involve public debates, discussions and consultations with stakeholders, both within and outside of the education system.

From an international comparative perspective, some of the main topics related to the educational agenda and curriculum are:

1. The desire to achieve an inclusive curriculum that responds to the expectations and needs of all students in diverse learning environments;
2. Restructuring the curriculum so that it best meets the needs of a society;
3. Renewing curriculum approaches so they promote the effective participation of students in a way that contributes to the improvement of learning outcomes;
4. The role of curriculum in the democratization of learning opportunities and society at large;
5. The increased visibility of cross-cutting societal concerns, including citizenship, human rights, gender equity and sustainable development, as the main focus of syllabuses and guidelines; and
6. The process of localizing curriculum while simultaneously preserving a common national framework.

The breadth and complexity of curriculum development processes, from policy dialogue to the assessment of learning, and the host of challenges that influence what is learned and the manner in which it is learned require that decision makers, educators, curriculum specialists and teacher educators broaden their perspectives and further develop their capacities. These new capacities require integrating a broad international perspective about the topics, strategies and emerging trends in the curriculum arena. They also require that educationists effectively prepare for developing quality inclusive curriculum.



*Keywords: Curriculum Reform/Revision/Renewal; Curriculum Process; Curriculum Design and Development; Rationales for Change; Access; Quality; Relevance; Equity; Rights; Inclusion; International and Regional Trends; Teaching and Learning; Educational Curriculum Standards; Objectives; Aims; Competencies.*

## ACTIVITY 1

### International trends in curriculum change

#### *Introduction*

Academic thought and empirical research in the last decade have led to a conceptual shift in the understanding of knowledge, teaching and its pedagogy, as well as in the conceptualization of learning. This conceptual change implies a worldwide dissemination of new ideas that impact the curriculum development process and their progressive adoption in official documents, although not necessarily observed in everyday school practice. These new ideas often augment the broader aim of education so that it is a tool for social progression or development, and the curriculum is a key contributor to achieving this objective.

#### *Increased consultation with legitimate stakeholders*

In most cases, contemporary curriculum development is a dynamic process that involves many people, often with different priorities, interests and needs. In practice, curriculum development is often used to focus almost exclusively on curriculum documents without much involvement from educators or learners. However, discussions about the aims of each level of an education system require input from other actors because any changes will impact their daily routines.

#### *A focus on relevance*

Effective formulation of curriculum policy, appropriate curriculum design and successful curriculum implementation require an understanding of:

- What is relevant to the learner?
- What is relevant to the political objectives of the country?
- What is relevant from the point of view of global tendencies?
- What is relevant for other stakeholders, such as universities and employers?

Input from learners is seldom integrated into the curriculum development process. The priorities of politicians and employers may differ from those of teachers and parents and even still such priorities are not homogenous within these groups. Arguably, each of these groups has a legitimate interest in what should be included in the curriculum and, most significantly, in defining its outputs. A thorough understanding of the educational context and other related spheres provide critical directives for the development process. These guides may be useful as a benchmark for ensuring quality throughout processes of curriculum development and implementation.

#### *The changing role of educational authorities*

No two countries or systems develop curriculum in identical ways. Development processes in each country are influenced by a range of contextual factors. However, curriculum change is increasingly a collaborative process in which educational authorities are no longer necessarily found at the head, but rather at the centre of development dynamics.

Although governments are always ultimately responsible for the results, they play different roles in contemporary curriculum development processes. Sometimes the role of government is to lead, sometimes it is to listen and sometimes it is to organize. Educational authorities are thereby becoming motivational figures that promote various interactions between stakeholders.



### Focus of the activity

This activity and the suggested tasks aim to familiarize participants with a series of international trends in curriculum change and approaches to teaching and learning. Participants explore these trends and investigate the extent to which they already exist or are desirable and possible in their own context. Implications for policy-making, curriculum design, implementation, monitoring and evaluation are considered.



### TASK 1 Individual reflection

1. Read the following extract.

The following trends have emerged and are continuing to be developed in most education systems (see Table 2.2). It is important to keep in mind that the characteristics represented in each column of the table below are not opposites or mutually exclusive; they represent two ends of a continuum. In practice, all teaching and learning and all processes of curriculum change represent some combination of these characteristics or a balance between these two positions. For instance, it is important to highlight that no matter the shift in approaches to teaching and learning, the role of the teacher remains central.

**Table 2.2. International trends in curriculum change**

From	To
Teaching	Learning
Transfer of facts	Student construction of knowledge
Memorization of information	Analysis, synthesis, evaluation, application of information
Focus on knowledge	Development of knowledge, skills, values and attitudes
Summative assessment of academic achievement	Authentic and formative assessment of competency
Learning by rote	Applied learning / learning in context
Categorized knowledge (traditional subjects)	Integrated knowledge (broader learning areas)
Schooling	Lifelong learning
Focus on inputs	Focus on outcomes and processes
Didactic teaching	Participatory, activity-centred approaches that incorporate interactive methods
Assumption that there is one "learning style"	Recognition that there are several "preferred learning styles"
Curriculum as product	Curriculum as both a process and a product

2. Review the resource documents "The vision of curriculum and curricular debates: an interregional perspective" and "Interregional discussions around inclusive curriculum and teachers in light of the 48th session International Conference on Education".
3. Make personal notes on the previous table to reflect additional ideas on curriculum trends and produce your own version of the table.



### PRODUCT Table of trends





## **TASK 2 Individual assignment**

Consider each of the aforementioned trends in approaches to teaching and learning and in curriculum change that have been presented. Using the worksheet “International trends in curriculum change, teaching and learning”, answer the following questions:

- To what extent does each trend already exist in your situation?
- To what extent is this trend desirable in your situation?
- To what extent is it possible to implement this trend in your situation?
- In your situation, what are the implications (i.e. what should be done, is it feasible or difficult, etc.) of each trend for:
  - Policy-making?
  - Curriculum design?
  - Implementation?
  - Monitoring and evaluation?

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## **TASK 3 Work in small groups**

Share and explain your feedback worksheet with a partner or small group. Listen to opinions and reconsider your previous answers.

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## **TASK 4 Work in small groups**

1. Consider the following question:
  - What are the main opportunities for, and obstacles to the enhancement of quality in education in your situation?
2. Draft a list of possible reforms which address the obstacles.

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## **TASK 5 Plenary discussion**

Share the list of reforms with the larger group and examine them critically. Is it possible to arrive at a common vision?



## **PRODUCT List of possible reforms**

## ACTIVITY 2



### Rationales for promoting change

The enhancement of educational quality and its relevance is the most prevalent agent of curriculum change. Increased access to education can be achieved through sound management, but access to quality education relies to a large extent upon high-quality curriculum.

Curriculum change is generally driven by the need or desire of nations to assert their identity and cultural heritage and to pursue their goals, as well as socio-political and economic aspirations. Likewise, change can arise from the realization that what has been taught in the past will not prepare young people for successful lives in the future and that the quality and relevance of curriculum must be improved. However, change is also informed by supranational mechanisms, with rules and policies (economic and educational, among others) that guide standardized curriculum models toward homogeneity, even though the adoption of these models by the countries depends on the countries' traditions and is conditioned by their ability (economic, human resources, etc.).

#### Focus of the activity

This activity and the suggested tasks should help participants to identify a set of possible reasons for promoting a change in educational policy at any level, as well as to assess the degree of relevance and sensitivity of the chosen rationales, taking into account the points of view of other participants.



#### TASK 1 Individual reflection

Read the following resource documents: Chapter 9, "Education", of the book *Development and Freedom. An Introduction to the Theory and Practice of Human Development* and "Neuroscience and education".

#### TASK 2 Plenary discussion

1. Read the following extract. Please select one spokesperson per group of six participants. The participants will have their own printouts so they can follow the reading.

The enhancement of educational quality and relevance is the all-embracing rationale behind curriculum change. Such change is also driven by the need or desire of nation-states to affirm cultural identity or heritage and to pursue their own socio-political and economic goals and aspirations. In different countries, a range of rationales are employed to guide and chart the course of educational reform and curriculum change.

Among the most common rationales in favour of curriculum change are:

- Promotion of humanitarian, moral, ethical and value-oriented education;
- Development of healthy, responsible and skilled citizens;
- Preservation of local tradition, while appreciating and respecting cultural diversity in an era of globalization;
- Maintaining social stability, national identity and cohesion;
- Social, civic and economic reconstruction following regime changes, wars or conflict;
- Ensuring economic growth and improving the living standards of the population;
- Reducing socio-economic inequalities and addressing social justice concerns;
- Enhancing international competitiveness and global integration; and
- Updating knowledge in keeping with cultural transformation as a result of new technologies.



### TASK 3 Work in pairs

1. Read the case study “The case of the 2003 curriculum reform of higher secondary education in Uruguay” [El caso de la reforma curricular de la educación media superior en el año 2003 en Uruguay]. Consider the aforementioned possible rationales for curriculum change:
  - Which of these apply to the Uruguayan context?
  - Which apply to your country/national situation?
  - What other rationales are important in your situation? (For example, rationales drawn from religious, moral, cultural or human rights perspectives).
2. Refer to the worksheet “Possible rationales for curriculum reform” and:
  - Read the list of possible rationales;
  - Write any additional “rationales” which you have identified for your context on the blank cards;
  - Prioritize the rationales in order of the importance/relevance that you believe these play in the ongoing or proposed curriculum change in your country; and
  - List the rationales in order of sensitivity to your context.

### TASK 4 Work in small groups

1. Report: Each pair explains to the group how they have prioritized the rationales for their context.
2. The group joins together to create a mutually-agreed upon list, trying to avoid excluding items too early in the process.

### TASK 5 Plenary discussion, non-interactive

Panel show: Agreed lists are posted on a wall and the entire group is invited to review them in silence and take notes.

### TASK 6 Work in small groups

Each group revises the newly-created list of rationales.



## PRODUCT Revised group proposal of rationales

### ACTIVITY 3



## Change to improve quality

Quality in education is understood in several ways. In order to discern the challenges facing curriculum developers and possible means of addressing them, this activity offers a framework for consideration of current local and international interpretations of quality in education.

Quality of learning is now clearly recognized as a fundamental factor in achieving universal participation in education. The 6th goal at the *World Education Forum* (Dakar, Senegal, April 2000) relating to quality addresses the need for improving all aspects of the quality of basic education and ensuring that recognized and measurable learning outcomes are achieved by all, especially in literacy, numeracy and essential life skills.<sup>1</sup> Thus, the quality

<sup>1</sup> UNESCO. 2000. The Dakar Framework for Action – Education for All: Meeting our collective commitments– Adopted by the World Education Forum, Dakar, 26–28 April 2000. Paris, UNESCO. <http://unesdoc.unesco.org/images/0012/001202/120240s.pdf>. (Accessed 13 September 2013.)

of education has come to be seen as directly related to the issue of access to education for all. UNESCO has identified curriculum as one of the ten dimensions of quality in education.<sup>2</sup> While the concept of quality is understood in different ways, the *Education for All Global Monitoring Report 2005*<sup>3</sup> identifies three principles that increasingly influence educational content and processes. They are summarized as the need for:

- More relevance;
- Greater equity in access and outcomes; and
- Proper observance of individual rights.

Relevance is determined by context (global, national and local circumstances under which the curriculum is developed) and addresses the needs of learners and various other stakeholders in what constitutes meaningful learning.

In general terms, curriculum defines what is to be taught and learned. Curriculum developers should make judgments about curriculum relevance by considering:

- The present and future personal lives of students;
- The cultural and social contexts in which students live, including respect for traditions, language, religion and values;
- Society, with a view towards promoting internal stability and cohesion, as well as its contribution to global well-being;
- The economy, which demands skills and knowledge that enhance productivity, prosperity and opportunity; and
- A range of urgent global concerns, including health-related issues (such as the spread of HIV/AIDS and other pandemics), conflict resolution and environmental sustainability.

The Education for All goals also implicitly require both:

- The realization of the right to basic education for all people; and
- Respect for the social and cultural rights of others through education.

Curriculum developers should be aware that rights-based approaches to education are increasingly informing how educational quality is defined and measured. Ensuring gender sensitivity and responsiveness and respect for minorities in the educational process are essential components of such approaches.

### Focus of the activity

This activity and the suggested tasks should help participants consider current local and international interpretations of quality in education, determine the challenges posed in each particular context and possible means of addressing them.

## TASK 1 Group brainstorming

Identify the major factors that affect the quality of education in your country. Create a wallchart in which you list the factors.

<sup>2</sup> UNESCO. 2005. *EFA Global Monitoring Report 2005: Education for All: The Quality Imperative*. Paris, UNESCO, pp. 30–37 <http://unesdoc.unesco.org/images/0015/001501/150169s.pdf>. (Accessed 13 September 2013.)

<sup>3</sup> UNESCO. 2012. *EFA Global Monitoring Report 2012: Youth and Skills: Putting Education to Work*. Paris, UNESCO. <http://unesdoc.unesco.org/images/0021/002180/218083s.pdf>. (Accessed 13 September 2013.)

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## **TASK 2** Work in small groups

Identify three ways in which the present curriculum is helping to reach quality education and three ways in which it is not helping to reach quality education.

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## **TASK 3** Plenary discussion

Groups present their results and a general list of the effective/ineffective features of curriculum is produced.



## **PRODUCT** List of effective and ineffective curriculum features



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## **TASK 4** Individual reflection

1. Read the resource documents “Five challenges of achieving quality education in Europe” and “Towards an index of quality education”.
2. In one short sentence, describe the nature of each of the five challenges to quality education identified by the European Commission:
  - The knowledge challenge;
  - The decentralization challenge;
  - The resource challenge;
  - The social inclusion challenge; and
  - The data and comparability challenge.
3. In one short sentence, describe the five key dimensions of quality education at the learner-level from a rights-based perspective, as identified in the second document, including:
  - Seeking out learners;
  - What the learner offers;
  - Content;
  - Processes; and
  - Learning environment.

To what extent are these challenges and dimensions relevant to your situation/region?

4. List up to five curriculum-related challenges that are relevant to your context.
5. List the challenges that you have identified and possible stakeholders who could be invited to discuss each of them.

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## **TASK 5** Plenary discussion

Present an oral report to all participants, in which each group gives a five-minute presentation. Identify common challenges, approaches/solutions and possible avenues for cooperation that may reveal ways to progress.



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## **TASK 6** Individual reflection

Read the document “The 10 dimensions of quality in education” and consider the following questions:

- Why has the quality of education become a more significant issue?
- What does the term “rights-based education” mean?

- What are the five key dimensions of quality education at the learner-level?
- What are the five key dimensions of quality education at the system-level?
- What do you identify as the most significant challenge of the rights-based perspective for curriculum change?



### TASK 7 Individual reflection

1. Read the document “UNESCO’s conceptualization of quality: a framework for understanding, monitoring and improving education quality”. In each of the following dimensions, identify the key factors that may impact the quality of education:
  - Learner characteristics;
  - Context;
  - Enabling inputs;
  - Teaching and learning; and
  - Outcomes.
2. In your situation, could the UNESCO Quality Framework be used as a tool for improving the quality of education? Why?

### TASK 8 Work in small groups

Using the information that you have examined, with a partner or in a small group, develop a short, bulleted list which encompasses what you consider to be the central elements of quality education for your country. Each bullet point should have a title and a short paragraph explaining why you consider it to be a core factor.



### PRODUCT List of central elements for quality education in a particular context

### TASK 9 Plenary discussion

Share your list with the larger group. Identify common features and differences. Try to reach a consensus on the core elements for quality education in your country/region.



### PERSONAL LEARNING NOTE TO BE INCLUDED IN THE PORTFOLIO:

**What did I learn? What concepts did I find useful?**



## List of resources for MODULE 2 Curriculum change

### Documents

- The vision of curriculum and curricular debates: an interregional perspective.
- Interregional discussions around inclusive curriculum and teachers in light of the 48th session International Conference on Education.
- “Education” in the book *Development and Freedom. An Introduction to the Theory and Practice of Human Development*.
- Neuroscience and education.
- Five challenges of achieving quality education in Europe.
- Towards an index of quality education.
- UNESCO’s conceptualization of quality: a framework for understanding, monitoring and improving education quality.

### Case studies

- The case of the 2003 curriculum reform of higher secondary education in Uruguay [El caso de la reforma curricular de la educación media superior en el año 2003 en Uruguay].

### Worksheets

- International trends in curriculum change, teaching and learning.
- Possible rationales for curriculum reform.

### References

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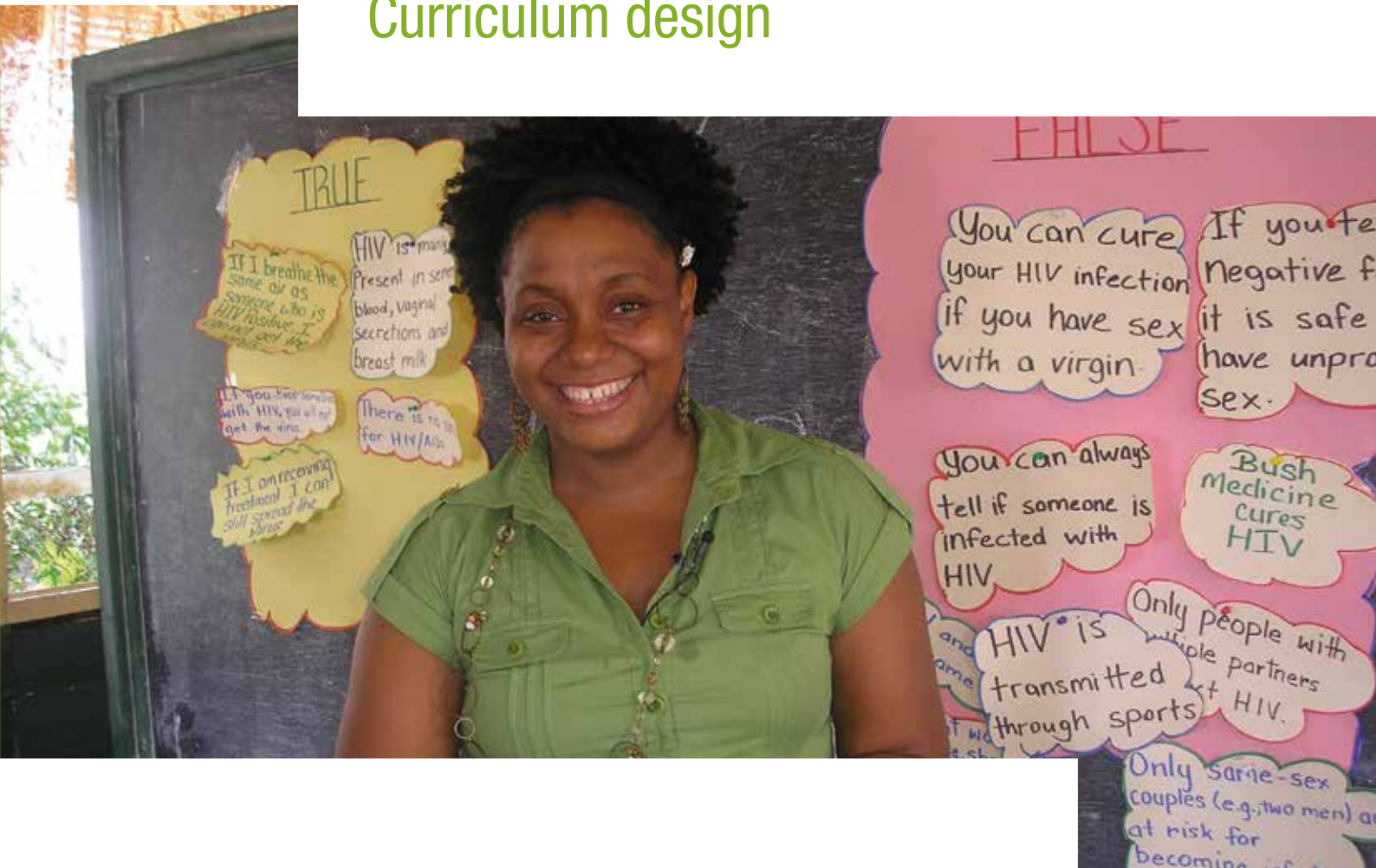




MODULE

# 3

## Curriculum design



# MODULE 3

## Curriculum design

This module provides opportunities to explore current developments in curriculum design and understand the central concepts involved in defining national curriculum standards, including curriculum outcomes, competencies, objectives and content. It revises criteria for the selection of learning areas and the organization of the instructional time, and analyses current approaches to curriculum integration, diversification and differentiation.

Through five activities, curriculum developers will be guided through an analysis of the foundations of curriculum at the macro-level, including:

1. *The structure of a curriculum framework.* Includes the typical components of curriculum frameworks to be used as a structural analysis tool.
2. *The definition of what students should know and be able to do.* Helps the participant to revise and select from among several alternatives in order to define the expected achievements of students.
3. The definition of *learning areas* and their respective time allocation in the curriculum.
4. *Approaches to curriculum integration.* Review existing strategies for curriculum integration with varying focus and depth.
5. *Syllabuses* and other ways of organizing content.

Following these activities is a list of resources that contains documents and case studies to which references are made in the activities, as well as complementary reading material.

### *Considerations regarding curriculum design*

Many education systems across the world are searching for ways to enhance the capacities of the educational process to foster inclusion. This leads those who make decisions about curriculum structures to explore ways of arranging curriculum beyond the traditional grade school approach in which all students learn the same content simultaneously.

As a result, it is important to understand that curriculum has many dimensions:

- *Intended or specified curriculum* is concentrated upon the aims and content of what is to be taught – that is, curriculum which is planned and expressed through curriculum frameworks and other formal documents which may be mandated by the authority of law.
- *Implemented or enacted curriculum* relates to what is offered for students in schools which may include local interpretations of what is required in formal curriculum documents. In these cases, curriculum and instruction are seen as being closely interrelated.
- *Experienced curriculum* refers to the formal learning actually experienced by students. This is focused upon the learner, his or her knowledge and perspectives, as well as his or her ability to learn and interact with the curriculum.
- *Hidden curriculum* refers to the student experience at school beyond the formal structure of the curriculum, and in particular the messages communicated by the school or education system concerning values, beliefs, behaviours and attitudes. The messages contained in the hidden curriculum may complement the intended and implemented curricula or they may contradict them.
- *Null curriculum* refers to those areas and dimensions of the human experience which the curriculum does not identify and which are not addressed through teaching.

Under normal circumstances, an intended curriculum framework and related syllabuses are designed and implemented, but subsequently evolve as they are interpreted and implemented at different levels and in various contexts.

A curriculum framework is usually a single document that is supplemented by other materials to guide the implementation of specific parts of the plan. It may offer greater specificity or guidance by individual year, subject or learning area, addressing the requirements of the school system, individual schools and classrooms. The documents may include syllabuses, programmes of study, year plans and lesson plans. They may be developed centrally, locally or by individual teachers, and may have the status of support materials or official documents which must be used. Regardless of their content or status, they should be consistent with the provisions delineated in the curriculum framework.

Increasingly, curriculum is being structured in ways which:

- Are appropriate for the needs and circumstances of regions; and
- More effectively address the needs of students.

One example of the change is the practice of adopting national curriculum frameworks that are usually all-encompassing, flexible documents that serve the purpose of establishing the parameters within which curriculum should be developed and allow for adjustment at the local level. A curriculum framework typically expresses the state's educational aims and may define minimum standards for content and assessment, as well as for teacher qualifications, educational resources and learning materials, management and evaluation. This type of framework is sanctioned by a competent authority and becomes the foundation of the curriculum development process. The framework provides guidelines for those who develop more specific learning area programmes and delineates the policies associated with curriculum development and teacher pre-service and in-service training. It also serves as a reference for the production of textbooks and other teaching materials.

Another example of curriculum change is the design of learning experiences where content from different fields of knowledge are integrated. This has occurred because the compartmentalization of knowledge into discrete subjects is contrary to how students actually experience life and the real world. Integrated learning enables students to apply knowledge and skills more easily in their daily lives. On a macro-level, integrated content can be more readily "internalized" and reflected in behaviour. Learning then becomes integrated into the self and becomes a part of one's being.

This module describes trends in curriculum development and illustrates integrated learning through the examples of citizenship and social transformation and science and technology, which can serve as models for other types of integration.

*Keywords:* Curriculum Design; Standards; Structure; Learning Areas; Subjects; Contents; Scope; Sequence; Integration of Curriculum; Cross-curricular Provision; Integrated Curriculum; Flexibility of Curriculum; Diversification; Time Allocation; Learning Outcomes; Four Pillars-Oriented Design; Sustainable Development.

## ACTIVITY 1

### The structure and components of a curriculum framework

This activity examines the nature of curriculum frameworks, the choices that are made in the process of their development and the characteristics they share.

A curriculum framework is understood to be both:

- A technical tool which establishes the parameters for the development of other curriculum documents such as subject syllabuses; and

- An agreed upon social document which defines and expresses national priorities for education and aspirations for the future of the country.

Curriculum frameworks are one way of expressing intended curriculum. Table 3.1 illustrates some common elements of curriculum frameworks:

**Table 3.1. Common elements of a curriculum framework**

<b>1. Introduction: Current context</b>	Reflects the findings of the contextual scan and describes the social and economic environment in which teaching and learning occur.
<b>2. Educational policy statements</b>	Describes the government's goals for education, such as universal literacy and numeracy, the development of skills needed for economic development and the creation of a stable and tolerant society.
<b>3. Statement of broad learning objectives and outcomes / Standards for each level/cycle</b>	Describes what students should know and be able to achieve when they complete their school education. Outcomes should be expressed through a range of domains, including knowledge, understanding, skills and competency.
<b>4. Structure of the education system</b>	Describes the school system within which the curriculum framework is to be applied. It should specify: <ul style="list-style-type: none"> <li>• Number of years of schooling, including compulsory schooling.</li> <li>• Stages (or cycles) of schooling and their duration.</li> <li>• Number of weeks in the school year and teaching hours in the school week.</li> </ul>
<b>5. Structure of curriculum content, learning areas and subjects</b>	Describes the organization of content within the framework and the extent to which schools and students can make choices. It might describe: <ul style="list-style-type: none"> <li>• An outline of subjects or learning areas to be studied in each stage or cycle (such as core, elective and optional subjects).</li> <li>• A brief description of each subject or learning area, outlining the rationale for its inclusion in the curriculum and the contribution it makes to the achievement of the learning outcomes defined in Section 3.</li> <li>• The number of hours to be assigned to each subject or learning area in each stage or cycle.</li> </ul>
<b>6. Standards of resources required for implementation</b>	Describes standards as they apply to: <ul style="list-style-type: none"> <li>• Teachers – qualifications, teaching load (number of classes per week).</li> <li>• Students – number per class in each subject.</li> <li>• Materials – textbooks, computers, other equipment, facilities – classrooms, furniture, supplies.</li> </ul>
<b>7. Teaching methodology</b>	Describes the range of teaching approaches that might be employed in the implementation of the framework.
<b>8. Assessing student achievement</b>	Describes the importance of assessing the extent to which students achieve the outcomes of each subject and recommends or prescribes modes of assessment (such as written or oral examinations, performance and practical-skill demonstrations).

Source: UNESCO-IBE (2013).

### *Focus of the activity*

This activity and the suggested tasks should help participants understand the concept of the curriculum framework and its main components, as well as the choices that are made in the process of their development.



### TASK 1 Individual reflection

Read the document “Guidelines for constructing a curriculum framework for basic education”.



### TASK 2 Work in small groups

1. The following curriculum frameworks have been developed in a range of contexts and are offered for the purpose of analysis and comparison. Read and examine each one.
  - Case study “Structure of the national curriculum in Korea 2002”.
  - Case study “Kosovo Draft Curriculum Framework 2002”.
  - Case study “Curriculum Plan – Québec (Canada)” [Plan du programme – Québec (Canada)].
  - Case study “Venezuela – Curriculum design of the Bolivarian educational system” [Venezuela – Diseño curricular del sistema educativo bolivariano].
  - Case study “Conceptual framework of the curriculum transformation of the education system in Guatemala” [Modelo conceptual de la transformación curricular del sistema educativo de Guatemala].
2. Answer the questions below:
  - What are the common and distinct elements of these curriculum frameworks?
  - What does each structure emphasize?
  - What components are relevant / irrelevant in your situation?

### TASK 3 Work in small groups

In a small team, design the table of contents for a curriculum framework that is appropriate for your context, presenting the main components on a flip chart page. In the outline, indicate the approximate weight (in percentage terms) of each component relative to the entire framework.

### TASK 4 Plenary discussion

Share your outline with the larger group, explaining the reasons for the choices you made in:

- What to include; and
- The relative weight assigned to each component.



## PRODUCT Outline of a curriculum framework

### ACTIVITY 2



## Determining what students should know and be able to accomplish

Traditional curriculum models have generally emphasized inputs, objectives, academic subjects, content, knowledge and the teacher. Increasingly, the focus has shifted towards outputs and learning outcomes. The significance placed upon learning outcomes may take various forms, but generally implies that certain results are expected from students in each subject or learning area at the end of each school level, including mastery of content and specific skills, or more general capabilities such as problem solving or decision-making.

The emphasis of these recent models is more on the development of general competencies and understanding than on content. Students must feel comfortable in a variety of contexts to demonstrate that they have mastered the learning, which should be relevant and transferable to other contexts. As a consequence, curricula are likely to be much more flexible and responsive to individual needs, offering significant local autonomy within a framework of common principles and content standards. The emphasis is on both assessment of learning and assessment for learning.

Considering these trends, what students should know and be able to implement can be approached through three main gateways:

1. Through learning content: The most traditional approach, based on presenting codified and formalized lists of desirable knowledge, rules, principles, facts, methods, procedures, etc., that must be transferred to students.
2. Through learning objectives: This approach was emphasized during the 1960s. An objective is a learning goal formulated as a behaviour that the student must demonstrate in a determinable form.
3. Through competencies: The newest trend, in which competency is the ability to face complex situations by mobilizing specific knowledge and general cognitive and non-cognitive resources.

#### *Learning content-based approach*

This classic approach is based on a sequence of topics to be developed. The teaching process develops in a linear progression and is linked to a sequence mandated by the content. Content delivery is planned so that its complexity increases gradually, and prerequisite knowledge must be acquired before progressing to the next step. Content may be organized according to discipline, but also according to theme, e.g. “centres of interest”, favouring an interdisciplinary approach.

#### *Learning objectives-based approach*

The development of objectives-based curriculum occurred in the United States of America under the influence of behaviourist psychology. Under this type of curricula, behavioural objectives are emphasized since learning is understood as a change in the perceptible behaviour of students.

Pedagogic objectives are usually presented and classified into categories of learning that comprise a taxonomy which includes objectives and examples of associated behaviours; the best known system was Bloom’s *Taxonomy of Educational Objectives*<sup>1</sup>, which classified objectives into domains, particularly cognitive and affective domains. Others later added more dimensions, including the psychomotor domain. More recently, Bloom’s *Taxonomy* work has been updated by Anderson<sup>2</sup> and others and continues to be influential.

The advantage of this approach is that it is centred on the learner and his or her activity, providing a definite notion of the scope devised for the content and also helping to determine better assessment criteria. Critics have argued that objectives-based curriculum was burdensome and mechanical, ignoring differences between learners. Such curriculum may seem vague if the list of objectives is too short or useless if the list is too long. Some argue that it may be well-suited to particular subject areas like science or mathematics but that in other areas where autonomous, personal judgements of value or taste are required, objectives are of limited use.

#### *Competency-based approach*

Stemming from a growing concern about the quality and relevance of education, and partly as a result of the need to frame educational aims around broad social demands, competencies have increasingly become an important component of educational discourse and practice. Competency-based curricula tend to avoid a subject-based approach and emphasize the intersection of learning areas by exploring transversal themes or

1 Bloom, B. S., et al. 1956. *Taxonomy of educational objectives: the classification of educational goals; Handbook I: Cognitive domain*. New York, Longmans, Green.

2 Anderson, L. and Krathwohl, D. A. 2001. *Taxonomy for learning, teaching and assessing: a revision of Bloom’s taxonomy of educational objectives*. New York, Longman, Green.







## Focus of the activity

This activity and the suggested tasks should help participants to clarify concepts about the various ways in which countries declare their educational objectives.



### TASK 1 Individual reflection

1. Review the resource documents “Standards in Education: International Trends and Implications for their Application in Latin America” [Estándares en Educación: Tendencias internacionales e implicancias para su aplicación en América Latina] and “Development of National Education Standards – Germany.”
2. Write brief definitions of:
  - Content standards; and
  - Performance standards.
3. Compare the boxes describing Argentina’s Core Learning Priorities [Núcleos de Aprendizajes Prioritarios (NAP)] programme and Western Australia’s performance standards in the document “Standards in Education: International Trends and Implications for their Application in Latin America” [Estándares en Educación: Tendencias internacionales e implicancias para su aplicación en América Latina], noting similarities and differences.



### PRODUCT Definitions of standards and comparison of national examples

### TASK 2 Work in small groups

1. The facilitator will lead an exchange and sharing of the definitions drafted in Task 1.
2. Working in pairs or small groups, compare the references to curriculum standards from the different countries enumerated in Table 3.3 and use the following questions as a basis for discussion about standards-based curriculum in your own context.
3. Consider the aforementioned references and then discuss the following in your group:
  - What are the differences and similarities between the approaches to standards in each country?
  - In your view, what might the advantages and disadvantages of standards-based curriculum be for:
    - Curriculum structures?
    - Learning outcomes?
    - Implementation?
    - Quality of education?
    - Accountability?
  - What are the challenges implied in standards-based curriculum development? What local capacities does the development of standards-based curriculum require?
  - What are the similarities and differences in the national curriculum approaches of the different countries?
  - What are the essential factors that ensure balance between international, national and local standards?

**Table 3.3. Example definitions of national standards**

Thailand
Curriculum standards (learning standards) are used as benchmarks for the quality of learning received by the students before graduation from the basic education level. The standards are grouped into eight content areas: mathematics, Thai language, science, social studies, religion and culture, health and physical education, art, foreign languages, and career and technology (Thailand – Rungnapa Nutravong).
United States of America (National Council of Teachers of Mathematics)
The standards for school mathematics describe an ambitious and comprehensive set of goals for mathematics instruction. The first five standards present objectives in the mathematical content areas of numbers and operations, algebra, geometry, measurement, and data analysis and probability. The second five standards describe goals for the processes of problem solving, reasoning and proof, connections, communication and representation. Together, the standards describe the basic skills and understanding that students will need to function effectively in the twenty-first century.
Colombia
Competency standards are explicit, publicized criteria that promote those basic quality levels of education to which children are entitled as a right, in all regions of the country and in all knowledge areas; these established competency standards exist for mathematics, language, natural sciences, social sciences and citizenship.  The idea is not to identify minimum levels, but to reach a high quality of education while defining what is fundamental and indispensable to achieve this goal. Therefore, the standards are challenging but not impossible to meet; they are rigorous but reasonable.
Malawi
Although the Malawi Education System does not have a document entitled Education Standards, the standards are implicitly articulated in various government documents on education. The Policy Investment Framework (PIF) stresses quality education. Quality is determined by specific benchmarks of success within the education system. Such benchmarks describe what level of achievement should be attained in order to achieve quality education; these benchmarks can, therefore, be equated to standards.
Indonesia
Indonesian Education Law, 2003, Article 35:  <ol style="list-style-type: none"> <li>1. National education standards incorporate the standard of the content, process, graduate outcomes, educational personnel, facilities and equipment, management, funding, and educational assessment, which should be improved systematically and regularly.</li> <li>2. National educational standards are used as a guideline for the development of curriculum, development of educational personnel, provisions of facilities and equipment, management and funding.</li> <li>3. The development, monitoring and reporting on the achievement of the national education standards are organized by a quality assurance body.</li> </ol> <p>Indonesian Education Law, 2003, Article 36: The development of curriculum is based on national education standards for the pursuit of national education goals.</p> <p>Indonesian Basic Curriculum Framework (2004): National curriculum standards are intended to support the achievement of national educational goals and accommodate various conditions and the potential of districts/schools. They are defined in terms of exit performance, competence and content.</p>

Source: Based on information available in National Reports published by each country's respective Ministry of Education or legislative body.



### TASK 3 Individual reflection and work in small groups

1. Read the following extract:

Bloom's original Taxonomy proposed a single element, the cognitive dimension. Later work by Anderson and others has largely superseded Bloom and has added a second dimension: the knowledge domain. According to Anderson, any statement of an objective should contain a verb and a noun. The verb will generally describe the intended cognitive process, drawn from the cognitive dimension. The noun generally describes the knowledge that students will acquire or construct, drawn from the knowledge dimension. Anderson characterizes this with the following statement:

"The student will learn to distinguish (the cognitive process) among confederate, federal and unitary systems of government (the knowledge)".

2. Working in small groups, study the worksheet "Taxonomy of educational objectives: the classification of educational goals; Handbook I: Cognitive domain" and the worksheet "The Taxonomy Table". Read the examples within each dimension and category. With a partner or in a small group, choose a curriculum area with which you are familiar.
3. Write five objective statements for that curriculum area, covering a range of categories in the table and using the vocabulary proposed in the table.
4. Place each statement in the appropriate box in Table 1. For example, the statement "The student will learn to apply the reduce-reuse-recycle approach to conservation" that contains the verb "apply" and will therefore be placed in Column 3. Knowledge required is the "reduce-reuse-recycle approach to conservation" may be categorized as procedural knowledge and will be placed in Row C.
5. Write your objectives on a flip chart page and display it where it can be seen in the session room.



### PRODUCT Sample objectives

#### TASK 4 Plenary discussion

Study the objectives written by the different groups. Use the following questions as a basis for discussion:

- How difficult was it to construct objective statements for your chosen curriculum area?
- Is the vocabulary proposed in the tables adequate to describe all dimensions of this curriculum area?
- How many statements would it take to cover the chosen curriculum area?
- How useful is this approach for curriculum design in your context?

#### TASK 5 Debate

1. Based on the information in this module so far, use the following questions as a basis for discussion:
  - Currently and in the past, what approaches to defining what students should know and be able to perform have been adopted in your context?
  - What approaches do you consider to be most appropriate for your situation and why?
2. A spokesperson will take notes on the viewpoints and will summarize the conclusions at the end of the session.



## PRODUCT Summary of conclusions

### ACTIVITY 3



## Defining learning areas and time allocation

Two of the main features of schooling are discipline-oriented subjects and groups of teachers specialized in these subjects. Even when the integrated instruction of elementary school is the norm, a tradition of organizing knowledge into subjects exists, at least in secondary education. More recently, the division into subjects has reached the upper primary school levels, even though there are not as many “subjects” in primary school, as they tend to be integrated into broader knowledge areas.

The symbolic status of subjects as the foundation for the secondary school curriculum is not of a neutral nature, but rather assumes a bureaucratic or rational character; it is a suitable device for maintaining stability and control of knowledge by splitting it into smaller units. This has been a fundamental reason for why alternative initiatives for “integrated teaching” have not advanced very far.

But many aspects of school work occur nowadays outside, or in addition to subject work, such as tutoring or remedial work, because pupils, for one reason or another, do not always achieve optimal results in traditional subjects or are not interested in achieving them. There are new combinations of knowledge that have been gaining recognition, but they have not been introduced into school by way of subjects (e.g. ICT). Entirely new bodies of learning that aren’t structured as subjects (civic debates, camping and life in nature, community projects, and entrepreneurship education, among others) have also been gaining acceptance.

Some countries have tried to integrate traditional subject matter into broader, comprehensive areas of learning by identifying “common teaching principles” to be shared among subjects, such as peace education, media education, health education and environmental education, among others. These, as well as national identities in a global world, poverty and social justice constitute critical issues that we may encounter in the present and near future.

On the other hand, introducing young people to a world which is increasingly dominated by technological and scientific discourse is not possible without some differentiation among subject matter. Therefore, it is necessary to identify teaching methodologies that enable students to acquire knowledge that links various scientific fields (e.g. through project work) to other subjects; the mere addition of content to existing school subjects will not be useful since scientific subjects tend to cut across various disciplines.

New goals of education systems, as specified by modern curricula, are reflected in modifications to the weight afforded certain subjects, or in some cases through the inclusion of new subjects or the removal or fusion of existing subjects. As a result of these trends, the relative time allocated to school subjects has been modified in several nations to respond to the perceived needs of each society. However, this process has not occurred without resistance in terms of the need to retain or remove subjects or increase/decrease their relative weight. The time allocated for different areas of knowledge reflects the value a country, district, school or teacher assigns to them, and this type of value is influenced by the traditions and political forces of a society. For example:

1. Academic tensions originate from the demands of the higher educational levels, particularly the demands of the university system on the school system. School disciplines, especially those of secondary education, are linked to academic traditions that demand a particular degree of performance relating to content and procedures by students graduating from secondary schools. Given the broad diversity of academic concentrations, this tension may lead to an exhaustion and fragmentation of the secondary curriculum.

2. Socio-political tensions are related to subjects like History or Geography – and to a lesser extent, the National Language – as those can be seen as subjects that reinforce the allegiance of the student to the state; religious studies are also tied to the formation of the students’ cultural identities. A curriculum change that modifies the time allocation or subject areas may be viewed as a challenge to national unity or tradition.
3. Job security tensions rise because subjects have maintained their time allocations with no change, or with very small adjustments over an extended period of time, enough to build a perception that certain subjects constitute “natural” components of the schedule. Teachers have been hired to teach these subjects, and a proposal to modify their status could be perceived as a threat to their jobs.

Decisions regarding the organization and management of time at the school level are generally reflected in the class schedule or timetable. These decisions are based on the general guidelines expressed by the curriculum and the leeway afforded for school-based decisions.

Timetables are important administrative devices. They are based on micro-level decisions that use the national curriculum as a framework, but are also influenced by the particular features of the school. Timetables can be consistent with the orientation and goals of the national curriculum, or they can promote teaching and learning habits that contradict the guidelines, even when they seem to be in strict compliance. For example, project-based or problem-based learning may require longer contact hours between teachers and students that can be unrealistic if the school timetable divides the available time for that particular teacher into very short time blocks.

**Table 3.4. Factors that impact time allocation in the school timetable**

Curriculum level	School level
<p><i>Number of subjects in the school curriculum:</i> The number of recommended subjects in the curriculum influences the structure of the timetable: schools with more subjects might have shorter periods for each subject or eliminate other equally important activities like social clubs, games, sports, music and dance.</p> <p><i>Official policies on time allotted to the teaching of subjects:</i> Each subject has a recommended number of teacher-student contact hours required to complete the teaching and learning activities; however, on some occasions some flexibility is allowed for school-based decisions.</p>	<p><i>School type:</i> In a number of countries, the nature and periods of school activities are organized according to the type and level of the school. For instance, the timetable of a school running a shift system (half-day) will differ from a full-time schedule.</p> <p><i>Number of teachers at the school:</i> The number of teachers employed during a particular period of time at a school may largely determine the number of classes and the class size. In a school where the number of teachers is not sufficient to match the recommended number of learners in a classroom, classes are combined to reduce the number of classes.</p> <p><i>School facilities that are available:</i> The number of rooms and especially those that have specific equipment influence time allocation; a school without an ICT lab might have no choice but to share facilities with a nearby school, which will require adjustments in the timetables of both schools.</p> <p><i>Physical and mental stress:</i> The human mind has a need for variation in learning tasks to achieve more effective learning. This requires that activities on the timetable are broken up with other activities like breaks or changes in location. This must also be factored into the use of the time allocated to learning.</p>

Source: UNESCO-IBE (2013).

## Focus of the activity

This activity and the suggested tasks should help participants explore issues and difficulties in organizing learning opportunities in terms of the selection and classification of knowledge areas, while assigning each of the areas a particular weight in the available school time.



### TASK 1 Work in pairs

Read the resource document “Choices in learning areas – several countries”.

Read the case study “A proposal to reduce the number of subjects in Basic Secondary Education – Uganda”.

For your own context:

1. Draw pie charts that reflect the distribution of learning areas in upper primary and lower secondary education. What kind of model do these allocations suggest?
2. Based on the case study, can a similar critique be applied to the current subject selection in your context? If so, which aspects?
3. Compare the distribution of learning areas in your context to the international examples offered in the document, “Choices in learning areas – several countries” and suggest four modifications you would apply to your situation.

### TASK 2 Individual assignment

For your own context, prepare a short article that addresses the following questions:

- How old is the present curriculum structure (distribution of subjects/learning areas)? What are its origins?
- How effective is the present curriculum in helping students to develop the required competencies?
- What influences have challenged national unity and the goal of enhancing competitiveness at the international level?
- Who are the key stakeholders and what kind of interest do they have in changing or maintaining the current structure?
- What demographic trends might impact schools?
- What changes in the workplace might affect schools in the coming decades?
- What new learning activities should be incorporated in schools?

### TASK 3 Work in small groups of up to three participants and plenary discussion

Each group selects one country and explores the charts that represent the current time allocation for lower secondary school cited in UNESCO-IBE’s “World Data on Education”.<sup>3</sup> Then, convert the information to a graphic format (e.g. pie chart or bar graph) on a flipchart page or presentation slide.

3 UNESCO. 2013. World Data on Education. Geneva, Switzerland, UNESCO International Bureau of Education. <http://www.ibe.unesco.org/en/services/online-materials/world-data-on-education.html> (Accessed 13 September 2013.)

Present the information to the group, including ideas about the following aspects:

- “Some good features are...”
- “Some problematic features are...”
- “Lessons for our context are...”.



#### **TASK 4** Work in small groups of up to three participants

1. Read the resource document “Policies regulating time allocation at school level: cases from international experience” and “Innovative schemes for time allocation”.
2. As a group, discuss the type of flexibility schools in your context have in organizing their timetable.
3. Create at least one example of an alternative school timetable that adheres to current regulations and identify the advantages and disadvantages of such a system.



#### **PRODUCT** Alternative timetable

### ACTIVITY 4 Approaches to curriculum integration

During the process of curriculum change, there are often fundamental issues to consider regarding content structure. These relate to the underlying educational objectives, the range of content that is included, as well as the ways in which content is divided into meaningful components.

The appropriateness of traditional subject disciplines to learning in the twenty-first century is currently being assessed in many countries. In some cases, a curriculum design trend that departs from categorized knowledge (traditional subjects), and advances towards integrated knowledge (broader learning areas) has resulted. However, this tendency has been challenged by other stakeholders who frequently request adding new learning areas or reinforcing the time allocations of existing subjects. Even now, very few discipline-based specialists support a reduction in the status or time allocated to their subjects to allow for curriculum integration.

Integrated learning enables students to view essential content in multi-discipline contexts; content learned in one area is applied in another area, or the skills developed in one area are used to process the information in another. Thus, learning does not occur in fragmented ways, but occurs holistically, as the students’ learning horizon broadens and deepens.

One recent example of curriculum becoming more integrated can be found in the 2003 Northern Ireland Council for the Curriculum, Examinations and Assessment proposals for the Northern Ireland Curriculum (Curriculum Framework, Framework Diagram and Integrated Themes). Another example can be found in the development of Connected Outcomes Groups (or COGs) in New South Wales, Australia. This structure illustrates ways of addressing the curriculum content of separate subject syllabuses by identifying natural connections between their various outcomes statements.

However, it is not always possible or desirable to transform an education system to a wholly-integrated model. Each discipline has a particular knowledge base that may enrich students, and it is not always easy to fuse different disciplinary styles into an integrated presentation. Also, teachers and teacher trainers view themselves as subject specialists and may lack the confidence or willingness to teach outside their speciality.

Other factors that influence curriculum must be considered before adopting curriculum integration. For example, teaching and learning materials, pre-service and in-service teacher training, school, local and perhaps national

administration and national examinations are elements that are likely to be heavily influenced, if not dominated by the categorization of traditional subjects.

### Focus of the activity

This activity and the suggested tasks explore approaches to selecting and structuring content for achieving more integrated learning:

- Integration through connected values: citizenship, values education and social transformation;
- Integration through a subject area: Science and Technology Education (STE);
- Integration through a social imperative: School Health and HIV/AIDS Prevention;
- Integration through a connected theme: Education for Sustainable Development (ESD); and
- Integration through connected outcomes: COGs in the New South Wales Primary Curriculum.



#### TASK 1 Individual reflection

1. Read the comparative study “Subject integration in lower-secondary curriculum” and the case study “Fostering a holistic and integrative approach for Brazilian secondary education curriculum: the pilot project “Ensino Médio Inovador”.
2. Refer to the worksheet “Possible schemata for curriculum integration” and propose another scheme for curriculum integration. You can find an example of each one of the five schemes discussed in the paper, or you can select a different scheme that suits your context. In a short paragraph, please explain the reasons for your choice.



#### PRODUCT Alternative schemes for curriculum integration

### INTEGRATION THROUGH CONNECTED VALUES



#### TASK 2 (A) Individual reflection

1. Read the document “Lessons learned regarding separateness or integration/infusion of peace, citizenship, human rights, preventive health interventions in the curriculum” and consider the following questions:
  - What distinguishes these subject areas from other, more traditional ones?
  - What are the implications of these differences for implementing these subject areas?
  - What are the common ways of integrating these areas into existing curricula?
  - Which, in your view, are the most effective approaches?
2. Read the case study “Local and global citizenship and curriculum balance in Northern Ireland”. Answer the following guiding questions:
  - What attempts were made to resolve the issue of overcrowded curriculum during the review of the Northern Ireland Curriculum?
  - What was the recommendation derived from the citizenship pilot study on the issue of an integrated curriculum versus a separate subject curriculum? What was the reason for this recommendation?
  - How was the debate resolved and what was the reason for choosing this approach?



## TASK 2 (B) Work in small groups

There is clearly a tension between the movement towards more integrated curricula and the preference for a separate subject status for citizenship education.

- Why do some argue that citizenship education is different from other subjects and requires separate time?
- Which approach is best-suited to your context?
- What are the implications of a separate versus an integrated approach in terms of curriculum design, teacher training and the assessment of outcomes?



### PRODUCT Group conclusions

## INTEGRATION THROUGH A SUBJECT AREA: SCIENCE AND TECHNOLOGY EDUCATION (STE)



## TASK 3 (A) Individual reflection

Read the document “Science Education for contemporary society: problems, issues and dilemmas” and answer the guiding questions:

- The author asserts that science is threatened by public distrust or ambivalence.
  - If so, why has the public become distrustful and ambivalent?
  - Why is this perceived sentiment a threat to science?
- What are the eight myths or unquestioned norms of practice that Osborne identifies as a hindrance to the development of a better understanding of the nature of science education?
- What three problems must be resolved to carry out curriculum reform in a way that allows science education to meet the challenges posed by the modern world?
- What are the limitations of current attempts at innovation in the United Kingdom context?
- What elements of the author’s analysis of science education exist in your context?
- What strategies are currently being pursued to address these challenges in your context?



### PRODUCT List of issues regarding the teaching of Science in your context



## TASK 3 (B) Individual reflection

Read each of the following case studies and answer these guiding questions:

1. Case study “Science and Technology Education and national development in Korea”.
  - Why is the centralized curriculum not effective in promoting general interest in Science and Technology among students?
  - What supporting mechanisms could be introduced to facilitate the effective implementation of Science and Technology curriculum and teaching and learning strategies in schools?
  - What possible constraints might affect the implementation of the school science curriculum?
  - What factors contribute to the success of Science and Technology Education programmes in the Republic of Korea, despite the constraints mentioned?
  - In your analysis of the situation, how have Science and Technology Education curriculum and supplementary programmes contributed to the success of the Republic of Korea as an emerging industrial economic nation? What other factors have contributed to the economic success of the

country?

2. Case study “Integrated learning of Science in Japan”.
  - In the 2002 New Course of Study, what does the term “zest for living” mean?
  - In the new curriculum, science curriculum is described as “fieldwork-centred, student-centred and inquiry-based science learning”. What potential value does such a curriculum have?
  - What challenges has this style of working posed for teachers?
  - In your view, how effective is this approach?
3. Case study “Science and technology education in Indonesia”.
  - How has the introduction of a competency-based curriculum changed the teaching of science in Indonesian schools?
  - What role do standards play in the new curriculum?



### TASK 3 (C) Individual reflection

- In the integrated learning of Science and Technology in Indonesia, Japan and the Republic of Korea, what principles of curriculum and instruction underlie the design of student learning?
- Is Science and Technology learning in your context similarly designed? Please note the similarities and differences among these countries using the worksheet “Science and technology education matrix”. As you are making your list, please consider the differences in resources and socio-economic development among the countries.
- Based on your analysis, what features of Science and Technology learning in these countries would you want to:
  - Adopt and apply in your situation? Why?
  - Adopt full-scale? Why?
  - Propose for review? Why?

### TASK 3 (D) Work in small groups

Reporting: Share your thoughts regarding the benefits of integrated learning for students with the group. What do you foresee as potential challenges to teachers if they wish to apply integrated learning in their classes?



## PRODUCT Issues in implementing integrated teaching of Science and Technology

### INTEGRATION THROUGH A SOCIAL IMPERATIVE: SCHOOL HEALTH AND HIV/AIDS PREVENTION



### TASK 4 (A) Individual reflection

Read the document “State of the curricular response to the HIV/AIDS challenge” and the document “Issues regarding integration of HIV and AIDS education into the official curriculum” and consider the following questions:

- What curricular approaches to HIV and AIDS education are most common?
- Of the four existing approaches, which is the most appropriate for your context?
- What are the key challenges posed for the curriculum by HIV and AIDS?
- What strategy for the integration of HIV and AIDS education is best-suited to your situation?
- What characteristics would a culturally- and linguistically-appropriate HIV and AIDS prevention

education or sex education programme have in your situation?

- In your situation, does HIV and AIDS prevention education have a higher or lower standing? What are some indicators of this position?
- In your situation, what are the most significant barriers to effective HIV and AIDS prevention education?

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#### **TASK 4 (B) Work in small groups**

In a small group, design a curriculum outline for an HIV and AIDS prevention education programme. Consider the aspects of curriculum design examined in this module to:

- Propose objectives;
- Suggest a time period and school level where it could be applied and what curriculum material should be removed to allow for the implementation of the programme during the available school time;
- Select a curriculum approach: stand-alone, main subject, cross-curricular or fusion and explain the reasons for your choice; and
- Identify what would be needed with respect to capacity development and specific learning materials.

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#### **TASK 4 (C) Plenary discussion**

When the curriculum outline is complete, all groups will display their outlines on a wall or bulletin board. Participants should be given an opportunity to review all of the outlines. When the group has finished reading the outlines, time should be left for questions and discussion. The facilitator should identify noteworthy elements in the outlines for discussion purposes.



#### **PRODUCT Curriculum outline**

### **INTEGRATION THROUGH A CONNECTED THEME: EDUCATION FOR SUSTAINABLE DEVELOPMENT (ESD)**



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#### **TASK 5 (A) Individual reflection**

1. Read the document “Promoting ESD in the curriculum and the development of teaching-learning materials” and answer the following guiding questions:
  - What broad curriculum framework and content structure is suggested for ESD?
  - What national policies are related to the content structure?
  - What is the suggested role of ICT as a learning tool in developing the curriculum framework?
  - What teaching strategies and current learning theories would support ESD?
2. Read the document “Education for Sustainable Development”.
3. Read the case study “Sweden – Education for sustainable development: activities at the national level”.

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#### **TASK 5 (B) Work in small groups**

1. Examine an existing learning area in your curricular context and identify the elements of ESD.
2. Suggest ways in which ESD elements could be strengthened in this learning area.
3. If you cannot identify any ESD elements in this learning area, suggest ways that they could be integrated.

**TASK 5 (C) Plenary discussion**

Share your suggestions with the wider group. Gather your answers and develop a matrix mapping the introduction/strengthening of ESD throughout the entire curriculum or specific curriculum areas.



**PRODUCT Matrix for the introduction of ESD**

**INTEGRATION THROUGH CONNECTED OUTCOMES:  
COGs IN THE NEW SOUTH WALES (AUSTRALIA) PRIMARY CURRICULUM.**



**TASK 6 (A) Individual reflection**

1. Read the case study “Sample of Connected Outcomes Groups (COGs)”.
2. Take personal notes.

**TASK 6 (B) Work in small groups**

In groups, log onto the Internet and find more information about this approach to curriculum integration by visiting the website <http://www.curriculumsupport.education.nsw.gov.au/timetoteach/cogs/index.htm>.

**TASK 6 (C) Work in small groups**

Discuss the rationale and purpose for COGs and whether or not this approach is relevant to your context. Record your conclusions by drafting a short report.



**PRODUCT Report analysing the relevance of COGs for your context**

**ACTIVITY 5**   
**Syllabuses and other ways of organizing content**

Teachers have a responsibility to ensure that the content to be taught is organized in manageable units according to learners’ development. Therefore, they usually create a roadmap that defines the interaction modalities and learning contexts for each unit of content. The course syllabus is a document that organizes teaching and facilitates a dialogue with students about the nature and philosophy of the course, the rules that will be observed and the activities to be completed for learning and assessment.

In that sense, a course syllabus is a subset of the curriculum that offers a more detailed description of the learning experiences that students will be offered. While the curriculum framework presents national goals for education, the syllabus is an operational document that emphasizes particular knowledge areas. Syllabuses may be developed at the central level; in such cases, they are a part of the prescribed curriculum. They can also be produced at the school level by individual teachers or groups of teachers through collaborative processes.

The course syllabus:

- Allows teachers to determine the depth of subject matter, the concepts that students should learn and the skills they should develop.
- Determines the topics that will be taught in a particular school grade, the teaching and learning activities to be implemented, as well as the expected learning outcomes.
- Serves as a reference point for teachers to determine when, where and how to integrate relevant teaching material, and the manner in which they will be used.
- Outlines the learning tools and information that teachers should provide learners and details the sequence of the course/subject.
- Establishes the framework for evaluation since it delineates the types of assessment practices to be employed and the number and nature of assessments.

### *The planning of courses and classes*

To plan what will be taught in each lesson during the academic year, the topics in the syllabus are separated into teachable and manageable units that are organized around central topics that structure student learning. Creating a plan for each unit implies undertaking a series of micro-decisions to arrive at a group of activities arranged in chronological order that follow principles of good pedagogy. For example, the plan would move from simple to complex, building upon previous knowledge, to arrive at an experiment or multifaceted question that induces conceptual change, taking into consideration the progressive development of learners' abilities.

During the development of the work plan, the content specified in the syllabus must be supplemented by other curriculum materials, including recommended textbooks, teachers' guides and other reference materials. These materials serve to provide more detailed information regarding the content of lessons, the concepts and skills to be acquired by learners and the activities to be performed.

Once the work plan is completed, the individual lesson or session plan is always given consideration. Lesson plans describe the actual teaching and learning activity that occur on a particular day, with a clear statement of the time allocated to each work phase. As a rule of thumb, lesson plans are usually working hypotheses made by the teacher since the actual manner in which the class functions might invite spontaneous change. Some commercial curriculum materials and textbooks provide teachers with step-by-step lesson plans, but any curriculum material developed out of the real learning context assumes that an ideal teacher can manage and control all class variables and many details recommended are not feasible in practice.

### *Focus of the activity*

This activity and the suggested tasks should help participants explore alternative ways to communicate the suggested priorities for learning.



### **TASK 1 Individual reflection**

Read and compare the following syllabuses:

- “French at school: curriculum for grade 3” [Le français au collège: le programme de la classe de troisième];
- “Kenya Chemistry Syllabus for Form IV”;
- “Uruguay Physics – First year of high school – 2006 Reform” [Física: primer año de bachillerato – reformulación 2006]; and
- “Australia: Year 7 Level Description for History”.

Consider the following points for analysis:

- Structure of titles and subtitles;
- Predominance of written text or tables;

- The ways in which educational intentions are articulated; and
- Who drafted the syllabus? Who is the intended reader?

Produce a short text, including a brief paragraph for each syllabus, and identify common and distinct characteristics among them.



**PRODUCT** Reading summary

**TASK 2** Debate

Discuss your findings in the previous cases and express your reaction to the following statements:

1. A syllabus is an instrument for helping teachers select and organize content.
2. A syllabus is a teacher-developed instrument to communicate learning priorities to students.
3. A syllabus is an official document used to express the learning outcomes desired for a particular subject area.
4. A syllabus should be adapted by the teacher to the local context.
5. A syllabus should orient teachers on conducting student assessments.
6. A syllabus should specify learning outcomes



**TASK 3** Work in small groups

Review the resource document “Guiding principles for the development of syllabuses in ELT” which discusses the different stages of designing a programme in the context of English Language Teaching (ELT).

- After discussion, reach a consensus on the conceptual distinction between curriculum, courses and syllabuses;
- Review the table in Point 6.1 of the article and agree upon the form that you would recommend for a nationally-prescribed syllabus; and
- Discuss the section “Five aspects of organizing a course”. Determine the five aspects that can be decentralized to: (i) schools, and (ii) individual teachers.



**PRODUCT** Recommendations regarding syllabus development



**PERSONAL LEARNING NOTE TO BE INCLUDED IN THE PORTFOLIO:**

**What did I learn? What concepts did I find useful?**



## List of resources for MODULE 3 Curriculum design

### *Documents*

- Guidelines for constructing a curriculum framework for Basic Education.
- Standards in Education: International Trends and Implications for their Application in Latin America [Estándares en Educación: Tendencias internacionales e implicancias para su aplicación en América Latina].
- Development of National Education Standards – Germany.
- Choices in learning areas – several countries.
- Policies regulating time allocation at school level: cases from international experience.
- Innovative schemes for time allocation.
- Lessons learned regarding separateness or integration/infusion of peace, citizenship, human rights, preventive health interventions in the curriculum.
- Science Education for contemporary society: problems, issues and dilemmas.
- State of the curricular response to the HIV/AIDS challenge.
- Issues regarding integration of HIV and AIDS education into the official curriculum.
- Promoting ESD in the curriculum and the development of teaching-learning materials.
- Education for Sustainable Development.
- French at school: curriculum for grade 3 [Le français au collège: le programme de la classe de troisième].
- Kenya Chemistry Syllabus for Form IV.
- Uruguay Physics – First year of high school – 2006 Reform [Física: primer año de bachillerato – reformulación 2006].
- Australia: Year 7 Level Description for History.
- Guiding principles for the development of syllabuses in ELT.

### *Case studies*

- Structure of the national curriculum in Korea 2002.
- Kosovo Draft Curriculum Framework 2002.
- Curriculum Plan – Québec (Canada) [Plan du programme – Québec (Canada)].
- Venezuela – Curriculum design of the Bolivarian educational system [Venezuela – Diseño curricular del sistema educativo bolivariano].
- Conceptual framework of the curriculum transformation of the education system in Guatemala [Modelo conceptual de la transformación curricular del sistema educativo de Guatemala].
- A proposal to reduce the number of subjects in Basic Secondary Education – Uganda.
- Subject integration in lower-secondary curriculum.
- Fostering a holistic and integrative approach for Brazilian secondary education curriculum: the pilot project “Ensino Médio Inovador”.

- Local and global citizenship and curriculum balance in Northern Ireland.
- Science and Technology Education and national development in Korea.
- Integrated learning of Science in Japan.
- Science and technology education in Indonesia.
- Sweden – Education for sustainable development: activities at the national level.
- Sample of Connected Outcomes Groups (COGs).

## Worksheets

- Taxonomy of educational objectives: the classification of educational goals; Handbook I: Cognitive domain.
- The Taxonomy Table.
- Possible schemata for curriculum integration.
- Science and technology education matrix.

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## NOTES

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MODULE 3

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MODULE

# 4

## System management and governance



# MODULE 4

## System management and governance

This module explores possible models for managing curriculum development in education systems, including examining factors such as curriculum localization in specific contexts, management of school-based curriculum and decentralization processes. Some opportunities and challenges involving the broader involvement of various stakeholders (local government, civil society, parents and local community) in curriculum development and implementation are also explored.

The activities in this module should help curriculum developers deepen their understanding of the policies and processes related to the governance and management of education systems:

1. Balancing national and local needs and interests: Reflecting the needs and interests of various stakeholders to gain support and lead acceptable curriculum implementation.
2. Curriculum localization, challenges and opportunities: Reflecting upon the constraints that limit localization processes and potential solutions.
3. School-based curriculum development: Processes that each school can follow to generate its own curriculum projects.
4. The role of supervision and inspection in monitoring the curriculum.

Following these activities is a list of resources that contains documents and case studies to which references are made in the activities, as well as complementary reading material.

### *Considerations about system management and governance and their relationship with curriculum*

Curriculum is a fundamental component of any education system, but its development and implementation relies on other components of the whole system, including teacher training, resources and supervision. Therefore, educational management and governance structures, as well as the quality of related systems can influence the quality of curriculum that is developed and the effectiveness of its implementation.

“System management” can be defined as the process of planning, implementing, monitoring and evaluating the various parts of a system. In education, these parts may include strategic and operational planning, human and financial resources, teacher education and accreditation, curriculum evaluation and student assessment. From the administration’s point of view, curriculum is centrally defined and students across the system are expected to be taught the same thing, in the same way at the same time. Even when this approach might seem able to control the quality of learning, it does not guarantee that the needs of individual students and local communities are met.

The interdependency of related educational agencies cannot be reduced to a hierarchical structure or managed using a top-down approach. Instead, governance should be based on the role of local communities and decision-makers. “Governance” refers to the ethics of an organization and the professional conduct of its employees. Accordingly, a curriculum development trend has emerged that more genuinely acknowledges the social and economic needs of local communities and individual groups, allowing local authorities and schools to develop their own curriculum. Still, this approach also has risks, particularly with respect to the degree to which:

- The quality of curriculum can be guaranteed;
- The risk of fragmentation can be reduced; and
- National goals and priorities can be pursued in a consistent way.





as educational researchers and curriculum developers concerned with the specific needs of their students. However, the quality of this work largely depends on a number of factors, including local levels of expertise.

In particular, the nature and quality of educational management systems is a key factor in determining the manner and scope of decentralization in educational management and governance. Although there are differences in the degree of decentralization, many countries usually decentralize elements of their educational administration and management systems at the national, provincial, district and school levels.

A strong central government remains important, particularly for the development of national curriculum frameworks, quality assurance standards, school-effectiveness indicators, and assessment and evaluation systems to ensure quality. These overlapping frameworks provide broad parameters within which educational processes and products may be moulded to meet local needs and secure the support and participation of civil society, including parents and local communities.

It is precisely for this reason that a strong, centralized system can be effective in addressing a wide range of issues. Each country must achieve a particular balance between centralization and decentralization that is responsive to its specific needs.

### *Focus of the activity*

This activity and the suggested tasks should help participants explore the tensions between a national and local focus in curriculum decisions.



#### **TASK 1 Work in pairs**

1. Refer to the document “Distinctive features of some education systems” and choose two countries with different education systems. Suggested comparisons include:
  - Hungary and Ireland;
  - Italy and Canada;
  - Singapore and (United Kingdom) Scotland;
  - Switzerland and (United Kingdom) Wales; and
  - France and Australia.
2. Summarize the main similarities and differences in the levels of control and administration and compare them with your context.



#### **TASK 2 Work in pairs**

1. Read the document “Processes of curriculum policy change: towards a framework of educational decentralization”.
2. Use the following headings and the chart in the worksheet “Trends in decentralization” to identify the processes and trends of centralization and decentralization in curriculum decisions within your context:
  - Rationale for the proposed change;
  - Direction of change: centralization or decentralization;
  - Levels of consultation;
  - Involvement and resistance; and
  - Communication/marketing strategies.

### TASK 3 Work in pairs

Working with a colleague, one acting as a journalist and the other as an interviewee, prepare a personal description and analysis of your experience (past or present) in the decision-making process involved in the localization of curriculum.

Consider the following questions:

- What was/is the relationship between nation, region and schools before and after the movement towards localized curriculum decisions?
- What were/are the responsibilities of the nation, region and schools before and after these changes?
- How could the idea of “balance” between nation, region and schools be better understood during curriculum decentralization?
- What policies and measures can encourage regions and schools to assume an active role in curriculum development and management?
- What were/are the most significant weaknesses identified in the existing curriculum?
- How can local curriculum decisions address these weaknesses?
- During the localization process of curriculum decisions, what difficulties have arisen or might arise in your situation?
- In your opinion, what steps could have been taken (or be taken) to achieve a greater balance between the needs of the Ministry of Education, regional authorities and local schools?



### PRODUCT Personal description of the process



### TASK 4 Individual reflection

1. Read the document “Impact of education decentralization on the quality of education” and create a list of possible rationales for decentralization.
2. Read the document “Perspectives of participation in decentralised public schools” and analyse the ideological perspectives that the previous document advocates.



### TASK 5 Individual reflection

Choose one of the following case studies to read and take personal notes to share with other participants:

- Case study “Decentralization and school autonomy in the Dominican Republic’s educational administration: Is it achievable?” [Descentralización educativa y autonomía escolar en la gestión educativa dominicana: ¿Desafío Posible?].
- Case study “Management of decentralization of education in Tanzania: towards the identification of training needs”.
- Case study “Effects of decentralization on school resources: Sweden 1989–2002”.

### TASK 6 Work in small groups

In small groups, briefly summarize your reactions to the case studies and finalize your notes, integrating the perspectives of other group members.

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## **TASK 7** Work in small groups

Draft a communications piece to be delivered to a newspaper, discussing the pros and cons of decentralization in your own context. The approximate length of the article should be 4,000 words. Use the following questions as a basis for discussion:

- In your view, what are the advantages and disadvantages of decentralization?
- What are the organizational structures of educational administration?
- What are the educational outcomes?
- What are the challenges of school-based curriculum management? What skills and capacities might school-based management of the curriculum involve?
- What are the critical factors used to ensure balance between international, national and local needs in terms of:
  - Standards?
  - Decision-making?
  - Curriculum content?
  - Quality?
- What management competencies would be necessary to develop in your context?



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## **PRODUCT** Arguments for and against a decentralization policy

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## **TASK 8** Work in small groups

Design a flow chart depicting a decentralization process that reflects the key elements of your discussion. The flow chart should include: actors, actions and control levels.

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## **TASK 9** Plenary discussion

A spokesperson from each group will present and briefly describe the flow chart you have prepared and highlight any controversial issues that might have arisen. Time should be allowed for general discussion after all of the presentations have been made.



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## **PRODUCT** Decentralization flow chart

## **ACTIVITY 2**



## Challenges and opportunities in curriculum localization

The relevance of curriculum content is a crucial dimension of quality education. The promotion of localized curricula is one way of encouraging such relevance in very different political, cultural and socio-economic contexts. It is an important component of the decentralization of education, governance and management.

The contextualization or localization of curriculum can allow learning to become more meaningful and relevant. It supports policy formulation and standard setting for curriculum reform and its impact on teacher skills and knowledge. Localization entails the use of local materials, both as the subject and object of instruction. It also includes making the local culture an integral part of the curriculum.

However, there are a number of constraints in the devolution of responsibility for curricula to local levels, including absent or weak local-level technical expertise and material resources, fear of the unknown and resistance to change among teachers and educators.

If the education system is viewed as a learning organization and the individuals within it as learners, the roles of the policy-maker and the implementer entail facilitating change and developing the capacity of the entire system. When embarking upon a process of localization, educators at all levels of the education system are required to assume additional responsibilities, perform new roles and familiar tasks in innovative ways. Such a process can be stressful, frustrating and at times difficult. Therefore, strategies for supporting the agents of change are needed to advance the process and overcome any challenges.

Effective contextualization of localization processes demand the clear articulation of policies, and a comprehensive understanding of the new demands on individuals and organizations that can be achieved by:

- Developing a curriculum framework, including a clear set of curriculum standards, at the central level;
- Ensuring compliance with these standards in local and school-developed curriculum, either through documentation-based accreditation or endorsement processes or through supervision and monitoring processes (or both);
- Providing training that enables teachers to articulate what is prescribed by the centralized framework within their knowledge of the given context; and
- Ensuring clear and open communication between central and local authorities.

**Table 4.1. Examples of global trends in the localization of curriculum**

Indonesia	Finland
<p>The main change during the 1994 curriculum reform was the inclusion of the local curriculum subject (LCS) as an independent subject that represents more than twenty per cent of the curriculum. However, LCS implementation presents challenges. Since the LCS was developed at the national level, it did not integrate the beliefs, perceptions, values, norms and skills that exist within a district, excluding learners' personal local or rural experiences. Thus, it is difficult to define LCS as the most "local" subject across the country. Rather, the new curriculum represents a unified policy that may vary in practice.</p> <p>The minimum standard of competency is centralized (unity in policy) and the curriculum content, methods and assessment procedures are decentralized (diversity in practice).</p> <p>This new curriculum attempts to address the problem of overcrowded curriculum through integration, the reduction of instructional time and the decentralization of content, methods and assessment procedures. It can be said that in the new curriculum everything is localized at the school or district levels except the competency and exit performance standard.</p>	<p>In the 1990s, educational policy in Finland became more decentralized and municipalities and schools were given greater autonomy with the intent of encouraging more active, locally-relevant learning. Within national guidelines, each school is given substantial latitude for local curriculum design, even if it has to be confirmed at the municipal level. One important aspect of curriculum reform has been to facilitate the shift from a pedagogical, teacher-centred approach in the previous curriculum to a more learner-centred approach. It can be said that the development and implementation of the new curriculum has influenced teacher views of knowledge, learning and education towards a more progressive direction. However, this perceptual change is not always reflected in the same way in actual teaching practices, thereby revealing the influence of curriculum leadership, teacher commitment to the curriculum and its evaluation in the development of the school-based curriculum.</p>
Namibia	Israel
<p>The greatest challenge in the process of localizing vocational education and training curricula in Namibia is the preference of practitioners and educators for more scientific, academic, general and standardized vocational education and training. The traditional paradigm of education is characterized by an overemphasis on strong general academic secondary school requirements for access to training and qualifications. It also includes an instructor-centred approach to assessment and teaching, rather than an approach focused on work-related competencies that are fundamentally necessary and relevant to the local socio-economic, geographical and physical setting.</p> <p>The nature of the local market depends on the utilisation and processing of locally-available resources. The Namibia Qualification Framework (NQF) supports the development of a diverse range of standards and qualifications, providing that they meet all the guidelines and requirements of the NQF and the various NQF level descriptors. However, the challenge of determining local skills needs and distinguishing between local and national needs and considering the complexities involved in the implementation of a more flexible NQF results in curriculum centralization and a "one for all" approach.</p>	<p>The Ministry of Education encourages school autonomy in order to improve the quality of education offered by the school. The basic assumption is that the school staff is capable of developing and formalizing an educational approach, and can then formulate a school-based curriculum by adapting teaching and learning methods to local conditions. Greater school autonomy has had a positive impact on teachers' motivation and sense of commitment and on schools' achievement orientation, but only four per cent of the variance in the effectiveness between autonomous and less autonomous schools can be explained by school-based management.</p> <p>Pupils themselves should be allowed a great deal of initiative and involvement in planning their studies, while maintaining dialogue with their peers, teachers, parents and experts. The school schedule is largely based on allocating units of flexible time, where different pupils are occupied with different subjects or learning areas. The school is free to structure these units according to the various characteristics of the pupils.</p> <p>The only constraint on the school's autonomy in organizing the school schedule is that the national authority determines the relative amount of time during a six-year period that each pupil will study a particular discipline. This proportion can be expressed by teaching each discipline separately and/or by interdisciplinary teaching, which combines the methods of different approaches.</p>

Australia	Argentina
<p>During the 1970s, the wave of school-based curriculum development that started in English-speaking countries faced scrutiny due to insufficient teacher preparation, rigid school structures and conservative community expectations. In conjunction with school-based curriculum, school-based assessment was introduced into the education system with a similar rationale. Like school-based assessments, as the numbers of students accessing and remaining in secondary education grew, public examination systems were also introduced. Since the 1990s, most Australian states have resorted to providing state curriculums with “essential learning” guidelines to help reduce variability in student achievement. It is assumed that because of equity and quality considerations, school-based curriculum cannot deliver the whole curriculum.</p>	<p>The changes in the secondary curriculum around 1998 allowed each province to produce their own curriculum designs. A provision was also made in the timetables to further allow each school to allocate ten per cent of the available teaching hours to an “institutional option” subject, to be selected at the school level. The experience has not increased the relevance of the content taught to students, partly because of the small amount of time allocated to the institutional option, but also because schools use existing teachers, as there is no freedom to hire teachers at the school level.</p>

Source: Based on information available in National Reports published by each country’s respective Ministry of Education.

### Focus of the activity

This activity and the suggested tasks should help participants analyse the process of curriculum localisation and identify some of the challenges resulting from it.



#### TASK 1 Individual assignment and Internet research

1. Read the document “School-based curriculum development: redefining the term for New Zealand schools today and tomorrow”.
2. Conduct an Internet search on “School-based curriculum” and download two articles for your portfolio.



#### PRODUCT Two articles on “School-based curriculum”



#### TASK 2 Individual reflection

Read the case studies “Montenegro: Introduction of optional subjects during the course of curriculum change” and “Local life skills program in Cambodia” and consider the following questions:

- What were the main justifications presented for allowing local-based curriculum components?
- What are the strategies for developing and delivering the curriculum component at the local level?
- What can be said about the level of control of the central authority in the case of Montenegro?
- What was the initial reaction of teachers and parents to innovation in the case of Cambodia?

#### TASK 3 Work in small groups

In small groups, using the questions below, identify challenges for curriculum localization in your own context:

- What lessons can be learned from the cases of Montenegro and Cambodia?
- Which of the challenges in the Montenegrin and Cambodian contexts are also experienced in your situation?

- When embarking on school-based curriculum development, what do you identify as the major challenges of which a curriculum developer or policy-maker should be aware?
- What are the potential benefits?
- What measures may be taken to make the process as successful as possible?
- How is quality ensured at the national level in the context of curriculum localization?
- What types of national quality frameworks can be used?

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#### **TASK 4 Plenary discussion**

One group gives a brief presentation for discussion. Each of the other groups may indicate points of agreement and disagreement in their analysis. It may be useful to discuss points of contention.




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#### **TASK 5 Individual reflection and plenary discussion**

Read the document “Constraints in implementing localized curricula in Asia”. In a small group, refer to the list of potential challenges above and consider these questions for your context:

- Which parts of the education system require additional support to facilitate successful processes of curriculum localization processes?
- What types of support are required?
- What are the financial or political implications of these types of support?
- How might teachers be effectively included in the process?




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#### **PRODUCT List of benefits and challenges in localizing curricula in your context**




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#### **TASK 6 Individual reflection**

Read the case study “Innovative approaches to curriculum development, documentation and review”. Consider the materials produced for the Quality Teacher Programme (summary, outcomes, timeline and flow chart) and generate a list of aspects of the methodology that might be suitable in your context.

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#### **TASK 7 Group simulation of the process**

1. Participants should be assigned roles that correspond to key actors in the education system in their context. These are likely to include:
  - Ministry of Education officials;
  - Local education authority officials;
  - School principals;
  - Teachers;
  - Teacher educators; and
  - Textbook developers.
2. At least two participants should be assigned to each category. Participants should be given 20-30 minutes to create a plan for curriculum localization, addressing issues such as the allocation of responsibilities and finance, time scale, scope and nature of change, etc. Two participants will play the roles of press reporters.
3. Starting with the Ministry of Education officials, each group should present the key elements of their plan. The remainder of the exercise consists of a discussion aimed at reaching consensus on the strategy for curriculum localization. This may last up to an hour.



## PRODUCT Report of the proceedings

### ACTIVITY 3



## School-based curriculum development

In reality, there is no school that operates one hundred per cent in accordance with the principles and practices established in the centralized curriculum because each school often has its own needs or goals that differ from those of other schools, even in neighbouring communities. This may lead a particular school with a strong identity and high-quality leadership to adopt a modified teaching profile. Consequently, school-based curriculum development operates as a programme of learning experiences designed by the school community to cater for specific community needs and the unique identity of the school. In this sense, the process differs from the usual adaptation of the curriculum produced when learning is centrally planned, and is characterized by several features:

- Collaborative decision-making processes;
- Clear institutional focus, usually drawn around a well-defined vision or goal; and
- A creative development space, that serves as a catalyst for innovation and the utilization of experimental teaching methodologies.

The rationales advanced for promoting a school-based curriculum include:

- Increased learning opportunities and experiences that fit the needs, concerns, goals and interests of the students and school community at large;
- The identification and incorporation of local resources to the learning experiences of students;
- Curriculum that adjusts to new ideas about teaching and learning, increasing the flexibility and creativity of teachers; and
- The introduction of democratic practices in the decision-making processes of the school community.

Some factors that influence the likelihood of school-based curriculum development are:

1. National educational goals and philosophy: the schools must produce a curriculum that reflects the national framework for education and its goals, as well as educational philosophies and political ideologies accepted by the mainstream.
2. Centralized curriculum definitions: as a general rule, schools don't have the broad autonomy to exclude subjects that are included in the central curriculum, or to reorganize them by modifying the officially-sanctioned time allocations. They also cannot add subjects; they must consider the additional resources required and this is usually not feasible for public schools.
3. Resources available at the school: the selection of activities in school-based curriculum systems are limited by the availability of resources, including room space, materials and personnel. While room space refers to labs, libraries and resource centres, material resources refers to textbooks, tools and computers. Human resources refers to teachers with specific competencies that are aligned with the focus identified by the school-based curriculum, as well as the possibility of receiving coaching and relevant capacity-development opportunities.

### *Focus of the activity*

This activity and the suggested tasks should enable participants to explore the types of curriculum decisions that can be made at the school level.



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## TASK 1 Work in pairs

1. Conduct an Internet search based on the keyword “school-based curriculum”. Explore at least three different websites and take notes that might help you to produce a definition.
2. Based on your own context, identify and list the curriculum decisions that are usually made at the school level.
3. Reflect on those aspects of the local culture or locally-based content that are usually included in the school curriculum.



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## TASK 2 Individual reflection

Read the case studies “Solidarity Integration Project: the innovative process of an inclusive school in Uruguay” [Proyecto de Integración Solidaria: proceso de innovación de un centro en clave inclusiva en Uruguay] and “Catholic University of Uruguay, Department of Education: Document 8” [Caso del Departamento de Educación de la Universidad Católica del Uruguay: Documento 8].

Using the following extract on the process of designing school curriculum, identify the processes that have been conducted in each case.

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Several researchers/educationists have outlined the steps to follow when designing school-based curriculum. For the purpose of this module, six processes will be discussed:

### *Needs assessment*

At this stage, the team responsible determines the needs of the learners and school community, as well as the physical, material and human resources available. This activity is meant to allow the team to obtain a very clear picture of the strengths and weaknesses, which will serve as a basis for joint understanding and enable the team to develop specific policies, goals and strategic plans.

### *Objectives*

The goals should be described in specific terms so that they are observable, measurable and achievable within a given time frame or period. At this stage, the team identifies the intended outcomes.

### *Selection of content*

Two considerations are important at this stage: (i) the content that is selected should have some connection to the centralized curriculum; and (ii) it should reflect the objectives formulated.

### *Content organization*

Content is arranged in a manner that takes into account the state of the learner. Concepts must be arranged in such a way as to build upon knowledge about related concepts previously learned.

### *Selection and organization of learning experiences*

Once identified, the relevant experiences of learners should be ranked in a progressive manner from simple to complex and from concrete to abstract learning experiences. In this respect, it is the responsibility of the school to recommend the particular subject matter, its level of detail, and how it should be taught for each standard or grade level.

### *Evaluation*

It is important for the school to determine the extent to which the intended objectives or desired outcomes have been achieved. Therefore, it is necessary to produce assessment instruments according to the objectives formulated at each stage of the school-based curriculum development process and to administer them to the students.

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### TASK 3 Work in small groups

Access the websites of the Opening Minds Project of the Royal Society Association by visiting:

- <http://www.rsaopeningminds.org.uk/>  
<http://www.rsaopeningminds.org.uk/about-rsa-openingminds/competences/>; and
- [http://www.thersa.org/\\_data/assets/pdf\\_file/0005/2885/opening-minds-education-for-the-21st-century.pdf](http://www.thersa.org/_data/assets/pdf_file/0005/2885/opening-minds-education-for-the-21st-century.pdf), (specifically, Chapter 2, Page 16 – Documents 9 and 10).

1. Identify the processes executed during the project and generate a list of their salient features.
2. Write an op-ed article for a local newspaper entitled “Adapting school curriculum to the local context”.



### PRODUCT Op-Ed article

## ACTIVITY 4



## The role of supervision and inspection in curriculum monitoring

The State usually employs supervisors and/or inspectors whose mission is to monitor and follow-up on school operations. Assuming they accept it as part of their role, supervisors are also expected to monitor implementation of the curriculum. When there is comprehensive curriculum reform, monitoring can be conducted extensively through special groups assigned to this particular task. However, in day-to-day implementation, when a decentralization paradigm has been established and most curriculum decisions are made at the school level, supervisors and inspectors play a central role in monitoring the curriculum as a part of a continuous process of inspection cycles.

The habitual sources of information used to complete this task include:

- Analysis of school documents;
- Classroom observation;
- Focus-group discussions; and
- Surveys.

The school visit is a common procedure that integrates several sources of information. This strategy may include exchanges with the school staff, the revision of additional documents about the school context, the observation of classes, and oral interviews with students and teachers. In some situations, the process takes the form of a curriculum audit whereby a team of external auditors examines the practices and policies applied in the school and draws conclusions about the curriculum’s level of implementation. The auditors gather data from interviews, documents and reports on the visits to opine on the school-based curriculum and the ways it is delivered to students. This task is usually accompanied by a collaborative internal audit using structured questionnaires for self-assessment that are answered individually or in a groups, and usually specify where discussions can be held between the different stakeholders, including community members.

The monitoring process may be oriented according to different approaches to curriculum implementation. For instance:

*Fidelity perspective:* measures the extent to which a particular innovation is implemented and identifies factors that enable or prevent the implementation.

*Mutual adaptation perspective:* assumes that curriculum developers and implementers need to make mutual adjustments.

*Enactment perspective:* based on the educational experiences developed by the teacher and student

From a fidelity perspective, the monitoring process will identify those indicators that signal the faithful implementation of the curriculum as it was conceived. Subsequently, research based on the paradigm of mutual adaptation will attempt to discover what happened to the curriculum during the implementation process. The enactment perspective will try to discover the effects of external factors (materials, policies, student and teacher features) on the implemented curriculum.

*Points to consider during analysis*

There are several activities that can be undertaken to assess curriculum at the school level. Formal curriculum levels are characterized by those elements of the formally-adopted structure of what should be taught. The verification process includes: (i) ensuring that a written document exists; (ii) checking that each and every teacher has a copy of the plan; and (iii) verifying that the document is operational (i.e. presents the scope and sequence of objectives or contents, explicit reference to those objectives/contents in textbooks and supplementary materials, learning scenarios, worksheets, projects, etc. for each objective, as well as items that should be assessed for each objective).

The next step is to analyse whether there is a correlation between the formal curriculum and the way it is implemented in the school. If any emphasis is placed on controlling this aspect, monitoring will adopt a bureaucratic tendency. Consequently, school actors may be forced to produce documents that satisfy the administration. However, these documents might not describe the actual classroom practices. To better understand real practices, the inquiry process must proceed by revising the curriculum materials that teachers use most frequently so they are related to the aims and structure of the formal curriculum. This also implies revising supplementary curriculum materials that are frequently available for teachers to use.

The level of the curriculum that is actually experienced can be deciphered through conversations between the auditor and students to determine the extent to which students understand the aims/objectives of the lessons. Such an inquiry should also allow the students to reflect upon what they have experienced during the lessons in the classes. The monitoring of the experienced curriculum should also take into consideration the previous learning, individual experiences and preferred learning styles of the students.

Finally, in order to monitor the assessed curriculum, the monitor can review the tests that teachers give their students, the students' portfolios and the answers students provide on applicable standardized tests.

#### **Table 4.2. New Zealand: aspects evaluated in the implementation of the New Zealand Curriculum**

Question 1: What advances were made during the first two years of the implementation of the New Zealand Curriculum?

Question 2: What factors explain the level of advancement in the implementation of the New Zealand Curriculum?

To answer these questions, a mixed approach was used: the data was gathered through four survey questionnaires directed at random samples of educators, across several types of schools. The surveys were supplemented by a series of twenty-six focus groups, with 247 participants from a range of school types and professional roles. The issues explored were:

- Support received by educators through various means (inside the school, outside the school, web-based and printed materials) and the value assigned to those mechanisms.
- Receptivity: extent to which educators value the curriculum, the confidence they feel in implementing it in their own context and the extent to which they view the implementation as feasible.
- Understanding: how educators understand the several key components of the curriculum (e.g. key competencies, values, principles, vision, learning areas) and their perspectives on the depth of change processes.
- Practice: the extent to which they see the practices in line with the intentions of the new curriculum among teachers and school principals.

Source: Adapted from Sinnema, C. (2011).

### *Uses of the monitoring information by supervisors*

Information gathered during the analysis can foster and reinforce mutual responsibility based upon the exchange of viewpoints on the findings, with the goal of providing feedback to administration. Self-evaluation practices have an important role in promoting responsibility.

The results of the supervision process, expressed as strengths, weaknesses and opportunities for improvement, contribute to the school improvement plan that will be used as a benchmark for future supervision cycles.

### *Focus of the activity*

This activity and the suggested tasks should help participants explore the deeper meaning of monitoring with respect to school curriculum. Through the suggested tasks, participants will also identify monitoring strategies and their relative strengths and weaknesses.



#### **TASK 1 Individual reflection**

Review the resource documents: “International trends in school administration design and practice in primary school education” [Tendencias internacionales en la concepción y práctica de la supervisión escolar en la educación primaria] and “Making Schools Work through Accountability Reforms – World Bank”.

Take preliminary notes on inspection practices that relate to monitoring the school curriculum.



#### **TASK 2 Work in pairs**

1. Read the documents “HMI – Principles of Inspection and Review” and “Arrangements for Inspecting Schools in Scotland” (Sections 2 and 6).
2. Critically assess how inspection is conducted in your context, signalling any gaps in the process and approaches you consider in need of revision.
3. Propose the type of capacity development that inspectors can undertake to ensure adequate delivery of the curriculum and appropriate standards of educational quality.



#### **PRODUCT Critical analysis note (not to exceed one page) and proposals for capacity development of inspectors**

#### **TASK 3 Work in small groups**

1. Read the following extract:

All stakeholders involved in school-based curriculum design and implementation would definitely want to ensure that all of the outlined strategies, actions, processes and activities are fully observed or implemented by concerned parties, with the assumption that this will lead to the realization of stated goals and objectives. In the school, different actors play roles in curriculum implementation and the extent to which each group plays its role ultimately determines success or failure in the achievement of stated goals and objectives.

Monitoring may be defined as a set of actions, aimed at helping those involved in the education system (teachers, administrators, learners) to improve the teaching and learning experiences of learners in

particular and the educational paradigm as a whole. Any definition of monitoring with particular reference to school-based curriculum should be grounded on the following ideas and considerations:

- An on-going process or continuous activity;
- Aims to gain insight on activities in the school;
- Aims to improve activities, knowledge and skills of all those involved in the education system;
- Involves and reflects all individuals involved in the improvement of teaching and learning;
- Aims to ensure rich delivery of the curriculum; and
- Aims to provide a foundation for school and staff development.

***Monitoring strategies:***

- Report writing: reports from heads of schools, heads of departments, teachers and other identified persons;
- Observations: Heads of schools or departments visiting individual teacher's classrooms to observe lessons and interact with teachers and learners. A post-lesson discussion usually occurs.
- Visits to schools: conducted by external monitors, for example delegations from school boards, districts, regional or national level personnel;
- Focused discussions: (formal and informal) of all stakeholders involved in the improvement of teaching and learning in the school and participating in discussions to stay informed of progress and developments;
- Interviews: institutional department heads interview learners to gather information about developments within and outside of the classroom;
- Physical inspection: institutional department heads or their representatives complete physical inspection of materials such as teachers' notebooks, attendance registries, pupils' exercise books and any auditing of financial documents/resources/records;
- Questionnaires/instruments: used to gather information from learners and teachers to gain insight into teaching and learning activities; and
- Feedback: an important strategy used to ensure that what has been observed regarding the achievement of objectives is transmitted to other stakeholders.

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2. Read the following list of components of the school system that can be monitored.

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The head of school, a department head, subject specialists and external monitors may want to review the following:

***Work scheme or individual session or lesson plan:***

- The level and appropriateness of content selected;
- Appropriateness, relevance and suitability of teaching and learning materials/activities utilized;
- Duration, timing and environment of teaching and learning activities;
- Statement of objectives of lesson plans – Specific, Measurable, Achievable, Realistic and Time-scaled (SMART) goals;
- Organization and progression of teaching and activities;
- Evaluation of learning activities, marking and feedback strategies used.

***Timetable:***

- The prescribed period for each subject as stated in the policy document;
- Activities to be executed;
- Length of the school day: the start and end times of daily and weekly activities;

- Number of teaching periods and subjects offered;
- Availability of resources used to implement the activities outlined; and
- Extent of communication (among resources) on the details of the activities stated in the timetable.

**Teaching and learning methods and activities:**

- Appropriateness of teaching methods, areas that require improvement;
- Suitability of teaching and learning materials and the extent to which learners benefit;
- Soundness of teaching steps and the sequence of activities, including evaluation at each stage of the course;
- Level of involvement of learners in teaching and learning activities; and
- Extent of achievement of stated objectives.

**Material, human, physical and financial resources:**

- How funds allocated to various departments or units within the school are used;
- Quality and quantity of books available and the extent of their use;
- Appropriateness of books utilized considering the level of the learner;
- Academic and professional qualification levels for teachers;
- State of physical structures and resources;
- Level of teacher and learner contribution to, and involvement in, administration of the school; and
- Review of other materials like attendance registers, time logging instruments, and student registration books and how they are being used to promote teaching and learning.

**Evaluation:**

- The number of exercises, quizzes and exams given to learners and corrected;
- Suitability of exercises, quizzes and exams given to learners; and the
- Appropriateness of tests, quizzes and exams regarding the objectives stated and the levels of achievement expected.

3. Imagine a committee formed by parents, teachers, supervisors and municipal authorities that will be engaged in monitoring a school-based curriculum initiative.

- Allocate tasks to each member of the committee, indicating each group member's responsibility, including the time period and place.
- How often should monitoring occur?
- In what way should the committee inform the relevant authorities of their findings?



**PRODUCT**

**Report on the components of school curriculum that are monitored, and the specific roles played by stakeholders in the monitoring process**



**PERSONAL LEARNING NOTE TO BE INCLUDED IN THE PORTFOLIO:**

**What did I learn? What concepts did I find useful?**



# List of resources for MODULE 4

## System management and governance

### *Documents*

- Distinctive features of some education systems.
- Processes of curriculum policy change: towards a framework of educational decentralization.
- Impact of education decentralization on the quality of education.
- Perspectives of participation in decentralised public schools.
- School-based curriculum development: redefining the term for New Zealand schools today and tomorrow.
- Constraints in implementing localized curricula in Asia.
- International trends in school administration design and practice in primary school education [Tendencias internacionales en la concepción y práctica de la supervisión escolar en la educación primaria].
- Making Schools Work through Accountability Reforms – World Bank.
- HMI – Principles of Inspection and Review.
- Arrangements for Inspecting Schools in Scotland (Sections 2 and 6).

### *Case studies*

- Decentralization and school autonomy in the Dominican Republic's educational administration: Is it achievable? [Descentralización educativa y autonomía escolar en la gestión educativa dominicana: ¿Desafío Posible?].
- Management of decentralization of education in Tanzania: towards the identification of training needs.
- Effects of decentralization on school resources: Sweden 1989–2002.
- Montenegro: Introduction of optional subjects during the course of curriculum change.
- Local life skills program in Cambodia.
- Innovative approaches to curriculum development, documentation and review.
- Solidarity Integration Project: the innovative process of an inclusive school in Uruguay [Proyecto de Integración Solidaria: proceso de innovación de un centro en clave inclusiva en Uruguay].
- Catholic University of Uruguay, Department of Education: Document 8 [Caso del Departamento de Educación de la Universidad Católica del Uruguay: Documento 8].

### *Worksheets*

- Trends in decentralization.

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NOTES

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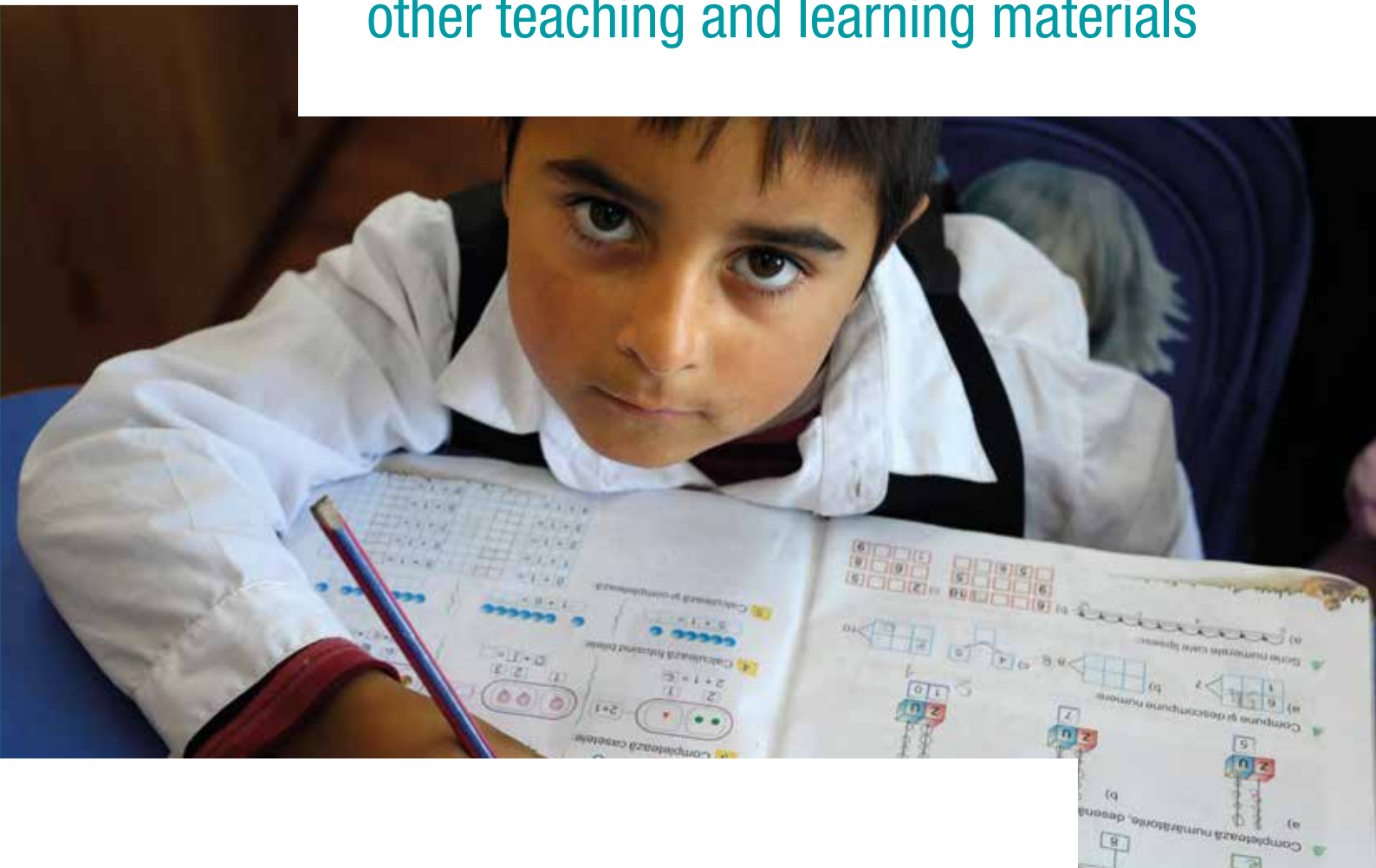


MODULE

# 5



Development of textbooks and other teaching and learning materials



# MODULE 5

## Development of textbooks and other teaching and learning materials

This module explores the role that ministries of education can play in providing easily accessible and quality textbooks. It also discusses the increasing role of technological media as a support or substitute for print school materials and how to take advantage of teaching resources at the school and community levels for this generation.

The activities suggested in this module offer opportunities for curriculum developers to consolidate their understanding of policies and processes related to textbook development and other teaching and learning materials, particularly with respect to:

1. Policy management. General options for the development of textbook policies.
2. Decisions about implementing e-learning. Highlights particular points to be considered when planning the implementation of e-learning strategies.
3. Production and/or acquisition of supplementary teaching and learning materials. Enables discussion on a wider scope of teaching and learning materials.
4. The teacher as a curriculum developer. Discusses teachers' capacities and efforts to develop contextualized curriculum materials sensitive to the local conditions.

Following these activities is a list of resources that contains documents and case studies to which references are made in the activities, as well as complementary reading material.

### *Considerations regarding the development of textbooks and other teaching and learning materials*

Equal access to quality basic education is a key policy target in all countries. Under this paradigm, quality teaching and learning materials should be available for all students.

The module also explores existing trends and processes in textbook development. Accordingly, curriculum developers will learn about the obstacles that publishers, ministries of education and other actors in the field may encounter while attempting to provide high-quality, easily accessible textbooks.

The textbook is one type of resource and a critical one in many contexts. In developing countries, textbooks may be the de facto syllabus. In addition to the teacher, they may be the most important tool for learners in the acquisition of knowledge and skills. They may also be the only source of information about the curriculum for the teacher, the only books available in the household of the average child and the main source of reading for the learner.

Under ideal circumstances, in addition to textbooks, teachers should have other supplementary teaching and learning resources available. Internet access allows for tremendous opportunities to provide materials that supplement textbooks and enrich the learning environment. However, the rapid availability of these new materials also presents challenges to traditional approaches in the evaluation and approval of teaching and learning resources.

As with the introduction of any new technological device, there is initially a tendency to use information and communication technologies (ICT) in the same manner as older, better-known learning tools. As teachers in many nations are exploring the most effective ways to integrate ICT into the curriculum, their teaching style

has been influenced. For instance, students are now more likely to access global repositories of information through ICT than base their learning solely on print textbooks. Learners can also be more responsible for self-teaching, which results in a shift in the role of teachers from a transmitter of knowledge to more of a facilitator that provides orientation and support in browsing and organizing information in a constructive way.

*Keywords:* Bias Detection; Criteria for Textbook Evaluation; Distribution; E-Learning; Trends; Non-Print Materials; Production; Rental Scheme; Technical Specifications; Textbook Adoption; Textbook Approval; Textbook Development.

## ACTIVITY 1 Textbook development, procurement and evaluation

The textbooks provided to schools should be accurate and contain up-to-date information. A range of planning and policy issues should be examined in detail before committing to new textbooks to ensure that resources are efficiently used and to guarantee the highest-quality product possible. These issues are presented in Table 5.1 according to where they are likely to emerge in the development process.

**Table 5.1. Planning and policy issues to be examined in textbook development**

Management	Preparation	Production	Distribution
Selection of subjects requiring textbooks.	Choice of authors, preferably through open competitive bidding.	Open competitive bidding for printing and publishing.	Support for public and school libraries.
Use of national and local languages in instruction and textbooks.	Multiple textbook titles.	Consideration of textbook/pupil ratio if textbooks are provided by the state.	Open competitive bidding for distribution.
Timing of curriculum reform and revision.	Availability and provision of supplementary reading and other learning materials.	Appropriateness of textbook design for grade levels.	Practical and economical distribution methods.
Procedures for the evaluation and approval of textbooks.	Professional development for authors, publishing personnel and educators.	Technical specifications for paper, printing and binding.	Regular and timely release of approved textbooks.
Criteria for the selection of textbooks.		Affordable and sustainable financing.	

Source: Askerud, P. (1997).

Textbook revision is commonly part of the curriculum process and generally supports the introduction of new and updated content (learning) and methodology. Therefore, in those cases where an industry of private publishers exist, revision should be part of a planned cycle so that textbook publishers are encouraged to invest in supporting any new curriculum.

In the case of external donor-funded initiatives for textbook development, it is possible that donors will insist on an international competitive bidding process. However, it should be noted that this may run the risk of channelling funds for textbooks out of the recipient country.

On the contrary, cooperation and co-publishing can aid the transition to sustainable competitive provision of textbooks and other learning materials. Cooperation may be exercised by one country through the adaptation of a textbook produced in another country, or a joint venture between a local publishing house and a well-established international publisher in a developed country, involving the transfer of publishing knowledge, experiences and skills, as well as capital.

### *Policy trends in textbook development*

In some countries, ministries of education house their own textbook publishing units. These units are responsible for the production of all textbooks with little or no reference to local or private publishers. This strategy can be cost-effective and useful in countries where a sufficient commercial market for stimulating private interest in the textbook industry does not exist. However, it may also imply a lack of diversity in books and potentially reduced quality.

Policy trends in textbook development reflect a shift towards private, market-driven systems of private textbook publishing. In some countries, the role of developing, producing and distributing textbooks is already a private enterprise which bases its books on the curriculum syllabuses for each subject. Under these circumstances, the role of the government may be to:

- Starting with the curriculum framework, prepare clear and detailed guidelines through curriculum policy that orient the development of textbooks and other teaching and learning materials. These guidelines should be shared with textbook developers for the development of textbooks;
- Establish minimum standards for quality and ensure their use in monitoring to conduct objective evaluation and approval of textbooks; and
- Determine the source of textbook financing and fund allocation, as well as the method of distributing the materials to schools.

In this regard, ministries of education need to ensure that the quality of textbooks and other materials is of a high standard and that processes for publication, approval and distribution are conducted in a cost-efficient and timely manner.

### *Textbook evaluation and approval*

Ministries of education usually recognize the need to establish independent evaluation boards to objectively assess textbooks. These boards are more objective and accountable than internal committees, which may simply be extensions of the ministries' own curriculum departments.

Some countries, including Viet Nam and Germany, maintain rigorous evaluation and testing processes before materials can be used in schools. In these countries, publishers are required to pilot an entire textbook or sections in selected schools before they are authorized to produce the books. For instance, in Québec, Canada, foreign language textbooks must pass five separate evaluation panels that assess content for pedagogy, equal opportunity, potential sexism and racism.

The main textbook approaches, in which a number of publishers produce textbooks and seek the approval of the Ministry of Education or allow market preferences to determine the best book, imply the abandonment of monopoly. It can also signify the removal of government control over textbook development and the empowerment of the local school principal or teacher to select the textbook that best implements the syllabus. Such an approach would need to be introduced in a carefully-planned manner to avoid teacher uncertainty, higher costs and issues related to teacher training.

In those countries that adopt multiple approaches to textbook development, there are complaints about the evaluation process. For example:

- In the Philippines, publishers have complained about inconsistencies in the appraisal process. According to one account, some books were granted conditional approval, even though they did not cover the entire curriculum, while others were rejected on the basis of an illustration or exercise.

- In Kenya, the government has been accused of favouring the former state publishing house.
- In Romania, education officials are allowed to become authors of competing textbooks, which has raised concerns about conflicts of interest and subjective influence over subordinates.

### Focus of the activity

This activity and suggested tasks should help participants to explore a range of planning and policy issues that impact the availability and selection of new, accurate and up-to-date textbooks, ensuring that resources are efficiently used.



#### TASK 1 Individual assignment or work in small groups

1. Read the document “Control and supply of school textbooks in selected countries” and identify one example that is most similar to your context, as well as one example that is the most different. Explain the reasons why the situation that is the most different would be difficult to implement in your context, but also why it might be interesting to try.
2. Read the document “Comparative tables of textbook provision policies in Latin America” [Cuadros comparativos de las políticas de provisión de libros de texto en América Latina].
3. Describe a programme in your own context, and indicate who is responsible for printing, distributing and financing it.



#### TASK 2 Individual reflection

1. Read the case study “Textbook provision scheme in Brazil”.
2. Analyse the case study, based on the following questions:
  - What is the difference between the centralized and decentralized policies for textbook provision?
  - What similarities and differences exist between the actors and processes involved in the Brazilian case and your situation?
  - Generate a short list of all participating agencies, noting the main functions of each one.

#### TASK 3 Work in small groups

1. Share the insights gained from textbook provision in Brazil with your classmates. Discuss practices that could be applied to your own context.
2. Create a flow chart illustrating the major steps in textbook provision.



#### PRODUCT Flow chart



#### TASK 4 Work in pairs

1. Read the document “Overview of textbook development processes: conditions for, and characteristics of, effective textbook provision” with your partner.
2. Prepare an electronic presentation of about seven slides on textbook development processes in your context. Consider the following ideas:
  - Identify the main parameters for the management of textbook development that are appropriate to



your context. Your assessment should be based on the Brazilian case study, as well as information about your own country's policies. Some areas for consideration may include, but are not limited to:

- Selection of subjects requiring textbooks;
  - Use of national and local languages in instruction and textbooks;
  - Timing of curriculum reforms and revisions;
  - Resources required for textbook production; and
  - Procedure for evaluation and approval of textbooks.
- Use the following questions as a guide for analysing textbook development policies in your context:
- What subjects require textbooks and teacher guides?
  - Is the language used in available textbooks different from the one used in teaching?
  - What is the composition of your textbook development team?
  - How often do you revise textbooks and teacher guides?
  - Who approves textbooks and teacher guides?
  - Is there only one textbook approved for each subject, or are there multiple titles?
  - What is the textbook/pupil ratio?
  - How are textbooks made available to schools, teachers and students?



## **PRODUCT** Group presentation



### **TASK 5** Work in small groups

1. Read the following resources. Compare the aspects of textbook production and distribution described in each case. Discuss the most interesting points with your group members.
  - Case study “Uzbekistan basic education textbook development”.
  - Case study “Textbook rental scheme: Macedonia”.
  - Document “Textbook Quality Improvement Programme – support to basic education in Iraq” (Part I).
  - Case study “Principles and processes for publishing textbooks and alignment with standards: a case in Singapore”.
2. Use the following questions to guide your analysis:
  - What mechanisms currently exist for the production and distribution of textbooks?
  - What are the primary constraints on the adequate provision of textbooks in your context?
  - What principles for developing textbooks would you consider?
  - What are the next steps required to develop capacities for effective and economic textbook production and distribution?
3. Produce a poster that summarizes the issues related to textbook production and distribution. The poster should be approximately 80x60 cm. It should illustrate the current system and its constraints and provide recommendations.



## **PRODUCT** Poster



### **TASK 6** Individual assignment

1. Read the case studies “Textbook evaluation through quality indicators: the case of Pakistan” (pp. 9–11), “Criteria for textbook evaluation: Azerbaijan” and “Criteria for evaluation of technical quality of textbooks in Romania”.
2. Use the following questions as a basis for analysis:
  - What factors for the evaluation of textbooks are covered in each case?
  - What factors are common?
  - How are these factors evaluated?
3. Based on your own context, consider other factors used to evaluate textbooks that are not included in the above cases.
4. Develop a set of criteria for textbook evaluation and write them onto a flip chart.



### TASK 7 Plenary discussion

1. Read the case studies “Gender issues in Polish school textbooks” and “Bias detection criteria for textbooks: Sri Lanka”, as well as the document “Textbook Quality Improvement Programme – support to basic education in Iraq” (Appendix 1).
2. Revise your criteria for the inclusion of bias detection and discuss it with the group.

### TASK 8 Plenary discussion

Participants should divide into groups and discuss the textbook evaluation criteria. Also consider the political, structural or practical constraints that exist in your country and how to best address these. Develop a set of criteria together, considering the possibility of assigning a relative weight to each of the standards. Each norm should include a rating scale based on different levels (e.g. “good-fair-inadequate” or “present-absent”) or descriptive characteristics (e.g. “the scientific content is accurate – some of the paragraphs contain inaccurate content – there are several significant mistakes”).



### PRODUCT Report on criteria used in the evaluation of textbooks and teacher guides

### TASK 9 Individual assignment

1. Obtain a copy of any textbook and/or teacher’s guide used in your subject area.
2. Evaluate the textbook and/or guide based on the criteria developed during the plenary session in Task 8.
3. Use the following questions as a basis for analysis:
  - Do the textbooks and/or guides meet the requirements for approval?
  - Which aspects of the material(s) need improvement based on the criteria?
  - What revisions are necessary to improve the material(s)?
4. Prepare a short report on the material(s) analysed using a table format.



### PRODUCT Report on textbook evaluation

## ACTIVITY 2

### E-learning and e-books

E-learning is used as a general name for all ICT-enabled learning activities. The incorporation of e-learning activities in school systems drives teaching material requirements quite far from what is necessary when using traditional learning supports such as textbooks. It requires a functional infrastructure, including appropriate hardware and reliable, high-quality software. Advanced planning on the availability of significant ongoing technical support and reliable telecommunications connections is also required. At the national decision-making level, equality implies that policies should specifically consider supporting small and rural schools in effectively adapting e-learning and information literacy.

Some learning opportunities enabled by the use of ICT include:

- Repetitive drills for developing low-level skills, with immediate feedback;
- Inclusion of pictures, audio and video-clips in school assignments;
- Ability to search for information using multimedia databases;
- Increased communication assignments using blogs, e-mail and chat interfaces;
- Programmed distance instruction using the web, after school hours;
- Use of games and other stimulators;
- Sensor-based applications for capturing data in experimental activities; and
- Computerized assessment, virtual portfolios and online surveys.

The implementation of e-learning requires a clear vision and direction, at least at the school level, because decisions regarding materials are costly and resources can quickly become outdated.

Based on the perspective assumed, these decisions range from:

- Adapting or developing lesson plans for e-learning activities according to the curriculum;
- Devising specific instruments for assessment, monitoring and analysis of students' skills;
- Planning and providing professional development for teachers in the use of ICT and its implementation in e-learning contexts;
- Supporting schools in the integration of ICT-based systems into the dynamics of the school day;
- Deciding whether to select free-license materials or buy commercial, copyrighted materials; and
- Developing a policy to regulate ICT use so that students do not circulate improper material.

Teaching programmes that incorporate e-learning require sustained capacity development for teachers because of the wide variability in teacher expertise and confidence. Sometimes schools participating in ICT-related professional development clusters can join efforts in the capacity development process; however, support and professional development is usually based on the specific needs derived from concrete e-materials that each school selects.

#### *Focus of the activity*

This activity should help participants to conceptualize e-learning and analyse the challenges and impacts of using ICT-based learning tools.



### TASK 1 Individual assignment

1. Read the document “Curriculum and knowledge in the digital era” and highlight six provocative statements for further discussion. Please also read the case studies “E-Learning in Japan” and “Study on the use of ICT in school education” [Étude sur les usages des dispositifs TIC dans l’enseignement scolaire].
2. Use the following questions as a framework for analysis:
  - What does the advent of a digital era imply for the “traditional” uses of textbooks?
  - What are the features of e-learning?
  - What are the lessons learned from each of the cases?
  - What conditions facilitate or hinder the use of e-learning in your country?
  - What alternatives are available to achieve quality education without using e-learning in your country?
  - How are these alternatives being used in schools?
3. Read the document “Quality guidelines for educational online content and its practical applicability”.
4. Select an interesting educational Internet resource and use the criteria suggested in the document “Quality guidelines for educational online content and its practical applicability” to assess the feasibility of using this resource in your context.

### TASK 2 Plenary discussion

Two groups will each make a presentation. One group will present on the practical difficulties related to implementing e-learning and another will discuss the various opportunities resulting from the use of e-learning.

### TASK 3 Individual assignment

1. Choose a particular curriculum area where you believe it is feasible to implement a lesson plan that intensively utilizes ICT.
2. Assuming you have the decision-making power to implement the lesson plan in a number of schools, reflect on the following questions:
  - Would you prefer to use commercial software or custom-tailored software?
  - Would your plan include the use of web pages or e-mail? Would you draft a policy addressing the safety of students who access the Internet?
  - What assessment practices could be used to evaluate the learning process?

### TASK 4 Work in pairs

1. Explain the decisions you made in the previous task to your partner and request feedback.
2. Reconsider your previous decisions after receiving your partner’s feedback and produce a short summary of your proposal that you will include in your portfolio.



### PRODUCT Proposal to implement an ICT-based lesson plan

## ACTIVITY 3



# Supplementary materials for teaching and learning

The formats used to specify the content that will be taught, in the form of subject-specific syllabuses, teacher guides or other documents, describe what is to be taught and learned from the subject and provide a range of other information for teachers, as well as the community, textbook developers and publishers. Therefore, the challenge for curriculum developers resides in notifying teachers about the various materials, besides textbooks, that can contribute to improving the quality of education and the achievement of learning outcomes specified by the curriculum.

Several types of print and non-print materials are currently being used in many countries. These include supplementary reading books, comics, posters, flip charts, videotapes or DVDs and electronic materials.

The choice and use of these multimedia teaching and learning materials depend on the available technical and financial resources of each country. Also, helping schools and individual teachers to make informed judgments about the materials that are selected and used to promote the preferred learning styles of the students, through capacity development activities is critical.

### *Focus of the activity*

This activity and suggested tasks should help participants to discuss specific options and criteria so they can select supplementary materials and recommend their use.



### **TASK 1** Work in small groups

1. Read the case study “Non-print learning materials in Indonesia”.
2. Read the document “Learning objects and learning theory”.
3. Use the following questions to guide your analysis:
  - What are the advantages of using non-print/electronic materials for introducing the topics?
  - How can these materials be used in the teaching and learning activity?
  - What conditions in your country may enable or hinder your ability to develop and use non-print or electronic materials in teaching?
  - What recommendations and quality criteria can be taken into consideration?
4. Develop a list of ways that you might be able to include non-textbook materials in a particular subject in your context.



### **PRODUCT** List of opportunities

## ACTIVITY 4



# The teacher as a developer of curriculum materials

In some cases, textbooks used in schools have been developed by teams of subject area specialists who are not familiar with the range of implementation issues that may arise in schools. In these cases, the examples cited in textbooks that are used to explain concepts and principles might not relate to the experiences of teachers and students.

Supplementary teaching and learning materials that use community resources and events can be more relevant and interesting to students because they can easily relate to the materials. Therefore, teachers are encouraged to develop teaching and learning materials to supplement textbooks by drawing upon local resources and settings.

Supplementary teaching materials are not designed to cover the full range of experiences students may need to acquire all concepts and skills required by the syllabus. Rather, the materials are used to enrich the students' learning experiences and consequently foster positive attitudes towards the subject and learning in general.

### Focus of the activity

This activity and the suggested tasks should help participants to conceptualize the role of the teacher in the process of cultivating ownership of a particular curriculum resource.

#### TASK 1 Individual assignment

1. Choose one example of a supplementary teaching material you would like to develop (e.g. poster, comic strip, games, experiment guide).
2. According to the features of the sample you have chosen, develop your own supplementary material using a topic that is relevant in your context.
3. Use the criteria developed in previous tasks on making teaching and learning materials to help you in designing the supplementary material.



#### PRODUCT Draft teaching material

#### TASK 2 Individual assignment

1. Choose a topic from your curriculum. Review how the textbooks and teacher guides discuss the subject.
2. Reflect on your home and school environment. Which situation best explains the topic selected in Part 1 while also developing competency in this area?
3. Rewrite the lesson using the local situation.



#### PRODUCT Contextualized lesson

#### TASK 3 Exhibition and plenary discussion

1. An exhibition of the materials developed in Task 1 or 2 is displayed in the conference room. The participants are given time to examine the materials. Then, a question and answer session that includes feedback for each participant is conducted.
2. A practical closing discussion is held during which participants support a team of teachers by coaching them in the production of curriculum materials adapted to their students' needs.
3. Participants then develop a list of their reflections, including the types of recommendations they would share with the teachers about planning, selecting introductory materials, identifying resources, methods of assuring quality, as well as any cautionary advice.



#### PRODUCT Practical advice for coaching



#### PERSONAL LEARNING NOTE TO BE INCLUDED IN THE PORTFOLIO:

**What did I learn? What concepts did I find useful?**



# List of resources for MODULE 5

## Development of textbooks and other teaching and learning materials

### *Documents*

- Control and supply of school textbooks in selected countries.
- Comparative tables of textbook provision policies in Latin America [Cuadros comparativos de las políticas de provisión de libros de texto en América Latina].
- Overview of textbook development processes: conditions for, and characteristics of, effective textbook provision.
- Textbook Quality Improvement Programme – support to basic education in Iraq (Part I).
- Curriculum and knowledge in the digital era.
- Quality guidelines for educational online content and its practical applicability.
- Learning objects and learning theory.

### *Case studies*

- Textbook provision scheme in Brazil.
- Uzbekistan basic education textbook development.
- Textbook rental scheme: Macedonia.
- Principles and processes for publishing textbooks and alignment with standards: a case in Singapore.
- Textbook evaluation through quality indicators: the case of Pakistan (pp. 9–11).
- Criteria for textbook evaluation: Azerbaijan.
- Criteria for evaluation of technical quality of textbooks in Romania.
- Gender issues in Polish school textbooks.
- Bias detection criteria for textbooks: Sri Lanka.
- E-Learning in Japan.
- Study on the use of ICT in school education.
- Non-print learning materials in Indonesia.

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## NOTES

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MODULE 5

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MODULE

# 6



## Capacity development for curriculum implementation



# MODULE 6

## Capacity development for curriculum implementation

This module explores approaches to encouraging curriculum revision and strategies that foster new approaches to teaching and learning, including the use of information and communication technologies (ICT). Models such as school-based training and teacher education are also discussed as ways to develop teaching skills for implementing the curriculum.

The suggested activities in this module offer opportunities for curriculum developers to further their understanding of central issues related to capacity development for curriculum implementation. The module will address:

1. Approaches to capacity development as a permanent aspect of professional development.
2. Models for teacher professional development.
3. Strengthening the capacities of curriculum developers as a requisite for reform.
4. Cultivating learning opportunities for teachers during their pre-service and in-service training that are aligned with curriculum reform.

Following these activities is a list of resources that contains documents and case studies to which references are made in the activities, as well as complementary reading material.

### *Considerations about capacity development for curriculum implementation*

While curriculum can be conceptualized in a number of ways, learning the distinction between “intended” and “implemented” curriculum is useful for curriculum developers to achieve balance between the two areas.

The intended (or “official”) school curriculum is expressed in policy documents, curriculum guidelines, standard and assessment systems, syllabuses, textbooks and other teaching materials. It clearly defines the structure, content and methods of the intended learning experiences. The “intended” curriculum is then realized through the interaction between teachers and students in schools. The “implemented” curriculum is the one that actually shapes students’ learning experiences and significantly contributes to determining their learning outcomes.

Curriculum change is a dynamic and challenging process; its success depends on all stakeholders having the capacity to adopt a shared vision, positive attitudes and commitment. Moreover, stakeholders should develop the requisite professional competencies in various aspects of curriculum change.

In this situation, capacity development is understood as the process of assisting an individual or group to gain the insight, knowledge and experiences required to solve problems and implement change. This implies empowering curriculum developers and stakeholders by training them in areas such as policy formulation, curriculum design, textbook development and evaluation, piloting and innovation, implementation and curriculum monitoring and evaluation.

Capacity development for curriculum implementation has three important dimensions:

- Improving competency levels and promoting positive attitudes;
- Developing innovative pedagogical approaches and models; and
- Attracting community participation and resources.

Those engaged in curriculum implementation should be exposed to a variety of capacity-development activities. For example, training workshops, follow-up activities and school-based capacity development initiatives should be included in customized professional development programmes. These actions should focus on building strengths, rather than highlighting the skills that individuals lack or need. This signifies a departure from the deficit model of training which focuses on improving weaknesses rather than individuals' competences/capacities/skills. Individuals must be given the opportunity to learn from one another and, in the process, also build the capacities of their peers.

For teachers, the establishment of a support network in every school that provides collegial exchange on a continual basis will help reduce feelings of isolation and facilitate the process of curriculum change. Furthermore, a network of colleagues learning from and supporting each other is not only essential to building a community of practice, but it also helps to sustain the change process.

*Keywords:* Capacity development; Community of Practice; ICT Integration; In-service Training; Multigrade/Multiclass Teaching; School-based Training; Needs-based Training; Pre-service Training; Professional Development; Teacher Support Network; Teaching and Learning; Whole School Approach.

## ACTIVITY 1 Approaches to capacity development

In any given context, the process of curriculum change requires that stakeholders develop shared visions and a common understanding of educational and curriculum objectives. These shared beliefs should serve the diverse learning needs of students, as well as the broad national goals of socio-economic and cultural development. Capacity development is a central component of building these common understandings.

Education systems are large and complex organizations that require various competencies among their employees. Many capacity development activities may be generic. However, the specific needs of individuals and groups must be addressed through targeted training programmes based on relevant cases, evidence-based success stories and focused experiential learning activities.

In the context of curriculum implementation, capacity development might be most beneficial for national education policy-makers, local education policy-makers, curriculum professionals, teachers and teacher educators. Table 6.1 outlines the functions and the capacity development needs of these groups.

**Table 6.1. Capacity-development needs**

National education policy-makers	Local education policy-makers
<ul style="list-style-type: none"> <li>• Develop curriculum frameworks</li> </ul>	<ul style="list-style-type: none"> <li>• Implement national curriculum standards in local contexts</li> </ul>
<ul style="list-style-type: none"> <li>• Define curriculum objectives</li> </ul>	<ul style="list-style-type: none"> <li>• Develop locally-relevant curriculum</li> </ul>
<ul style="list-style-type: none"> <li>• Create a supportive policy environment</li> </ul>	<ul style="list-style-type: none"> <li>• Provide technical assistance for curriculum change in poverty-stricken areas</li> </ul>
<ul style="list-style-type: none"> <li>• Provide resource support and guide the strategic use of resources</li> </ul>	<ul style="list-style-type: none"> <li>• Provide guidance and professional support for school development</li> </ul>
<ul style="list-style-type: none"> <li>• Make and implement decisions</li> </ul>	
<ul style="list-style-type: none"> <li>• Evaluate and monitor the quality of curricula</li> </ul>	
Curriculum developers	Teachers and teacher educators
<ul style="list-style-type: none"> <li>• Design holistic curriculum content relevant to students' development in cognitive, affective, moral/ethical, aesthetic and physical dimensions</li> </ul>	<ul style="list-style-type: none"> <li>• Understand their changing roles as the curriculum evolves</li> </ul>
<ul style="list-style-type: none"> <li>• Integrate cross-cutting themes and facilitate interdisciplinary teaching and learning</li> </ul>	<ul style="list-style-type: none"> <li>• Comprehend curriculum objectives and national standards</li> </ul>
<ul style="list-style-type: none"> <li>• Build on strengths of traditional curricula and be innovative</li> </ul>	<ul style="list-style-type: none"> <li>• Master subject matter and pedagogical skills to deliver subject-specific content</li> </ul>
<ul style="list-style-type: none"> <li>• Ensure curriculum relevance to culturally-sensitive issues</li> </ul>	<ul style="list-style-type: none"> <li>• Have a positive attitude towards curriculum change and serve as an agent of change</li> </ul>
<ul style="list-style-type: none"> <li>• Engage in research-based professional development on a continual basis</li> </ul>	<ul style="list-style-type: none"> <li>• Combat isolation and develop team spirit</li> </ul>
	<ul style="list-style-type: none"> <li>• Engage in continuous professional learning and development</li> </ul>

Source: UNESCO-IBE and Asia-Pacific Network of curriculum developers (2005).

In many contexts, teacher professional development occurs in three phases:

- Preparatory or pre-service training before appointment and deployment to schools;
- Induction, often during the first three years of teaching; and
- In-service training which occurs throughout a teacher's professional career.

To be most effective, each of the three phases of teacher development should be aligned, building upon the lessons of the previous phase and the professional experiences of the teacher. Professional learning communities such as subject or discipline-based associations provide forums for mutual support, peer learning, coaching and mentoring.

Similarly, capacity development should be a continuous process, not just a single training session. Teachers need to update their knowledge and skills as the school curriculum and teaching methods and practices change. Teacher professional development must be meaningful and sustainable, and accompanied by organizational development in schools, training centres and universities. Capacity development has moved towards school-based training which has made school/classroom practice the site for professional development.

### *Focus of the activity*

This activity and related tasks are focused on approaches to capacity development for effective curriculum implementation. The suggested tasks are aimed at helping participants to discuss alternative strategies for capacity development that are suitable for particular contexts and situations.

### TASK 1 Plenary discussion

Consider the following questions as a guide for discussion:

- In your opinion, what are the most significant challenges for teachers with respect to the teaching and learning process, resulting from the changing views on curriculum and pedagogy?
- What role can teachers play in the process of curriculum change?
- In this new context, what are the characteristics of an effective teacher?
- What support do teachers need in order to fulfil the expectations that are placed upon them by the school, community, society, governments, etc.?

Work in pairs: Write a short story or letter from the point of view of a teacher in a curriculum reform context. The account should be personal and include any feelings arising from the change (fear, anger, inadequacy, happiness, relief). The narrative should end with the manifesto “If they want me to teach differently, they should ...” The document should not exceed one page.



#### PRODUCT A personal narrative



### TASK 2 Work in small groups

Read the presentation “Building a high-quality teaching profession: lessons from around the world (OECD)”. Select five slides that highlight the arguments in favour of teacher professional development, especially in the international arena.

Modify the slides to create a presentation for the Minister of Education and senior policy-makers. The presentation should include a cover page, at least three slides designed by the group and a thought-provoking title.



#### PRODUCT Presentation



### TASK 3 Individual reflection

1. Read the case study “Teacher training in Mexico. Continuity, reform and change” [El sistema de formación de maestros en México. Continuidad, reforma y cambio]. Consider the following questions as a basis for analysis:
  - What is the conceptual difference between actualization, capacity development and professional improvement?
  - How do these distinctions apply in your context?
  - What is the relevance of these definitions to curriculum change?
2. Read the document “Capacity-building and knowledge management”.
3. Read the document “Technologies for implementing open and distance learning with teachers”.
4. Examine each of the following strategies for capacity development: workshops, teaching circles and distance-learning activities. Identify the constraints and benefits of each of these approaches in your context. Add at least one more strategy to the list, pointing out its potential constraints and benefits.
5. Prepare a poster to present your ideas to the rest of the participants.
6. Present your poster to the other participants.





## **PRODUCT** Poster



### **TASK 4** Individual reflection

NOTE: While the following document refers specifically to ICT, the lessons may be adopted for any learning area of teacher professional development.

1. Read the documents “Approaches to capacity-building: developing capacity for continuing teacher development in renewing curriculum”, “ICT professional development for teacher educators, organisations, regions and countries” and the case study “Teachers' online discussion forums in Saudi Arabia”.
2. Three different participants prepare short presentations about the documents and case study for the group.

### **TASK 5** Work in small groups

Following the presentations, the rest of the group contributes to creating a list of conclusions under the heading: “Conditions necessary to use ICT-based approaches in your context”.

To guide the discussion, consider the following questions:

- What approaches to capacity development are identified as being effective practices?
- Twelve guiding principles and strategies for ICT-based capacity development are listed in the document. Which of them do you regard as being the four most important in your context and why?
- Follow-up training is considered important. What recommendations are made for maintaining contact?
- What potential does ICT have for contributing to capacity development in your context?
- What are the advantages and disadvantages of teacher web forums for capacity development?
- What is the role of teacher support networks or professional communities of practice in capacity development?
- If capacity development is to be successful in your context, what five characteristics should it have?

### **TASK 6** Work in small groups

Select a curriculum area with which you are familiar. Based on your own context, prepare a brief report about this subject that will be debated among your curriculum colleagues:

- How might the principles and characteristics outlined in Task 4 apply to the selected curriculum area in your own context?
- What approaches should be applied and which would be the most meaningful?



## **PRODUCT** Report on capacity-development opportunities in your curriculum area

## ACTIVITY 2



# Models for teacher professional development

To improve educational quality, it is not enough to strengthen the curriculum. Rather, improved curriculum and teacher development will effectively contribute to improving the quality of education. To achieve this, policies that advance long-term teacher professional development are needed. Identifying teachers as active subjects in their development has reoriented the focus of continuing training programmes towards implementing strategies that facilitate the construction of teachers' practical knowledge and skills through the systematization, documentation and exchange of their teaching experiences and best practices.

Several reasons underlying this change in emphasis have been advanced:

1. The teaching knowledge that is valuable for facing the complex, multidimensional, spontaneous and simultaneous nature of what occurs in the classroom is the fruit of social constructs that have roots in real schools.
2. Traditional capacity development strategies yielded poor results when measured by their ability to renew teaching strategies, cater to diversity among students, improve the quality of learning, facilitate the understanding and reprocessing of knowledge and popular culture, and promote democratic values in cultivating responsible citizenship and fostering inclusion within schools.
3. Institutional variables and cultures are considered enablers or obstacles to change in the deep-rooted practices of teachers.
4. The creation of new models for school organizational structures based on collaborative teams that can execute school-level projects. These projects are developed after reaching consensus on a series of useful pedagogical criteria for different learning areas and shared educational values.

The instrumental capacity-building model that paralleled curriculum reform over the last few decades based teacher professional development on the transmission of knowledge, and was frequently based on perspectives that asserted that teachers are unaware of content and pedagogy. Using a centrally-oriented capacity-building method, this model employed homogenous, short-term, mass training that did not include the follow-up or implementation support that could sustain the changes promoted. In the case of teachers, such trainings imply subject-matter and pedagogical updates about curriculum contents. In the case of administration and governance, the trainings would improve communication and conflict management among school principals and supervisors. This model is based on the use of a trainer, an external expert who transfers standard knowledge and practical recommendations to teachers.

The school-based professional development model emphasises the acquisition and validation of practical knowledge produced by teachers during their daily teaching activities. It is locally based and considers the specific situations that teachers manage, real teaching problems, everyday practices and the particular resources and practices of each school. The objective is to focus on the practical knowledge, experiences and needs of participant teachers and help them develop the knowledge needed to tackle problems identified in practice. This objective is complimented by providing the teachers access to expert knowledge accumulated from educational theory and research. This model uses the facilitator as a consultant or adviser, who collaborates with teachers on the identification and categorization of educational problems, as well as on the formulation of strategies to solve them.

The following table provides examples of methodologies for professional development, highlighting those which predominate in each model:

**Table 6.2. Professional development methodologies**

	Capacity-building that occurs outside of schools	School-centred teacher professional development
Traditional and clinical supervision		X
Students' performance assessment	X (generalized)	X (school level)
Workshops, courses, seminars, etc.	X (generalized)	(X) (staff subset)
Models based on case studies		X
Self-directed development	(X) (no follow-up)	X (with follow-up)
Cooperative or peer-promoted development		X
Observation of good practices		X
Project-based models	X (no follow-up)	X (with follow-up)
Portfolios		X
Action research	(X)	X
Use of teachers' personal narratives		X
Cascading	X	
Mentorship/coaching		X

Source: Villegas, E. R. (2003).

A range of strategies may be used for teachers' continuous professional development, varying from individual to small groups. However, in the case of general professional development initiatives, institutions are responsible for their administration using a variety of approaches:

- Summer schools or courses for professional development, organized by universities or teacher training institutes, with distance learning or face-to-face sessions;
- Associations are subject or discipline-based professional groups that create networks for the purposes of sharing information on best practices, knowledge about content and innovations in teaching methods;
- Other forms of inter-institutional cooperation where universities or teacher training institutes sign an agreement or Memorandum of Understanding to work together to support a variety of continuous professional development methods (e.g. action-oriented research, data collection, teaching practice, supervision, peer learning);
- Partnership agreements between institutions and NGOs, teacher trade unions, and private and public education partners; and
- Formal and informal school and teacher networks.

Some critical issues to consider when designing activities for teachers' continuous professional development:

- Simultaneous intervention in several dimensions of the education system, including the training coordination and policies and management and deployment of teachers: sufficient provision of equipment, materials, personnel, curriculum and organizational structures of institutions responsible for teachers, teachers' conditions of service, motivation, professional status, recognition and salaries that motivate teachers to remain in the profession.
- Continuous follow-up opportunities and avoiding the use of capacity development as another means of controlling the implementation of innovative teaching strategies or resources.
- Number of trainers or consultants that will undertake follow-up activities. School-based professional development demands a sizeable number of trainers for a given number of teachers. These human resources must be prepared beforehand by the relevant agencies, or teacher educators in universities must be hired, and the time and cost required for this effort must be considered.
- Materials with suggestions and sequential lesson plans are undoubtedly helpful support mechanisms, specifically in the case of teachers with low levels of formal professional training; however, the materials

should be accompanied by a thorough explanation of their rationale to allow teachers to produce their own materials in the future and to help them select the methods and resources that are most useful to their educational objectives and classes.

- Institutional conditions that encourage principals' support of continuing professional development activities, as well as the actual implementation of curriculum innovation in classrooms.

### *Focus of the activity*

This activity and suggested tasks should encourage participants to conceptualize teacher professional development and explore possible strategies, recognizing the various models practiced in different countries so they may advocate for the adoption of a particular type of model.



#### **TASK 1 Individual reflection**

1. Read the document "Creating environments for effective teaching and learning: First results of TALIS" (Part I). OECD's Teaching and Learning International Survey (TALIS) provides an international comparative perspective on the conditions of teaching and learning by analysing the experiences of lower secondary school teachers and principals in participating countries. Also read the document "The professional development of teachers" (Chapter 3).
2. Take personal notes on the concept of teacher professional development.

#### **TASK 2 Work in small groups**

1. In your own context, what does "teacher professional development" mean? Prepare a short paragraph that includes a personal definition (not to exceed five lines). A graph can be included that illustrates the relationship between different ideas.
2. With the ideas identified, create a list of the key features of teacher professional development. Design a flipchart page or poster with the ideas.



#### **PRODUCT Flip chart page or poster of ideas**



#### **TASK 3 Work in small groups**

1. Read the case study presented in the document "Strategic Framework for Teacher Education and Professional Development in Pakistan".
2. Consider the ways in which the issues and recommendations identified in the case study reflect the circumstances in your context.



#### **TASK 4 Individual reflection**

Read the document "Teacher professional development: an international review of literature" (Chapter 4). Use the following table to analyse the reading and highlight at least two models that are relevant for your context.

## TASK 5 Work in pairs

- Evaluate the pros and cons of each of the two models identified by you and your partner.
- Are the models mutually exclusive or can they be combined?
- Summarize the models identified and create a flipchart page or poster.

**Table 6.3. Models and other forms of teacher professional development**

Organizational partnership models	Small group or individual models
Professional development schools	Traditional and clinical supervision
University-school partnerships	Student performance assessments
Inter-institutional cooperation	Workshops, seminars, courses etc.
School networks	Case-based studies
Teacher networks	Self-directed development
Distance learning	Cooperative or collegial development
	Observation of excellent practice
	Teachers' assumption of new roles
	Skill development models
	Reflective models
	Project-based models
	Portfolios
	Action research
	Use of teacher narratives
	Generational or cascade models
	Coaching/Mentoring

Source: Villegas, E. R. (2003).



## PRODUCT

**Flip chart page with models of teacher professional development suitable for your context**

## TASK 6 Work in small groups

As a teacher training consultant, you have been invited to deliver a presentation entitled “Two features of successful teacher professional development initiatives”. Consider the following ideas as a starting point:

The most common factors that have an impact on the successful organization and implementation of teacher professional development activities are:

- *A range of sustained and intensive activities:* Professional development activities that are properly executed and sustained over a long period of time are most likely to promote curriculum reform initiatives;
- *Cost:* Sufficient funds should be made available from the national, district and school levels and invested in meaningful and quality professional development experiences. When funds provided at the national level are not sufficient, schools and districts should find alternate funding methods. Lack of sufficient funds to support activities will definitely affect the organization and implementation of professional development activities;
- *Teacher experience aligned with school curriculum:* Activities that are linked to teacher experience and aligned with school curriculum should encourage collective and active participation, which has

the effect of enhancing knowledge and skills and changes in classroom practice;

- *Process and delivery system:* For teachers and administrators to be seriously committed to curriculum reform, activities outlined should recognize local needs, challenges and solutions;
- *Leadership at the local level:* The continuous support of school leaders is critical in any curriculum reform programme. Further, the success of any reform programme rests largely upon the creativity, ingenuity and resourcefulness of school and district leaders;
- *Policies and teacher needs:* Policies and activities outlined should address teachers' needs and the changes required for their professional careers;
- *Good and long-range planning:* Long-range planning should be instituted and engage all major stakeholders;
- *Institutional structure for monitoring and evaluation:* This structure should be instituted to ensure accountability and progress;
- *Practice time and follow-up:* While a variety of well-defined opportunities for teachers to apply new knowledge and skills should be established, there should also be sufficient time allowed for continuous follow-up and support;
- *Level of teacher capacity:* Adequate staffing policies are critical for the successful implementation of professional development;
- *Career ladder:* A career structure in which successful skill demonstration leads to another level of promotion or incentive will motivate teachers to perform; and
- *Continuous parental support.*

Effective teacher professional development has a number of characteristics, which include the following:

- Ongoing support that extends throughout a teacher's entire career;
- Roots in the professional culture;
- Collective participation;
- School-based and collaborative nature;
- Adequate time for experiences, reflection and follow-up;
- Sufficient opportunity for interaction between learners and teachers, as well as among teachers;
- Acknowledgement of teachers as active, adult learners;
- Opportunities for teacher reflection on old and new experiences;
- Focus on the critical needs identified and intended curriculum goals;
- Constructivist learning approach;
- Execution ensures improved knowledge, experience, attitudes and skills;
- Greater attention to students' learning and thinking that is focused on improving teaching strategies, learner classroom practice, and facilitates learning;
- Conception within the context of national and school policies;
- Recognition of the importance of leadership at the school level and external groups or agencies;
- Integration of individual teacher professional development needs and beliefs;
- Recognition of the previous learning experiences of teachers; and
- Professional development that is a condition of service for all teachers.

1. Prioritize those factors that are responsible for the successful organization and implementation of teacher professional development activities in your context.
2. Create a short presentation of four slides and present your ideas. The presentation should consist of a cover page, two slides that explain your ideas, and concluding recommendations.



## PRODUCT Presentation



### TASK 7 Work in small groups

Read the case study “Web-based learning program to support professional development in China” and discuss the following with your group:

- How relevant or useful would this model be in your context?
  - Are there elements that are not relevant to your context?
  - Are there elements that should be incorporated into your context?
- To what extent does capacity development for teaching and learning in your context already offer this type of training?



### TASK 8 Work in small groups (the group selects one of the tasks described below)

1. *Teacher professional development and inclusive education:* Read the case studies “The Inclusive Practice Project (IPP) at the University of Aberdeen, School of Education” and “Teacher training for diversity: a hybrid system in the province of Santa Fe (Argentina)” [Formación docente para la diversidad: un sistema semipresencial de la provincia de Santa Fe (Argentina)]. Provide one example of an activity that could be used to develop the capacities of teachers to implement inclusive education in your context.
2. *Teacher professional development and education for sustainable development:* Read the document “Guidelines and recommendations for reorienting teacher education to address sustainability (UNESCO)” (Section 3, pp. 17–28), as an example of teacher professional development focused on a contemporary cross-cutting issue. Choose some of the initiatives mentioned that could be adapted to your context to build the capacities of teachers to implement education for sustainable development.
3. *Teacher professional development and HIV and AIDS education:* Read the case study “Teacher training and HIV and AIDS: comparative strategies in three African countries”. Conduct an Internet search to obtain additional information on the countries based on the national indicators and the structures of their teacher training systems. In the context of the ideas discussed about models for teacher professional development, propose ideas for an intergovernmental project delivering in-service training for teachers on HIV and AIDS awareness that might be feasible in the three countries.
4. *Teacher professional development and multigrade teaching:* Read the case study “Multi-Grade and Multi-Class Teaching Practices in Nepal” and the document “Multigrade teaching: comparative situation in some developing countries”. Conduct a small group discussion based on the following guiding question:
  - What criteria are useful in designing capacity-development activities for those teachers responsible for multigrade classes?
5. *Teacher professional development and Learning to Live Together:* Read the document “Programs for learning to live together: lessons learned regarding the teaching/learning process” and discuss the following:

- Why is the whole school approach recommended?
- What are some of the challenges of applying a whole school approach to capacity development for teachers, principals and supervisors?

### TASK 9 Plenary discussion

1. Identify situations that require unique strategies for the capacity development of teachers (e.g. children with disabilities, migrant populations, children who do not speak the majority language, children displaced by war).
2. Create a table, comparing the aforementioned situations, as well as the capacity development needs of mainstream teachers, principals, supervisors and parents; identify the particular needs of each case.



### PRODUCT Table of capacity-development needs of various target groups

## ACTIVITY 3 Other actors who require capacity development

Curriculum reform is generally understood as a complex process carried out by teams of professionals, with specific needs to be addressed by capacity development. The number of technical, pedagogical and political issues involved in a reform process requires the positioning of particular skill sets that must be developed or introduced whenever specific needs arise, within a continuous cycle of learning that produces effective professional curriculum specialists. These skills can all be learned, and there is a risk in prematurely starting the curriculum reform process without a prior capacity needs assessment to determine whether or not there are capacity gaps that need to be addressed before starting the curriculum reform process. It might be necessary to consider the time and resources needed to strengthen the competency levels of curriculum developers as a prerequisite for reform.

Many curriculum developers have been trained in only one curriculum area, mainly about specific content and teaching methodology, and they can be expected to be relatively aware of the current trends in their particular subject. However, the availability of documents, books and cases in several formats and languages is an extended opportunity to learn and analyse international trends and existing research in the field. Generally, capitalizing on this benefit implies providing curriculum specialists the opportunities to use ICT, access to translation services or occasions to improve non-native language abilities. The development of clear, creative written and oral communication skills must also be carefully considered if curriculum products are to be well understood by all stakeholders.

A curriculum task force may benefit from the inclusion of a range of professionals besides curriculum developers as processes of curriculum design, piloting, assessment and implementation usually require planning and negotiation skills; it is generally difficult to hire curriculum developers with advanced competencies in these areas. Still, too much reliance on external consultants may impair the capacity development process among existing professional teams. Thus, it is advisable to identify consulting opportunities that include capacity development activities for the curriculum developers who form the core team.

Policy-makers also need special training for designing and leading the curriculum reform process. Specifically, advocacy is a necessary skill because curriculum processes must be rooted in a common understanding. Policy-makers must also be skilled in the decision-making process, able to set clear goals and know how to conduct a political evaluation of products and processes before their implementation.

The implementation of curriculum reform also requires individuals with practical skills who can organize meetings, focus groups, discussions and debates. The process of curriculum implementation and piloting also includes the development of mentoring skills to provide technical support to schools and teachers.



## Focus of the activity

This activity should help participants gain a clear understanding of the capacity gaps that exist between teacher preparation and their professional roles and expectations, and explore possible ways of making pre-service teacher education (preparation) more closely aligned with career development. Through the suggested tasks, participants examine capacity-development needs and the activities of curriculum and education professionals at the technical level to ensure a solid reform process.



### TASK 1 Work in small groups

The facilitator distributes the worksheet, “The education system – system cards” to the group. Then, the group is asked to revise the cards, identifying the public administration professionals involved in a process of reform. The facilitator conducts a brainstorming session to generate a list of expert knowledge and skills each professional will need to participate in a curriculum reform process.



### TASK 2 Individual reflection

1. Read the case study “Kuwait: a brief history of educational reform”.
2. Identify the professionals explicitly or implicitly referred to in the case study, and the capacity-development needs related to the deficiencies identified in the case.

### TASK 3 Work in small groups

Half the group will play the role of Advisory Committee members while the other half of the group will act as representatives of the Ministry of Education of Kuwait. Based on the areas for improvement presented in the case, the advisers will propose a list of the ten most beneficial capacity-development activities at the ministry level, including who should participate and the skills that should be developed during the preparatory year. Ministry representatives will discuss the activities selected with the Advisory Committee and will determine the five most critical for developing the curriculum reform process.



### PRODUCT List of activities

## ACTIVITY 4



## Pre-service and in-service opportunities for capacity development

Teachers are critical actors for change in education. Their involvement depends on three factors, including their:

- Training;
- Working and living conditions; and
- Recognition in society.

Even when the last two factors are beyond the scope of curriculum decisions, they must still be considered whenever a capacity development programme is designed.

Teacher training is limited if it merely consists of repeating information, mastering uniform teaching techniques and working in one language. For professional reforms to serve as a catalyst for improving educational quality

and relevance there must also be informed and systematic processes for self-actualization, in which all teachers are agents of educational innovation.

To facilitate this process, teachers must be supported in their practice so that they can apply training to their particular context and within a dialogue of broader principles, knowledge and topics so that they balance local culture and universal knowledge. Teacher training should also have a focus on new and diverse challenges, such as an inclusive perspective on education and the constant changes of technology-supported teaching practices.

### *Focus of the activity*

This activity and suggested tasks should help participants gain a thorough understanding of the gaps that exist between teacher preparation and their professional roles and expectations, and explore possible ways of making pre-service teacher education (preparation) more closely aligned with personal career development.



### **TASK 1 Individual reflection**

Read one of the country case studies presented in the document “Teacher education guidelines: using open and distance learning”. Determine which approach to teacher training is used, referring to the following list:

The following range of approaches to teacher training and continuous professional development have been introduced by various authors and researchers:

- Professional development school: This model emphasizes practical teaching under the supervision of a mentor. As part of the pre-service teacher preparation, more time is spent in the classroom in a formal professional setting. It involves an organizational structure of collaboration among teachers, administrators and members of those universities/colleges involved in teacher training.
- Teacher professionalism: This model focuses on providing teacher trainees with subject knowledge, professional know-how, teaching skills and concepts about learner psychology.
- Personal growth: This model emphasizes the fact that future teachers can be more effective and better teachers if they have a greater understanding of themselves (self-understanding). Thus, this model stresses the development of qualities that make teachers more reflective and sensitive.
- Socialization into professional culture: This model stresses the influence of school culture and policies on the beliefs, ideas, practices and values of the future teacher. Consequently, this model emphasizes the socialization processes in professional growth and reinforces the collaborative nature of teacher preparation. It acknowledges the common goal of supporting teacher trainees in the classroom, school and profession.
- Technical knowledge and skills: To support the teaching and learning processes, teacher trainees need to acquire knowledge and skills in a variety of domains, including teaching methods, subject matter knowledge, classroom management, educational technology, curriculum implementation, child learning processes and strategies for effective learning among others.
- Teaching as a moral endeavour: Under this model, teachers are regarded as leaders in the classroom and school community. Accordingly, they are expected to contribute to the moral philosophy of the learning environment. Therefore, the teacher trainee is charged with establishing a close relationship with students to enable them to develop high moral reasoning ability. This model emphasizes school teaching and leadership based on professional moral control.

Please keep in mind that irrespective of the model adopted, the content of pre-service teacher education programmes usually includes courses on the foundation of education, child development and professional studies.

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## TASK 2 Individual assignment

1. Which of the models identified apply to your situation and to what extent have they been used to promote effective teacher preparation?
2. Suggest reasons for using the particular pre-service model identified in your own context.
3. Choose an alternative model that is quite different from the one used in your context. What are the political, economic, curricular and practical implications for implementing that alternative model in your own situation?
4. Produce a brief report summarizing your conclusions.



## PRODUCT Report of conclusions

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## TASK 3 Work in small groups

Examine your own pre-service teacher preparation and reflect on the general challenges associated with pre-service teacher education. Indicate the extent to which these challenges have supported effective teacher professional development.

Consider the ideas in the following passage:

The level of teachers' knowledge largely affects the extent to which school curriculum can be successfully implemented and ultimately, the achievement of intended goals. Teachers can update and upgrade their knowledge and skills to better implement reforms in education through one or a combination of the following:

- *Teacher unions/associations:* They are a good source of knowledge for teachers since they provide information on curriculum-related issues, as well as professional and personal development. Through workshops and dialogue about student learning and teaching practices, teachers are able to update their content, pedagogical and professional knowledge.
- *Distance education/open learning/alternatives to conventional learning/flexible learning/adult education:* There are different terms used to describe distance education, although they generally portray the same concept of distance between the learner and teacher/tutor. Distance education programmes are now being implemented with a component of traditional face-to-face interaction, making it difficult to differentiate between the two forms of teacher training. With the emergence of two-way communication technologies (especially in developed countries), teachers and learners are connected as if they were in the same location. Teachers can use this approach to update their knowledge, skills and qualifications.
- *Traditional face-to-face education:* This approach has been used by a number of institutions to convey knowledge and enable teachers to share ideas and skills. Currently, a number of institutions have integrated a technological dimension to this approach.
- *One-way and two-way communication technologies:*
  - Print
  - Radio

- Interactive video
- Audio and video tapes
- Television
- Teleconferencing
- Computers and online communication
- *Conferences*
- *Workshops/seminars*
- *Teachers' practical experience:*
  - Demonstration lessons
  - Experience sharing
  - Coaching
  - Online discussions
  - Consultations
  - Writing and reviewing articles in professional journals
  - Action research
  - Team work on a task
  - Directly teaching peers
  - Study circles
  - School-based In-Service Education and Training (INSET) activities
- *Short courses*
- *Follow-up seminars*
- *Informal groups/casual group meetings*
- *Projects*
- *Group brainstorming*
- *Exchange programmes*

Based on the readings and your own personal experiences:

1. Identify possible strategies that could be introduced in your current pre-service training to help peers acquire knowledge and build the capacities to support school curriculum implementation, as well as professional practice.
2. Outline some initiatives that should be adopted during in-service teacher education so that it is better aligned with pre-service teacher education.



#### **TASK 4 Work in small groups**

Explore the competency models proposed by:

- Perrenoud in the document “Ten new competencies to teach: start the journey” [Dix nouvelles compétences pour enseigner : invitation au voyage].
- Marcelo in the document “Teachers learning for a learning society – literature review”.

Design a poster that illustrates a simple model of these teaching competencies.



#### **PRODUCT Poster**



#### **TASK 5 Individual assignment**

Choose two of the four case studies below:

- “University classroom action-research. Systematic observation as training to improve pedagogy” [La investigación-acción en el aula universitaria. La observación sistemática como herramienta para mejorar nuestra práctica pedagógica].
- “Participation of teacher trainees in an ICT-based, school support experience in Uruguay” [Participación de estudiantes de formación docente en una experiencia basada en TIC para el apoyo escolar en Uruguay].
- “Curriculum for pre-service teacher training in bilingual and intercultural education in Guatemala” [El currículo de formación inicial docente bilingüe intercultural en Guatemala].
- “In-service teacher training in multicultural and bilingual contexts in Peru” [Formación en servicio de profesores en contextos interculturales y bilingües en Perú].

For the selected cases, take personal notes regarding:

1. The type of teaching competencies that are being developed.
2. Key aspects that could be implemented in current pre-service teacher training programmes in your context.



### PERSONAL LEARNING NOTE TO BE INCLUDED IN THE PORTFOLIO:

**What did I learn? What concepts did I find useful?**



## List of resources for MODULE 6 Capacity development for curriculum implementation

### *Documents*

- Building a high-quality teaching profession: lessons from around the world (OECD).
- Capacity-building and knowledge management.
- Technologies for implementing open and distance learning with teachers.
- Approaches to capacity-building: developing capacity for continuing teacher development in renewing curriculum.
- ICT professional development for teacher educators, organisations, regions and countries.
- Creating environments for effective teaching and learning: First results of TALIS (Part 1).
- The professional development of teachers (Chapter 3).
- Teacher professional development: an international review of literature (Chapter 4).
- Guidelines and recommendations for reorienting teacher education to address sustainability (UNESCO) (Section 3, pp. 17–28).
- Multigrade teaching: comparative situation in some developing countries.
- Programs for learning to live together: lessons learned regarding the teaching/learning process.
- Teacher education guidelines: using open and distance learning.
- Ten new competencies to teach: start the journey [Dix nouvelles compétences pour enseigner : invitation au voyage].
- Teachers learning for a learning society – literature review.

### *Case studies*

- Teacher training in Mexico. Continuity, reform and change [El sistema de formación de maestros en México. Continuidad, reforma y cambio].
- Teachers' online discussion forums in Saudi Arabia.
- Strategic Framework for Teacher Education and Professional Development in Pakistan.
- Web-based learning program to support professional development in China.
- The Inclusive Practice Project (IPP) at the University of Aberdeen, School of Education.
- Teacher training for diversity: a hybrid system in the province of Santa Fe (Argentina) [Formación docente para la diversidad: un sistema semipresencial de la provincia de Santa Fe (Argentina)].
- Teacher training and HIV and AIDS: comparative strategies in three African countries.
- Multi-Grade and Multi-Class Teaching Practices in Nepal.
- Kuwait: a brief history of educational reform.

- University classroom action-research. Systematic observation as training to improve pedagogy [La investigación-acción en el aula universitaria. La observación sistemática como herramienta para mejorar nuestra práctica pedagógica].
- Participation of teacher trainees in an ICT-based, school support experience in Uruguay [Participación de estudiantes de formación docente en una experiencia basada en TIC para el apoyo escolar en Uruguay].
- Curriculum for pre-service teacher training in bilingual and intercultural education in Guatemala [El currículo de formación inicial docente bilingüe intercultural en Guatemala].
- In-service teacher training in multicultural and bilingual contexts in Peru [Formación en servicio de profesores en contextos interculturales y bilingües en Perú].

## Worksheets

- The education system – system cards.

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MODULE 6

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MODULE

# 7



## Processes of curriculum implementation



# MODULE 7

## Processes of curriculum implementation

This module explores the processes of curriculum implementation within a pilot-model, and subsequently within the whole system. Piloting models will be discussed, as well as the issues and challenges involved in transitioning from a pilot initiative to broader, more mainstream implementation.

The activities in this module offer opportunities for curriculum developers to strengthen their understanding of the approaches to sequential curriculum implementation:

1. Models for piloting: Discusses several possible models that could be selected for designing and conducting a pilot.
2. Pilot design: Pinpoints those variables that should be considered during piloting.
3. From pilot to policy: Mainstreaming innovation – Helps participants to identify potential obstacles in transferring pilot experiences to the wider education system.

Following these activities is a list of resources that contains documents and case studies to which references are made in the activities, as well as complementary reading material.

### *Considerations regarding processes of curriculum implementation*

The implementation of curriculum change is often preceded by an experimental stage where new curriculum is tested in a controlled environment to assess its likelihood of success in the mainstream system and to identify its strengths and weaknesses.

On some occasions, authorities want to speed up curriculum change processes by implementing sweeping reforms. However, many risks accompany such action because initial challenges and misunderstandings may trigger negative reactions among various stakeholders, primarily teachers, as well as the community through the mass media. When curriculum changes are introduced without the benefit of a pilot, the legitimacy of the reform may be challenged, resistance may increase and the final implementation may be jeopardized.

Since policy-makers would prefer to invest adequate time in achieving small-scale results with low political visibility, an effective pilot that offers a working curriculum and implementation model is attractive. Policy-makers can then promote its prudent expansion to the rest of the system, relying on the support of a range of actors who have tested the advantages of the new proposals.

As an important tool in curriculum development, a pilot can provide significant benefits at a number of levels by:

- Helping curriculum developers to determine the feasibility of a proposed curriculum change;
- Producing empirical evidence of curriculum viability;
- Highlighting curriculum relevance in a variety of selected contexts;
- Developing new curricula in real scenarios;
- Encouraging experimentation and creativity;
- Promoting or influencing processes of policy change;
- Identifying possible impediments to change;
- Building consensus around proposed policy change; and
- Developing models or the capacity for implementation.



and to test its practicality and utility in a “real world” setting. In this sense, piloting is a dimension of curriculum evaluation.

Lewy<sup>1</sup> has identified three phases of curriculum testing or “tryout”. Each phase successively adopts more formal evaluation methods in order to provide more reliable findings:

1. *Laboratory tryout*: The first phase begins as formative evaluation, very early in the curriculum development process in what is sometimes described as a “laboratory tryout”. Here, elements of the curriculum may be tested with individuals or small groups. Learners’ responses are observed and modifications to the curriculum materials may be suggested.
2. *Pilot tryout*: A “pilot tryout” may begin in a school setting as soon as a complete, albeit, preliminary version of a course is available. Curriculum development team members may assume the role of the teacher. The purpose of this phase is to identify whether it is possible to implement the curriculum, whether changes are needed, and what conditions are required to ensure success.
3. *Field tryout*: When a revised version is completed based on the findings of the pilot tryout, “field tryouts” may be conducted by teachers in their classrooms without the direct involvement of the development team. This exercise attempts to establish whether the programme may be used without the ongoing support of the team. It may also demonstrate the merits of the programme to potential users.

Not all of these phases will be formally used in every pilot or evaluation. For example, the third phase, the “field tryout”, is commonly used independently and may be also known as “microtesting”.

When a pilot is undertaken as a collaborative, bottom-up process, and as a strategy for promoting curriculum innovation, it can offer important potential benefits across several dimensions.

Ideally, the collaborative model of a pilot should include the participation of students, teachers, school principals, curriculum developers, subject-matter experts and government officials at the local and national levels. Each group offers a unique perspective to the curriculum change process. Teachers contribute with first-hand knowledge about subjects and teaching, based on their everyday interaction with the students and can effectively address the pressures that exist within the school context. Principals and other levels of school management have special interests in planning, staffing and budgeting issues. Curriculum developers contribute with technical knowledge and a vision about what current educational research implies for devising new curriculum goals. Policymakers tend to focus on the expected political outcomes, financing issues, and management of tensions arising from curriculum change and implementation. Each of these groups of stakeholders needs to learn to work in a new way in conjunction with other groups, and each of the members will need support from other group members at different phases of a pilot.

The collaborative model is often associated with a democratic style of decision-making, and it is particularly well-suited to deal with controversial or sensitive topics and issues in curriculum or post-conflict situations. It requires very skilled leadership to maintain focus and achieve agreements through consensus-based decision making. This approach affords better opportunities to achieve a coherent and sustainable process of curriculum change that can effectively impact all levels of the educational system.

### *Piloting and innovation*

In many contexts, there is a tendency for curriculum or subject developers to design curricula, which is then given as a product to the teachers who will “deliver” them to students. In these instances, teachers may feel “de-professionalized” and disempowered as they become little more than curriculum delivery technicians. This trend is best demonstrated in situations that aim for the development of “teacher-proof” resources.

On the other hand, piloting may be used as a tool for promoting innovation and curriculum change by directly

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1 Lewy, A. 1990. Curriculum tryout. *The International Encyclopedia of Educational Evaluation*. H. J. Walberg and G. H. Haertel (eds), Oxford, United Kingdom, Pergamon Press, pp. 203–05.





monitoring and evaluation of the implementation of education system reform”. Consider the following questions:

- Why was each model of piloting adopted?
- What were the main elements of the pilot methodology?
- How and why is it useful to have a small-scale operating model of curriculum implementation as part of the change process?
- What strengths and weaknesses can you identify using this approach?

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#### **TASK 4** Work in small groups

1. Working in pairs or small groups, use the following questions as a basis for discussion:
  - What role does/should piloting play in your context?
  - What models of piloting are used/are not used/could be used in your situation?
  - What approaches could add value to the process of curriculum change in your context?
  - What challenges may emerge if these methods were used?
  - What planning or implementation steps need to be taken to make the best use of piloting in your situation?
2. Each group should prepare a report on a flip chart sheet based on the previous discussion, identifying ideas and possible action items. The report can be presented using a bullet-point format.



#### **PRODUCT**

#### **List of key issues to be considered when selecting a pilot strategy**

### **ACTIVITY 2**



## **Designing a pilot**

When planning a pilot, it is important to be clear about its goals and the information that is required at the end of the process. The aim of the pilot will inevitably have a major impact on the manner in which you plan for the pilot.

Some of the factors that should be considered in the design of a pilot study:

1. The types of schools and teachers that will participate;
2. The type of participation that is expected of the participants; and
3. The evaluation approaches to be used.

#### ***Selection/Recruitment of pilot schools and teachers***

For practical reasons, only a small group of schools will likely participate in a pilot. The size of the pilot group will be dictated by contextual, financial and political factors, as well as the need to adopt a strong methodology. For example, the Northern Ireland Social, Civic and Political Education Project operated in only twenty-five schools. However, within such a small education system, this constituted a sample of almost ten per cent of its secondary schools. As such, the sample was small enough to be manageable, but sufficiently large to constitute a representative sample.

For political reasons, it is important that participating schools are representative of the entire system, including public and private, religious and secular, and urban and rural institutions. Unless the group is representative of

all relevant constituents, the potential for, or perception of bias greatly increases. It may also be important that representation is proportional to the size of the groups in relation to the greater society.

Within an education system, certain individuals, organizations or schools are often enthusiastic about innovation, while others are more likely to resist change. To ensure that the potential challenges of implementing a particular curriculum change are identified in advance, it is important to include those with both conservative and progressive approaches to reform in the pilot.

This begs the question of how participating schools and teachers are to be recruited. In some cases, where there is strong official support, it may be possible to simply choose or nominate participants. In other cases, it may be necessary to rely on volunteers to form the pilot group. This will have both advantages and disadvantages. Frequently, volunteers will be perceived as having been predisposed to the successful outcome of the pilot, leading to an inaccurate assessment of the viability of a curriculum. This may or may not be true in reality. Volunteers may participate for many reasons, some of which may not be related to curriculum issues. A willing principal may enlist less willing teachers, or indeed, the opposite may be true. Regardless of the perception, when curriculum design is the main objective of a pilot, there will be some advantage to having willing and committed participants. Where a more rigorous evaluative approach is required, a more scientific approach to participant selection will be necessary.

#### *Modalities of stakeholder involvement*

There are a number of ways to involve stakeholders when consensus-building is a priority. It may be desirable to involve high-level local or national officials. However, unless there is official support, it may not be easy to secure direct involvement at this level. Still, if this is not the case, it may prove beneficial to keep a number of influential officials informed of developments in the pilot through mail, email or personal contact. Officials' willingness to be involved can be fostered by inviting a representative group to join an advisory board which meets regularly for the mutual exchange of information and views. Such a group may include academics and representatives from NGOs, political parties, religious groups, parent groups, teachers unions and schools, among others.

When a pilot focuses on curriculum development and gathers participants on a regular basis, it may be possible to invite a range of stakeholders to address the pilot group or to attend meetings. It is particularly useful if those who are likely to be involved in making policy decisions about the pilot or involved in future developments can participate in this way. This manner of involvement not only facilitates information sharing and feedback, but also allows for the development of multi-level partnerships that include teachers, policy-makers, curriculum developers and researchers.

Under some circumstances, it may be useful to maintain a wider audience that stays informed of developments through public events, briefings, print and broadcast media, academic journals and personal contact. At the pilot-school level, it is usually appropriate if there are regular and direct communications with teachers and school management teams. It is useful to have a dedicated contact person at each of those levels. Beyond this, the impact of a pilot on school life may be enhanced by keeping the entire staff, parents and students informed and involving them in the process.

Initially, in collaborative pilots, the most important stakeholders are often the teachers. There are a range of approaches to participation when teachers are directly involved in curriculum development processes. At one end of the spectrum, little distinction is made between the role of the teacher and the curriculum developer who collaborates by sharing insight and contributes equally to the process. At the other end of the spectrum, teachers are only involved in the process to ensure that they understand what is required of them in the delivery of "teacher-proof" curricula. While teacher involvement is desirable and increasingly common, there are limits that can be difficult or impossible to overcome.

While most teachers have some training or experience in curriculum development at some level, many do not have the necessary training to work without the support of curriculum developers. In many contexts around the world, teachers are under significant pressure. Their time is limited and the demands of teaching the prescribed curriculum make it difficult for them to find time to assume additional responsibilities. Usually,

teachers encounter administrative obstacles that hinder the implementation of other activities in curriculum development. In some contexts, a risk has emerged where those teachers who are most likely to volunteer for pilot projects are those who are highly-skilled; as a result of their involvement in the pilot, they are often promoted, jeopardizing their project's continuity.

Teachers who participate in innovative pilots may experience significant personal and professional development. Often, they will also develop a profound understanding of the proposed change and a strong sense of ownership and commitment. This may raise issues related to bias and the evaluation of innovative pilots but has significant implementation benefits.

Students constitute another stakeholder group who are often neglected in curriculum change processes. They may be encouraged to contribute more explicitly in both formal and informal ways. Their insight may be requested on the basis of their experience with the curriculum, as well as their perceived value of the proposed curriculum change.

### *Evaluation and research*

Evaluation will be discussed in greater detail in Module 8; however, there are a few issues relating to evaluation and research which are raised separately here.

In a number of cases cited in this module, the role of evaluations has been very significant. In general, evaluations are conducted by internal or external evaluators. Internal evaluations are typically formative, identifying strengths and weaknesses in current approaches in order to improve future implementation. External evaluations are typically summative, determining the effectiveness of a pilot, and often conducted for the benefit of policy-makers or donors.

Generally, the main evaluation approaches include questionnaires, focus groups and semi-structured interviews. These instruments are likely to be used by a range of stakeholders, including policy-makers, officials at various levels, school principals, teachers, students, and depending on the focus of the pilot, teacher unions, and parents, among others. In designing the evaluation process and instruments, it is best to take a broad educational and social perspective in order to account for equity issues that may emerge during the pilot such as bias related to gender, ethnicity, or religion, etc.

It is also important to consider the type of evaluation that is appropriate in a given context and also how to design an evaluation so that it is used effectively. The credibility of the evaluation is of central importance and is often related to the level of confidence that stakeholders have in the evaluator. In some instances, an atmosphere of mistrust, blame or fear may develop between the evaluator and the project team. Such a loss of confidence may jeopardize relationships, but also the outcome of the pilot. Regular meetings between evaluators and pilot teams are essential and may help to prevent such a situation. It should always be remembered that the purpose of a pilot is to identify challenges, especially if the underlying intention is to test innovation. Therefore, problems are to be expected and should not cause alarm. Indeed, some of the most profound learning can emerge from setbacks experienced during the process.

Evaluation findings should be written with the needs of the target audience in mind. The ability to interpret findings can have a significant impact on their use. Written reports are common; however, for policy impact and accurate dissemination of findings, oral reports are also of great value.

### *Focus of the activity*

This activity and suggested tasks should help participants to explore the decisions to be made when designing a pilot.



### TASK 1 Individual reflection

Read the case study “New schools in Qatar” and consider the following questions:

- Three phases of piloting were identified in this case. What were the main activities conducted in each of these phases?
- What were the main elements of planning for the pilot?
- What was the size of the pilot sample?
- How was the evidence generated by the pilot analysed?
- What actions were taken as a result of the pilot? What recommendations were made and what publications were produced?



### TASK 2 Work in small groups

Analyse the case study “Wales – The Learning Country: Foundation Phase 3-7 Action Plan” and the document “Curriculum plan for the independent school district of Eustace”. Identify the actions undertaken in the pilot stage and the corresponding timeline in light of the overall action plan.

### TASK 3 Work in small groups

The group meets as a planning committee in charge of delivering a pilot proposal to the Ministry Curriculum Authority. One group member should record notes on the main topics of the discussion. Another member should moderate to keep the discussion on track and focused and to identify points of agreement and disagreement.

- Consider the following questions in the group. For a pilot designed to promote a particular innovation in your context:
- What size should the pilot group be?
- Who should be included in the pilot group to ensure that it constitutes a representative sample?
- What other stakeholders should be involved in the pilot and how should they be involved?
- Which core activities should the pilot undertake?
- What arrangements should be made for the pilot’s evaluation?
- In your context, what are the equity issues that need to be addressed as part of the evaluation (e.g. bias related to gender, ethnicity or religion, etc.)?
- What outputs or evidence should result from the pilot activities?
- What action do you anticipate arising from the pilot?
- Considering your education system’s situation and the likely financial implications of the pilot, are these expectations realistic?

### TASK 4 Plenary discussion

1. Use the spokesperson’s notes to develop a draft pilot suitable for the curriculum change processes in your context.
2. Present your design to the larger group and compare it with other models produced. Improve your group’s draft pilot by integrating the various solutions offered to combat potential challenges.



### PRODUCT Draft pilot plan for curriculum change

## ACTIVITY 3



### Mainstreaming innovation

Curriculum implementation refers to the process of applying a new curriculum across many or all schools. Implementation may imply changes for the manner in which teachers understand their role and practice. Curriculum implementation may demand rigid observation of specific changes identified by the developer, or there may be room for local adaptation of the curriculum. Some implementation models allow for, or even promote, a diversity of practices where individual districts, schools or teachers are encouraged to adapt the new curriculum to the specific needs of their own students.

The success of curriculum implementation generally depends upon:

- The nature of the proposed change;
- The clarity with which the change is articulated;
- The willingness and capacity of an education system and the individuals within it to adopt the change; and
- The degree and quality of support provided through trainings, textbooks and other teaching and learning materials, as well as funding and other resources.

Community and media awareness and support can also have a significant impact on curriculum implementation. In many contexts, testing has also become increasingly important. In such environments, student assessment proposals under the new curriculum may also be influential; if the curriculum is not formally tested, it may not be well received.

Transitioning from pilot to mainstream implementation is notoriously difficult for a variety of reasons. First, it is possible that the ideal amount of training is impractical on a larger scale. Further, the commitment of the original volunteers may far exceed what is possible for all teachers and schools. Their willingness will likely be replaced by reluctance from recruits who did not participate in the initial development process.

Innovative pilots offer significant professional development opportunities. Greater ownership and commitment is likely to emerge within the pilot group and among involved stakeholders. These characteristics present both opportunities and challenges for curriculum implementation. Ideally, pilot teachers will be well-trained and engaged in the rationale, content and methods of the proposed curriculum change. This best positions them to fulfil a number of roles during the implementation phase, including that of an in-service or pre-service trainer or curriculum support official. However, if this is part of an implementation strategy, in the absence of highly-skilled professionals, it should be noted that the involved schools may require additional support.

#### *Focus of the activity*

This activity aims to identify potential challenges and solutions one may encounter when implementing a full-scale system innovation that has already been piloted or has been designed as an overall system policy without previous piloting.



#### **TASK 1 Plenary discussion**

1. Select one of the following two case studies:
  - “Turkey: management of curriculum change and implementation”
  - “An account of curriculum process in Ethiopia”
2. Analyse the following list within your group and identify those paragraphs, indicating implicitly or explicitly:
  - Processes
  - Products





## **PRODUCT** Draft implementation plan

### **TASK 5** Plenary discussion

Share your plan with the larger group. The group will assume the role of a policy committee, identifying the strengths and weaknesses in each plan presented. If possible, determine the common elements of a desirable and practical implementation strategy.



#### **PERSONAL LEARNING NOTE TO BE INCLUDED IN THE PORTFOLIO:**

**What did I learn? What concepts did I find useful?**



## List of resources for MODULE 7

### Processes of curriculum implementation

#### Documents

- Lessons learned regarding the process of innovation.
- Curriculum plan for the independent school district of Eustace.
- Curriculum implementation – limiting and facilitating factors.

#### Case studies

- Reaction of teachers to curriculum implementation in Portugal.
- Research and development of school programs (R&D) in Japan.
- Georgia: starting curriculum implementation (first lessons learned).
- Citizenship education in Northern Ireland: piloting innovation.
- Algeria: monitoring and evaluation of the implementation of education system reform.
- New schools in Qatar.
- Wales – The Learning Country: Foundation Phase 3-7 Action Plan.
- Turkey: management of curriculum change and implementation.
- An account of curriculum process in Ethiopia.
- Curriculum implementation in Hungary.
- Development and implementation of a new elementary Art curriculum in I.R. Iran.
- Promoting social integration in Trinidad and Tobago's primary schools, 1972–2000: the role of teachers in curriculum implementation.

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NOTES

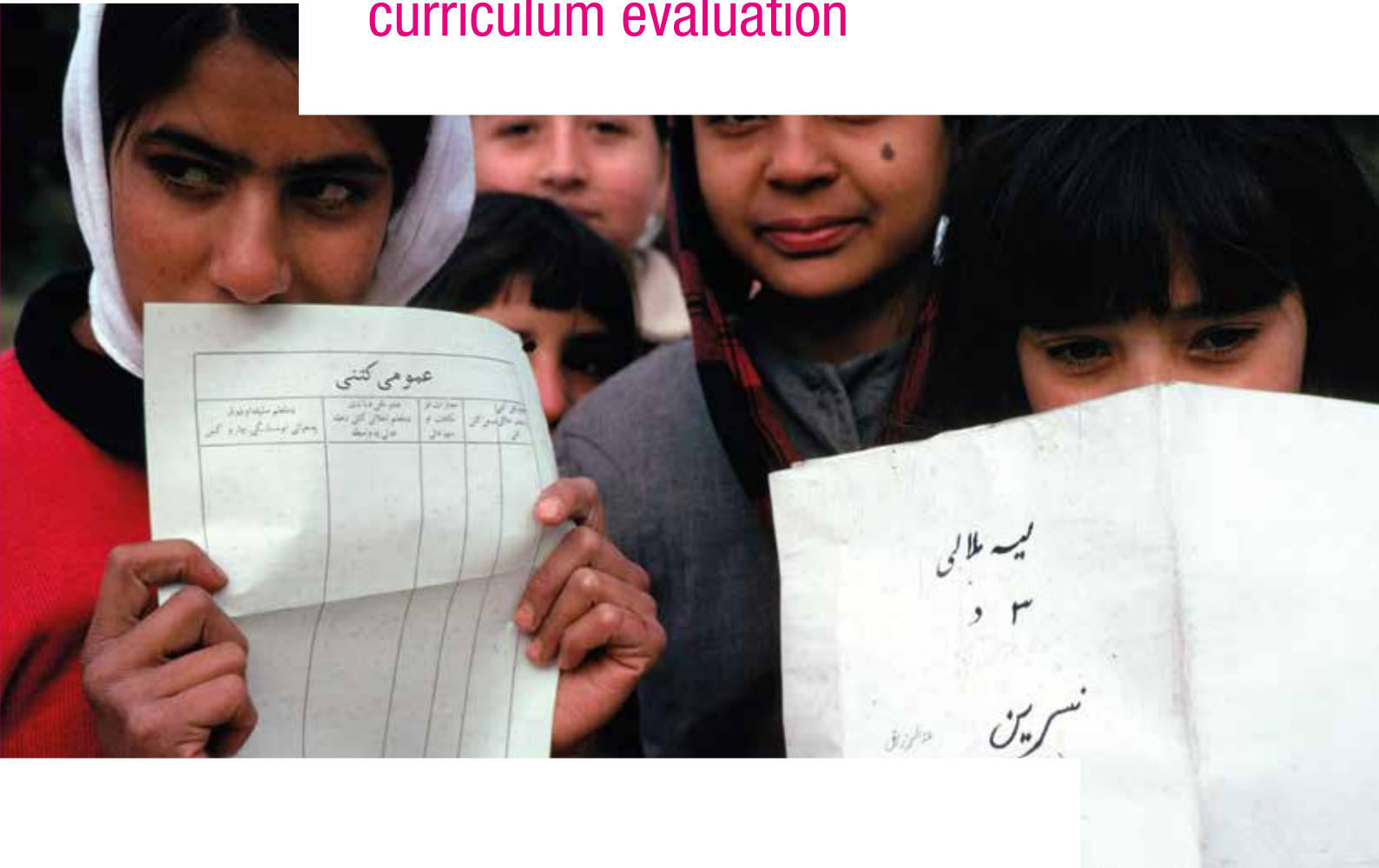
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MODULE

# 8

## Student assessment and curriculum evaluation



# MODULE 8

## Student assessment and curriculum evaluation

This module explores international and regional trends in curriculum evaluation and the assessment of student learning. It also explores different methods of curriculum evaluation and student assessment and some approaches to restructuring evaluation and assessment systems.

The activities in this module offer opportunities for curriculum developers to strengthen their understanding of policies related to curriculum evaluation and student assessment:

1. Student assessment: Assessment criteria that is typically found in curriculum materials.
2. Assessment of learning outcomes in specific content areas: Strategies and methods of assessing learning outcomes are analysed in light of newly- added content areas in the curriculum.
3. Curriculum evaluation at the national level is benchmarked against an analytical scheme in order to plan curricula evaluation.
4. Curriculum evaluation at the school level is used to scrutinize aspects of curriculum implementation in real teaching practices.

Following these activities is a list of resources that contains documents and case studies to which references are made in the activities, as well as complementary reading material.

### *Considerations in student assessment and curriculum evaluation*

Curriculum evaluation is a necessary and important aspect of any national education system. It provides the basis for curriculum policy decisions and feedback on continuous curriculum adjustments and processes of curriculum implementation.

The fundamental goals of curriculum evaluation are to:

- Ensure effectiveness and efficiency when translating government policies into educational practices;
- Promote the status of curriculum contents and practices in global, national and local contexts; and
- Strive for the achievement of goals and aims of educational programmes.

The quality of student learning is a fundamental measure of the success of any curriculum. Knowing the extent to which students have achieved the outcomes specified in the curriculum is fundamental to improving teaching and evaluating curriculum. Therefore, student assessment is an important aspect of curriculum evaluation that facilitates an understanding of the impact and outcome of education programmes, and the adequacy of curriculum in addressing what learning is feasible within specific time allocations.

### *Curriculum evaluation*

The term “evaluation” generally applies to the process of making a value judgment. In education, the term “evaluation” is used to refer to operations associated with curricula, programmes, interventions, methods of teaching and organizational factors, as well as to the learning outcomes of students and the performance of teachers. Curriculum evaluation aims to examine the impact of implemented curriculum on achievements within student learning so that the official curriculum can be revised as necessary. It also entails reviewing teaching and learning processes in the classroom. Curriculum evaluation establishes:

- Specific strengths and weaknesses of curriculum and its implementation; and
- Inputs needed for improved learning and teaching.

Curriculum evaluation may be an internal activity. The process may be conducted by various divisions within an education system for their own purposes. These units may include national ministries of education, regional education authorities, institutional supervision and reporting systems, departments of education, schools and communities.

Curriculum evaluation may also be external or occur through commissioned review processes. These may be undertaken regularly by special committees or task forces on curriculum or may be research-based studies on the state and effectiveness of various aspects of the curriculum and its implementation. For example, these processes might examine the effectiveness of curriculum content, existing pedagogies and instructional approaches, teacher training and textbooks and instructional materials.

### *Student assessment*

The ultimate goal of curriculum evaluation is to ensure that curriculum is effective in promoting improved quality of student learning. Therefore, student assessment implies the assessment of student learning. Even when the results are context-dependent, the assessment of student learning has always had a strong influence on instructional content and pedagogy. Thus, it is an important source of feedback regarding the appropriateness of the implementation of curriculum content.

Fulfilling the diverse objectives of diagnosis, certification and accountability requires different types of assessment instruments and strategies selected to achieve specific purposes. The assessment of a student's learning may be summative or formative and there are various types of tests to address different needs such as standardized, performance-based, ability, aptitude and intelligence tests.

*Keywords:* Evaluation; Assessment; Assessment instruments and tools; Impact; Learning Outcomes; Curriculum Evaluation; Performance; Effectiveness; Decentralization; Accountability; Internal Evaluation; External Evaluation.

## ACTIVITY 1 Statutory student assessment

Consistent and timely assessment is key to improving learning achievement. It is crucial to distinguish between the terms “assessment” and “examination” since the latter is a specific form of summative assessment primarily used to differentiate among learners for selection or certification. Assessment is a fundamental component of an effective teaching and learning environment, regardless of whether it occurs at the international or regional level (e.g. the Programme for International Student Assessment [PISA] and the Southern and Eastern Africa Consortium for Monitoring Educational Quality [SACMEQ]), national level (e.g. Key Stage tests in England and Wales) or school/classroom level (e.g. end-of-term exams). Assessment should allow those working in the education system to diagnose, monitor and ensure the quality of the education they provide. It should also allow them to reorient their decisions and strategies so that they are feasible.

This section reviews the types of assessment designed to improve education at the classroom level which may be characterized as either formative or summative:

**Table 8.1. Summative and formative assessment**

	Summative assessment	Formative assessment
PURPOSE	To evaluate and record a learner’s achievement.	To diagnose how a learner learns and to improve teaching and learning.
JUDGEMENT	Criterion-based or norms-based; progression in learning against public criteria.	Criterion-based and pupil-based.
METHOD	Externally-devised tasks or tests. Reviewing written work and other products against criteria that is uniformly applied to all learners.	Observing learning activities, discussing with learners, reviewing written work and other products, learner self-assessment and peer assessment.

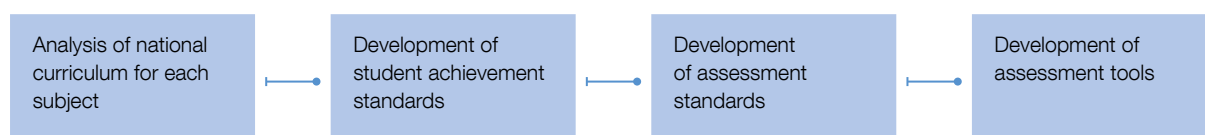
Source: Adapted from Harlen, W. and James, M. (1997, pp. 195–209); Black, P. J. et al. (2004).

As proposed by Black et al. (2004), national and international assessments are summative in nature. Teachers may conduct classroom-level assessments which are summative or formative. Formative assessments review how each learner retains and processes information and the problems that he or she encounters so that teachers can adjust their teaching to enhance achievement. Evidence indicates that the exchange that occurs between teachers and students in formative assessment can improve students’ learning and performance. Where practical, it should also draw upon learner self-assessment which can empower learners to assess their own progress and reflect upon how they can improve their own learning.

Summative assessment is normally used to determine whether students are promoted to a higher grade or education level or awarded certificates or diplomas. This often relies on a single examination that can be used to re-orient processes of curriculum development. However, ministries of education are increasingly opting for a continual assessment process, which is a combination of summative and formative assessments. Countries such as Sri Lanka, South Africa and Ghana have introduced such systems to supplement their national examinations. The underlying principle is that these nations will develop more holistic evaluations of learners’ progress and achievements and lessen incentives to “teach to the test”.

However, in practice, “continuous assessment” often amounts to “repeated summative assessment”, with no specific feedback provided to learners. This situation is partly attributed to a lack of understanding on the part of teachers about formative assessment and also reflects the pressure of external summative assessment on teaching and learning. Moreover, effective formative assessment requires adequate resources, teachers trained in assessment techniques and relatively small class sizes – requirements which do not comport with the realities of many countries.

The traditional process of developing student assessment is as follows:



Source: Adapted from UNESCO (2005, pp. 30–37).

Student learning assessment generates information for different uses.

*At the curriculum level, it may entail:*

1. Revisiting the goals and objectives of education in the context of current realities and creating a vision for students’ growth and development;
2. Formulating new frameworks for the revision and updating of curriculum; and
3. Revising the scope of curriculum contents.

*At the school level, it may entail:*

1. Enabling teachers and students to monitor teaching and learning;
2. Revising teaching and learning strategies and developing appropriate instructional methods and pedagogy; and
3. Allowing progression through a school system or the selection of modalities within it.

*At the national level of leadership, it may entail:*

1. Providing social accountability for the outcomes of schooling in terms of fulfilling the needs of employers and other stakeholders; and
2. Allowing educational authorities to monitor and compare the performance of schools and education systems.

### Focus of the activity

This activity and the suggested tasks should help participants to identify models and processes of student assessment and discuss the risks and benefits of high-stakes testing practices.



#### TASK 1 Plenary discussion

1. Read the document “Five strategies of statutory assessment: Alberta (Canada), Germany, Italy, Massachusetts (USA) and New Zealand”.
2. Make a comparative table in which you present relevant information on the five cases.

#### TASK 2 Work in small groups

Use the following questions as a framework for discussion:

- Is there currently a policy for national student assessment in your context?
- What issues can you identify as it relates to student assessment?
- What are the consequences of these issues for student assessment?
- What changes have been proposed?



#### TASK 3 Individual assignment

1. Read the case study “Standards in education – Study of the situation in Italy”.
2. Review the website <http://www.invalsi.it>.
3. Read the case study “Educational competency, ‘reference standards’ and competency assessment tools: the situation of the French-speaking community of Belgium” [Référentiels de compétences scolaires et outils d’évaluation de compétences: la situation en Communauté française de Belgique].
4. Generate a list of the challenges experienced during the assessment processes and compare them with the challenges faced in your own context.



#### PRODUCT List of assessment challenges





## TASK 4 Plenary discussion

1. Read the case study “Curriculum review of Advanced Level Secondary Education in Tanzania”.
2. Discuss how the key ideas in the document “Rethinking Classroom Assessment with Purpose in Mind” (Section I) are visualized in the strategy proposed by the case study.

### Key ideas:

- Classroom assessment practices are deeply rooted in societal expectations;
- Classroom assessment plays a major role in how students learn, their motivation to learn and how teachers teach;
- Quality issues (reliability, reference points, validity and record-keeping) are important in any classroom assessment;
- Identifying the purpose of any classroom assessment is critical for it to be productive and efficient;
- Planning classroom assessment based on purpose ensures that it will be coherent and effective; and
- Teachers can use many different strategies and tools for classroom assessment and can adapt them to suit the purpose and needs of individual students.

3. Discuss how the four conclusions proposed in the document “Integrating formative and summative assessment (OECD)” are displayed in the strategy proposed by the case study. These include:
  - Using formative assessment data to build knowledge about best policies and practices;
  - Promoting teacher professionalism;
  - Ensuring cost effectiveness by developing more effective approaches to assessment; and
  - Addressing gaps in research and development.



## TASK 5 Work in pairs

1. Read relevant sections of the documents “The role of assessment in promoting the development of student competencies” (Key Challenges No.1 and No. 2) and “High-stakes testing and effects on instruction: research review”.
2. Draft a short paragraph or list of conservative arguments that parents and teachers may advance for maintaining current assessment strategies, grading scales and stringent policies to promote assessment for selection.
3. Write some suitable counter-arguments you would use in the debate.



## PRODUCT Paragraph or list of arguments and counterarguments



## TASK 6 Individual assignment or work in pairs

- Read the case study “Primary and Lower Secondary Student Assessment reform process in China” and relevant sections of the document “The role of assessment in promoting the development of student competencies” (Key Challenges No. 3 and No. 10);
- Describe the features of a training procedure for teacher capacity development that could be used in your context to develop teachers’ competencies for at least two of the assessment strategies mentioned. Your sample would consist of ten schools during a six-month period. Your training should integrate the elements presented in the Table “Strategies And Record-Keeping Practices For Competency Assessment” (Key Challenge No. 3).



## PRODUCT Proposed training procedure



### TASK 7 Work in small groups of up to three participants

- Read relevant sections of the document “The role of assessment in promoting the development of student competencies” (Key Challenges No. 5 and No. 6) and the section on assessment in the case study “Challenges posed by the 2003 Free Primary Education (FPE) initiative in Kenya”.
- Assume the role of a curriculum specialist and write a short advocacy piece for a newspaper in which you defend the concept of a balanced process, consisting of fifty per cent external assessment and fifty per cent school-based formative assessment. Your piece should explain the ways in which a balanced approach would be more representative of student competency than a full external assessment.



## PRODUCT Newspaper article

# ACTIVITY 2 Assessment of learning outcomes in specific areas

This activity will address the assessment of those content areas that have recently been introduced as compulsory in the curricula of many countries in the early levels or grades. Such new content areas have less developed assessment traditions than reading and mathematics. However, they are particularly interesting to international agencies because of the anticipated impact of those learning areas on promoting economic development, environmental sustainability and social cohesion.

This activity will explore approaches to assessing content exemplified through two examples:

- Learning to Live Together; and
- Science and Technology Education.

### *Learning to Live Together*

The theme “Learning to Live Together” is central to UNESCO’s mission. It is one of the four pillars of education in addition to “Learning to Know”, “Learning to Do”, and “Learning to Be”. It is based on a fundamental acknowledgement of the equality and dignity of all people that emphasizes understanding, accepting and appreciating human differences and diversity and developing respect for others. As with any other educational endeavor, it is important to understand the widespread impact of curriculum and what makes it effective.

### *Science and Technology Education (STE)*

In the new millennium, knowledge, technology and information are accelerating and being rapidly restructured. As a result, we are learning to live and work in a more science-and-technology-oriented society. We must ensure that science and technology curriculum meets the demand and needs of individuals in this type of society.

An important aspect of assessment in STE is the analysis of the values, attitudes, social responsibilities and accountability that has been incorporated into the science curriculum of each country. International comparative assessments such as the Programme for International Student Assessment (PISA) and the Trends in International Mathematics and Science Study (TIMSS) have also exerted a degree of global pressure so that assessment policies have been modified in several countries.

## Focus of the activity

This activity and the suggested tasks aim to review the best practices, thoughts and ideas on the evaluation of two important content areas: “Learning to Live Together (LLT)” and “Science and Technology Education (STE)”.

## ASSESSMENT IN LEARNING TO LIVE TOGETHER



### TASK 1 Individual reflection

Read the document “Learning to Live Together” which provides useful background on the content, implementation and evaluation criteria for good practice in this area.

Consider the following guiding questions:

- Which elements of “Learning to Live Together” are most significant in your situation?
- Is there an expectation that the education system in your context deals with such issues or are they likely to be controversial?
- What kind of impact do you want curricula to have on the theme of “Learning to Live Together” and at which levels?
- In your view, what makes curriculum in this area effective?
- How can student outcomes be evaluated?



### TASK 2 Work in pairs

Examine the document “Checklist for the assessment of Learning to Live Together initiatives”. Answer as many questions as you can for a curriculum based on “Learning to Live Together” with your partner.

- To what extent does the checklist offer a useful structure for evaluation?
- Are there areas that require greater attention, or are some elements irrelevant to your context?



### TASK 3 Work in small groups

1. Participants are divided into two groups. Each group reads one of the following case studies:
  - “Experimental civics education in Romania”.
  - “Lessons learned from the internal and external evaluations of an innovatory education project in Northern Ireland.”
2. Identify useful models or effective practices, as well as the ineffective ones for your context. Significant learning points should be listed to be shared with the larger group.



## PRODUCT List of effective and ineffective practices

### TASK 4 Plenary discussion

Discuss within the group using the following questions as guidelines:

- What information is required to develop curriculum on the subject of “Learning to Live Together”, and to discern its impact and value?
- What are the implications for:

- Planning a curriculum renewal process?
- Developing a curriculum?
- Planning a curriculum evaluation/monitoring process?

## ASSESSMENT IN STE

### TASK 1 Individual reflection

Consider the following guiding questions:

- How are student outcomes assessed under “Science and Technology” curricula in your context? What are the current assessment practices and instruments?
- What aspects of assessment practices do you consider effective?
- What information would you require about curriculum in the area of STE to make a judgment about its impact and value?



### TASK 2 Work in pairs

1. Read the document “Assessment in Science and Technology” and compare its content to the criteria listed in the following table:

#### *Components of an Assessment Framework for STE*

- Attitude, interest, concern
- Knowledge and understanding
- Scientific thinking
- Communication
- Inquiry skills
- Stewardship and action

2. With a partner, answer the following questions in the context of a STE curriculum with which you are familiar:
  - Which elements of STE assessment are given more weight in your situation?
  - Are there any areas that currently require more or less attention?
  - Review the previous table of Components of an Assessment Framework for STE together. Arrive at a consensus by adding or changing items.

### TASK 3 Plenary discussion

1. Examine the Assessment Framework for OECD – PISA (Organisation for Economic Cooperation and Development – Programme for International Student Assessment).

**Assessment Framework of OECD PISA  
(Organisation for Economic Co-operation and Development –  
Programme for International Student Assessment)**

OECD – PISA assessment fields for science (three domains):

- Scientific knowledge: assessed by application to specific subject matters;
- Scientific processes: involving the knowledge of science;
- Situations or contexts (as areas of application): in which the knowledge and processes are assessed and which take the form of science-based issues.

Scientific literacy in OECD – PISA:

Scientific literacy, as identified here, gives higher priority to using scientific knowledge to “draw evidence-based conclusions” than the ability to collect evidence for oneself. The ability to relate evidence or data to claims and conclusions is seen as central to what all citizens need in order to make judgments about the aspects of their lives that are influenced by science. It follows that every citizen needs to know when scientific knowledge is relevant, distinguishing between those questions that science can and cannot answer. Every citizen needs to be able to judge when evidence is valid, both in terms of its relevance and how it has been collected. However, what is most critical is that every citizen be able to relate evidence to conclusions and to be able to weigh the evidence for and against particular courses of action that affect life at a personal, social or global level.

Source: Organisation for Economic Co-operation and Development (OECD, 2004).

**2.** Consider the following guiding questions:

- How is scientific literacy defined or understood in your situation?
- What is the relationship between your national curriculum standards and the OECD – PISA assessment standards?

**3.** Prepare a two-column list, indicating:

Scientific literacy emphasized in the definition of PISA	The Science approach emphasized by your current curriculum



**PRODUCT**

**List comparing scientific literacy approaches under PISA and your context**

**ACTIVITY 3**

**Curriculum evaluation at the national level**

With respect to curriculum, evaluation is the process of making value judgments about the merit of a portion of, or an entire curriculum. The nature of a curriculum evaluation often depends on its audience and purpose. The potential audiences include:

- Policy-makers and other stakeholders (administrators, teachers, students, parents, and communities) – to inform future action;

- Donors – to attract funding or to report on the use of funds; and
- Researchers – for international comparison and the identification of effective practices.

The evaluation of curricula is typically concerned with the:

- Impact of curriculum:
  - On individual students, their needs, their level of engagement and their performance;
  - On teaching strategies and school dynamics;
  - On society, including the appropriateness of values communicated and attitudes fostered, and the level of public satisfaction;
  - On the economy, including labour markets as an indicator of economic development;
- Process through which curriculum was developed;
- Content and design of the curriculum in relation to:
  - Recent social, technological, economic or scientific changes;
  - Recent advances in educational research and educational paradigms; and
- Possible future directions for curriculum change.

### *Focus of the activity*

This activity and the suggested tasks should help participants review strategies for evaluating the strengths and weaknesses of the curriculum.



#### **TASK 1 Work in small groups**

1. Read and discuss the document “Guiding questions for curriculum evaluation” and the conclusions in the document “The negative consequences of overambitious curricula in developing countries” and reflect on the following questions:
  - What contributions do research studies make to the curriculum development process?
  - How can the strengths and weaknesses of the school curriculum be assessed?
  - What factors promote incongruity between curriculum prescriptions and the learning abilities of students?
  - What criteria should be used to evaluate curriculum?
  - What strategies could be used to bridge the divide between general guidelines and subject-specific guidelines?
  - What factors inhibit the curriculum development process?
2. Produce a short report on your group discussions.



#### **PRODUCT Report on group discussion**



## TASK 2 Individual reflection

1. Read the case study “Short history and main steps of curriculum development in Finland”.
2. Read the case study “Politics, sub-politics and the management of reform: the case of Mathematics curriculum change in Lithuania”.
3. Read the case study “Primary and Lower Secondary Student Assessment reform process in China” using the categories in the Chinese approach to identify the types of curriculum evaluation that are practiced in each case.
4. Read the case studies “Lebanon – an experience on curriculum evaluation”, “Curriculum review of Advanced Level Secondary Education in Tanzania” and the document “Report of the Task Team for the Review of the Implementation of the National Curriculum Statement (South Africa)”.
5. Create a four column chart. In the first three columns, write the curriculum issues evaluated in each of the case studies. In the fourth column, note the aspects of those issues that can be evaluated in your country.

## TASK 3 Work in pairs

Produce a document entitled “Perspectives and approaches to curriculum evaluation” to be used as a discussion paper to promote curriculum evaluation in your context.



## PRODUCT Document on curriculum evaluation

## TASK 4 Work in small groups

Using the case studies referenced above, draft a plan for the evaluation of curriculum in your context that includes details regarding the process, main questions and methodology. This task may be completed individually, in pairs or in small groups. Share your plan with the larger group once you are done.



## PRODUCT Plan for curriculum evaluation

# ACTIVITY 4 Curriculum evaluation at the school level

In many countries, schools and systems produce reliable and objective evidence about their performance. States are increasingly promoting the self-evaluation of schools or a combination of external and internal evaluation practices. However, the trend of external evaluations to concentrate only on a restricted subset of the learning outcomes stated in the curriculum makes the data less helpful in curriculum improvement.

School evaluation may produce important information about curriculum implementation and its relevance for particular contexts and situations, when it:

1. Is based on evidence gathered in a systematic way;
2. Uses methodologies for interpreting data because evidence is usually ambiguous;
3. Makes clear value judgments about the relationship between what is taught and what is learned and about the future effects of learning; and
4. Helps to orient action, promote better practices and policies within the school and improve the system as a whole.

Some of the materials that can demonstrate evidence for the manner in which curriculum implementation and effects are informed in the school include:

- Checklists and self-assessment and peer-assessment scales;
- Anecdotal reports;
- Interviews with teachers, students, and alumni;
- Surveys and questionnaires;
- Teacher work plans;
- Attendance and promotion rates of students;
- Informal observation, filming or recording of classes;
- Objective or standardized tests; and
- Photographs.

Internal and external evaluations can be combined in several ways:

- *Parallel evaluation*: the external and internal evaluation systems are independent, each of them has a particular set of protocols, procedures, criteria and focus;
- *Sequential evaluation*: the external assessors take the self-evaluation report produced by the school as a starting point; and
- *Cooperative evaluation*: the external assessors cooperate with the school staff to develop a shared approach to the evaluation.

Parallel evaluation can be useful when there is a need to gather information about the curriculum across a large number of schools in order to further analyse and draw inferences that will provide the basis for new developments or improvement processes. Sequential and cooperative evaluations may allow more adequate interventions at particular schools when an improvement is needed.

### Focus of the activity

This activity and the suggested tasks should help participants obtain a deeper understanding of school curriculum evaluation as a way to measure the alignment between intended and implemented curricula.



#### TASK 1 Individual reflection and assignment

1. Read the document “School evaluation for quality improvement” which includes the evaluation policies of schools in Indonesia, Nepal and the Philippines<sup>1</sup>;
2. Identify the aspects of curriculum that are evaluated and the roles played by the various stakeholders in the evaluation process in each country.
3. Reflect upon which of those evaluation practices could be adapted to your own context and create a list of them.



#### PRODUCT List of school curriculum evaluation practices

1 Asian Network of Training and Research Institutions in Educational Planning. 2002. School Evaluation for Quality Improvement. A. De Grauwe and J. Naidoo (eds). (Paper presented at the meeting of the Asian Network of Training and Research Institutions in Educational Planning [ANTRIEP], Kuala Lumpur, 2–4 July 2002. UNESCO International Institute for Educational Planning [IIEP].) <http://unesdoc.unesco.org/images/0013/001398/139804e.pdf> (Accessed 13 September 2013.)





## TASK 2 Work in small groups of up to three participants

Read the following extract:

*Curriculum alignment* can be defined as the degree to which the intended curriculum (standards and teaching plans) and the performed curriculum (instruction and assessment) are in agreement with one another. The degree of alignment can vary, depending on the school and the course, because the processes of planning and teaching occur through a series of interpretations of the curriculum at various levels within the school, within the faculty and within individual teachers. Throughout the process of planning and implementation of curriculum, the teachers themselves often customize the prescribed curriculum in response to their own concerns and prioritize content that they feel reflects the needs of their students.

To conduct a *curriculum audit* you might need to identify data sources at the school level and select adequate methods to gather the information.

*Identify Data Sources:* Determine **who** or **what** you would collect the pertinent data from:

- District administrators
- School board members
- School administrators
- Central office staff
- Classroom teachers
- Parents and other community members
- Students
- Documents (such as reports of test scores and policy books)

Data collection methods to verify curriculum alignment that include direct observation, interviews (pre- and post-observation), audio recording of lessons and document analysis, among others. The data can be analysed by formulating criteria and assessing the extent to which those criteria are met.

*Choose methods to gather information:* Determine **how** you would collect the data

- Interview
- Observation
- Survey
- Document analysis

Curriculum issue	Interview	Survey	Observe	Analyse document
Planning is in line with the curriculum				Teachers' lesson plans
Textbooks selected are appropriate		30 teachers		
Mandated content is taught				Students' tests and exercise-books
Teaching methodology is adequate	Principal		10 teachers	
Alignment to state standards	5 teachers			Students' tests

Analyse the document “AISSA Audit Tool – Australian Curriculum – Mathematics 6-8” and describe the issues evaluated using the tool and methodological strategy applied. The Association of Independent Schools of South Australia (AISSA) is considered a leading organization for the Independent school sector in South Australia.

Design a plan for evaluating curriculum alignment in a specific learning area (e.g. Mathematic or Social Studies) for the primary level in a district composed of thirty-five schools. Provide the details of the issues you would explore and the type of evidence you would collect.



**PRODUCT** Draft plan for school curriculum evaluation



**TASK 3** Individual assignment

1. Review the documents “Rethinking Classroom Assessment with Purpose in Mind” and “What kinds of objects should we use to assess competencies?” [Sur quels objets évaluer des compétences ?].
2. Read the relevant sections of the document “The role of assessment in promoting the development of student competencies” [El rol de la evaluación en promover el desarrollo de las competencias en los estudiantes] (Key Challenges No. 7 and No. 8).
  - Analyse a concrete sample of an exam and produce a brief report regarding the types of competencies that are being assessed. Attach the exam sample to your assignment;
  - Compare the exam sample to the curriculum prescribed for the corresponding grade level, and take note of the aspects of formal curriculum that are covered;
  - Make a recommendation to a teacher who is responsible for National Language (Grade 7) instruction about the amount of time that should be allocated for teaching, formative assessment and summative assessment in a course consisting of forty-five students that meets during two teaching periods of forty-five minutes per week for thirty-five weeks.



**PRODUCT** Sample exam with comments and recommendations for the teacher



**PERSONAL LEARNING NOTE TO BE INCLUDED IN THE PORTFOLIO:**

**What did I learn? What concepts did I find useful?**



# List of resources for MODULE 8

## Student assessment and curriculum evaluation

### *Documents*

- Five strategies of statutory assessment: Alberta (Canada), Germany, Italy, Massachusetts (USA) and New Zealand.
- Rethinking Classroom Assessment with Purpose in Mind.
- Integrating formative and summative assessment (OECD).
- The role of assessment in promoting the development of student competencies.
- High-stakes testing and effects on instruction: research review.
- Learning to Live Together.
- Checklist for the assessment of Learning to Live Together initiatives.
- Assessment in Science and Technology.
- Guiding questions for curriculum evaluation.
- The negative consequences of overambitious curricula in developing countries.
- Report of the Task Team for the Review of the Implementation of the National Curriculum Statement (South Africa).
- School evaluation for quality improvement.
- AISSA Audit Tool – Australian Curriculum – Mathematics 6-8.
- What kinds of objects should we use to assess competencies? [Sur quels objets évaluer des compétences ?].

### *Case studies*

- Standards in education – Study of the situation in Italy.
- Educational competency, ‘reference standards’ and competency assessment tools: the situation of the French-speaking community of Belgium [Référentiels de compétences scolaires et outils d’évaluation de compétences: la situation en Communauté française de Belgique].
- Curriculum review of Advanced Level Secondary Education in Tanzania.
- Primary and Lower Secondary Student Assessment reform process in China.
- Challenges posed by the 2003 Free Primary Education (FPE) initiative in Kenya.
- Experimental civics education in Romania.
- Lessons learned from the internal and external evaluations of an innovatory education project in Northern Ireland.
- Short history and main steps of curriculum development in Finland.
- Politics, sub-politics and the management of reform: the case of Mathematics curriculum change in Lithuania.
- Lebanon – an experience on curriculum evaluation.

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## Training Tools for Curriculum Development


# A Resource Pack

*Training Tools for Curriculum Development: A Resource Pack* is intended to support specialists and practitioners involved in curriculum reform. As the UNESCO institute specialized in the field of curriculum, the International Bureau of Education (IBE) emphasizes the key role of high-quality curriculum development processes in fostering the excellence, relevance and equity of education.

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- Module 7: Processes of curriculum implementation
- Module 8: Student assessment and curriculum evaluation

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