

Comparing Hong Kong and Sweden ICT Policy in Education;
Reaching the Third Phase
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The Abstract

In this study I address the problem of the implementation and the foreseeable success of the July 2004 document from the Education and Manpower Bureau of Hong Kong, *Empowering Learning and Teaching with Information Technology (EMB 2004)*. The statements in this policy will be compared to Sweden's ICT policy and a report completed by Peter Kearns for the Australian Government. All of the fore mentioned policies will be compared to the 3 phases of ICT development mentioned in Kearns report, *Towards the Connected Learning Society: An International Overview of Trends in Policy for Information and Communication Technology in Education (2002)*. The policies will also be examined and compared to different criteria also observed in Kearns (2002) article where he discusses the criteria for leading practice in policy for ICT in education. This report then goes on to analyze the Hong Kong policies and their implications. This paper argues that the new Hong Kong policy statement, however ambitious, will have many difficulties reaching certain goals.

The Introduction

In his 2002 report "Towards the Connected Learning Society: An International Overview of Trends in Policy for Information and Communication Technology in Education." Kearns discussed and used examples of two very important ideas. The first was the 3 phases of ICT development and the second the criteria for leading practices in policy for ICT in education (Kearns 2002). In his report Kearns talks about the 3 phases discussed by the Swedish Minister of Education in a speech given to the European Union in April 2001. The three phases are as follows;

Phase One

This phase was dominated by the public sector with the initial roll out of computers in schools and with pilot projects to test the role of computers. The central question was seen as "Why should we have computers in the school?" There was little co-operation between the public and private sectors (Kearns 2002 p.28).

Second Phase

The second phase started in the early 1990s and is still in progress in 2001. This phase focused on questions When, Where and How. When should ICT be used in teaching and how should it be used. The pedagogical implications of ICT were explored to establish ways in which the integration of ICT could best be promoted. Good practice was identified (Kearns 2002 p.29).

Third Phase

Here the role of ICT in schools is not only changing, but the whole view of learning and the school as an institution is also changing. Learning is increasingly

regarded as something for each and everyone throughout the course of their lives. Traditional school boundaries are being removed, classrooms are being opened up and at the same time new groups are starting to use school resources e.g. through learning at the workplace, while the school itself is increasingly using resources in society for educational purposes (Kearns 2002 p.29).

It can be argued that Hong Kong's first ICT policy introduced in 1998 was to fulfill the first phase and part of the second. Whereas the ICT policy introduced in July 2004 is trying to bridge the gap between the second and the third. The main question that arises when reviewing the new policy is... Will this policy bridge this gap and transform learning as it so intends?

To answer this question this report will examine the 2004 Hong Kong policy, compare it to 3 key areas of Kearns' Criteria for Leading Practice in Policy for ICT in Education (2002) and look at other models used by different countries to satisfy these criteria (see figure 1). These criteria are; Vision and Leadership, Strategic Planning and Foundations.

Without these three criteria, it can be maintained that Hong Kong will have difficulty reaching the third phase of ICT development.

1. Vision and Leadership

Kearns definition of Vision and leadership states;

“There is a clearly articulated vision which encompasses social and economic objectives while leadership is actively fostered through training, network building, and in other ways (Kearns 2002, p.124).”

The third goal of the Hong Kong ICT policy document states;

School heads and their associates will be guided and supported to establish visions and goals as well as build teams appropriate for their school contexts, in order to enable them to effectively lead change in integrating IT into school planning, curricula, learning and teaching processes, communication and collaboration. They will be given more flexibility in making decisions that tailor to the IT needs of their schools (EMB 2004 p.11).

The majority of goal 3 focuses on the Head of Schools taking the leadership position and being responsible for guidance and support and that new pedagogy would not emerge without the support of the school heads (EMB 2004). Goal 3 also goes on to state that ICT will be that lever for curriculum change.

Sweden

Comparatively in Sweden, municipalities expected school heads to take leadership roles in the implementation of ICT. There were training courses created for school heads, intended to clarify their role (ITiS 2003). There were exceptions, but for the most part their participation was described as ‘one of the weaker links’ in the ITiS chain (ITiS 2003).

The article goes on to declare that even though school heads were actively trained with ICT skills and in different areas that it was difficult to involve the School Heads to the required extent (ITiS 2003).

Analysis

The Hong Kong government expecting the school heads to be solely responsible for the vision and leadership of ICT implementation in schools is fallible. As cited with the case in Sweden, Principals were not excluded when it came to realizing difficulties of how ICT was going to be utilized in schools. Many Hong Kong principals still have difficulties moving away from the more traditional forms of curriculum and assessment. A recent example of this can be seen in a recent article published in the education section of the Hong Kong newspaper, *The South China Morning Post*, where Primary school heads are called for the return of a territory-wide examination to test students for secondary places (Chan, 2005). This is a prime example of Hong Kong principals not being visionaries but being caught in the more traditional system of learning for tests as opposed to testing for learning.

Research conducted at a local school in Hong Kong also revealed a case where the principal put a great deal of emphasis on hardware development. The School Head and the teachers did not have a clear picture of how to integrate the ICT into the school (Chung, 2004). The ICT was used to ‘technologize’ the existing practice (Chung, 2004).

2. Strategic planning

“Strategic planning is used to connect policies and to give coherence and progression to policy directions (Kearns, 2002, p124).”

Throughout the EMB (2004) policy document there are numerous references to IT being a ‘lever’ for many educational practices and reform. For instance;

- Using IT as a lever to support and advance the Education Reform Initiatives (EMB 2004 p.10)
- Using IT as Lever for Curriculum Innovation (EMB 2004 p.18)
- Embedding IT as a lever for change in the school strategic development plan should be a key element in the professional development agenda for school heads (EMB, 2004 p.19).

The document goes on to discuss the headway that the Curriculum Development Council (EMB 2004) has embedded IT into the curriculum guides and that interactive learning is a key task include with a set of generic IT skills.

Sweden

Unlike Hong Kong, Sweden has a decentralised school system. Curricula and syllabi are goal-oriented and municipalities are responsible for the education sector as a whole (TLF 2004). There are measures and actions from the National Swedish Agency for School Improvement (formerly The National Agency for Education) which aim at giving good local conditions for ICT development (TLF 2003).

The Swedish Government (MES 2004) believes the 21st century school should be a school for the student. Their influence over their own situation at school must therefore be extended and improved. The Ministry of Education and Science report *A School for All* 2000 states that “Pupil democracy and involvement must be regarded as part of the learning situation. Pupils’ viewpoints, opinions and wishes together with their needs and experiences must form the basis of the planning of the entire school’s activities.”

There is however evidence that ICT may have influenced some of the curriculum restructuring in Sweden. There were recommendations of the evaluation of ICTs for learning evident in the incorporation of an adjusted rethinking of curriculum, assessment and learning environment in the action plans in Sweden (Freeman, Holmes, Tangney, 2000)

Analysis

Chau, 2004, reveals that not only the teachers but also the students are not well-prepared to take up their new roles. Chau then goes on to affirm that Hong Kong’s education system has an important impact on the pedagogy of the teacher as well as the student’s ways of learning, especially considering that Hong Kong’s schools are exam driven. It is suggested that changes in the curriculum and assessment methodology are of critical importance while preparing the students to take up the new role in order to bring about the paradigm shift (Chau 2004).

The EMB (2004) states that assessment will be performance-based and fully integrated with an IT-enriched pedagogy that focuses on learner empowerment, but does not say in what way or if they will rework the public exams and the role of the learner and teacher. Sweden has had an advantage in this area. Since 1992, there has been a major shift in focus from teachers teaching to pupils learning. The new curricula and syllabi state that all subjects should integrate the use of computers as a tool where appropriate (ITiS 2002). Assessment structures and the organization of learning and the leaning environment have also been modified to compliment the strategic planning.

3. Foundations

“Policies directed at professional development of teachers, infrastructure, and online content have laid the foundations for effective use of ICT in education (Kearns 2002, p.124).”

Kearns criterion of Foundations is strongly represented in the EMB 2004 policy document Goal 2 where it states;

Teachers will be provided with professional development opportunities and support to undertake the challenge of using IT for curriculum and pedagogical innovations, and to facilitate, guide, administer and assess learning in ways that align with the goals of the Curriculum Reform. Support structures and mechanisms will be developed to foster the development of online and off-line communities of practice for teachers to exchange experience and good practices, collaborate in curriculum and pedagogical innovations, as well as undertake action-oriented research (EMB 2004, p. 15).

The EMB document also goes on to discuss the possibility of teachers sharing experiences with their colleagues. It also discusses creating courses for teachers who wish to know more about applying IT in teaching in learning, rather than just learning IT skills (EMB2004) as well as encourage new teaching approaches.

Hong Kong Education City (HKEdCity) is also expected to take on many roles in this area such as;

- Organizing various activities to promote IT solutions to schools
- Developing into an e-learning and e-business platform for teachers, parents and students.
- Enhancing resource development.
- An online training platform and more instructional software for teachers.
- Set up mutually supportive teacher communities to undertake and share pedagogical innovations, through online and face-to-face contacts.
- Provide effective channels for resources.

Sweden

Sweden has a very liberal approach to teacher training and planning, the students are actually involved in some of the training.

Across Sweden inter-disciplinary, problem-based and pupil-oriented development projects are planned and carried out together by pupils and teachers working in

teams. The aim is to promote and develop the learning approaches of students and teachers. A pedagogic facilitator appointed by the municipality supports the teams, but using each other's knowledge is prioritized (Freeman et. al. 2000 p.5).

Teachers are also supplied with computers for their homes to assist with planning and implementing. Sweden's model is also organized very well because the schools involved must be organized in such a way for the team to be able to work effectively on a joint development project and technical assistance (Freeman et. al. 2000).

Although the impact of this model has not been fully evaluated, for the most part teachers have seen this as a project, but there has been a common view among teachers that this has been a very important part of professional development and planning (ITiS 2003).

Sweden's Schoolnet is comparable to Hong Kong's Education City but it has been around since 1994 and as it states on the website 'The goal in 1994 was, as it is today, to stimulate the use of information technology in schools (Swedish Schoolnet).'

The goals and components are much the same as HKEdCity with this exception;

- In its capacity both as a practical guide and a source of information, the Schoolnet enables teachers to integrate ICT (Information and Communication Technology) into a practical classroom setting. However, the Schoolnet is much more than an Internet guide. It is a portal for schools, by schools, about schools (Swedish Schoolnet).

Although HKEdCity is supported by the Hong Kong government, it is not created or designed by teachers, nor is it 'a portal for schools, by schools, about schools'.

Analysis

Although the EMB has shown that it recognizes the importance of professional development for its teachers, when trying to integrate technology into its lessons, it has ignored one major point... reducing teachers' workload. This ambitious proposal is only as successful as those who can implement it on the front lines. Exhausted teachers are not ready to take on new projects that are additions to an already demanding schedule. Stress induced by a heavy workload was found to be the best predictor for emotional exhaustion (Chung 2004).

Another question arises when looking at teacher training: Why is there not a budget allocated for teacher substitutes? Teachers know that this training will involve many after school hours including weekends. Why not have substitutes take over for teachers when training? Not only would it relieve some of the workload, but it would also provide much needed experience and work for unemployed teachers.

The EMB has also been reluctant to admit that the reduction of class size would benefit teachers and students as well as assist with the pedagogical change. The Hong Kong

government needs to understand that new active teaching models require more lively and energetic classroom environments. This will in turn make class management more difficult; therefore reduced class sizes would help with its implementation.

HKEdCity has the ability to be very helpful for teachers, students and other stakeholders. The website receives an average of 3.8 million hits per day (Lam, 2005), but the site is poorly organized and at the moment is difficult for a person with limited ICT skills to find their way around. Secondly, much of the site is in Chinese, limiting its international assistance or contribution. Sweden is not an English speaking country, but its Schoolnet is totally bilingual.

Conclusion

This report argues that the three criteria discussed (vision and leadership, strategic planning and foundations) are essential for the successful implementation of the EMB document *Empowering Learning and Teaching with Information Technology 2004*. The analysis in each section of this report finds problems with each one of the criteria and the government's expectations.

Vision and leadership, for the most part, has been put in the lap of the school principals and has not taken into account the other stakeholders.

Strategic planning still has a lot of grey areas and many of the people involved, i.e. students and teachers, were found not to be ready to take on their new roles. Furthermore, the system is not ready to change from exam driven to student empowered.

Finally, there has been little consideration given to the idea of teacher training vs. teacher workload, and to the internationalization of HKEdCity.

This is, nevertheless, a motivated document that acknowledges the mistakes of the previous document released in 1998. However, it has also created a plan with many new ideas that are not conducive to reaching the third phase of ICT development.

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Appendix A (Figures)

Exhibit 13: Criteria for Leading Practice in Policy for ICT in Education

1. Vision and leadership There is a clearly articulated vision which encompasses social and economic objectives while leadership is actively fostered through training, network building, and in other ways.

2. Strategic planning Strategic planning is used to connect policies and to give coherence and progression to policy directions.

3. Lifelong learning Lifelong learning for all is seen as an essential underpinning of a competitive, cohesive, and just information society.

4. Monitoring progress Indicators and targets are set with ongoing monitoring of progress.

5. Foundations Policies directed at professional development of teachers, infrastructure, and online content have laid the foundations for effective use of ICT in education.

6. Digital literacy There are active strategies in place to foster digital literacy for all students. This is broadly defined to include essential 21st century generic skills (including higher order thinking and reasoning skills) which can be furthered through the effective use of ICT.

7. Bandwidth There is a strategic approach to providing affordable bandwidth for all education institutions which may link to broader national strategies for providing broadband access for all communities, or local and regional strategies, or discrete education strategies.

8. Access and equity There is a comprehensive and co-ordinated approach to the national objective of providing access to the benefits of the information society for all citizens including a strategic approach to addressing the learning and digital divide in society through a co-ordinated multi-faceted and multi-level approach.

9. Innovation strategy An innovation strategy is in place to foster innovative and creative applications of ICT in education and to drive cultural change in responding to the conditions and opportunities of the information and knowledge society.

10. Research and development R&D has been strengthened and focussed on key priorities in a national research agenda to support the transition of education to the conditions of the information society with action taken to foster dissemination of findings and to maximise interaction between policy, research, and practice.

11. Network building Networks have been actively built up across the country and with other countries through programs such as SchoolNet to foster the generation and flow of new ideas and to support innovation and cultural change. Networks function as learning communities of practice.

12. Models and exemplars A bank of models and exemplars of good practice has been built up through case studies to benchmark good practice which are accessible to all through an

appropriate web site.

13. **Community strategies** Synergies have been established between education focussed and whole-of-community strategies, such as the Canadian Smart Communities, so that education change is supported and encouraged by community-oriented programs directed at complementary objectives.

14. **Transforming learning** An active dialogue has been promoted in the community on ways of transforming learning in many social contexts using the power of ICT so that broad community support is engendered for the vision of an information and learning society with complementary action taken by the full range of stakeholders in a broad spectrum of partnerships.

15. **Partnership** There is an active development of partnership initiatives with all stakeholders involved. The range of partnerships includes innovation in public/private partnership action.

(Kearns 2002 p. 124-125)