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30. A EUROPEAN PERSPECTIVE ON CURRICULUM DEVELOPMENT AND INNOVATION

INTRODUCTION

During dinner about five years ago, I asked Madame Zhu Muju, who was then the director of the Chinese National Institute for Curriculum and Textbooks (NCCT), about the size of scale of basic education in her country. Without hesitation, she told me that China approximately has 10 million teachers and 200 million pupils.

Coming from a small country of about 17 million people, I must admit that I felt somewhat overwhelmed, if not intimidated. Nevertheless, from my experience in several international contacts over the years, the differences in size and scale of operations are not obstacles in exchanging meaningful experiences and learning from one another.

Thus, having received the opportunity to preview parts of this very interesting book and to provide comments and ideas from the "European" perspective, as the editors have asked me, could be quite challenging. The attempt to compare the curriculum trends between Europe and Asia, in particular, China, is tempting. However, that approach would seem to be a rather reckless adventure in view of the vast differences within Europe and the rapidly changing nature of curriculum policies and practices in China, which is a vast country with its own increasing variety. Moreover, I realize that the contexts in Taiwan and Hong Kong (also prominently featured in this book) as well as other Asian countries have their own specific characteristics (see also Law & Nieveen, 2010).

Although I am fascinated with these Asian developments in general (and mainland China, in particular), my knowledge about the Chinese curriculum scenery is too limited to make bold statements. However, over the last decade, I had the privilege to gather a number of impressions from the following experiences besides reading literature on curriculum development in China:

- Visits to schools in Beijing, Shanghai, Taiwan, and Hong Kong, including classroom observations and talks with principals, teachers, and students
- Numerous meetings and conversations with policy makers, researchers, and curriculum developers
- Various conferences, including three consecutive curriculum conferences between Chinese and European colleagues in The Hague, Beijing, and Guilin

E.H.F. Law and C. Li (Eds.), Curriculum Innovations in Changing Societies, 535–545.

- Professional exchange and cooperation between my own institution (SLO, Netherlands Institute for Curriculum Development) and NCCT (National Centre of Curriculum and Textbooks in Beijing)
- Collaborative professional development experiences on school-based curriculum development in a joint Chinese-Dutch project in Gansu province (see Wang Bingyan, 2012)
- Guidance of several Masters and PhD students from China at the University of Twente
- Conducting a seminar (at East China Normal University in Shanghai) on "Educational Design Research" with a large group of Chinese doctoral students and their professors from different universities (see the proceedings by Plomp & Nieveen, 2009).

All these experiences have led to my similar feelings of amazement and fascination with many European colleagues who participated in various Chinese-European curriculum conferences about the quickly moving curricular landscape of China. To consider the ongoing curriculum reform in China as the biggest curriculum change effort the world has ever witnessed in scope, scale, and speed, is not an exaggeration. Of course, this spectacular reform effort does not go without various problems. However, the openness of the Chinese colleagues about those challenges is evident as is their eagerness to share and to compare their experiences and findings with colleagues from abroad.

What may Europe and China learn from each other? What are inspiring examples and sobering (often even more meaningful) lessons learned from and for both sides?

To address those questions, we may discern (but not separate) different emphases (cf. van den Akker, 2003):

- substantive issues regarding the vision, aims, and contents (the "What") of teaching and learning
- procedural-strategic issues (the "How") of curriculum development that relate to technical-professional aspects and socio-political perspectives.

These various emphases are all embraced in integral curriculum thinking and are faced with continuous changes in the Chinese context. A helicopter view is oftentimes needed to get clear and broad sights, but even then, comparing should be done with great caution and care.

I will start with an outline on the current curriculum landscape in Europe and then, proceed with an intermezzo to clarify some conceptual issues before focusing on my interpretation of the curriculum trends in China. Thereafter, I will sketch some common challenges and prospects for mutual professional learning.

CURRICULUM LANDSCAPE OF EUROPE

As already stated in the introduction, to speak about common trends across the many countries of Europe is almost impossible because the differences seem more visible

than the commonalities. Surprisingly, comprehensive literature on curriculum development in Europe is scarce, with a few notable exceptions:

- An edited collection of curriculum papers from a number of European countries (van den Akker, Kuiper & Hameyer, 2003), which was built from a conference of the then existing European Curriculum Researchers Network. This network later transformed into the increasingly active Network on Curriculum Innovation within the European Educational Research Association. See http://www.eera-ecer.de/networks/network3/.
- The series of yearbooks published by the Consortium of Institutes for Development of Research and Development in Education in EUROPE (CIDREE) has a strong curriculum emphasis. The most informative yearbook about curriculum issues is probably the issue highlighting the 20th anniversary of CIDREE (Stoney, 2010). See www.cidree.org for more publications.
- A recent special issue ("The European curriculum: Restructuring and renewal") that was published in the *European Educational Research Journal* (Sivekind, van den Akker, & Rosenmund, 2012).
- The aforementioned book, "Schools as curriculum agencies: Asian and European perspectives on school-based curriculum development" that was edited by Law and Nieveen (2010), is quite informative.

Despite the limited degree of documentation, some patterns can be described based upon several information exchanges and discussions in meetings and conferences of the various organizations mentioned.

First, Europe does not have a common curriculum. Differences in documents, policies, and practices dominate the curriculum.

The Council of Europe has initiated an effort to formulate a set of "European Key Competences" to address the question: Which combination of knowledge, skills, and attitudes does one need for personal development, active citizenship, and work (from a perspective of life-long learning)? The key competences include a set of very broad areas:

1. Communication in the mother tongue
2. Communication in foreign languages
3. Mathematical competence and basic competences in Science and Technology
4. Digital competence
5. Learning to learn
6. Social and civic competences
7. Sense of initiative and entrepreneurship
8. Cultural awareness and expression

This set is perceived as a valid list, but its level of abstraction limits its impact. At the same time, any effort to design a more detailed and specific overall curriculum framework for education in Europe would most probably meet much resistance, as all countries are quite keen to preserve their own education identity. An interesting

exception is the "Common European Framework for Foreign Languages (CEFR)," which is used as a guideline to describe achievements of learners of foreign languages across Europe. The main aims of CEFR are to provide a method of learning, teaching, and assessing that applies to all languages in Europe and to set up systems of validating language ability.

Thus, in most respects, the curricular variety within Europe is quite expansive. An overview of several issues is as follows:

- Most countries place strong priority on the basic skills of literacy and numeracy. Public dissatisfaction with mastery of these skills and the disappointing results on international tests (like PISA and TIMSS) are often reinforced by ample attention from the mass media (and their obsession with rankings), which have contributed to this trend.
- Overall, countries are striving toward better learning results, not only for the average pupils, but also for all learners, including the weaker achievers and the more talented ones. Excellence is a popular term nowadays.
- At the same, several other upcoming aims and claims for more attention are found within the curriculum. Some examples of slogans include learning for earning and living, preparation for the labor market, science and technology, citizenship, broad personal development, and well-being. A particular trend is the claim for future-oriented "21st century skills," which emphasizes the four C's of communication, cooperation, creativity, and critical thinking.
- Not only do European countries differ significantly in their focus on aims and contents of learning, they also vary in their choices at the national level for a narrow or broad scope, for abstract or specific wording, for national prescription or local autonomy and flexibility, for central versus decentralized decision making (Nieveen & Kuiper, 2012).
- Countries vary considerably in the relations of curriculum development with two other crucial factors in school practices, namely, assessment and textbooks. It seems fair to say that in most countries the roles of those two factors are more dominating than many would like to see. These roles reach the extent of running the risks that curriculum decisions are less influential on what pupils learn than assessment policies, and textbooks, instead of the conscious and deliberate curriculum choices, routinely drive teachers.
- Almost all countries have high expectations of their teachers in contributing to the quality of educational practice. However, the space and professional support for teachers in reality are often less generous than what the policy rhetoric suggests.
- Most European countries are affected by the very same and often confusing "educational speak" that permeates policy debates worldwide, with its peculiar mixture of conservative elements, such as the emphasis on the basics and progressive references to 21st century skills. Only a few countries seem to succeed in an effort to formulate a forward-looking, integrated, and consistent curriculum vision at national level, such as the Curriculum for Excellence in Scotland and the Finnish National Curriculum for Basic Education.

Obviously, the curriculum patterns and trends in countries are influenced by differences in history, culture, economy, and social-political development. Moreover, when we compare Asian and Chinese perspectives, the relevance of the underlying patterns is evident. Before making that step, to clarify some of our favorite conceptual lenses for curriculum analysis is appropriate (building upon van den Akker, 2003).

ANALYTICAL INTERMEZZO

What Is A Curriculum?

A common complaint about curriculum literature is that the term "curriculum" has as many definitions as authors. Although some authors are expansively verbose, others demonstrate a rather narrow view limited to a specific context. In such confusion, searching for the etymological origin of the concept often helps. The word "curriculum" originates from the Latin verb, *currere*, which means *to run*. The Latin noun curriculum refers to both a "course" and a "vehicle." In the context of education, the most obvious interpretation of the word, curriculum, is as a course for "learning." The very short definition of curriculum as a "*plan for learning*," therefore, seems quite adequate. The definition is reflected by related terms in other languages, including the Dutch term *leerplan*, the German *Lehrplan*, and the Swedish *läroplan*. This simple definition of curriculum as a plan for learning prevents a narrow perspective and permits all sorts of elaboration for specific curricular levels, contexts, and representations. Such specifications are quite helpful to interpret, understand, and communicate about curriculum issues.

Levels and Curriculum Products

The first and very useful distinction appears to be a specification of the level of curriculum and curriculum development. Although further refinements are possible, the following division of five segments clarifies the different levels to which curriculum products may apply.

Level	*Description*	*Examples*
SUPRA	International	• Common European Framework of References for? Languages
MACRO	System, national	• Core objectives, attainment targets • Examination programs
MESO	School, institute	• School program • Educational program
MICRO	Classroom, teacher	• Teaching plan, instructional materials • Module, course • Textbooks
NANO	Pupil, individual	• Personal plan for learning • Individual course of learning

Curriculum Representations

The second and clarifying distinction concerns the different forms in which curricula can be represented. Although further refinement is possible, the following three levels, which are split further into six forms, will normally suffice for clear communication.

The division into six representations is useful in the analysis of the processes and the outcomes of curriculum innovations. The more global three-way division is often used in international comparative studies that frequently focus on large-scale assessment of attainment levels within the curriculum. Moreover, the division sometimes centers on the endeavors to relate the effects to the original intentions, and regrettably rarely yet, to the process of implementation.

INTENDED	*Ideal*	*Vision (rationale or basic philosophy underlying a curriculum)*
	Formal/Written	Intentions as specified in curriculum documents and/or materials
IMPLEMENTED	*Perceived*	Curriculum as interpreted by its users (especially teachers)
	Operational	Actual process of teaching and learning (also: curriculum-in-action)
ATTAINED	*Experiential*	Learning experiences as perceived by learners
	Learned	Resulting learning outcomes of learners

Curriculum Spider Web

The core of a curriculum generally concerns the aims and content of learning. Changes to this core usually presuppose changes in other aspects of (the plan for) learning. A clear way to visualize the relationship between the various aspects is through the *curriculum spider web*.

The core and the nine threads of the spider web refer to the ten parts of a curriculum, and each concerns an aspect of learning by pupils.

The rationale (or mission or vision) serves as a central link that connects all other curriculum components. Ideally, these components are connected to each other, and provide consistency and coherence. The metaphor of the spider web emphasizes the vulnerable nature of a curriculum. Although a spider web is relatively flexible, the web will most certainly rip if certain threads are pulled more strongly or more frequently than others. The spider web, thus, illustrates a familiar expression: every chain is as strong as its weakest link. Therefore, the extreme difficulty in realizing that sustainable curriculum innovation is not surprising.

CURRICULUM LANDSCAPE OF CHINA

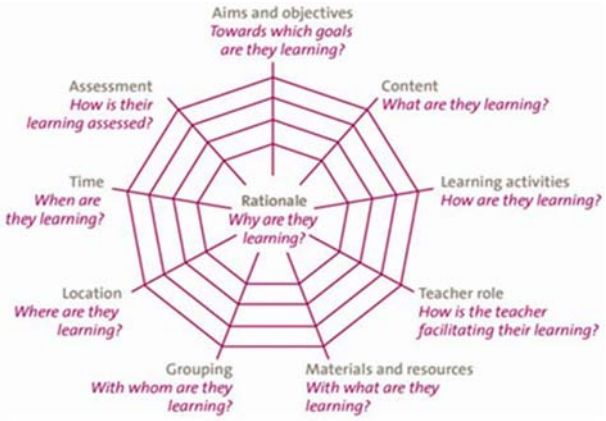
The ongoing curriculum reform of basic education in China started about 15 years ago. Several authors have documented the reasons and major motives for this huge enterprise (see the chapter of Zhong and Tu in this book, and Zhang Hua, 2009, and Zhu Muju, 2007).

The reform implies a spectacular jump from a rather traditional and selective curriculum that focuses on academic achievements in an exam-oriented system. The new curriculum aims toward very innovative approaches in relation to rapid social, economic, and political changes. The underlying vision deviates radically from the past. The vision includes a somewhat surprising amalgamation of a progressive and child-centered pedagogy that aims at quality education for holistic development of all children and emphasizes 21st century skills (creativity, communication, cooperation, critical thinking). Thus, the substantive scope of intended change is vast.

In addition, the speed of policy change is very fast. The first curricular guidelines were published in 2001. The national rollout (at an almost incredible scale of operations), only after some years of experimentation, started already in 2005!

With such enormous ambitions (about the *intended* curriculum at the *macro* level), one can expect huge implementation problems (*interpretations* and *actions* at *meso* and *micro* levels). The information about these practices is rather limited, but some patterns have emerged:

- First, in view of the large-scale implementation with big regional differences in many respects, the variety in nature, degree, and speed of implementation is enormous. This variety is reinforced by the distinction between the quality and facilities of "advanced" and "regular" schools.
- In general, the acceptance of the intentions by practitioners seems reasonable, although many are struggling to obtain sufficient clarity about the practical meaning of the proposals. Many people feel uncertain in dealing with the changes.



- From a social-political perspective, the discrepancy of the new policy with previous patterns of strict control by government and very limited local autonomy is striking. Provinces, regions, districts, local communities, schools, and teachers are permitted and even encouraged to assume more responsibilities. However, to break away from a traditional culture with hierarchical relations from the top down is not easy.
- In terms of overall mission, new expectations on the holistic and child-centered education are in conflict with the previous emphasis on academic achievements. How to transform past behavior and beliefs is an enormous challenge not only for schools and teachers, but also for parents and the public.
- If one analyzes the reform with the curriculum spider web in mind, the intended changes appear to be very comprehensive in addressing probably all components of the web, such as the why, what, and how of learning in almost every respect. This view underlines the complexity (and vulnerability) of the innovation task for all involved.
- The most difficult and pivotal challenges are, of course (and as experienced worldwide), for the teachers. Without changing their role (use of materials, teaching patterns, and subjective beliefs about what constitutes as "good" education), much will remain the same for the pupils. Moreover, school leaders and regional/local administrators are facing major changes.
- Many teachers seem to struggle with the interpretation of newly formulated standards and with the practicality of new textbooks. Moreover, the discrepancy between the traditional and new pedagogy creates tensions and uncertainty.
- For all involved, the speed of policy changes (including almost continuous adaptations within the overall framework) is difficult to manage. Not surprisingly, the policy pressure initially tends to bring about more symbolic reactions than real changes (along the policy intentions) in classroom practices; let alone student outcomes (the *nano* level).
- A prominent problem relates to the alignment of the new curriculum with existing assessment approaches. The gap between final examinations and college entrance examinations is a major obstacle that is not easy to overcome. However, the problem manifests itself at the micro level of instructional processes in the classroom, which is how to find appropriate ways of assessing student progress on learning goals that go beyond the surface of memorization and routine tasks.

All those (very understandable) complications require massive and long-term investments in professional development at several levels. Capacity building is needed for teachers as well as school leaders, administrators, and other professionals. Curriculum reform without investing in continuous and extensive professional learning is a lost case as shown in experiences worldwide (Hargreaves & Fullan, 2012).

The shifting roles and power distributions between the (previously strongly dominating) central and national level and the (increasingly influential) levels of

province, regions, and local communities towards the schools and teachers (gaining more autonomy) are very interesting. Of course, the shifting role is a gradual process with its inevitable hesitations, ambiguities, and potential conflicts. This view is not strange, and expecting smooth and easy transitions is naive.

In European countries, with all their variations and exceptions (Kuiper & Nieveen, 2012), on average, schools and teachers have more de-central freedom than traditional China. The European landscape shows more diffuse approaches of distributed leadership on curriculum. In recent years, however, we see in various countries the tendencies toward more coordination of curriculum-wide renewal. International competition and networking, which exert deliberate efforts to learn from approaches elsewhere, contribute to this trend. Thus, several countries from the East and the West that come from different directions are searching for new balances in the division of roles in curriculum decision making and enactment.

COMMON CHALLENGES AND PROSPECTS

As I have written elsewhere (van den Akker 2010), curriculum reforms worldwide have a dubious reputation, which is more sobering than real and lasting success stories. Large-scale curriculum reform has a tendency to fail (Cuban, 1992; Fullan, 2007). Hargreaves and Fink (2006, p. 6) have put this fate succinctly, "Change in education is easy to propose, hard to implement, and extraordinary difficult to sustain." Moreover, curriculum changes belong to the most difficult category.

The common characteristics among curriculum reform efforts are the persistent discrepancies between intentions, realities, and outcomes. The same is true for the differences in perceptions and actions across the various levels of the curriculum (from supra to nano). Besides, the alignment or even harmony between the many components of the curriculum (cf. the spider's web) is hard to realize.

Another related but remarkable phenomenon is the inadequate interaction among policymaking, theory and research, and practice. Building more and better bridges between these zones is an important prerequisite for successful implementation at scale and sustainable curriculum improvement (van den Akker, 2010).

Moreover, the learned international lessons point to the conclusion that "quick fixes" or "silver bullets" are not available. Curriculum improvement is never a single event, as it is a long-term process with several levels and participants. Vision, inspiration, and political will are definitely needed, but inevitably, curriculum improvement requires hard work with "blood, sweat, and tears."

The most profound lesson is that one cannot expect serious curriculum change without teacher (and school) development. Teacher professional learning and development is a key condition. Teacher learning is most effective when connected to lessons and embedded in own practice. Teachers have active and investigative roles, and learn and develop together. An important (but often neglected) precondition is that teachers should have sufficient time and working space for such activities.

Another shared lesson is that top-down nor bottom-up approaches alone are successful in bringing about lasting curriculum change for teachers and schools. A composite strategy is more effective in combining three levels and angles, namely, steering from the top, building from bottom-up, and support and pressure from the sides.

I hope that (more) international exchanges of experiences and professional cooperation contribute to the capacity of countries for more successful results in curriculum reform or improvement efforts. In that respect, the fortunate experiences between China and Europe (through CIDREE and SLO in particular) have been stimulating and promising. The professional contacts have been most intensive with the NCCT. The academic contacts with Northwest University (Gansu), East China Normal University (Shanghai), and the Hong Kong Institute of Education have been very rewarding. The continuation and broadening of such interaction are desirable.

Real professional cooperation in research and development is more important for joint learning and capacity building than the superficial, politics-, and media-driven interest in country rankings, based upon international assessment outcomes. The quality of education cannot be solely measured (let alone improved) based on achievement scores. What counts in curriculum improvement is best explained with multiple criteria:

- Relevance: Are pupils learning towards aims that reflect a balanced mixture of the interests of 3xS (subject, society, student) with an open eye to the future?
- Consistency: Are the various components of the curriculum in harmony?
- Practicality: Is the curriculum doable for teachers in real school contexts?
- Effectiveness: Does the implemented curriculum result in the intended outcomes?
- Scalability: Is it possible to realize those curriculum changes successfully at larger scale?
- Sustainability: Are these changes lasting and continuing over longer periods?

International exchange and cooperation on the curriculum domain benefit from attention to more sophisticated quality criteria. When the spirit of interaction is characterized by mutual respect, curiosity, and open mindedness, the chances for valuable joint professional development are met.

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