

SCHOOLING FOR TOMORROW PHASE THREE 2006-2007,

THE DUTCH CONTRIBUTION 'SHARING KNOWLEDGE FOR INNOVATION'

Introduction

1. The Dutch contribution to "*Schooling for Tomorrow phase three*" is devoted to the theme 'sharing knowledge for innovation'. Sharing knowledge is one of the spearheads of the Dutch innovation and education policy. A lively practice and an efficient system for exchanging knowledge both between schools and between schools and institutions of knowledge is an important condition for innovation. In the Netherlands and elsewhere, there is relatively little cohesion in these areas. As a result, the many initiatives remain stand-alone efforts and, in their isolation, lack the benefits afforded by a metaphorical flywheel.
2. The goal of the Dutch contribution to Sft3 is to come up with a cohesive framework, based on a number of current projects, in which knowledge for innovation is acquired and shared in an optimal manner. The projects are a part of the innovation plans for primary and secondary education that have been drafted by the sectors themselves. Such a framework can provide starting points for *classroom practitioners, education study programmes, education support, education science* and the *education policy* in order to achieve a more effective use of people and resources. This involves a search not for the sum of the parts, but for the added value that can be derived from a clustered approach to several activities. Based on different issues, connections are made between the projects involved, focusing specifically on the theme of 'sharing knowledge'. Subsequently, learning points are distilled and then proposals are formulated
 - o for the organisation of a more effective knowledge function within and between educational institutions,
 - o for the creation of a more effective exchange between classroom practice and educational science,
 - o for the contents and design of an additional government policy for sharing knowledge for the sake of educational innovation (if already required).
3. Participation in the OECD process makes it possible to assist in implementing the national education agenda and make an active contribution to the creation of an international foundation of knowledge and profit from it. With the other participating countries and the OECD/CERI staff, relationships can be maintained in two ways. To begin, these partners can be invited to participate in our activities from the standpoint of their vision and expertise. In this case, countries like for example the UK and the US have more experience than the Netherlands does when it comes to estimating the value of knowledge from science and practical experience and making it available. They can also call on the Netherlands to make our vision and expertise accessible to others.
4. In the full light of the Dutch governance philosophy, the involvement of the classroom practitioners is crucial. The projects are carried out by classroom practitioners and school leaders themselves. These education professionals are also well represented in the study group that will supervise the project in its entirety.

The primary role of the study group is to enhance the cohesion between the different activities, to take stock of the results and thus create a common framework. The study group is also the contact point for the outside world with respect to the Dutch contribution to SFT as a whole.

5. The Dutch contribution is primarily focused on the role of the teacher and the school leader in education. Thus a contribution is made to promoting the professionalism of teachers and school leaders, which is one of the spearheads of the current education policy. In addition, connections will also be made to the roles of support institutions, of science and of teacher-training programmes in the fields of education theory and education content.

General

6. Knowledge is perhaps the only commodity that can be increased by sharing it. But what is knowledge exactly? The question of how knowledge develops precedes the question of how knowledge can be exchanged. Are teachers and school leaders capable of formulating relevant knowledge demands and – if so – how can they organise this accumulation of knowledge and share it with each other in an optimal manner? In answering these questions, there are four central points of focus:
 - o Vision: what role can knowledge play in the development of a mission, an educational vision for one's own school? Is the focus more on the insight and skills needed to design such a process or on a specific end product?
 - o Motivation: how can teachers and school leaders be motivated to become more active in the development of the education they provide and the application of actual knowledge?
 - o Profession and Training: how 'instructive' do education professionals perceive their profession to be; in other words, how important is the element of 'sharing knowledge' in the profession? How can a study programme better equip teachers and school leaders to contribute to the management of knowledge for a school and for education as a whole?
 - o Organisation: how can the knowledge function best be organised (more specialist capacity or greater integration over the entire scope?) and what models can be effective in what situation? Sustainability is an important aspect with that.

This distinction between points of focus is grouped into two columns: knowledge development and knowledge management.

Knowledge Development

7. If we take a look at the development of knowledge, a number of suppositions can be formulated on the basis of available literature and experience.
Firstly, a distinction is made between explicit and implicit knowledge. This distinction is relevant because the organisation of knowledge within both systems is very different. There is the general impression that implicit knowledge is gaining significance for the successful operation of organisations. 'What really matters can not be described', but how can we then spread this (implicit) knowledge and make it available for debate and examination? And: when implicit knowledge becomes explicit, how does the character and function of this knowledge change?
8. A distinction can also be made between evidence-based practice and practice-based evidence. Should reforms in education be tested in advance through experiments? Or should

we first simply introduce them into classroom practice and prove that they work there? In other words: first the proof, then the practice, or the other way round?

9. To promote more knowledge intensive education, more innovative education, efforts are generally focused on the individual professional. But it also makes sense for these efforts to be focused on the composition of teaching teams – teams whose members are selected through the differentiation of roles and skills, teams for which different divisions of tasks can be introduced. Competency requirements can also be divided between *professional* competency and *subject* competency, though personal characteristics can also be considered. Not every teacher has to perform the same tasks or to have the same competencies. But there should be a basic repertoire present, supplemented by more specific and distinctive competencies and skills.
10. In line with the above, the teacher-training programmes should perhaps provide greater room for differentiation: not only promoting a practice-oriented approach, but also a scientific, investigative, 'inquisitive' approach.
11. In relation to the educational sciences, educational theory has not, on balance, sufficiently developed as a science. Because of the relatively young age of this science, no strong tradition of knowledge has yet been built up. In stark contrast to, for example, the exact sciences, educational theory has not yet been able to offer a clear, critical frame of reference that is capable of separating the wheat from the chaff. Such development is partly a question of time and experience, both of which are necessary to build up a tradition of knowledge. A stronger tie with classroom practice, on the side of both supply and demand, could give direction to this further development.

The Management of Knowledge

12. A relevant question in the management of knowledge is the extent to which it is possible to organise effective knowledge communities. Professionals generally feel that they are part of a knowledge community in which matters such as quality standards, professional ethics and the acquisition and exchange of knowledge are discussed. These communities of knowledge can be closely tied to a particular subject matter (e.g. knowledge communities in the field of living languages) or they can be pedagogical in nature. Professionals can identify with one or the other communities of knowledge, or with both. They can orient themselves towards the subject taught in school and/or towards their profession as a teacher.
13. Professional communities of knowledge can develop into more or less fixed, traditional institutions. Michael Young links knowledge communities to singular scientific disciplines that professionals clearly can relate to. But Joseph Schumpeter took a different view: innovation occurs rather at the cutting edge of different disciplines. Supposedly, institutionalised, professional communities of knowledge often close themselves off from cross-bordering and therefore are more likely to inhibit innovative thinking rather than encourage it. So the question is: what does it take for a knowledge community to be making changes in classroom practice in stead of just corrections.
14. Greater dynamics and effect can perhaps be expected from informal, bottom-up networks – often within the educational institution itself or in larger associations – where professionals themselves work, encourage their colleagues and find it easier to get a more cyclical process up and running. It is also imaginable – analogous to what happens in business – that a

separate capacity is made available within or between (educational) institutions in order to promote knowledge and innovation.

Summary

15. Practitioners and other experts are involved in a number of different projects that are aimed at improving the knowledge infrastructure for educational innovation. They are searching for approach methods, based on common denominators that can improve the processes of accumulating knowledge and organising knowledge. Conclusions drawn by a relevant study group of education professionals and officials should have a wider significance that transcends the separate, individual projects. These conclusions should be able to be used for the practice of education, the teacher-training programmes and the research institutes, and for the development of an additional (especially a favourable) national educational innovation policy.

The Programme in general

16. A radical upset is set to take place in the Dutch educational system over the coming years in the management of innovation processes: from centrally planned and directed programmes to a system in which networks are built up from the grassroots, involving schools that are working on innovation, school development and professional development. Managements, schools and educational professionals will take responsibility for innovation and quality and will accordingly become the owners of collective educational processes. The systematic and methodical learning by individuals from their own experiences, from each other and from experts (availing themselves of the '*body of knowledge*' available in the profession) is intended to lead to *capacity building* at all levels in the system. With this, the intention is to enhance the knowledge productivity index of primary and secondary education and so lay down a permanent basis for meeting the challenges of the future: basic education that is successful in fostering the development of the talents of all children to the optimum extent. *Schooling for Tomorrow* can provide a vital contribution ensuring a future-proof education.

The Component Activities

17. The programme which constitutes the Dutch contribution to *Schooling for Tomorrow* consists of four component activities, each of which covers a specific aspect of educational innovation. These activities can be seen as pilot projects orientated towards development of new methods that will enable educational professionals themselves to give structural form and content to future innovation routes that:
 - a. are effective in the sense that they achieve the goals set to the fullest extent possible,
 - b. are efficient in the sense that in the development of knowledge and innovation routes they make use of attainments gained elsewhere and - in their turn - share their own insights and attainments with other institutions, and
 - c. are sustainable in the long run.
18. The four projects have been given form as follows:
 - a. Within the pilot study in primary education the emphasis lies on the formation of knowledge communities in which there may be instances of horizontal knowledge sharing (mutually between schools) and vertical knowledge sharing (between educational practice and educational research). The orientation towards the future is again underscored by the choice of the intrinsic theme for the projects: formation of

parameters for a redesign of education; new learning schemes and setting out routes of innovation. With this, among other things, use will be made of the OECD *evidence based practice/practice based evidence programme*.

- b. For the pilot scheme in secondary education the emphasis lies on exchanges of knowledge between education and research by means of knowledge communities. These knowledge communities will focus particularly on qualitative improvement in education based on future orientated themes as a different organisation of education, team building and the school as a professional working community.
- c. The 'Kennisrotonde' [Knowledge Roundabout] project has in this sense a supportive character when it focuses on the question of the methods by which the deployment of ICT can contribute to knowledge development and knowledge sharing in both primary and secondary education. The 'Knowledge Roundabout' functions ideally as a clearing house that both educational practitioners and educational researchers can use in the further development of their activities with the aid of ICT resources.
- d. The Academic Teacher Training School, finally, focuses on teacher training in particular, which also partly takes place in schools and by the schools themselves. The teachers of the future will need to have the aptitudes and skills required to anchor educational innovation within the educational system itself. Contact with educational research makes up part and parcel of all this. The pilot scheme is aimed at investigating the skills that will be demanded of future teachers and the question of how the acquisition of these skills can be incorporated into teacher training programmes.

The four pilot schemes are explicitly all part of a single programme. The individual experiences gained and the outcomes of the projects come together in the one programme. What is intended by this clustered approach, involving multiple activities, is that the learning points gained from each of the projects will provide added value for all the projects individually and will eventually result in conclusions that are applicable on a wider scale.

Organisation and Time Schedule

19. Time span: Change in the Netherlands from centrally planned and directed programmes to the development of new innovation and development processes from the bottom up will need a throughput time of 8 to 10 years, including implementation and the anchoring of the new procedures into the education system. The Dutch pilot schemes have a provisional time span of between 2 and 3 years. Based on further evaluation, it will be determined whether the programme will be given a follow up, and if so, what form the follow up might take.

20. Organisation: All projects are initiated and are 'drawn' by educational institutions or umbrella organisations themselves. They will be continually monitored with the help of a reporter and programme secretary. The national study group, consisting of all participating partners, is responsible for the identification and collation of learning points from each of the projects. It reflects on these points and then issues new incentives where necessary. The study group is also the point of contact for the OECD. The project leaders will form an internal working group to make sure that the activities of each of the projects will be carried out in a coherent way.

21. Calendar: The programme will work with a calendar of events based on the component activities. This will include a national agenda as well as times for international partnership and

cooperation, shaped as international seminars in particular. Where necessary, space will also be created for bilateral consultations with third countries and the OECD secretariat.

22. Costs: The costs of the projects will be borne by the organising and participating institutions. The Ministry of Education has made a budget available for the innovation programmes in primary and secondary education as a whole. The Ministry will also make it possible for a programme secretariat to be run, and will provide funds for additional support for international contact processes, including international gatherings.

Please note: the outlines of the study group, the programme secretariat and the participating parties are currently being finalised, as is the calendar of events. Full details are expected to be available from 15 March 2006.

Enclosure: list of pilot projects involved

Project I: PRIMARY EDUCATION

Jozef J.M. Kok (Programme Management, primary education) in collaboration with Harrie Gankema (KPC Groep) and Jan Heijmans (NSA)

Activity	The setting up and facilitating of a network of schools, their practice supervisors and researchers, that will function as a knowledge community for educational practice and practically orientated educational research in the design of new learning arrangements.
Yields	<ul style="list-style-type: none">- More insight into parameters for successful learning arrangements and a taxonomy for the classification of such design parameters. Assistance in learning to work with these.- Schools involved will be able:<ul style="list-style-type: none">o to describe a favoured transition process towards new concepts (best practices) from within these parameters,o to give more responsible effect to a route from concept to praxis (methodologies)o to evaluate the innovation route travelled (new knowledge of design processes).- Ability to track down proven and workable methodologies and strategies for educational innovation and evaluation. To describe these and open them up to other networks.- Assistance in producing and making use of knowledge of learning in networks and working in knowledge communities.
Will contribute to	<ul style="list-style-type: none">- the development of a 'language' for primary schools that are actively engaged or occupied with the design or redesign of an education that accommodates (all) talents of (all) children, which will allow these schools to enter into dialogue with each other, their managers and with academics regarding practices and concepts.- opening a discussion with the professional group, the sector and the social environment on the question of how new and 'experimental' educational arrangements can be undertaken in a responsible manner.- providing an answer to the question of how educational professionals can learn from each other in networks and knowledge communities, together with supervisors, researchers and development staff.
Methods	<p>Work is proceeding within the frameworks provided by the plans of the Primary Education Programme Management and the Platform for Quality and Innovation in Primary Education. This means that a number of pilot schemes will be set up, preferably with existing networks, for redesign of or reorientation towards:</p> <ul style="list-style-type: none">- the primary process- the organisation of education- leadership in education <p>This will take place in close consultation with the education world and knowledge partners such as the NIVOZ, KPC Group, the NSA and some lectureships (including that of Prof. Dr. E. Verbiest). (Networks of) schools will engage in a professional dialogue and reflect on the appropriateness and effectiveness of this approach.</p>
Time schedule	<p>Selection of the schools network: 1 March 2006</p> <p>Giving further shape to activities to be planned with the schools: until August 2006</p> <p>Networking and reflection meetings: over the 2006-2007 school year</p> <p>National exchange of experiences between the Schooling for Tomorrow projects: May 2007</p> <p>International exchanges: according to OECD planning</p>
Evaluation :	The Primary Education Programme Management will develop an evaluation and monitoring system for all activities stemming from the Innovation Plan. This system will include the present project. Additionally, the evaluation will be extended to include the other participants in this project. The researchers involved will take the lead in this process.
OECD context	<ul style="list-style-type: none">- the Dutch context will identify generic parameters for layout of future educational processes- international experiences also taken into account in evaluation.- active contact with countries for organising joint evaluation/exchange meetings.

Project II: SECONDARY EDUCATION

Association "Schoolmanagers_VO"

Context	A large gap exists between what happens in educational practice and activities and the yields obtained from educational research. Very little use is made of the outcomes of educational research in practice.
Activity	<p>One of the ways in which this gap might be reduced is bringing academics and school managers/teachers into contact with each other. In order to explore the ways by which satisfactory form could be given to this initiative and the factors that could increase the success of a knowledge community, three knowledge communities were started up during the 2005/2006 school year. In each of these knowledge communities school managers and academics work together to resolve a research question. These questions all have to do with the issue of how the quality of the educational organisation can be improved and/or how education can be better directed in future. The following themes were studied:</p> <ul style="list-style-type: none">- organising education differently- staff formation in the second stage of HAVO/VWO- managing the school as a professional working community <p>Within the framework of this project, special attention will be focused on one of these knowledge communities.</p>
Yield	<p>The yield of (the evaluation of) the knowledge community consists of:</p> <ul style="list-style-type: none">o More insight into the functioning of a knowledge communityo The answer to the research question studied by the knowledge community <p>An additional yield is to be achieved by partnership and cooperation within this project, namely: more insight into the (factors contributing to) successful ways to reduce the gap between education and research.</p>
Will contribute to	<ul style="list-style-type: none">- the question of how exchanges of practice/knowledge can become more effective.- answering the question of how the education world can make better use of research insights.- answering the question of how knowledge communities can be organised in an efficient manner.
Methods	<p>Within the knowledge community itself, school managers and academics jointly determine the research question and the approach by which they wish to answer it. Traditional forms (a meeting in a conference room) can be combined with intensive conferences at a school for instance and the use of digital communities.</p>
Time schedule	<p>The knowledge communities were initiated during the 2005/2006 school year and will run until August /December 2006. Partly on the basis of the evaluation, a decision will then be made as to whether or not an extension is worthwhile.</p> <p>Meetings: over the 2005-2006 school year and partly in 2006-2007 1st international exchange: autumn 2006 National exchange of experiences between the Schooling for Tomorrow projects: May 2007.</p>
Evaluation:	The Schoolmanagers_VO association will be responsible for the evaluation. They will collaborate with SBO on the evaluation itself.
OECD context	<ul style="list-style-type: none">- international experiences also to be included in the evaluation- active contact with one or two countries also engaged on this theme in order to organise joint evaluation/exchange meetings.

Project III: KNOWLEDGE ROUNDABOUT

Foundation "ICT op School"

Targets/yield

The Knowledge Roundabout

- renders fundamental innovation issues currently facing schools transparent and recognisable.
- contributes to the circulation of knowledge by promoting networks and stimulating partnership and cooperation.
- opens up the supply of relevant knowledge to schools and helps them to make a selection from this supply (knowledge broker function).
- facilitates schools in making connections between their ambitions and the possibilities offered by ICT.
- supports and stimulates innovation projects focused on reducing the gap between the possibilities of ICT and the actual use of this technology in schools.

Activities:

- Development & management of a more interactive website to which schools can send their questions & by which other schools can connect into existing issues.
- Presence at & organisation of workshops to accompany important meetings of schools, managements and partnerships in order to highlight issues.
- Visits to schools that submit questions in order to highlight these questions and expand them where appropriate.
- Stimulating schools to think about educational innovation in relation to ICT, by publishing articles, throwing light on interesting issues, participation in events, advertising.
- Organising meetings centred on specific issues
- Distributing knowledge by making available web logs, organising meetings, providing communication tools developed by the ICT op School foundation.
- In collaboration with NWO and VOR, making relevant academic knowledge more insightful for schools.
- The pro-active distribution of knowledge relevant to schools stemming from e.g. research institutions and centres of expertise
- Providing tools for the development of new knowledge
- Guiding schools in writing project plans and project proposals.
- Guiding schools during the process of knowledge development.

Methods

The Knowledge Roundabout is a virtual roundabout of people and networks. Schools and knowledge institutions constitute the traffic and come in contact with each other at the roundabout. Schools with innovation ambitions and questions arrive at the roundabout. Here they can find existing knowledge, come into contact with other parties with knowledge and experience or develop new knowledge on a joint basis. It is the intention that a stream of knowledge and information should come into existence as a result of the questions posed by schools. The Knowledge Roundabout is not a technical gimmick or piece of computer software. The Knowledge Roundabout is a network of people and contacts.

Evaluation

The Knowledge Roundabout will receive subsidy until January 1, 2008. A monitoring and evaluation plan is now being designed. Questions originating from the OECD can still be incorporated into the roundabout.

OECD context

- Knowledge sharing in education also to be stimulated at the international level..
- Learning from similar networks abroad.
- Making knowledge of this programme available in an international context.

Project IV: THE ACADEMIC TEACHER TRAINING SCHOOL

Context	This "In-Depth Pilot Study on Teacher Training Schools and Academic Schools 2005–2008" consists of a number of primary schools, secondary schools and adult/vocational education institutions, that are developing themselves into teacher-training schools or academic schools, which will serve as examples of good practice. The schools participating in the project will focus on an activity from their own practice and explore the conditions under which that school can be successful, what investments this will require on the part of the school, how the quality of the education provided by the school can be guaranteed in a sustainable manner and how this quality can be made testable.
Activity	These so-called 'Academic teacher-training schools' combine their training function with a research and innovation component that is strongly directed to the education practice.
Results	The development of a research role for teachers can strengthen the education practice in the long run. The intended concrete results of the pilots are: <ol style="list-style-type: none">1. The criteria and preconditions for a successful academic teacher-training school.2. A better insight in de way the quality of learning on the job is guaranteed.3. The investments in personnel and finances needed for implementation.
Time schedule	Final selection of projects and plans: May 2006.
Evaluation	There will be an interim report in March 2007 and a final report in November 2008, both with respect to content and finances.
OESO-context	Exchanging experiences on this subject with other participating countries in order to learn from each other.