



Curriculum Development

An Introduction

This guide is aimed at EU staff working in country Delegations. Its purpose is to help education task managers without Education background, in situations where curriculum reform is a major pillar of an overall reform process and/or a particular focus of support. It is intended to provide a brief overview of key issues, steps in a reform process and the frequent problems encountered in a curriculum reform programme. It concludes with ways in which the EU can add value to the process. This short guide is NOT a comprehensive treatment of curriculum development: it is intended as a brief and broad introduction to enable those that are neither education experts nor curriculum specialists to be better able to participate meaningfully in a curriculum reform process. It is aimed more at helping ask the right questions rather than provide the right answers.

INTRODUCTION

The Curriculum is at the heart of the education process: it sets out what is to be learned, and how and when it is to be taught. It underpins all other parts of the system: it guides the day to day experiences of the classroom, it forms the basis for teacher training programmes, the content of textbooks and other materials, it determines how learning is assessed through the examinations systems, how standards are developed and how performance is monitored through school inspection and supervision systems. The curriculum is a major determinant of what graduates from the education system bring to the world of work. An education system's capacity to effectively contribute to national social and economic development is therefore shaped by the curriculum: are the right skills, competencies, knowledge and attitudes being developed to drive national progress?

Why do we embark on curriculum reform? The curriculum is rarely static, it undergoes regular and almost constant change, matching new policies and demands with new descriptions of what is taught and how. Periodically, countries may embark on a major reform, where the curriculum is felt to be outdated and out of line with emerging economic and social needs. Typically this will come in response to a shift in economic and labour market policy that point in a new direction; moving to a knowledge economy and becoming more competitive globally in an increasing technological world for example. It may also result from evidence that learning outcomes are low (though this may not be the fault of the curriculum), a political decision (on national language policy for example, as in the case of Rwanda), or a major societal change (e.g. the Arab spring, or reconciliation after conflict).

Effective delivery of the curriculum relies on other parts of the system: a well-structured and relevant curriculum itself is no guarantee of the desired learning outcomes. Teachers require the appropriate skills, combined with other resources to enable effective learning. Curriculum reform needs to also to include reform of teaching and learning materials, re-orienting and preparing teachers, and changes to how learning is assessed.

This primer covers the following topics:

- A brief overview of some key curriculum development issues
- The key steps involved in large scale curriculum reform, from conceptualisation, development, introduction and evaluation
- Some of the frequent problems associated with developing and delivering the curriculum
- What the EU as an external partner can bring to the curriculum reform process
- Provide some wider references/links for further information and ideas

A BRIEF OVERVIEW OF SOME KEY CURRICULUM AND CURRICULUM DEVELOPMENT ISSUES

THERE IS NO BLUEPRINT!

The curriculum and its development can be a highly political issue. Choices about **what** is - and what is not - taught is frequently determined by authority higher than the education sector itself. Religion, politics and political history, ethnicity and language find expression through the curriculum. Technical staff are often left with the responsibility to make it happen: to determine **how** it is delivered and **when** in the education cycle is the most appropriate time to introduce particular subjects, concepts and skills. The decision to reform the curriculum is likewise often driven by forces outside the education sector. This may be an increased policy emphasis on the skills for a new vision of the economy. The decision may also stem from regime change; a new government wishing to signal change from a previous regime either as a sign of progress and modernity, or equally conservatism and reaction.

Curriculum reform is often part of a much broader educational reform, and good curriculum reform involves concurrent reforms in the closely related areas of teacher training, textbooks production, school inspection and supervision, as well as examination and assessment. The importance of this *systemic alignment* (see the Quality of Education, Education Briefing Paper, European Commission Oct 2013) is described in more detail below.

In CHILE in 1996, a new national curricular framework was established to be implemented at the school level. The government created voluntary Plans and Programs which was more traditional to cover specific content for those schools who did not want to use their own curricula. In 2001, more than 80% of schools were using this national Plans and Programs. The curriculum has been updated several times since and Chile is currently in the process of implementation of a new curriculum for all education sub-sectors including technical/professional training (last updates for upper secondary planned for 2018). An important aspect of this latest revision is the addition of learning standards for students.

http://curriculumlinea.mineduc.cl/sphider/search.php?query=&t_busca=1&results=&search=1&dis=0&category=10

The substantial literature on curriculum tells us one thing: there is no one single way to approach curriculum design and development. The briefest scan of the literature reveals differing approaches. There are widely differing views on curriculum content – what should be taught and learned, and how it should be taught and learned – as well as

how the curriculum should be constructed, and expressed. Thus curriculum, and the way it is constructed and delivered, are always context specific. In fact, one key lesson that emerges is **the risk of importing or imposing curriculum models from elsewhere**. What works in one situation may not work in another. **The process of developing a national curriculum is important in building ownership**. What we can get from looking at the literature are examples of good practice – some patterns and truths emerge, as do common faults and failings that need to be avoided.

There are no hard and fast rules regarding timescales. The development of the new lower secondary curriculum reform in Uganda, from which some of the material for this note is taken, is scheduled to take four years. The *development* stage was preceded by a substantial period of analysis after which there was a long gap during which finances and contracting of support were secured. Actual development activity started over three years after the analysis! It is not unrealistic to think of a five year cycle from the time the need to reform the curriculum is first mooted to seeing the result in schools.

SOME KEY TERMS

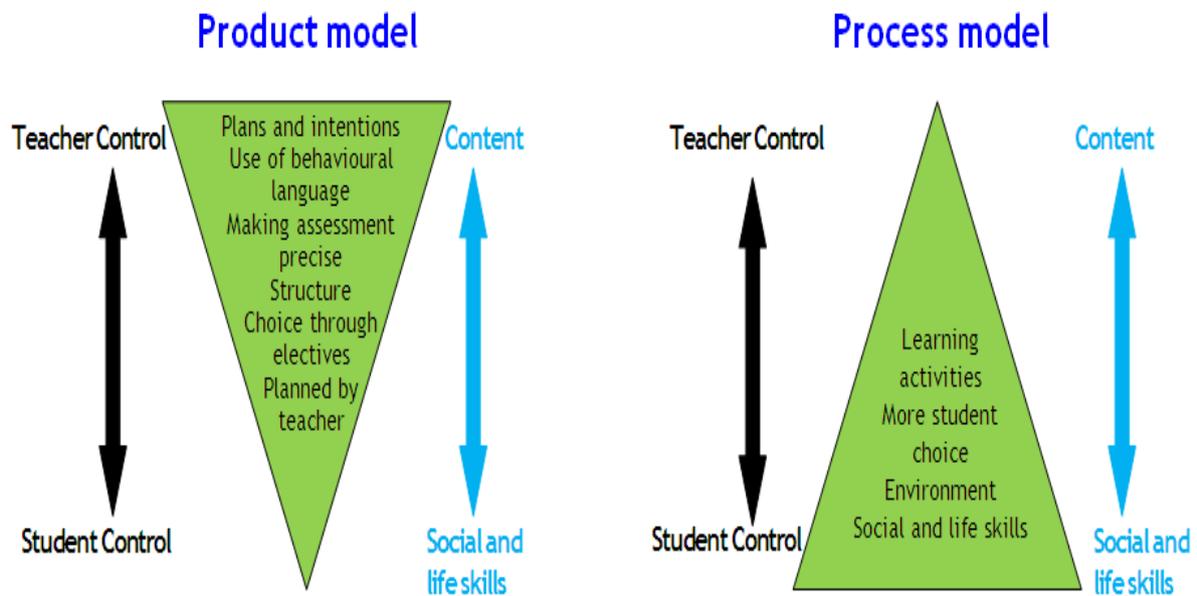
Curriculum	A curriculum is the ordered selection of learning content and experiences which are developed for all learners to meet agreed national values and aspirations. The curriculum sets out the objectives of the education system. In simple terms it prescribes <i>what</i> is to be achieved.
Syllabus	The syllabus sets out the specific details and programme of what is to be taught and assessed at defined stages of schooling. The syllabus sets out <i>how</i> the curriculum is to be delivered. It is what teachers use to plan and deliver lessons. It provides the operational details of the curriculum.
Competency-based curriculum	A competency based curriculum is one that is focussed on learners acquiring competencies to apply knowledge, rather than knowledge itself. The outcomes are what pupils can <u>do</u> .
Outcome-based curriculum	Specifies what we expect a pupil or student to know or be able to do after a period of study. Outcomes may include competencies, or they may just relate to knowledge.

MODELS OF THE CURRICULUM

There are countless different actual models of curriculum. This is inevitable as curriculum is specific to national or local context - driven by individual education policies to meet prescribed educational goals. The model of curriculum will reflect the broader, underlying structure of the system through which *control* of the curriculum is established. Some countries use a highly centralised curriculum, where there is limited discretion allowed in the way it is delivered by schools and teachers. This model is appropriate where resources are limited and where the teaching force is not so highly skilled, educated or motivated. A higher degree of prescription is often required in such contexts. At the other extreme is a more liberal approach, where significant discretion is given to schools and teachers in what and how they teach within general guidelines. This requires higher capacities with schools and teachers.

This debate is often polarised into two basic models, with the chosen approach often lying at some point in between: a blend of central control and local autonomy. Two descriptions are shown on the next page: *Product* or *Process* and *Academic* or *Comprehensive*. Thirdly we look briefly at the concept of the *Competency Based Curriculum*.

THE PRODUCT AND PROCESS MODELS OF CURRICULUM



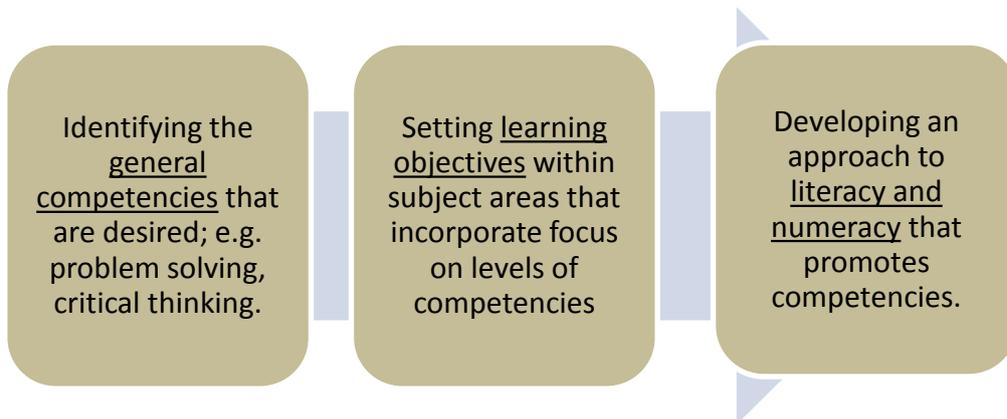
ACADEMIC VS COMPETENCE BASED CURRICULUM

A key debate around curriculum is the balance between what is often termed an academic curriculum that focusses largely on specific subject knowledge and a more comprehensive curriculum that actively promotes the development of broader competencies, such as problem-solving, initiative, and creativity. There is often a real tension between the desire to achieve very direct and measurable outcomes such as basic literacy and numeracy (particularly in the context of current concern around learning outcomes) and the wider skills and competencies required by a modern, flexible knowledge-based economy. A good, balanced curriculum will achieve both, but success requires high levels of teacher skills, diverse classroom approaches and substantial resources.

ACADEMIC CURRICULUM	COMPETENCE BASED CURRICULUM
<i>Teacher centred, high subject content, focus on knowledge</i>	<i>Learner centred, promotes skills and competencies as well as knowledge</i>
<ul style="list-style-type: none"> ✓ IQ scores/test results ✓ Literacy and numeracy ✓ Specific subject knowledge ✓ Short and longer term outcomes 	<ul style="list-style-type: none"> ✓ Motivation to learn ✓ Creativity and initiative ✓ Independence and self confidence ✓ General knowledge ✓ Longer term outcomes

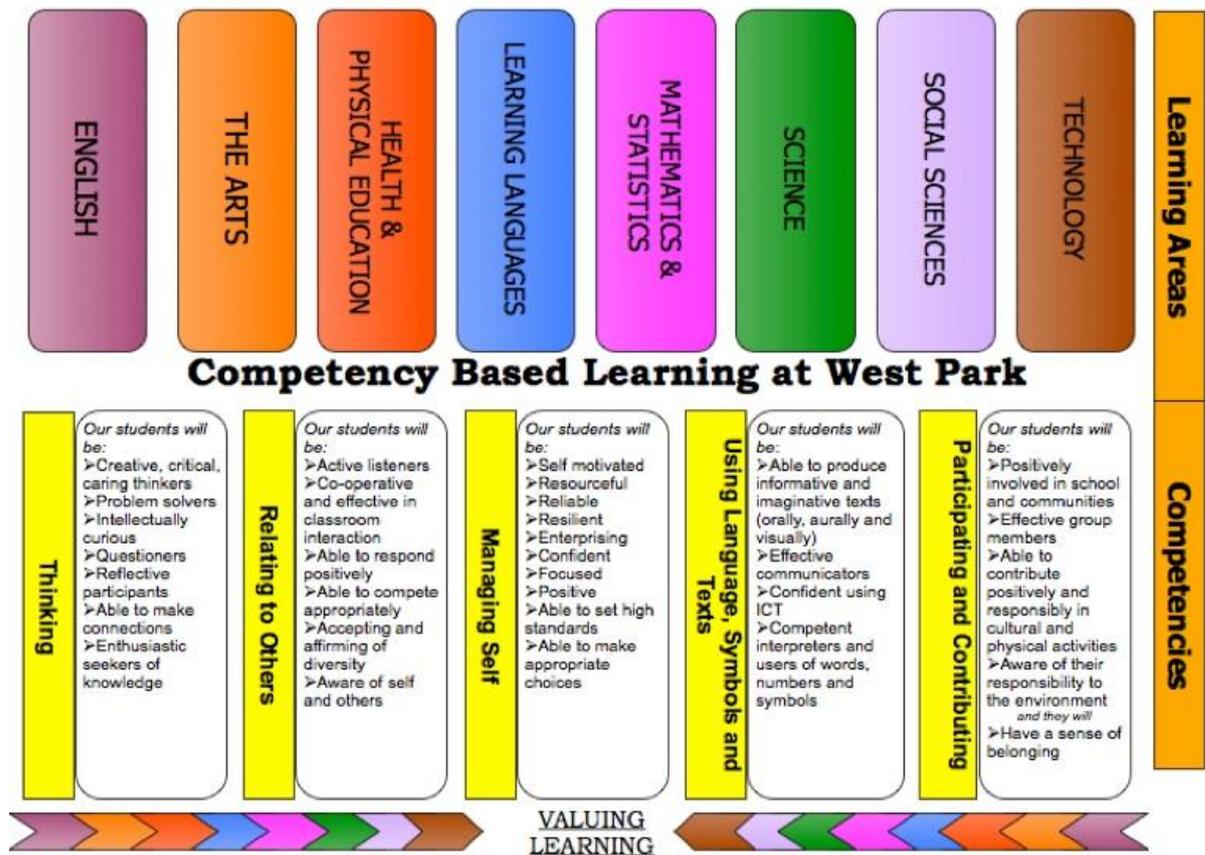
A COMPETENCY BASED CURRICULUM

A competency based curriculum is one in which learners develop their understanding in ways in which they can apply this in practical situations. A competency based curriculum goes beyond simple recall of information: the focus is on competencies, such as communication, judgement, analysis and problem solving. These are often developed through traditional subjects: language, maths, science, history for example. It promotes what are termed higher order skills. Three basic processes are involved:



The link below shows Peru's curriculum framework as it shifts from a knowledge-based to a competency based curriculum. <http://www.minedu.gob.pe/p/marco-curricular-2da-version-para-el-dialogo-abril-2014.pdf>. This places a stronger emphasis on learning assessment especially in primary education. For the first time, regional curriculum proposals could be developed to meet specific regional needs and circumstances (e.g., social, cultural, labour-related) in addition to the curriculum framework. The process was highly participatory, all citizens were invited to comment on the proposed framework during a two-month period.

EXAMPLE: THE COMPETENCY BASED CURRICULUM IN NEW ZEALAND



Embedding key competencies in existing activities....



THINKING?	RELATING TO OTHERS	USING LANGUAGE, SYMBOLS & TEXTS?	MANAGING SELF?	PARTICIPATING AND CONTRIBUTING
Ensure there are opportunities to engage with curiosities... (eg the origins of athletics, high-tech tools for measuring distance/timing etc)	Encourage students to notice and discuss 'implicit' protocols around competing and cooperating and the extent to which these are demonstrated	Discuss the language of athletics – which terms and phrases relate to athletics only and which to sport more generally?	Invite an athlete to speak to the class on motivation and goal setting	Involve students in planning and organising key aspects of the athletics day
Use a thinking tool to prepare for the report writing	Create a team to prepare and present the final report	What signs and gestures are used for important purposes in athletics?	Students set and monitor goals for their participation in athletics day	Students prepare digital movie about athletics day and share it on school website
Outline which school and curriculum values were most evident at various stages of the athletics day	Seek and respond to feedback from others on report drafts	Consider how the report would need to be adapted for different media	Notice students who initiate activities for themselves	The report is prepared for submitting to the community newspaper/ website/radio station....

RENEWED FOCUS ON BASIC SKILLS: THE HEART OF THE CURRICULUM

There is increasing concern that, despite substantial increases in enrolment at basic levels of education (principally this means primary, but often includes pre-primary and junior/lower secondary), **far too many children are not learning**. More and more evidence suggests that in many countries a large proportion of children fail to attain even minimum standards of literacy and numeracy. On completion of primary school, they do not have the basis on which subsequent learning relies. There is a renewed urgency that ALL children should actually *learn*, and ensure that the curriculum – at its very least – delivers basic literacy and numeracy to all children. This urgency has been very well summarised in the latest UNESCO EFA Global Monitoring Report (2013/14). Central to the drive for improved quality is the curriculum: what is it that needs to be taught and learned to ensure all children at least master the basics of literacy and numeracy? This is arguably the key message for primary curriculum developers and countries' curriculum reform agendas. **Two key elements** that underpin this drive, and are fundamental to curriculum reform, **are the language of instruction and a curriculum that is achievable within the resources available**.

Policy makers should ensure that the early grade curriculum focusses on securing strong foundation skills for all, is delivered in a language children understand and is backed with appropriate resources. It is important that curriculum expectations match learners' abilities, as overambitious curricula limit what teachers can achieve in helping children progress.

[UNESCO GMR 2014](#) (p303)

THE KEY STAGES INVOLVED IN LARGE SCALE CURRICULUM REFORM

A NEVER ENDING PROCESS

The process of developing and delivering the curriculum is continuous. Healthy education systems are characterised by constant change: the relentless quest for improvement and excellence. Much of this change is small scale: teachers striving to improve their lessons, schools trying to improve the learning experience, local level education authorities seeking ways to improve standards, governments adapting and refining policy. New ideas, guidelines, books and other resources constantly come into the education system to improve the delivery of the curriculum. This process of change is a response to changing knowledge, understanding and belief of what is working and what is not.

Periodically, all countries undertake major revisions of the curriculum. In some countries this is routinely done, in others it is the response to a felt need for change. This can be political (a new government or regime), a sense that the curriculum is out of date and does not match new thinking and policies – that it needs to be brought into line with ideas of a modern economy, or the curriculum fails to sufficiently include certain groups (e.g. ethnic groups and minority language speakers).

In April 1994, the newly elected South African government inherited a racist, divisionary, and conservative curriculum. It needed a major reform to help move the country forward in terms of reconciliation and nation-building, which in turn required a new philosophical and pedagogical approach to education. The primary school curriculum in South Africa was revised several times during the 1990s and Curriculum 2005 emerged, "characterised by abstruse language and a host of new concepts for schools and teachers to digest" with virtually no content. The 2012 National Curriculum

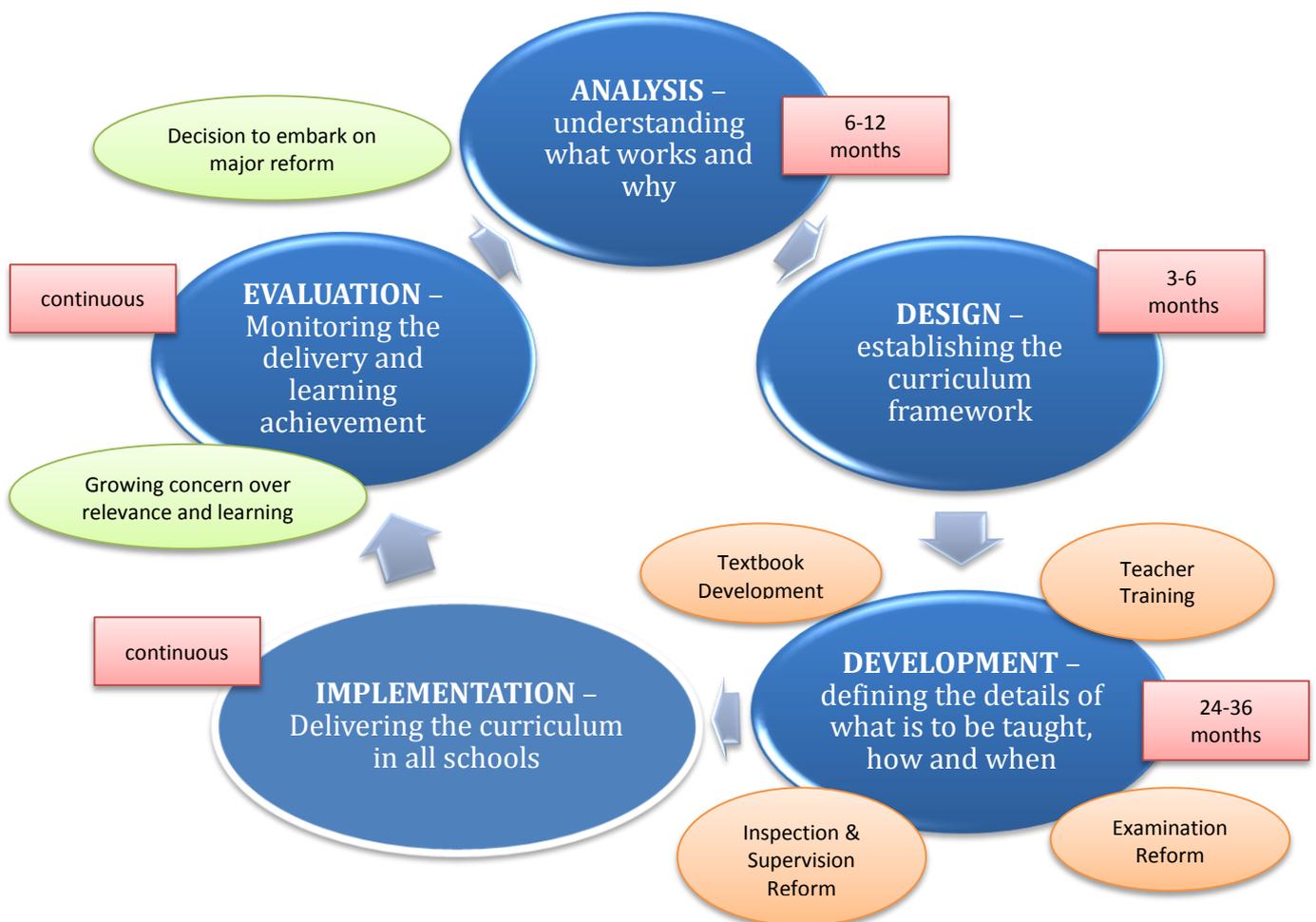
Statement Grades R-12 is the current revised curriculum strategy, which includes the national Curriculum and Assessment Policy Statements (CAPS) (akin to syllabi) that make the curriculum more accessible and effective for teachers. Every subject in each grade has a comprehensive and concise CAPS, which details what content teachers ought to teach and assess on a grade-by-grade and subject-by-subject basis. National Curriculum Assessment guidelines are prepared for teachers to provide them with specific information on assessment for a particular subject. The Department of Basic Education has a five year plan to support teachers, which includes in-service training.

<http://www.unisa.ac.za/cedu/news/index.php/2012/06/the-south-african-schools-curriculum-from-ncs-to-caps/>

Currently, some of the major influences of curriculum reform are concerns over low levels of learning, changes in views on the language and methods of instruction, recognition that the curriculum is too *academic* and not sufficiently aligned to the world of work.

THE FIVE STAGES OF CURRICULUM CHANGE WITH INDICATIVE TIME SCALES

This section looks at the typical sequence of events in the first stages of the curriculum reform process, illustrated on the right side of the diagram below.



STAGE ONE: ANALYSIS

This initial stage involves understanding the current curriculum, its appropriateness to wider development and education policy objectives. During this stage it is important to build an understanding on how well the curriculum is being delivered, where the drivers of change are

coming from, as well as where resistance to change might lie. A sound understanding of the institutional context is essential: which groups, organisations and entities exert influence on the curriculum and its delivery? How well do they work together? What challenges do they face?

Initial decisions to revise the curriculum are frequently based on changes in educational policy that respond to broader national economic and social development policies. Typically these may include:

- New national visions, perhaps from a change of government, particularly around skills and a competitive, knowledge economy
- Concern that the curriculum is out-dated, both in terms of what, how and who is taught - more and more children are in now school
- Concern at low levels of learning, especially literacy and numeracy
- New thinking about language, pedagogy and inclusion

This stage is important in establishing an evidence base. It is important to think about the curriculum in its broadest sense: not just the curriculum statements and documents (the curriculum framework, the content including syllabi) but the closely related areas (the “family”) of teachers and teaching, teaching and learning materials and resources, the school environment and assessment and examinations. **This stage is also important in building consensus around the need for and direction of reform.** Getting the buy-in of key stakeholders, including most importantly the cross-section of government units and departments with a core interest in the curriculum (see the later reference to the curriculum family), higher education institutions, representatives from the world of work, as well as key politicians and bureaucrats, will strengthen understanding and commitment to the process. It is particularly important to involve teachers and their unions, as well as parents, as the understanding and support of both is vital for effective implementation.

UGANDA'S NEED FOR CHANGE

"The existing curriculum (in common with that of many countries that are either developing or in transition) is a static one in which learners, driven by the need to succeed in a high-stakes examination, are forced to learn a mass of knowledge that is largely abstract, fact-centred, decontextualized and irrelevant. The deep conservatism of the curriculum which has remained unchanged except in small detail for some 30-40 years contrasts dramatically with the rapidly changing demands made of the 21st Century workforce. The challenge is to create a curriculum that builds metacognitive abilities and skills so that individuals—and the country—are better placed to adapt to the changing workplace and their changing roles in society".

(World Bank, Uganda 2008)

KEY QUESTIONS FOR ANALYSIS

- ❖ **IS THE CURRICULUM FIT FOR PURPOSE?** How does the current curriculum match up to present policy commitments and strategic objectives? How well is it expressed in terms of learning outcomes; how it should be taught?
- ❖ **WHO LEARNS AND WHO DOES NOT?** Are there significant differences in how the existing curriculum benefits different groups depending on their ethnicity, language, location, social and economic status, gender, and religion? Evidence is needed so that existing biases can be addressed in the design and development process.
- ❖ **WHO DOES WHAT AND HOW?** Who has overall responsibility for the curriculum? Which other entities exert influence? An institutional review of key departments will help assess

the extent they are fit for purpose and what capacity building and other resources are needed for them to be able to drive and sustain a curriculum reform process.

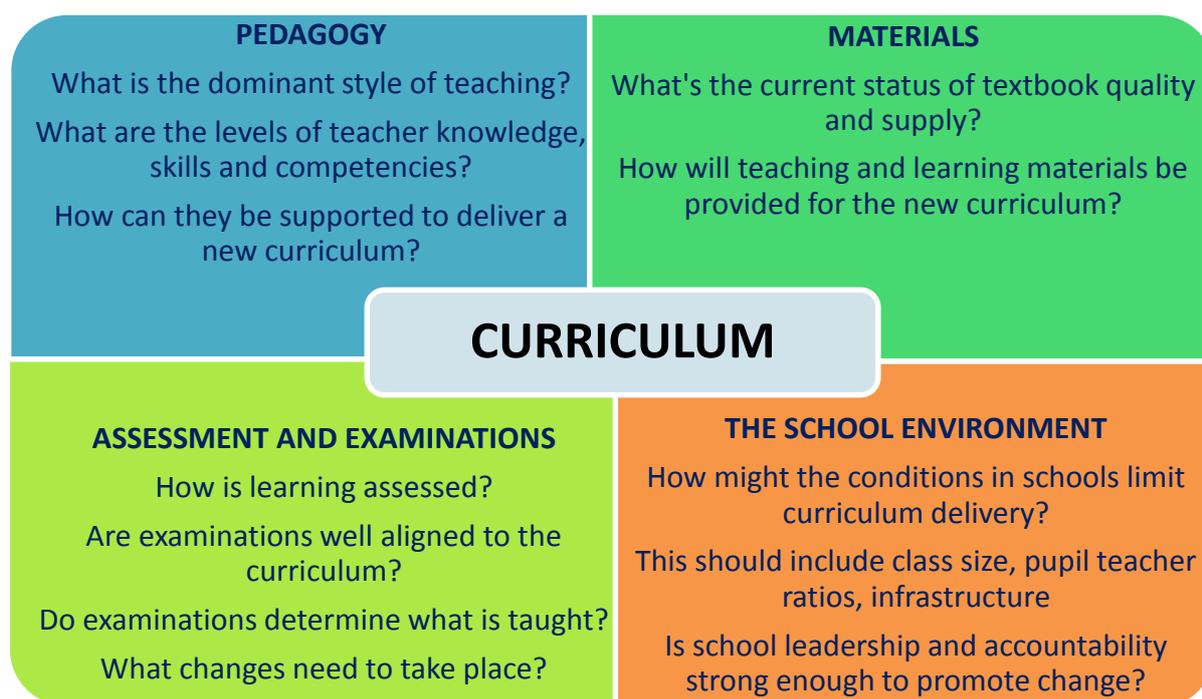
- ❖ **WHAT DO KEY STAKEHOLDERS FEEL ABOUT THE CURRICULUM?** It is very important to map who the key stakeholders are, determine how they may be engaged and ensure that they are included in both the analysis and subsequent stages. A stakeholder analysis therefore should be undertaken at this early stage, examining each's interest, motivations and influence. This helps understand who will support and who will resist change.
- ❖ **WHAT IS THE COST OF REFORM?** Many attempts at curriculum reform get significantly delayed and are only partially successful because the full costs are not estimated at the start. Effective curriculum reform is a broad process, and the costs are not just those of developing a new curriculum: there are major costs associated with materials development and production, teacher training and assessment reform that should be considered in the initial stage of reform.

INSTITUTIONAL ANALYSIS

A key part of the analysis stage is assessing the capacity of various parts of the system to undertake reform. The next section illustrates how curriculum is at the centre of other key functions that support its delivery. It is important to consider the curriculum in this broader way, and assess and plan comprehensively to include all relevant agencies involved in making the curriculum work in practice. It is wrong to think of curriculum development as being the sole responsibility and prerogative of curriculum development departments: to be effective it has to involve other members of the "family".

- Institutional reviews and needs analyses. This should not be restricted to the curriculum development department alone, but needs to consider the wider "family" – those involved in the textbook cycle (including designers, writers, publishers, procurers, etc.), teacher training institutions and in-service training providers, teacher unions, inspectors and school supervisors (e.g. regional/district officers) and, most importantly, examination and assessment institutions. Schools and school authorities, such as Management Boards or Parent Teacher Associations/Councils are also important.
- From this will inevitably emerge an immediate need to build capacity to undertake the reform. Training needs analysis should be considered for key personnel who will be involved in the process, including subject specialists and materials writers.

THE CURRICULUM “FAMILY”



STAGE 2: DESIGN

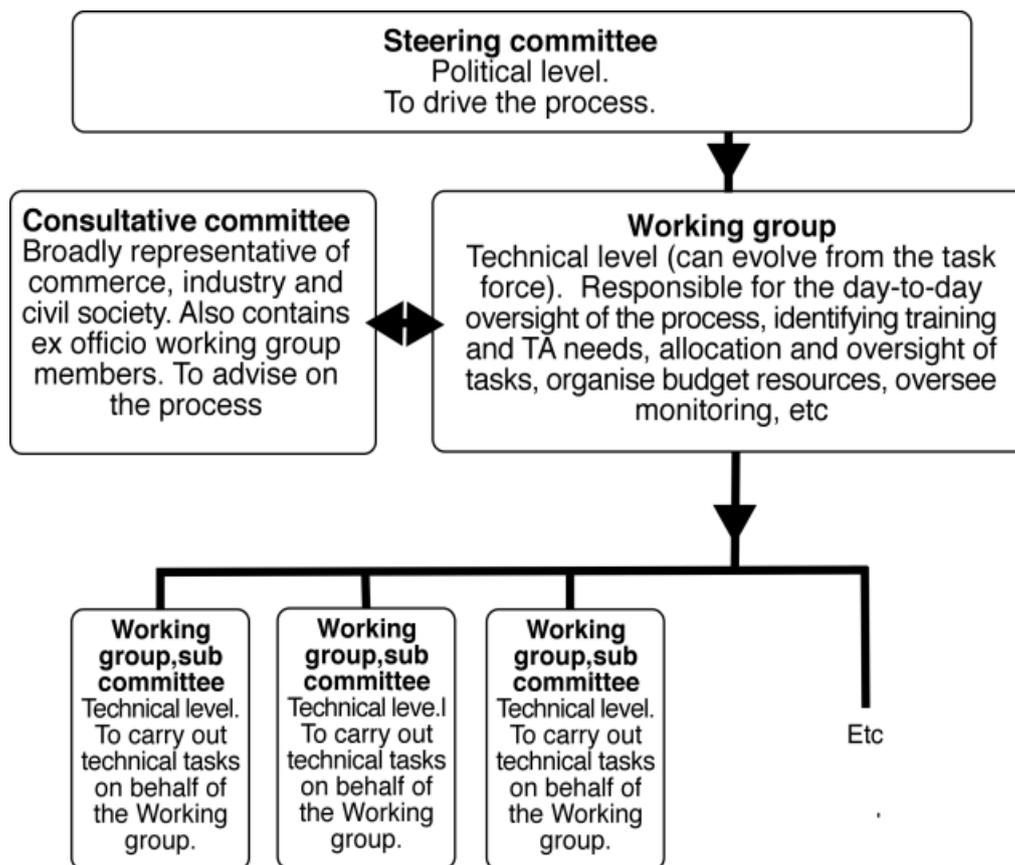
STRUCTURE TO GUIDE THE REFORM

Getting the right structure in place to ensure appropriate oversight and coordination is a vital early task. This needs to be inclusive and well communicated. There are usually three basic levels:

- Consider the formation of a **high level steering committee** with broad representation. ToRs should reflect its strategic, oversight and executive role. Its core role is to take key decisions based on recommendations from technical and other levels, ensuring that what is being proposed aligns with policy objectives and available resources.
- Establish a **mid-level technical oversight group or task force**, with a clear mandate and ToRs. The key function of this body will be to coordinate the work and ensure consistency and coherence across the various technical working groups at the level below.
- Establish appropriate **working groups** who will undertake the technical work in developing the new curriculum. Good institutional analysis and capacity assessment should inform choice of membership and expectations.

UGANDA'S COORDINATING STRUCTURE

The diagram shows the structure for the secondary curriculum reform developed in Uganda (World Bank, CURRASSE, 2008). It shows four distinct functions from the highest level Steering Committee, to the numerous sub-groups that are responsible for the technical work: developing the subject content and syllabi. The intermediate working group ensures overall coherence across the technical groups, and the consultative committee draws in a wide range of stakeholders, ensuring that their interests are reflected in the process. This is not a blueprint, but a working example of what the coordinating structure can look like.



HIGH LEVEL POLICY DECISIONS

There may be a number of key policy decisions that need to be taken before the more detailed curriculum development work can begin. These include:

- Decisions around the language of instruction
- Changes to the structure of schooling (e.g. length of primary, junior secondary stages)
- Changes regarding the expected number of days, hours of schooling
- Decisions around examination and assessment (e.g. the phasing out of end of cycle examinations, use of continuous assessment, etc.).

It may be that some of these decisions are taken following advice of consultative groups, task forces or commission of enquiry or reports. This will likely have been undertaken during the analysis stage. **BUT it is important to remember that curriculum change is as much a POLITICAL process as a TECHNICAL one** – and decisions are often not reached exclusively on the basis of evidence.

The important point is that there needs to be clarity on these big issues before the detailed work gets underway.

THE CURRICULUM FRAMEWORK

The analysis undertaken in the first stage sets the scene for the subsequent reform. It provides the necessary evidence to inform decisions in a number of key areas including curriculum content, who to involve in design and how that will happen, and what the main threats and risks to implementation might be.

The key outcome of the design stage is a Curriculum Framework that sets out the overall vision: the values, underlying principles, overall aims and objectives, the structure, the approach to teaching and learning and how learning will be assessed. The Curriculum Framework is then used to develop guidelines for the syllabus writers who will develop the details of what will be taught. Once **Syllabus Guidelines** are in place the detailed work of developing the full curriculum can take place. The approach needs to ensure a good degree of alignment between the elements (subject areas), particularly in relation to developing competencies (see below) so they are mutually reinforcing.

The design stage sets out a clear process of how the new curriculum is to be developed, how the process will be led, who will be involved, how the rationale, objectives and substance of the curriculum will be developed, and how consultation will be managed. It will establish a clear timeline through development, testing, launch, support for implementation and monitoring and evaluation.

WHAT DOES A CURRICULUM FRAMEWORK LOOK LIKE?

All frameworks are different, so this is NOT prescriptive: most Curriculum Frameworks will include the following:

Introduction	Broad policy statements, rationale underpinning the curriculum, background to reform, outline of the reform process
Vision	Statement of overall vision; core principles (e.g. inclusion, culture, flexibility, relevance to society, etc.); overall objectives; core values
Detail	Specific subject areas by stages/years of schooling; language; description of core competencies and skills; pedagogy; expected learning outcomes; how learning will be assessed
Cross cutting issues	Gender; environmental issues; special needs; HIV/AIDS; conflict and peace-building
Resources	Teaching and learning materials and approaches, including textbooks; school support and supervision (inspection)

Links to examples of curriculum frameworks:

Armenia: an example from of a national curriculum that expresses clear learning objectives: http://www.ibe.unesco.org/curricula/armenia/ai_fw_2010_eng.pdf

Seychelles: http://www.ibe.unesco.org/curricula/seychelles/se_fw_2013_eng.pdf

Bolivia: http://www.ibe.unesco.org/fileadmin/user_upload/COPs/Pages_documents/Resource_Packs/TTCD/sitemap/resources/3_1_5_CS_ENG.pdf

DEVELOPING THE SYLLABUS GUIDES

Once the Curriculum Framework is agreed, the process of developing the full curriculum can begin. This is where subject specialists come in, usually working in panels or task groups under standard Terms of Reference and guidance.

The first stage involves the development of **subject overviews**. These form the basis from which the more detailed syllabi are developed. Subject overviews are expected to include the following:

- Learning objectives for each subject area and stage or year
- Broad details of subject content
- The competencies that are to be developed
- How cross cutting issues, e.g. disability, special needs, gender, environment will be included
- Alignment and complementarity between subject areas and development of competencies
- Continuity between stages of years

The following links provide examples of syllabus guides:

India's elementary level syllabus: http://www.ncert.nic.in/rightside/links/pdf/syllabus/vol1_el.zip

Primary science from Singapore <http://www.moe.gov.sg/education/syllabuses/sciences/files/science-primary-2008.pdf>

STAGE 3: DEVELOPMENT – DEFINING THE DETAILS OF WHAT IS TO BE TAUGHT, HOW AND WHEN

DEVELOPING THE DETAILED SYLLABI

Once the Curriculum Framework and the Syllabus Guidelines are in place, subject specialists work to develop the core of the curriculum – the specific details of what will be taught, how it will be taught, what competencies will be developed and how, and what learning outcomes will result at each stage/year/grade of schooling. These are the detailed syllabi for each subject and they provide the real substance to the curriculum, setting out content for each subject and stage or year. It is common for these to be done by subject panels – groups of specialists.

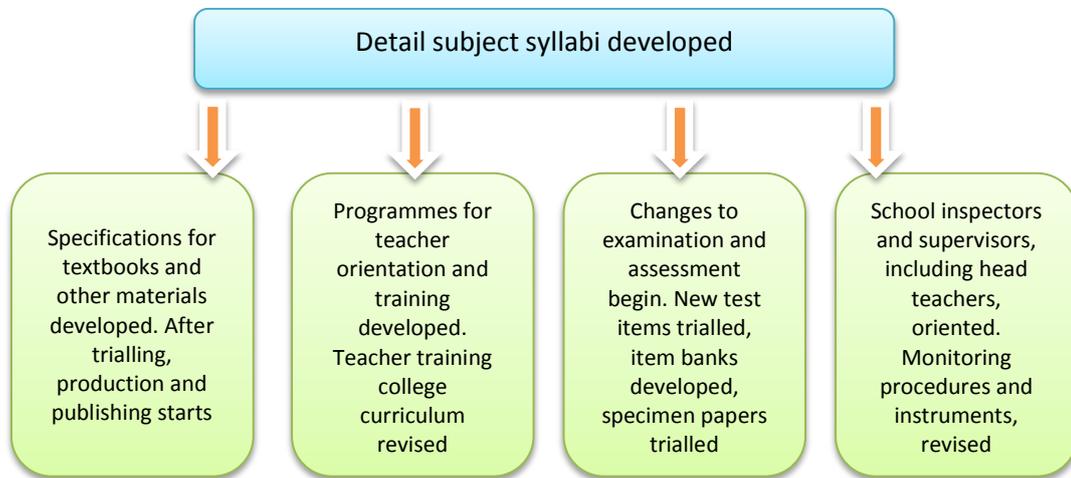
The syllabus for each subject and each stage or year can be expected to give sufficient details for teachers to be able to deliver the curriculum, for textbook writers/publishers to produce appropriate learning materials and for examination and assessment bodies to be able to test what has been learned. Typically the syllabus will:

- Set out the timed sequence and content of topics
- State what is expected to be achieved: the learning outcomes
- Provide guidance on teaching and learning materials
- Provide suggestion on how topics may be taught
- State what will be assessed and how

PREPARING FOR IMPLEMENTATION

It is during the development stage that collaboration and coordination between the key members of the curriculum family is vital. As the detail of the curriculum is developed, the implications for other areas becomes apparent and work needs to begin to prepare for implementation. Of particular importance is the area of **Assessment** – failure to include reform to how learning is

measured will result in teachers teaching to old tests and principles. Equally important is the area of **teacher training**, where institutions involved in preparing teachers need to adapt their programmes to the new curriculum. Serving teachers need to be re-oriented through extensive in-service programmes.



TESTING AND PILOTING

Wherever possible, testing of key aspects of the curriculum will increase the chances of it being “doable”. It is time consuming and there are substantial costs – so it is often ignored or done in a superficial way.

Good piloting however will allow for adjustments before the curriculum is taken to scale and can thus prevent costly mistakes. It can help check:

- The time required and the sequence of topics - allowing for adjustment of time and expectation
- How teachers cope with topics – suggesting both training and materials that are needed
- How children respond
- How to assess learning

SIX COMMON PROBLEMS

MANAGE CONSULTATIONS TO BUILD OWNERSHIP

Decisions need to be taken in determining who to involve, the purpose and extent of that involvement and how it will be managed.

Curriculum has many stakeholders, ranging from high levels of the political leadership, to teachers and their unions, the world of business, civil society, religious leaders, to parents and children. All will have a view on what should be taught and how it should be taught. **A stakeholder analysis should be undertaken as an early part of the design process, noting the levels of importance and influence each has on the process.** Think diversity! Failure to consult and failure to involve the key institutions or departments will only limit the legitimacy and effectiveness of the reform. It is important to get a good communication strategy in place at the start.

Rwanda is in the early stages of a major curriculum reform process. It has engaged external support. Stakeholder consultation is key in the early stages which is being managed through the Rwanda Education Board.

In the Dominican Republic in 2012, more than 1800 stakeholders (i.e., parents, employers, social organisations, churches, public representatives, local civil servants) participated in a national consultation day in advance of the curriculum revision. A few main points raised included the critical importance of teaching values and competencies and improving the learning environment.

Examples of the consultation process:

Rwanda: http://www.reb.rw/index.php?id=79&tx_ttnews%5Btt_news%5D=95&cHash=5ffdc998524dfca13937726fdf0a82f8

Dominican Republic: <http://sitios.educando.edu.do/revisioncurricular/data/uploads/consulta-social-para-la-revision-curricular.pdf>.

GETTING STUCK IN SILOS

It is not uncommon for there to be a lack of coordination and a degree of isolation, even antipathy between the key agencies central to curriculum design and delivery. **The links between curriculum, teachers, materials, examinations and supervisors are all too obvious, but in reality these family members are often distant.** Frequently they compete for scarce resources, increasing the discord between them. In addition, as the key actors belong to different departments, managing their collaboration can be problematic.



The importance of the relationship between these key entities of departments has already been

emphasised. A major curriculum revision provides a real opportunity for change: but the approach has to be to involve these core entities from the outset. **If curriculum reform is approached in a sequential way – do the curriculum first, then think about books, then train teachers and then change assessment it will fail.** If reform is to succeed then it is essential to involve all these key players from the outset in the process and ensure there are adequate resources for each to meet its commitments to supporting the reform.

By the same token, if one of these areas is neglected, delivery of the curriculum will be weakened. In particular the area of assessment, if not linked to the new curriculum, will continue to force teachers to follow the old curriculum, as there is always a strong tendency to teach to the exam or test.

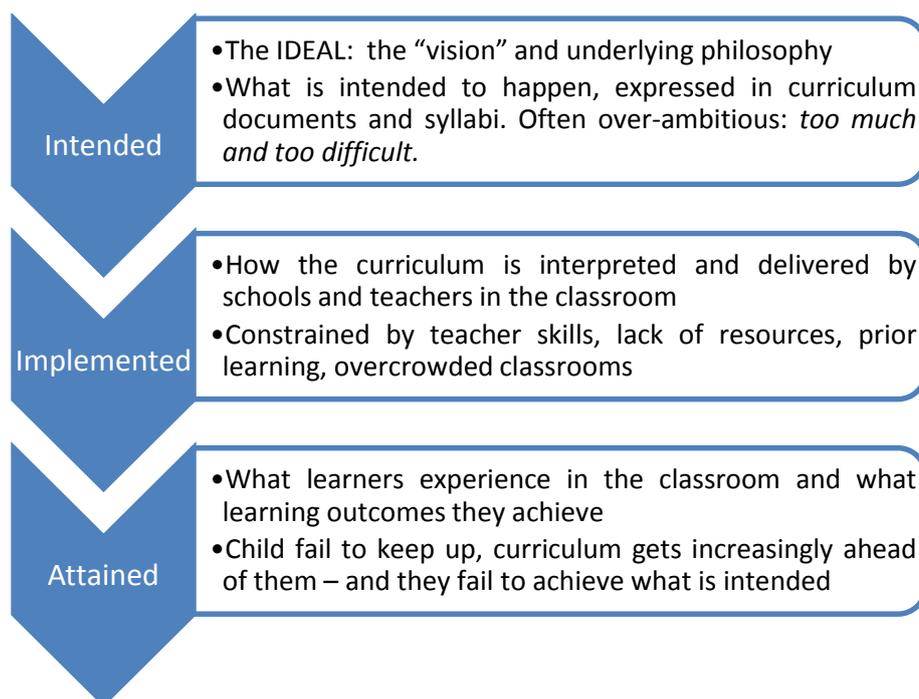
THE DANGER OF OVER AMBITION: THE INTENDED, IMPLEMENTED AND ATTAINED CURRICULUM

There are a number of reasons why so many children fail to achieve even basic levels of literacy and numeracy, including lack of teacher skills, insufficient time on task, lack of books, overcrowded classrooms, and frequent absence. One important reason is that the primary curriculum is often over ambitious, making demands on both teachers and learners that are unrealistic in terms of time and

resources. Pressures on teachers to complete the curriculum result in too fast a pace for many children to keep up, who then fall further and further behind. Setting more realistic curriculum targets has worked in raising achievement in some contexts. Research that contrasts the experience and achievement of learners in Viet Nam and India, shows that Viet Nam’s policy of simplifying the primary curriculum – reducing its size in favour of a stringer focus on core learning areas – resulted in significantly higher achievement (GMR 2014 p. 281) than that of India, which took the opposite course in developing a larger, more complex curriculum. More is not necessarily better.

It is essential from the outset to recognise the reality of teaching and learning, and whilst striving to improve is always to be encouraged, adopting a curriculum that is beyond the capacity of teachers and learners will surely fail the majority of children. **Focussing on the core competencies of literacy and numeracy at the primary stage should be a priority.**

There are frequent gaps between what **is to be** learned, what is **actually taught** and what **has been** learned. There is often a considerable “drop off” between these three levels. Understanding why this happens and what needs to change is critical to curriculum reform. The diagram below illustrates the differences between the *intended*, *implemented* and *attained* curriculum and why the gaps occur.



LANGUAGE AND LEARNING

There is now a substantial body of evidence that points to the importance of early years of schooling being in a child’s mother tongue. Language policy is highly contested in many countries, and choice of the language of instruction is very frequently driven more by politics than by evidence. This is a key issue for curriculum design, and one that exerts a significant impact on the gap between the “intended” and “attained” curriculum. **Global evidence points strongly to the importance of establishing mother-tongue literacy to ensure sustained learning in minority language learners.** Early transition to the official national language and/or English is still common policy in many countries. Many children, as well as teachers, fail to cope with this, and having limited competence

in the language of instruction inevitably restricts learning. **Textbooks written in a language that pupils – and often teachers – don't understand are a wasted resource and often do not aid learning.**

Implementation of bi- or multi-lingual curriculum policies are complex, and there is often resistance to mother-tongue instruction from parents (voters) and politicians, who associate the national or English language with greater employment and life opportunities. The evidence suggests this is not the best policy. Informing an open-minded policy debate and resourcing that debate with evidence is important.

The link below summarises the innovative approaches to mother tongue language support in a number of OECD countries: <http://www.oecd.org/edu/innovation-education/44824195.pdf>.

A CURRICULUM FOR ALL BY ALL

National curricula frequently fail to be truly national: cultural, ethnic, power and gender biases often favour some over others. Negative stereo-typing creeps in, or may even be deliberately constructed.

The previous section raised the issue of language which can be a major obstacle for many in accessing the curriculum. “Capture” of the process by particular groups often skews the curriculum towards those groups. Ensuring diversity amongst those who steer and guide the curriculum reform is important in building greater inclusion. Similarly, working groups need a balanced membership of stakeholders, including teachers, representatives from different ethnic groups and speakers of minority languages. Similarly, the interests of minorities, and in particular children with disability, are frequently not adequately considered during the curriculum development process.

LACK OF FINANCE FOR COMPLETE REFORM

Pakistan’s experience in introducing a new curriculum is a prime example of the dangers of not approaching the process in a coordinated way and not allocating sufficient resources to see the process through. The curriculum was revised in 2006, yet in 2011 it remained largely unimplemented. Textbooks had not been revised, nor had teachers received adequate training. This was in part due to inadequate resources, and poor planning.

Proper costing is thus essential at the outset. Where resources are constrained, the option to phase in a new curriculum year by year can be considered – though there are risks that the job will only be partially done.

- What are the initial and annual recurrent costs of new textbooks?
- What immediate and on-going re-training of teachers is required?
- What are the costs of changing teacher training college programmes?
- What are the costs of the changes to the examination and assessment systems?

WHAT GOOD AND BAD LOOK LIKE!

Good practice	Poor practice
❖ Developed in an open and participatory way, extensive consultation	❖ Developed behind closed doors in the curriculum department
❖ Piloted and tested for validity	❖ Too rushed to be able to pre-test

<ul style="list-style-type: none"> ❖ New curriculum well communicated and distributed prior to launch ❖ Serving teachers oriented and trained before, curriculum guides developed and distributed ❖ Teacher training college curriculum aligned, and staff trained ❖ New textbooks and learning resources printed and in schools ❖ New assessment and examination system launched at same time ❖ Inspectors and supervisors oriented and trained, able to monitor and promote new curriculum 	<ul style="list-style-type: none"> ❖ Reform is poorly communicated and not understood by majority ❖ Teachers unaware and untrained, continue to teach to old curriculum ❖ No support materials available to teachers ❖ Teacher colleges not involved and courses continue to prepare for old curriculum ❖ Books still being developed, now new books in schools ❖ Examinations unchanged, so assesses on old curriculum ❖ School support and supervision remains based on old curriculum
--	---

WHAT ADDED VALUE CAN THE EU BRING?

The role of external development partners, including the EU, in the curriculum process needs to be considered sensitively according to context. **Many countries, for good reason, are reluctant to open up what is an essentially national and often political process to foreign influence.** Many will actively resist what is perceived as interference. This is especially the case where a deeper political motivation is felt to drive the partner's interest. The case of US involvement in Pakistan's curriculum reform of the 1990s is a good case. It is important to be **neutral** and help manage risk.

In other circumstances, the door is more open and government more willing to engage outside assistance. Others may openly welcome the opportunity to learn from and engage with wider experiences, recognising the "more of the same" limitations of their own capabilities.

EU support can spread across the five stages and take two basic forms: **technical assistance** to help build capacity and steer the reform process, and **financial assistance** to help meet the extensive costs of doing it well. The one complements the other.

The curriculum reform process can become a crowded house, with development partners sometimes seemingly competing for pieces of the reform, driven by their own specific priorities and preferences. This can lead to a piecemeal and fragmented approach, with a lack of consistency in how the various areas of the curriculum are articulated, developed and resourced. **Collaboration between development partners is desirable, but it needs to result in a unified and coherent approach.** There is an important coordinating role to play when there is a crowded house.

AT THE ANALYTICAL STAGE

By providing additional human and financial resources to the initial curriculum analysis, the EU can add considerable value. The point of greatest influence is often in the initial analysis and conceptualisation stage. This can in effect open up the space for future dialogue. External partners are often in a good position to bring in wider global experience, though it is important not to be

prescriptive. High quality international expertise can therefore support sound analysis, inform the debate through looking at relevant international good practice, and so help the partner government think through options. This helps build both trust and confidence – and can influence a realistic and achievable agenda for reform. Good analysis and evidence has the potential to inform the debate, and provide some counter to politically driven but inappropriate choices.

AT THE DESIGN AND DEVELOPMENT STAGE

In a similar way, supporting these stages through technical and financial resources can make a significant contribution to the curriculum reform process. External partners can bring in highly experienced expertise to work alongside national actors.

There are however very real dangers associated with “importing” foreign models, attractive as they may sometimes seem to the political and bureaucratic leadership who frequently have OECD-level aspirations that are overly ambitious for the existing national reality. Where relevant examples of successful change are identified, brokering some exchange between the countries may be a productive approach. This can include exposure visits or study tours. Technical Assistance to support the process can range from, at one end, a whole “package” to manage the process, to provide short and long term technical expertise in key areas and to build capacity of key institutions, through to short, discrete inputs a key points.

There are substantial costs in these two stages; there is an extensive amount of work involving special technical and consultative groups, and investing in a broad consultation and communication process. These are areas where domestic resources are frequently insufficient. Thus, external partners can provide **an assured level of finance** to support the whole process.

THE IMPLEMENTATION STAGE

Having a new curriculum in place in itself is no guarantee it can be effectively delivered and result in the learning changes that prompted the reform in the first place. Ensuring the curriculum is effectively delivered requires substantial support across the “family” identified earlier. Curriculum change may involve a number of wider, systemic changes that involve increased cost. This can include the need to hire new or redeploy and retrain existing teachers. Substantial technical and financial support should be considered to:

- ❖ teacher training and support, to ensure teachers become quickly familiar with and able to apply the new curriculum
- ❖ textbook and materials need to be developed and produced to align with the changes
- ❖ school supervision and inspection processes need to change and actors re-oriented and skilled to support the change
- ❖ examinations and assessment needs to change so that the new curriculum is what is assessed

It is highly unlikely that one single development partner will cover the above, so high levels of coordination are required so the total is the sum of the parts.

EVALUATION

Only through regular and good quality monitoring and evaluation of a new curriculum are we able to see whether it is working or not. Three areas in particular may be considered for support:

- ❖ Support to school supervision, including what is happening in classroom, is the way in which an understanding of curriculum delivery is built up.
- ❖ Specific pieces of research that look in detail at particular areas of the curriculum, help understand what is working (or not) and why and enables further adaptation and support. Good research (and developing national capacity for it) that is widely disseminated helps promote a more vibrant discourse around the curriculum and learning.
- ❖ Measuring learning outcomes: the value of regular and high quality assessment of learning provides the necessary evidence base on the extent to which the system is working.

REFERENCES

This section provides a brief list of useful reading, much of which provided background for this paper. Wherever possible, links are provided.

Literature Review on Pedagogy, Curriculum, Teaching Practices and Teacher education in Developing Countries. Education Rigorous Literature Review. Department for International Development (DfID), authored by Westbrook et al. (2013).

https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/305154/Pedagogy-curriculum-teaching-practices-education.pdf. This comprehensive literature review examines the following question: *Which pedagogic practices, in which contexts and under what conditions, most effectively support all students to learn at primary and secondary levels in developing countries?*

International Review of Curriculum and Assessment Frameworks. Internet archive. Claire Sargent, Anne Byrne, Sharon O'Donnell and Elizabeth White (2010). National Foundation for Educational Research (NFER). Review and development of curriculum in 23 developed countries/states

http://webarchive.nationalarchives.gov.uk/20130220111733/http://inca.org.uk/Curriculum_review_probe_final_01_dec_2010.pdf. It considers the following questions:

- Are reviews of the curriculum scheduled at regular intervals or are they *ad hoc* in response to emerging issues?
- Have the most recent reviews of the curriculum covered all ages and phases? Have they included pre-school education?
- What were the reasons for the most recent changes to the curriculum? What were the aims or purposes of these changes?
- To what extent has the consistency of the curriculum framework *across phases* been an issue for these changes? What challenges have arisen and how have they been addressed?

Training Tools for Curriculum Development: A resource pack. Practical manuals to assist specialists involved in curriculum change and reform. Includes case studies from more than 110 countries and is organised in 8 modules (e.g., policy dialogue and formulation, capacity building for curriculum implementation, curriculum evaluation and student assessment).

http://www.ibe.unesco.org/fileadmin/user_upload/COPs/Pages_documents/Resource_Packs/TTCD/TTCDhome.html.

Curriculum development homepage with resources on curriculum development, including themes on early grade reading and inclusive education. <http://www.ibe.unesco.org/en/themes/curricular-themes/improving-reading-in-the-early-years-of-primary-school.html>.

Links to national curriculum documents and other curriculum-related materials (listed by country): <http://www.ibe.unesco.org/en/services/external-links/curricular-resources.html>

Various International Bureau of Education (IBE) publications, including working papers on curriculum issues: <http://www.ibe.unesco.org/en/services/online-materials/publications.html>

IBE curriculum glossary:

http://www.ibe.unesco.org/fileadmin/user_upload/Publications/drafts/IBE_curriculum_glossary_final.pdf

“Starting Strong: A Quality Toolbox for Early Childhood Education and Care” (2011). A useful link on key steps and issues, from the OECD http://www.oecd-ilibrary.org/education/starting-strong-iii_9789264123564-en

“Reviews of National Policies for Education: Kyrgyz Republic” (2010). Chapter 5 summarises issues and challenges around the national curriculum. http://www.oecd-ilibrary.org/education/starting-strong-iii_9789264123564-en

Linda Chisholm and Ramon Leyendecker (2008) “Curriculum Reform in post 1990s sub-Saharan Africa. In International Journal of Educational Development 28 p. 195-205.

UNESCO (2012) Primary School Curricula on Reading and Mathematics in Developing Countries. Technical Paper No.8

“Uganda Secondary Education and Training: Curriculum, Assessment & Examination (CURASSE) Roadmap for Reform” (2007)

University College Dublin (2010) “Programme Design: Overview of Curriculum Models”. UCD Teaching and Learning Resources

Massimo Amadio (2013) “A rapid assessment of curricula for general education focussing on cross-curricular themes and generic competences or skills”. Background paper for the EFA Global Monitoring Report 2-13/14. UNESCO.

Kiira Kärkkäinen (2012) “Bringing about Curriculum Innovations: Implicit Approaches in the OECD Area”. OECD Working Papers no.82

Yidan Wang (2012) “Education in a Changing World: Flexibility, Skills and Employability”. World Bank

Lindita Boshtrakaj et al (2010) “Kosovo Curriculum Framework: Curriculum Writers Handbook”. EU Education SWAp Project.

Mother tongue instruction: the SEAMO project

http://www.seameo.org/index.php?option=com_content&view=category&layout=blog&id=108&Itemid=549