

Examining Trends in the Use of Computers in Education in China from a Wood's 'National Policy Models' Perspective

Li Yuan (l.yuan@qub.ac.uk)

John Gardner (j.gardner@qub.ac.uk)

Pamela Cowan (p.cowan@qub.ac.uk)

School of Education, Queen's University of Belfast, Northern Ireland, UK

John Gardner is a professor of education in the School of Education, specialising in ICT research and teaching.

Pamela Cowan is a lecturer in the School of Education with responsibility for teacher training in ICT and also specialising in ICT research.

Li Yuan is a PhD student in the School of Education, research area is ICT policy and practice in education.

Communications:

Li Yuan or John Gardner
School of Education
Queen's University
69/71 University Street
BELFAST BT7 1HL

Northern Ireland

Tel: +44 (0) 2890 975 941

Fax: +44 (0) 2890 239 263

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Li Yuan, John Gardner, Pamela Cowan

School of Education, Queen's University Belfast, Northern Ireland, UK

Abstract: *This paper applies Wood's national policy framework (Wood, 2002) to the use of computers in Chinese schools in order to evaluate the impact of and reaction to information and communications technology (ICT) policy on the future of schooling and society. With its highly centralized system of schooling, the "centralized regulation of schooling" scenario is considered to be sufficiently close to enable current ICT policy and possible future developments to be examined. The analysis arising from Wood's framework has significant implications for developing countries, such as China, which have limited funding and experience to address the range of issues relating to ICT integration.*

Keywords: *ICT policy, computers, education, integration, schooling.*

1. Introduction

The integration of ICT into school systems is becoming one of the key policy and practical challenges for 21st century education. A worldwide commitment to the implementation of computers in schools is evidenced by the development of national ICT policies and the accompanying large-scale investment of ICT in schools. However, a World Bank report (World Bank, 1998 p31) points out that "many governments stand at the threshold of the twenty-first century without clearly-defined plans and strategies about the use of educational technology—but they are making major new investments anyway". Hawkins (2002) argues that one of the key failures in the use of computers in schools in developing countries is that in many cases schools have been provided with expensive equipment but with little in the way of national ICT education policies. Research (OECD, 2003; Wood, 2002) has provided some models and frameworks for successful ICT integration that are the building blocks of sustainable educational policy and programmes. The OECD (2003) recognizes that models help to clarify the main directions and strategic options for governments over the long-term, as well as the policy issues that arise in the integration of ICT in different futures of schooling. This paper applies Wood's national policy scenarios (Wood, 2002), which were derived from an in-depth interview study of key policy-makers in six countries in Europe: Denmark, France, the Netherlands, Portugal, Sweden and the UK, to assess how a desirable and achievable ICT policy may be identified in relation to the future of schooling in China.

2. Four national policy models on the use of computers in schools

One of the central themes in Wood's analytical framework, as outlined in the 'Think' and 'Think Again' reports, (Wood, 2002, 2003), is that "When ICT becomes 'mission critical' for educational systems several processes will be set in chain that will generate new tensions and dilemmas for schools and education authorities. The main dynamics driving innovation in schooling stem from strategies adopted to resolve a set of 'axes of tension' created by the impact of technology on learning" (p. 5). These axes are set out in Wood (2002) as:

- Innovation with ICT is inhibited by a failure to re-think the curriculum;
- Innovation with ICT fails, being inhibited and stifled by a failure to capture the imagination and support of parents and the public;
- Innovation fails because the tools and practices used to monitor and guide learner progress and achievement do not support the achievement of new objectives;
- The innovative use of ICT will increase the gap between high and low school achievement;
- Teachers as technicians versus teachers as professionals;
- Learning as consumers versus learners as an asset;
- The burden of maintaining high quality of ICT provision exceeds available public funding;
- Protection versus censorship.

According to Wood the manner in which a nation attempts to resolve the tensions leads to four different scenarios of future schooling in response to the impact of ICT. As he explains, three of the scenarios are designed to help explore the possible transitions of using ICT in schools from present to near future. The fourth scenario is considered to happen when there is a failure to resolve one or more of the axes of tension.. The scenario models are outlined briefly below:

Scenario 1: *ICT strengthens the centralised regulation of schooling*. This is considered to exist when the prevailing view is that "schooling needs to change and improve significantly in order to further economic prosperity and well being of the nation and the individual" (p.13). Three main objectives of schooling were identified by 'practically all' of Wood's respondents, namely: universal high levels of achievement in core skills, greater levels of competence in workplace attitudes and skills, and school leavers equipped with the attitudes, motivation and skills for lifelong

self-managed learning. ICT is considered to have the potential to deliver the objectives set by the centralised control of all aspects of schooling: curricula, content, pedagogy, assessment, accreditation and finance.

Scenario 2: *ICT supports the creation of schools as “learning organizations”*. In this model, the nature of the impact of ICT on learning and teaching processes is uncertain but that it will act as a catalyst for change. Schools have to strive to become knowledge producers and learning organizations and are given the scope and capacity to do so.

Scenario 3: *Citizenship at the Centre: ICT supports the emergence of schools as core nodes in their communities*. Wood asserts that this is the most radical of the scenarios, which “develops in a national context marked by generous economic investment, historically high levels of public confidence in the state school system and a tradition of de-centralized responsibility for curriculum planning, assessment and accreditation” (p. 25). Schools are designed to promote learning how to learn, responsible citizenship and act as key nodes in new communities are brought to the front as their function for knowledge transmission is unimportant.

Scenario 4: *ICT fail to deliver: Technology melts down*. As Wood explains, this model considers various possible failures in policy and the implementation that undermine attempts to innovate with ICT. Failure signals include a lack of clarity in educational policy and objectives, a failure to document progress in achievement of new goals, the mismanagement and miscalculation of expectations and underestimation of the costs of provision of the ICT infrastructure (in, for example, professional development and upgrading of resources).

No one would expect that any one of these scenarios will fit in a “pure” form in any one country. However, it is possible to use them to identify the potential alternatives in ICT integration in schooling for any country, based on that country’s values and beliefs about society and education as well as the current practice. The OECD (2001) suggests that the development and use of such models makes them useful devices for the formulation of policy that is designed to enhance the impact of ICT on educational systems.

As a country with the largest school system in the world, China has to cater for over 640,000 schools and more than 200 million students. The responsibility for the educational goals, development and implementation of the curriculum and examination system remains at state level. With this large bureaucratic system, the basic features of the existing school system will likely be maintained well into the future, whether from public choice or from the inability to implement fundamental change (OECD, 2001). Using Wood’s national policy framework for ICT in schools, the “centralized

regulation of schooling” scenario is likely to be the best fit for the Chinese education system. We therefore elaborate this model below in order to examine the current ICT policy and possible future developments

3. Main ICT policy concerns of “the centralized regulation of schooling” scenario (Scenario 1)

According to Wood (2002), this scenario implies that schools are held accountable for achieving key standards which are “clearly defined within a national curriculum and examination system” (p13) and ICT is used as a vehicle for supporting schools in the realization of educational objectives. Wood then explores the relationships between ICT and school goals, curriculum, assessment and pedagogy; ICT as a tool for teachers, learners and parents; as well as ICT services and content providers for the educational market.

3.1 Providing approved content and service to support educational objectives

According to Wood (2002), educational goals, curricula and assessment keep intact in this model, learners are required to learn pre-established content rather than learning from innovation or from outside curriculum. ICT will provide the technical means to deliver the curriculum and educational material, which is in turn provided by the state.

3.2 Changing pedagogical practice in order to achieve curriculum and educational goals

In Scenario 1, Teachers need to change their practices to the best fit for the requirements between national educational goals and outcomes of schooling. Teachers need to achieve pedagogical fluency with ICT, to enhance school achievement and prepare learners for life in the information society. ICT provides new tools for teachers to access national professional networks that support teachers’ professional development.

3.3 Developing core curriculum skills and lifelong learning skills to fulfil national aspiration

As schools’ roles and practices will be changed, there are additional requirements not only on teachers, but also on learners. Learners are required to learn core skills, workplace and lifelong learning skills. ICT offers new opportunities and tool so that learners are able to learn through outside schools with more motivating, interesting and useful learning experiences.

3.4 Developing the larger commercial groupings and new forms of partnerships and collaboration to create a healthy educational supply industry

As the digital content and services need to reflect national educational goals and help students achieve high standard on national tests in this scenario, Wood (2002) argues that it is characterized by a healthy context for the educational supply industry and a large coherent domestic market for educational products and services. If the system can sustain itself with reduced state support, “the state may move to a more regulatory role rather than a direct provider of educational services” (p.18). Government, the commercial sector, and schools should work closely to develop the new forms of partnership between different players in educational resources and service market.

4. National policy for the introduction of computers in schools in China

4.1 The political context

In the global context, both developed countries and less developed countries are under pressure to improve their economic competitiveness through integrating ICT in education in order to maintain their current advantages in the global economy or to catch up with more developed countries (Zhao, Lei & Conway, 2005). According to Hawkrige et al (1990), the general trend in many countries has been that educational ICT policy has proceeded from the social and economic rationales to the pedagogical. The conjuncture of the impact of globalization, developments in information and communication technology and the competition in both the economy and the labour market has led to fundamental changes in society that have profound implications for the role of education in China. In 1998, the Chinese government disseminated ‘1998-2002 Action Plan for Invigorating Education in the 21st Century’ that aimed to change tremendous population pressure into highly productive human resources through educational innovation and reform (MOE, 1998). In 2004, a new round of the Action Plan (for 2003-2007) was proposed with the focus on compulsory education, especially the education in rural areas. The plan explicitly demonstrated the new government’s intention in implementing the strategies of ‘Rejuvenating China through Science and Education’ and ‘Reinvigorating China through Human Resource Development’ (MOE, 2004b). The priorities include: expanding access to basic education; reforming the curriculum to improve education quality; reducing disparity between regions through educational development in the under-developed west; and continuing teacher professional development (MOE, 2004b). As Scenario 1 predicts, ICT is expected to play an important role in implementing this plan. The integration of ICT in education in China is referred to as “educational informationization”, which is intended to develop around a three-fold process. The first is to popularize ICT education in primary and secondary schools to prepare individuals for the workplace; the second is to develop distance learning to extend the equality and quality of educational access; and the

third is to integrate ICT into the curriculum to improve quality of teaching and learning (Chen, 2000). These strategies are detailed in the series of key policy documents that the government has released since 2000.

4.2 Key policy documents since 2000

In 2000, at the national conference on ICT in education, the former education Minister, Chen Zhili spelt out that it was necessary to speed up the introduction of ICT in schools in order to drive the modernization of education (Chen, 2000). Afterwards, the Ministry of Education released a series of policy documents relating to the introduction of computers into schools, and these are set out in Table I below:

Date	Title	Content
2000	Popularizing ICT Education in primary and secondary schools	ICT curriculum
2000	Implementation of ‘SchoolNet’ in primary and secondary schools	Access
2000	Implementation of ICT training for primary and secondary school teachers	Teacher training
2001	Standards of ICT training for primary school and secondary school teachers	Teacher training
2002	Promoting ICT training for primary and secondary school teachers	Teacher training
2002	The data standard of digital educational resources for schools	Regulation
2004	Speed up national teachers’ network plan Implementation of new round of teachers’ ICT training	Teacher training
2005	Implementation plan for promoting teachers’ ICT competence	Teacher training

Table I Educational Policies relating to ICT from 2000 to present.

The sequence of publications suggests that educational ICT policy for schools has evolved through separate policies rather than a holistic strategic plan. Examination of the policy topics indicates an emphasis on students’ ICT knowledge and skills, schools’ connectivity, digital resources and teachers’ ICT training. The policy is set out at central level and is delegated to regional and local authorities for implementation.

ICT curriculum: The Ministry of Education requests all primary and secondary schools to offer a compulsory course on ICT education during the following five to ten years. ICT, as a subject, is taught in secondary schools in cities by 2001, in developed regions by 2003, and in other areas by 2005. The primary schools in cities and developed regions will popularize ICT curriculum by 2005 and in other areas by 2010 (MOE, 2000a).

Access and connectivity: A “School-net” project has been initiated by the government and is designed to ensure that all schools have access to computers and the internet throughout China. A timeline has been set up for different regions: By

2010, the initiation is to have more than 90% of primary and secondary schools with access to the internet, broadband or satellite; and for the remaining 10%, multimedia equipment and digital resources is to be provided (MOE, 2000b).

Digital content and educational software: The Ministry of Education has established ‘the data standard of digital educational resources for schools’ to provide a standard for exchanging and developing the digital resources and educational software (MOE, 2002a). A number of companies have entered the education market to provide digital educational resources and services for teaching and learning in schools and comprehensive educational website – China Basic Education Resources Network (<http://www.cbe21.com>) has been set up by the MOE. It aims to provide teaching and learning resources in all subjects for teachers and learners in primary and secondary schools.

Teacher training: The Ministry of Education has distributed a series of policy documents in relation to teachers’ professional development with ICT. These documents formulated the detailed goals, content and measures relating to teacher training with ICT (MOE, 2000c; MOE, 2002b). The National Networked Teacher Education Union has been set up by the Ministry of Education and the on-line learning materials for teacher professional development have been designed and delivered through several universities, such as Beijing Normal University and the Central Radio and TV University, and the China education TV station (MOE, 2003b).

5. Issues and challenges on the integration of ICT in schools in China

Great efforts have been made by the central and local governments and schools, and as a result, the number of computers and the level of the connectivity in schools have increased rapidly. The statistics show that the investment in ICT in education in 2004 was 24,500 million RMB, an increase of 0.8% over 2003 (China Education News, 2004). By 2003, more than 50 million pupils were receiving ICT education, approximately 35,000 schools were connected to the internet, 5,000 sets of satellite receiving equipment were set up in rural schools and all teachers had taken part in the first round of ICT training courses throughout the country (Zhao, 2005). However, there remains a range of issues and challenges that the government may need to take account of in their future ICT policy planning and strategy development in order to successfully integrate ICT in schools. These are considered below.

5.1 Policy environment and public support

Due to the limitations in resources and experience, as well as the constraints of the social, economical and cultural context, ICT policy in schools in China is relatively restrictive rather than comprehensive. The rapidly moving trends in

ICT development in schools are outpacing the ability of policy plans to keep up. While some schools are equipped with computers, broadband and multimedia classrooms, they are unlikely to understand fully why and how ICT should be used to transform current teaching and learning practice. As a result, the integration of ICT in schools is likely not to be adequately supported by the infrastructure. Fan et al (2004) conducted a survey on 'SchoolNets' in 4552 schools in 2004 showed that 62% of schools had established 'SchoolNets' within the last three years. However, only 10% of school networks are used by teachers to teach subjects other than ICT and at least 17% of school networks had hardly been used at all. The remaining 73% of school networks are using it mostly for administration and teaching ICT curricula. There is a need for radical change in educational policy, in a systematic way to support the exploitation of ICT to promote school innovation. The innovation with ICT in schools fails to capture the imagination and support of parents and public (Wood, 2002). Government may need to take on board that it is difficult to make the public and parents fully understand the nature of the changes without a clear vision and a holistic approach in this expensive and slow process.

5.2 Fund burden and investment mechanism

The biggest concerns in relation to any strategy of integration of ICT in schools in China are the lack of funding and how to make effective investment. The statistic shows that a total RMB 100 billion has been invested on ICT in schools since the government began to popularize the ICT curriculum and develop 'SchoolNet' in primary and secondary schools (Chinese Educational News, 2005). The National Center of Educational Technology (Chinese Computing News, 2003) reported that it will need more than RMB 362 billion to achieve the goals for ICT in schools in 2010, which has been set out by the government. This means at least 23% of annual education funding must be used on ICT. International experiences suggest that the introduction of computers in schools on a national basis is not possible without substantial increases in the educational expenditures (Pelgrum & Anderson, 1999). As there is an educational fund shortage in general, it is difficult for the government to make a desirable investment in ICT in schools in a systematic way. Most initiatives and investment in ICT in schools have come either from central government, local government or schools all of whom have budgeted for hardware but not for software and ongoing maintenance. For example, Shanghai has invested RMB 1.16 billion for the "SchoolNet" project, 80% of which was spent on hardware (Zhang, 2004). The over-emphasis on hardware at the expense of relevant resources and teacher training has greatly reduced the

effectiveness of ICT use in schools. Without effective investment mechanisms, it is therefore difficult to measure the cost-effectiveness and efficiency.

5.3 Equal access and the digital divide

Due to the variation in resources available locally, the different levels of importance given by the local government to school computers and connectivity vary depending on the levels of financial input from various sources throughout the country. The 'digital divide' is significant between the economically developed and economically underdeveloped regions, between cities and rural areas as well as within cities between privileged schools and common schools. According to 2001 statistics, in Beijing and Shanghai the ratio of students to computers was 15:1 and 17:1 respectively, but in Yunnan it was 186:1. There are no computers at all in the most rural schools in Western China (Chen, 2004). Since 2003, the central government has invested RMB 10 billion to develop three models of ICT application to equip remote and rural schools. It aims to equip 37,000 computer rooms in rural secondary schools, and to install 384,000 satellite receiving stations in rural primary schools and 110,000 DVD/VCD players and TV sets in village classrooms by 2007 (Chen, 2005). Although great attention has been paid to developing ICT in schools in rural areas and Western China, in order to narrow the 'digital divide', the initiatives can not be successful and achieve the expected outcomes without consideration of sustainability, affordability and capacity.

5.4 Digital resources and the educational market

As many researchers have highlighted (Chen, 2003; Pelgrum & Law, 2003), the lack of usable educational software and digital resources is one of the most important problems that constrain the educational uses of ICT in China as well as in many other countries. There are a wide range of issues in relation to the development and delivery of educational content and digital resources and these include:

- Insufficient hardware resources
- undeveloped educational software and service markets
- lack of quality digital content for the curriculum and classroom teaching and learning
- lack of communication between the educators and product providers
- copyright issues

The main bottleneck is the lack of digital content for the classroom teaching and learning. Due to this shortage, teachers complain that they have to spend a large amount of time and energy in designing and developing courseware for their own classroom teaching, which is usually not professional or transferable. According to a survey by BBETRC (2003) on educational software used by school teachers in Beijing, about 68% digital material used in the classroom was made by teachers themselves or the school technician, 27% was commercial software bought from market and 10% was downloaded from the internet.

5.5 Teacher training and new pedagogical practice

Teachers' ICT competence and new pedagogy are crucial in order to make full use of ICT in schools. Since the majority of teachers have not received ICT lessons in their previous teacher education in China, there are considerable pressures on teachers' in-service training with ICT. There are levels of needs relating to teachers' professional development with ICT: on the one hand, a lack of qualified ICT teachers to teach the ICT curriculum effectively and ICT specialists to provide technical support in most schools. On the other hand, teachers lack the knowledge and skills to use ICT in their classroom teaching and learning. BBETRC (2003) reports that only 51% of teachers can use a word processor, 21% of them can find resources on the internet and 6% of teachers can use email in Beijing. In order to promote teachers' ICT competence, the Ministry of Education requires that all teachers should attend ICT training courses and gain a certificate on ICT as qualified school teachers. A survey of ten schools conducted in Chongqing by the authors in 2004, reveals that most of the teachers had attended at least one training course, which had been organized by the schools, local education authorities or commercial companies. About 69% of the teachers recognized that they gained ICT knowledge and skills from the training courses. However, a number of concerns was raised by interviewed teachers. For example, they reported a lack of policy and financial support for attending training courses. Most of the teachers had to pay the training fees themselves and use their own time, while most of the training courses were designed with a focus on the technological skills resulting in a lack of relevance to teaching and learning in the classroom. The training courses were also considered to be repetitive and large group-based, which did not, therefore, cater for the teacher's individual needs. The teachers also reported variation in the quality and quality assurance of training courses and training agencies, etc. If this is the pattern across China, then clearly there is a great need to provide teachers with more meaningful and effective training in order to improve their ICT competences and move teachers towards new pedagogical practices with ICT in the classrooms for teaching and learning.

5.6 ICT integration and school reform

According to UNESCO (2004), the national ICT policy and plans in China have been formulated and various ICT integration strategies are being applied and tested. However, they consider that ICT is not fully integrated in the education system. There are significant conflicts between the use of ICT and the conventional Chinese pedagogical philosophy, the traditional cultural and social concepts in relation to schooling as well as the current curriculum and examination system. Wood (2002) argues that teachers are more likely to integrate ICT into their lessons if they perceive it as a tool to meet curriculum and educational goals. Therefore, the curriculum and assessment system may be an important the key to effective use of ICT in school. If so, it will be necessary to accelerate educational change and school reform in order to make full use of ICT in schools.

6. Implications of Wood's models for ICT policy in schools in China

Based on the review of the current ICT policy issues and reflections on the potential future of the Chinese schools system within Wood's policy model, it is possible to propose what the government could do to make effective choices in terms of ongoing trends and policies on the introduction of computers in schools. There are set out below.

6.1 A shared vision and a comprehensive educational ICT policy plan

Many researchers (e.g. Kern, 2004; Wood, 2003) point out that a national vision is essential to the effective integration of ICT in schools to prepare a country and the next generation for the future. According to Wood (2003), schools' ICT implementation strategies, and teachers' pedagogical practices in the use of ICT, are strongly dependent on the general vision and mission of the school. The effectiveness of innovation with ICT in schools are still uncertain and variable that need for a shared vision to ensure that the different actors can negotiate a common view of future aims and needs. This suggests that the government should articulate a shared vision and a comprehensive policy plan for the use of ICT in schools in order to encourage the public towards a cultural shift that accepts the new concepts of teaching and learning and supports innovation of ICT in schools.

6.2 A whole government approach and effective investment mechanism

The integration of ICT in a nation's education system will be informed by the aspirations of the country and how it sees the development of its educational, economic, cultural, civic and social aspects in an information society. According to Wood (2003), this needs a whole-of-government programme structure. The Ministry of Education should not, therefore,

take the task of equipping schools alone. The OECD (2001) has recognized the significance of “the partnership challenge” in ICT developments in education and argues that governments need to form strategic partnerships in order to encourage all levels of administration to think creatively about building a long-term and large-scale strategy for meeting schools’ infrastructure and technical needs. In relation to investment in ICT in schools, it is important to carry out a needs analysis on access, digital resources and professional development before installing computers, in order to enhance the efficiency and cost-effectiveness. Policy makers and school principals need to recognize that it requires more funding to be spent on digital content, maintenance, teacher training and other related costs rather than simply on hardware.

6.3 Ensuring ICT is an integral part of educational reform.

It is crucial to ensure that the ICT policy in schools is education-driven and not technology-driven. In re-thinking schooling, curriculum and assessment, ICT must be perceived and used by teachers as a mediating tool to meet educational objectives and curricula goals. The “status quo” schooling model suggests that it is possible to integrate ICT in education without changing schools’ main organizational structures, but in fact it is necessary to “re-culture” schools in a technology environment. As Wood (2002) suggests, in “the centralized regulation of schooling” model, schools can address the new provision successfully through changes in pedagogical practice, not curriculum goals. Therefore, integration of ICT into the curriculum should be supported with accompanying guidance to the learner, teacher and parents in order to change teaching and learning activities in the classrooms (Wood, 2002). Online assessment and examination systems can also underpin new functions of school networks such as value-added measures to evaluate schools, assessing national achievement effectiveness in achieving learning outcomes and assessment of school performance.

6.4 Teachers’ professional development focusing on new pedagogical practice

According to Wood (2002), ICT increases the complexity of teaching due to the joint demands on high performance in national examinations and helping learners to achieve the expected goals of self-development. The integration of ICT in schools requires teachers to be equipped with a new set of skills, attitudes, knowledge and pedagogical beliefs and practice. Therefore, government, teacher training agencies and schools must work very closely to design a training curriculum that is relevant to teachers. Teachers’ professional development should focus on new pedagogical practice to support teachers in achieving pedagogical fluency with ICT. To bring changes, Wood (2003) rejects the top-down

approaches to teacher training. He argues that teachers have to be actively involved in “researching, designing, constructing, enacting and evaluating new practices in collaborative activities with peers” (p.25). Therefore, it is important to develop school-based training through a process of “legitimate peripheral participation” (Lave & Wenger, 1991). This locates learning and the construction of knowledge in communities of practice in which teachers are able to learn from each other in order to integrate ICT into their teaching practices.

6.5 Creating a large healthy educational resource and service market

On the basis that very little will happen if there are insufficient resources, it becomes urgent that the government adapts a strategic approach to creating a healthy education resources market in order to provide schools with high quality infrastructure, services and digital content. The government should therefore consider guiding and encouraging commercial companies to compete for public funds to provide educational content and services for schools. For example, in the UK, a strategy has been developed to maintain a diverse and productive educational supply sector by a relatively open market approach. Schools are allocated ‘learning credit’ for the purchase of ICT resources so that they are free to spend their credits as they see fit with approved suppliers. In order to guarantee the effectiveness of such provision in a market environment, it is important to develop new forms of partnerships and collaboration. These need to ensure that commercial companies can work closely with schools so that the digital content is pedagogically sound and meets the teaching and learning needs of the teachers and students (OECD, 2001, Wood, 2003).

6.6 Exploiting research and evaluation to enhance the impacts of innovation with ICT

The research into and evaluation of ICT policy and innovations need to be strengthened in order to explore possibilities and to overcome limitations to cope with the changing environment of ICT in schools. The integration of ICT in schools requires not only financial and training support to schools, but also an increasing and diversifying research and evaluation to help policy makers think about the contextual considerations for moving forward to transform education through innovation with ICT.

7. Conclusion

Policy for ICT in schools is influenced by the socio-economic and cultural context of the country, the history and traditions of its education system. China is just at the beginning of a challenging road, with a range of issues being faced by the government in striving to bring the desirable ICT policy in education as close to fruition as possible. Wood’s

national policy framework offers an opportunity to stimulate policy thinking on the introduction of ICT in the Chinese school system. Using the framework, it is possible to look beyond the surface of the process of introducing computers into schools and expose the various experiences that have emerged, or will emerge in the future, in order to integrate computers into Chinese schools more effectively.

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