MODELS OF CURRICULUM DEVELOPMENT

—international trends and the way forward—

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1. Introduction

Practically all education systems are going through some kind of curriculum reform at the moment. Even in the education systems where pupils do relatively well in the international comparisons, curriculum development is a common and often a central feature of overall education sector improvement. Global communication, integration of world’s regions, and increased mobility of students have all played an important role in making curriculum development an interesting and - at the same time - a challenging task for any Government and education minister. The purpose of this paper is to look at some international trends and to try to match the ongoing curriculum reforms to the local needs and expectations in increasingly complex and interrelated world.

There are several obvious reasons why curriculum reform is so often at the core of education development programs of today. First, the information age has brought technology to schools or at least to the lives of the young and the old in our societies. With these technologies people have access to all information they need faster and easier than ever before. The previous curricula that were based on covering the essential knowledge for all citizens are helplessly outdated as soon as the curriculum documents come out from the printing houses. Our younger generation needs different knowledge and especially they need new skills in coping with the challenges of information society. Many education authorities including the Ministries of Education have realized that the old fact-based curricula need to be replaced by new ones that emphasize better the development of thinking skills, interpersonal skills and creativity rather than simply mastering pieces of past knowledge (Sahlberg 2005).

Second, the restructuring of the world economic and political orders especially in Europe called for new content and methods of schooling, among many other societal changes. Democratization of the new independent states, expansion of market economies, and mobilization of peoples and individuals have all raised questions of what pupils and students should be taught in schools and what they should know and be able to do after they have attended school. The need for fundamental curriculum reform has been particularly urgent in Central and Eastern Europe and in the New Independent States. Naturally, the first wave of changes in curricula touched the content of study programs including abolishing certain politicized and ideologically biased subjects and introducing new subjects instead. As curriculum reforms gained momentum in these countries, also the form of curriculum begun to find new shapes. Today, several ideas that are typical to some western education reforms are also visible in the attempts to change curriculum in the countries of transition economies.

Finally, increasing evidence from empirical research on learning in schools and international comparison studies is showing that students learn often much less in schools than is generally expected by the education authorities and the public at large. For example, when students’ conceptual

understanding of mathematical and scientific knowledge has been investigated, the findings often conclude that many students have serious misconceptions about the knowledge domain that have been taught by their teachers. In other words, students do not always learn what teachers expect them to learn but they create their own knowledge structures instead. Furthermore, the recent OECD (2004) Programme for International Student Assessment (PISA) showed that many education systems that were for a long time considered to be of high quality in terms of academic achievement of students, were doing much poorer than those education systems that were thought to be average or below in international rankings. Empirical research findings and international comparisons of student achievement have created a notable thrust in many countries to take a closer look at the curriculum. Many structures and practices that have been believed to be producing high quality results in education have recently been under fire. At the moment of writing this there are more questions than well-supported answers in the field of curriculum development. This paper will next look at some main international trends in curriculum reforms.

2. Emerging global education reform agenda
Some observers of education reforms have identified an interesting global phenomenon (Hargreaves et al 2001). It looks like a common education reform agenda that is increasingly having a status of the official education improvement orthodoxy. The major components of this new education reform agenda include:

- **Higher standards** of learning for all students;
- **Centralized curriculum** that ensures common and consistent coverage of what every student should know and be able to do often in the form of high standards;
- **Literacy and numeracy** as prime targets of reform;
- **Indicators and attainment targets** of student achievement and curriculum planning that enable teachers and other to be clear whether these standards have been reached or not;
- **Aligned assessments** that are tightly linked to the prescribed curriculum, learning standards, and indicators making sure that teachers focus on high learning achievements for all students;
- **Consequential accountability** where the school performance and especially raising the quality of education are closely tied to the processes of accreditation, promotion, inspection and ultimately funding and rewarding (or punishing).

This new education reform agenda that has been widely accepted as a conceptual framework for many large-scale education reforms - including Eastern Europe - consists of some fundamental shifts in educational thinking and the broadest design features of educational administration. The most obvious difference is that this new education reform agenda emphasizes on high learning standards for all students, not just a few. It also moves the ‘core subjects’, i.e. mother tongue and mathematics as main priorities in the curriculum by defining clearly what students should learn rather than what teachers should teach. It also shifts the focus from remembering facts to applying knowledge and skills that are more appropriate for information societies and knowledge economies. Finally, it tries to make teachers to combine educational excellence with equity in their work with students regardless of their personal characteristics or different backgrounds. It is believed that in national education reforms these principles of curriculum would lead to more or less same achievement in all schools and by most students irrespective of location of school or its nature of its teachers.
It is difficult to argue against raising the standards in education. Every education reform aims at making students learn more and better, asking teachers to teach in new ways, and requiring schools to perform better than before. In principle, this new educational agenda promises significant improvements in the quality of education, especially in standards of learning and equal opportunities for all students. However, as Hargreaves (2001) claims it also underestimates some important dimensions of learning and teaching. Teachers are beginning to lose their interest in teaching while the standards and assessment schemes are predetermining not only what and when they should teach but also how they should teach. There are signs already of this de-professionalisation of teachers due to over-standardization of education, and especially due to frequent external testing and assessment that are often linked to accreditation and made public through media. Student learning, on the other hand, is focusing on knowledge and skills that are tested and assessed putting aside such subjects as arts, music, physical education, ethics, just to mention a few. Since this new educational reform agenda is international trend dealing to a large extent with school curriculum, let’s look at what exactly are the current models of curriculum development that have been put in place.

One of the key issues in discussing global curriculum reforms is the meaning of the concept ‘curriculum’. It is beyond this paper to explore the origins of that concept, however, it is necessary to note that the word ‘curriculum’ does not have any one fixed meaning, even within the professional community of educators. Traditionally, in Anglo-Saxon education systems curriculum typically refers to what students will be taught with a particular focus on objectives, content, methods and description of other pedagogical arrangements (Taba 1962; Pinar et al 1995; Smith 1996/2000). On the other hand, the German tradition sees curriculum more as a program of study (lehrplan) that emphasizes on describing the yearly study programs by subject or area of study together with the order in which they will be taught in classrooms. During the era of intensive curriculum reforms in all corners of the globe, these two generic curriculum models have blended into various versions and applications depending on the system and its current policy principles.

The term ‘curriculum’ has not been traditionally used in many of the transition countries, and it has altering meanings in other countries. Therefore, also curriculum development has to be dealt with certain sensitivity. It is normal that countries in the midst of fundamental education reform seek ideas and assistance from outside. However, at the same time it is paramount that those in charge of managing the curriculum reform will understand where the external impulses for curriculum change are coming from. More specifically, in order to understand why some particular curriculum model works in one education system, we have to know which education policies drive these changes and what are the cultural and social characteristics of these societies. Probably the most serious mistake that one can do in improving the quality of education is to transfer solutions developed elsewhere directly to solve local or national problems. There are examples of sophisticated curriculum models that have been implemented in the education systems that are incompatible to make these curricula models really function as they were planned.

For the purposes of the ongoing curriculum development in the region it is useful to have a closer look at some trends that have occurred in large-scale curriculum reforms. Rather than analyzing any specific education systems, the following narrative focuses on various classifications or typologies of curriculum development during the last two decades.
**Curriculum as content (or product)**

This is a classical way of understanding curriculum. In this model curriculum means a detailed description of contents of teaching (syllabi) that teachers should deliver to their pupils through teaching. This model derives from the classical Tylerian educational rationale that views teaching and learning process as a linear causal relationship (Tyler 1949). According to this curriculum logic, carefully pre-determined educational objectives lead to appropriate selection of content that will be taught and to choice of relevant teaching methods that fit with the qualities of students and teachers. Evaluation of learning outcomes will then be used to regulate the new ‘input’ or planning of teaching.

This curriculum model has been typical in many countries. It is a common solution in less-developed education systems especially when there is a shortage of adequately trained teachers in schools. The reasons for the prevalence of this approach are that it is systematic, follows the ideas of industrial management and has therefore considerable organizing power. For example, many European countries used to have a content-oriented curriculum in 1970s when school curricula were rapidly renewed (Scandinavian systems, France and Eastern European countries).

**Curriculum as experience**

This curriculum model is based on an assumption that the process through which the goals of schooling are achieved is more important than the content that is used as an object of study. Probably the best known advocate of this curriculum model was America educationalist John Dewey in early 20th century (see Doll 1993). Later on, curriculum as experience became alternative to classical content-based curriculum. However, curriculum model that emphasizes experiences rather than transfer of information is more vulnerable to external critics (especially from traditional academic spheres) and also more difficult to use as a basis for educational evaluation and assessment of student learning.

There is at least one national level example of implementation of this model. The 1994 Curriculum Reform in Finland was based on experience-based curriculum model where schools where given the ultimate decision making concerning teaching and learning arrangements (Aho et al, forthcoming). This was possible because all secondary school teachers and majority of primary school teachers hold master’s degree and are therefore capable to interpret the descriptions of learning experiences into concrete teaching acts.

**Curriculum as framework**

Another alternative to often relatively fixed content-based curriculum has been so called framework curriculum that only sets a objectives and provides broad guidelines for actual curriculum planning. Framework curriculum is normally a comprehensive document that describes the overall aims of schooling, more specific goals of education, and objectives of teaching subjects or integrated subject groups. The purpose of such a framework curriculum is to leave decision making and curriculum planning authority to local education authorities, schools and teachers themselves. In the cases when framework curriculum model has been adopted, the Government has often regulated other system inputs, such as time allocation for various subjects, financing, and other mandatory requirements related to arranging teaching and learning.
Curriculum as a framework has been a selected model in education reforms where decentralization has been one of the key means to raise the quality of education. Framework curriculum model also requires that the education system has highly qualified and committed personnel in place. Framework curriculum model that only describes the process of curriculum design that takes place locally and sets the general aims, goals and objectives, fits poorly to the consequential accountability movement that focuses on inspection, accreditation based on results, and achievement-driven funding of education. The framework curriculum model has been partially implemented in the Scandinavian curriculum reforms in 1990s.

Outcomes-based curriculum
In 1980s mostly in North America the focus of curriculum planning started to shift from teaching, i.e. subjects, content, methods and other arrangements, to what students should actually learn as a result of school education. An idea of outcome-based curriculum expanded widely and was also adopted as a leading principle of many large-scale curriculum reforms. The key idea of outcome-based curriculum is that it guides the planning of teaching by more precise description of intended learning outcomes. In other words, this curriculum model consists of descriptive attainment targets for learning in various subjects. For example, it may provide teachers with very detailed lists of knowledge and skills that students should achieve in any given level of their schooling.

This outcome-based curriculum became a very popular model in many education reforms in 1990s because it gave politicians, parents and students, too, more specific picture of what is expected from schools in terms of learning outcomes. Moreover, it also made external assessment and testing of that learning more relevant due to commonly agreed expectations that the curriculum spelled out. The National Curriculum Reform in England and Wales, and similar reforms in New Zealand, many states in US, and parts of Australia were built upon the philosophy of outcome-based education and curriculum.

Standards-based curriculum
The next generation of the outcome-based curriculum was standards-based curriculum model that goes even further in setting the criteria what students should know and be able to do in different subjects and at different phases of schooling. The basic logic of standard-based curriculum model is that the State, for example Ministry of Education, sets the standards for teaching and learning that are the same for all students, teachers and schools. These standards are normally subject-specific, detailed descriptions of expected learning outcomes per grade or phase of schooling. These state-level standards are then a basis for curriculum planning. In other words, curriculum is designed using the students’ learning as a point of departure.

Standards-based curriculum is a typical element of the new education reform agenda that was discussed above. Standards penetrated into the world of education especially in the Anglo-Saxon countries. Global cooperation and increased distribution of education policy strategies, standards movement has been increasingly exported to many parts of the less-developed world. As such, standards-based curriculum model share similar assumptions with the content-based curriculum that was mentioned earlier. However, the radical difference is that standards refer to students’ learning that turns the whole logic of standards-based curriculum model the other way around than
in content-based curriculum. A particular strength of educational standards is their power to provide measurable criteria to be used in evaluating the quality of education.

3. What are the common trends?
Despite the obvious contrasts that the different curriculum modes discussed earlier have, there are some common trends that can be found in most, if not all of the ongoing curriculum reforms. It is necessary to remind once again that there is no one distinct type of curriculum that fits for all. Instead, there are various locally adapted variants that have been modified for national and local contexts.

Integration vs. segregation
Probably one of the most common issues within national curriculum policies has been the balance between integration and segregation. There have been two separate aspects. On one hand, the question has been to what extent the curriculum should integrate various school subjects to broader groups, or whether the traditional schools subjects should be kept independent. The long-term trend that is now suffering from the wave of the new education reform agenda has been to design clusters of school disciplines (for example Science, Social Studies, Arts, etc.) and plan the curriculum accordingly as integrated. This is still a common feature in elementary years of schooling but older the students get the less integration there seems to be in their curriculum.

On the other hand, integration also refers to different students. The question is: Should all students be kept together as much as possible, or should they be segregated according to their abilities, personality features, or other characteristics? Again, a global trend within the curriculum reforms is to move towards integration and inclusion, rather than maintain segregation and separation of students. For example, in the European Union the issue of inclusive education has become a frequently discussed topic as part of curriculum development since the human rights, equity and equal opportunities are safeguarded by the EU regulations.

Focusing on learning
Regardless of the curriculum model that has been chosen by the authorities, the common issue in all curriculum reforms is that what students learn is in the center of attention. Traditionally, the logic of curriculum thinking was based on choosing the right content and appropriate methods of instruction, and then students will learn what they are expected to learn. This illusion still dominates some education reform efforts. Now, however, what students should know and be able to do as a result of going to school, has become a key interest. Not only learning as an outcome of education has become more emphasized but also the nature of learning as constructive intellectual and social process has been incorporated into various curriculum models in a new way.

The contemporary understanding of learning has is slowly being translated into curriculum texts in recent reforms. When learning of students is taken as a leading idea of renewed curriculum it requires that appropriate teaching and learning arrangements are described, expected learning outcomes and related standards are written in a way that enable teachers to adopt learning-centered methods, and that the topics and contents to be covered are not overloaded and isolated from each other.
Involving teachers

For a long time, curriculum used to be mainly a document prepared by the authorities that was sent to schools to be implemented as a mandate. Although teachers may have been used as experts in curriculum working groups, the end users have had only a very limited role in actual curriculum planning process. Recently, however, the curriculum reforms have started to provide teachers with more opportunities to take part in actual planning. Especially the school-based curriculum system that has been a typical feature in Framework Curriculum and also in Experience-based Curriculum models has emphasized the critical role of teachers in designing the curriculum for their school and for themselves.

Having an active role in curriculum planning process is also a common requirement by the teacher professionalism movement. Teachers as professionals should not only be seen as technical implementers of externally prepared plans (curricula) but they should also have a true role in deciding what, how and when to teach whatever they are teaching. Several ongoing curriculum reforms in and out this region include the idea of teacher involvement either by increasing the individual teacher choice or through giving a school more authority over curriculum design. However, standards movement that has become very popular globally is often diminishing the real possibilities of teachers to influence in their curriculum. As was mentioned earlier, one typical element of the new education reform agenda is centralized curriculum that ensures common and consistent coverage of what every student should know and be able to do often in the form of high standards, and normally limits teachers’ role in curriculum planning.

Integrating assessment criteria with curriculum

Another key component of the New Education Reform Agenda is assessment. As a result of increased consequential accountability schools and teachers are dealing with more and more external assessment and evaluation related to their work. For example, students’ learning is tested more regularly by external agencies, teachers’ work in school is inspected and appraised, schools are monitored and evaluated by various measures, and the entire school systems are under a magnifying lens as far as their performance is concerned. The problem that has occurred in many education reforms due to the evolution of the new assessment and accountability culture is disconnection of curriculum and assessment. Too often students’ learning is assessed using specifically prepared criteria that may or may not have appropriate connection to the curriculum. This means that teachers should teach according the curriculum and prepare their students to take tests and exams that are designed using another criteria (or standards, benchmarks, or similar). In these cases the assessment becomes actual curriculum and the purpose of teaching is to prepare students to pass the tests.

Only recently this dilemma has been brought to closer discussion. In its best the standards-based curriculum tries to serve these two functions at the same time: be the criteria for planning of teaching and learning in schools, and also providing objective criteria for assessment and evaluation. This issue is particularly challenging in education systems where students are frequently tested and where these test results are made public through media (England, for example). In the systems where students are rarely assessed by external tests (as in Finland or Sweden), student assessment is normally more classroom-based done by teachers together with the students.
Towards school improvement with curriculum

Finally, curriculum is becoming to have new purpose besides being a mandatory reference for teaching and learning. When curriculum model has emphasized school’s and teachers’ active inputs during the process of planning, it has also be seen as an instrument for more holistic school development. There are interesting examples of decentralized curriculum reforms where teachers have been invited to be partners in curriculum design. For example, in Finland the 1994 curriculum reform provided each school with an opportunity but not an obligation to design their own curriculum using the national curriculum framework issued by the Ministry of Education. Most frequently mentioned influence of this school-based and teacher-centered curriculum reform was the positive affect that working together as a team of teachers had on entire school improvement. Not only did the content of teaching change, said many teachers, but also the attitudes toward school improvement enhanced and future prospects of schools became clearer.

A quick analysis of international development in curriculum front shows that curriculum reform is brought closer to development in other areas in education, such as special education, information and communication technologies in education, quality assurance within schools, and working with parents and the community at large.

4. Conclusions

This paper has outlined few of the most obvious developments that one can find out by visiting the curriculum reforms that are going on in various parts of the world. As a closing chapter of this paper we would like to mention few issues that could be brought to closer discussion during the curriculum development and reforms.

1. Curriculum development is an ongoing process, not a product

Too often curriculum reform is seen as something that has a start and an end, in other words a project. Cynical and often experienced teachers in schools are very talented and clever in coping with these reform ‘projects’ (Dadds 2001). Therefore, the first issue that any modern education system should do in terms of reform curriculum thinking is to change curriculum development from ‘project thinking’ to ‘process thinking’. In our rapidly and unpredictably changing world it is very unlike that the curriculum designed today and implemented next year would be in use still in 2015. Quite opposite, we should accept and help our teachers to understand it too that curriculum is a living, organic instrument to help teachers and schools to find optimal ways to educate the youth.

It is important that the role of municipalities, schools and teachers is carefully considered as part of the curriculum reform. One message that could be kept in any curriculum related agenda is to communicate the purpose and meaning of curriculum to teachers, principals and local education authorities in way that stresses the process nature of the new curriculum.

2. Curriculum is the heart of education improvement

If we understand that curriculum is not only a list of topics to be taught to students in school, then we also know that curriculum can serve several purposes simultaneously. Probably the most challenging function that the curriculum could have is to truly guide the evaluation and assessment policies as part of overall national education policies. Moreover, curriculum may be a powerful tool for
teachers in their attempts to develop their own schools, increase equal access for all students, and thus ultimately raise the quality of teaching and learning.

Saying this it is important that curriculum reform is seen as a core of the ongoing efforts of education development and quality improvement. Good success requires highly qualified experts to lead the development process and skilled people to win teachers and schools to become active. In brief, it is beneficial for the future development if curriculum reform is based on consensus-based strategy and generally accepted national policy of education where the intended purpose of curriculum is defined.

3. There are no ‘European standards’ or ‘World standards’ in curriculum
A common belief is that European Union has certain educational standards or curriculum that all member countries should meet and follow. Similarly, sometimes people think that the world is moving towards the same principles and values in terms of education in general and teaching and learning in particular. The EU has certain basic agreements concerning qualifications, mobility, and right to education but not common content standards nor curriculum that all schools should implement. Actually, Europe still is and will continue to be a mosaic of different curriculum models, teaching traditions and educational arrangements depending on the tradition, culture and social structures of societies. For many countries, European Union provides a rich platform for seeking potential solutions and interesting experiences that may be useful as resources in the ongoing curriculum reform. However, the word of warning: direct copying and transfer of any one curriculum system is doomed to fail due to cultural and political differences.

4. Curriculum development has to be based on expertise and research
Finally, curriculum development and education reform in general are process that require expertise and continuous national production of new knowledge about these processes. Too often education reform is left to the hands of quasi-experts or persons whose expertise is in another field. If education authorities want to succeed in its intended education reform, and if renewed content of teaching and related curriculum are about to make a difference in students’ learning, there needs to be well-resourced and adequately equipped research structure in place (Joyce & Showers 1995). Many countries need stronger research on potential directions and curriculum models, and also systematic follow-up and analysis on the implementation of the new curriculum in schools. The international research community on curriculum development provides good support and back-up for doing this.

References


