Teachers’ Views of Their Involvement in an Online Community of Practice Project

Thang Siew Ming(thang@pkrisc.cc.ukm.my) 
Hazita Azman 
Radha Nambiar 
Lee Kean Wah 
Yuen Chee Keong 
Leila Bidmeshki 
Universiti Kebangsaan Malaysia, Malaysia

Abstract
This paper reports on the initial stages involved in the development of a partnership model for online continuing professional development in selected Malaysian Smart Schools. Smart schools were chosen as teachers here have received some training and schools have received funding to improve their technology infrastructure. It is these teachers who are now facing the considerable challenges of implementing government policy without any ongoing support. Studies conducted by Siti Suria Salim and Sharifah Mohd Nor (2005), Hajar Mohd Nor (2005), Azizah Ya’acob et al (2007), and Lee (2007) highlight the insufficient attention given to continuing professional development (CPD) in the Smart schools. This paper reports on the preliminary views of twenty (Science, Mathematics, and English) teachers from five Smart schools who were interviewed about their feelings and expectations about their involvement in the project. Questions on how ready they were for the use of ICT in sharing and learning were also included. Findings indicate that while teachers are apprehensive about their roles and levels of involvement in the project they are very aware that they can make strong contributions to classroom pedagogy and student performance. The findings further reveal that the five schools are generally well-equipped as far as ICT facilities are concerned. The teachers express willingness to embrace ICT, but they require more support in the form of a reduction in workload and physical and emotional support to participate more fully in an ICT-driven curriculum.

Introduction
The introduction of Information Communication Technology (ICT) to benefit teaching and learning in many developing countries over the last decade has largely been based on the assumption that once the hardware is made available in schools ICT integration will automatically follow. However, in reality, this does not necessarily happen as revealed by studies done in the region; Siti Suria Salim and Sharifah Mohd. Nor (2005), Hajar Mohd. Nor (2005), Azizah Ya’acob et al (2005), and Lee (2007). The integration of ICT into professional practice requires teachers to provide students with the opportunity to develop the skills required to engage in a progressive society and become life-long learners. It also allows teachers to enrich the learning of content materials. However, the extent that teachers can successfully do this is still debatable.
ICT in Malaysia

The Malaysian government has recognized the importance of technological changes in helping develop a knowledge-based economy and this is evident in the continual efforts undertaken to strengthen the ICT sector. Education is one of the major sectors the government is focusing on to help achieve the aim of developing a knowledge-based economy and towards facing the challenges from other countries. The government aims at positioning Malaysia as a competitive knowledge-based economy to enable adequate access to knowledge and information. Hence this explains the Malaysian Ministry of Education’s desire to maximise utilization of ICT in schools. (Ministry of Education Malaysia, 1997).

Towards this end, the Malaysian government allocated billions of ringgit in the 8th and 9th Malaysian Plans to ICT-related programmes and projects. The nationwide plan includes supplying computers to over 8,000 schools in both urban and rural areas. Under the 8th Malaysia Plan, a further RM1.82 billion was allocated for the Multimedia Super Corridor (MSC) to provide the most conducive environment to achieve the government’s goal to become a world-class information and multimedia player in this information age. One of seven flagship applications of the Multimedia Super Corridor (MSC) was the Smart School Project that was initiated in 1999.

Smart school project

The project was meant not only to equip students with IT competence and science and technology but also to bring about a systemic change in education, from an exam-dominated culture to a thinking and creative knowledge culture (Ministry of Education, 1997). Four subjects (English Language, Malay Language, Science, and Mathematics) were selected to be taught the smart-way (Ministry of Education, 1997). A total of ninety schools were identified for the pilot phase of the project. They were expected to serve as the nucleus for the eventual nation-wide deployment of Smart school teaching concepts and materials, skills, and technologies.

The Malaysian Smart Schools could be categorized as technology-rich schools. They are known as Smart Schools but are also locally known as Sekolah Bestari, as a learning institution that has been systematically reinvented in terms of teaching and learning practices and school management teachers to prepare children for the Information Age and to promote the goals of the National Philosophy of Education. The plan was for the schools to act as catalysts to help achieve Vision 2020 and pave the way for Malaysia to be the ICT hub (Ministry of Education, 1997).

To develop a system of education that is on par with world standards in producing teachers who are constantly striving to achieve excellence and willing to work diligently towards fulfilling the aspirations of the nation, the Teacher Education Division (TED) of the Ministry of Education has conducted series of training and courses for teachers in order to constantly upgrade and update the knowledge, competence and efficiency of teachers. The training was held at teacher training colleges and local universities which become centers for professional development in teacher education (Ministry of Education,
The training aimed to equip them with the skills for the technology-enriched environment and to minimize resistance to the change process (Ministry of Education, 1997). In addition to that, Professional Development courses of 14 weeks duration (ongoing courses) were also conducted. These courses dealt with specialized areas in computing namely Computer in Education, Computerization, and Use of Computers in the Teaching and Learning of Bahasa Melayu (the Malay Language). The courses were geared towards the training of teachers for the Smart School Project. The TED educators and officers from the TED also took up short courses in IT both locally and overseas and shared their knowledge and expertise through the in-house training programmers organized by the TED (Ministry of Education, 1999). Selected teachers were chosen to attend these courses. They were called master trainers and their responsibilities were to proceed to train other teachers in ways to integrate computers in the teaching and learning process and to function as resource persons to transfer their knowledge and experience to teachers in their respective schools (Ministry of Education, 1999). This seems like a good plan but it is rather a top-down model and it depends a lot on the master trainers’ abilities to remember what they had learnt and to their abilities to transfer what they learnt to those under them.

A survey was conducted in 2005 by the Economic Intelligence Unit to measure e-learning readiness in sixty-five countries in the world. The findings indicated that Malaysia ranked thirty-five which was classified as being moderately ready for e-learning (mean=5.5 on a scale of 10). The report further indicated that Malaysia ranked eighth in the Asia-pacific region at that time. However, these indicators did not take into consideration the psychological readiness of these vanguard teachers to adopt the new teaching approaches and methodologies taught during the training course had ended. A feedback report conducted by the Ministry of Education and the Telekom Smart School Team in 2003 revealed the following discouraging findings:

1. The smart school courseware was not much used. Teachers preferred to use materials directly related to exam preparation to save preparation time. They complained that the courseware did not cater to the students’ needs and did not reflect the whole curriculum.
2. Not much support and monitoring were given to these teachers by the Ministry of Education. Because of that, the teachers were not motivated to use these materials.
3. Teachers felt that the training had not equipped them with the necessary ICT skills to enable them to be able to use the courseware comfortably and effectively.

The findings revealed that the in-house training was only moderately successful as it had not sufficiently equipped the teachers with the necessary ICT skills to apply the smart school methodology principles successfully. Hence, there is a need to intensify change management programs and pedagogy training for all teachers on how to integrate ICT in teaching and learning. (Multimedia Development Corporation, 2005)

Challenges in smart schools
The Smart Schools were equipped with many computers and accompanying peripherals. These resources were mainly placed in the computer laboratories and in classrooms. It was envisioned that with the training provided and the skills and knowledge obtained, teachers would utilise these computers in their teaching activities. Nevertheless, the findings of previous research to investigate technology and ICT utilization among Malaysian Smart School teachers revealed that the level of utilization was still moderate. Hajar Mohd. Nor (2005) found that the main problem faced by teachers in Smart Schools that hinders them from fully integrating the technology was their lack of technological skills. Teachers described the training as having failed to address their real needs - about “how” and “when” to use the technology in their lessons. Research done in the existing system of in-service teacher education has further highlighted its ineffectiveness in disseminating and implementing curricular reforms (Malakolunthu, 1997).

According to Malakolunthu (1997), such courses are usually developed by the ‘experts’ at the top - either at the Ministry of Education or the State Education Department - and the content of the in-service training is not related to individual teacher’s needs. The same content is taught to all participants without regard for their backgrounds and takes place in isolated settings away from real classroom situations. The in-service training is usually mandated and sometimes it is not perceived as value-adding or productive since it does not originate from the teacher’s needs. As a result of all these factors, it is considered as a burden by the teachers studied (Malakolunthu, 1997).

From these findings, it is clear that the teachers’ professional development in Malaysia is still lacking in its ability to motivate teachers to use and value technology as an essential part of achieving the lesson’s objectives. The design of the training and the way they are carried out is inadequate in addressing teachers’ real needs. In addition, the content was also selected by experts based on ‘what is required as important or essential’ rather than ‘what teachers need to do to enhance their skill and efficacy’. It is clear that teachers are not involved in the selection of the content and this, therefore, might have decreased their participation and commitment in the process of technology implementation in the classroom.

The approach undertaken in the Malaysian education system is generally in the form of a ‘top-down’ model which takes the form of an entirely unidirectional management style (Lee, 2007), whereas there is research evidence that a ‘bottom-up’ model can be more successful to create change and improvement within schools.

**Proposing a new model for training Smart School teachers (CPDelt Model 2020)**

In view of the weaknesses of the current training programme, this current research project is undertaken. It proposes a partnership model for an online CPD model for training teachers of English, Mathematics, and Sciences in improving their use of ICT in teaching. Smart schools are chosen as the cornerstone as the teachers in these schools have already received some training and have received funding to improve their technology infrastructure. It is these teachers who are now facing the considerable challenges of implementing government policy without any ongoing support. However, it is also hoped that this model can be extended to teachers in normal schools in the future.
The e-CPDelt: Model 2002 is currently being piloted. The proposed model is based on the Improvement Quality Education for All (IQEA) action research framework which has been extensively used in the UK as a vehicle for school improvement. In the IQEA project the teachers (in groups of 6-8) comprising subjects in a range of hierarchy, experience, age, etc. meet and work together to bring about changes in their respective schools by reflecting on and sharing their teaching practices which include exploring teaching models and looking into practices that work and things that do not (Hopkins et al. 1996). School improvement involves the process of change and teacher development is an indispensable part of school improvement (Hopkins et al. 1996). For school improvement to occur, teachers need to be committed to the process of change which will involve them in examining and changing their practice (Harris 2002).

Day (1999) emphasizes that teachers will only be able to accomplish their educational purposes if they are both well-prepared for the profession and can maintain and improve their contributions to it through career-long learning. Support for their professional development is, therefore, an integral part of efforts to raise the standard of teaching, learning, and achievement. Teachers must be directly involved in any decisions made regarding the direction and process of their learning. This is because successful school development is depending on successful teacher development. In IQEA project the schools can improve in three levels as illustrated in figure 1 below.

![Figure 1: Three Levels of School Improvement in IQEA](image)

For this project, action research is identified as a methodology best suited to bring about the required organizational and behavioural change. The project team will draw on and adapt the Continuous Professional Development (CPD) hub and spoke model based on a critical relationship between several school-based cadres of change-agents (spokes) and a Higher Education Institutions (HEI)-based research team (hub). Figure 2 illustrates the CPD hub and spoke model used in this project.
In this study, the spokes are five schools with four teachers (of English, Mathematics, and Science) from each school and the hub is the researchers from the Higher Education Institute (HEI) research team from three universities: The National University of Malaysia (UKM), University of Nottingham, UK and University of Sabah, Malaysia.

One of the main criteria identified for the success of the Smart schools is that the teachers should undergo intensive training in the use of information technology so that they can integrate it into classroom activities to enhance thinking and creativity. The online model proposed (e-CPDelt: model 2020) leads to the development of communities of practices with teachers from the five schools sharing freely with each other through a virtual learning platform. However, these communities differ from the IQEA in two important aspects. The sharing in the case of the IQEA was mostly face-to-face whereas in the present study the sharing between the teachers will be done online. Second, the goal of the proposed project extends beyond bringing changes in teaching and learning. It extends to allowing teachers to work with ICT from the start so that they are aware of all the problems involved when they attempt to impart the skills to their students.

**Background to study**
Entering into a partnership means one is prepared to collaborate and share responsibility for tasks and outcomes. Bransford et. al (2000) reminds us that effective partnerships are based on trust and respect and recognizing that participants needed to work independently and interactively. Moreover, according to Nias et al (1992) teachers who want to improve their practice have four characteristics: first, they accept that it is possible for them to improve themselves; second, they accept to be self-critical; third, they can recognize better practice than their own within their school or elsewhere; and fourth, they are willing to learn more in order to be able to do what they are needed to do.

With this in mind the project team embarked on establishing partnerships with the Ministry of Education, Department of Education and subsequently five selected SMART schools from the Klang Valley area labelled schools A, B, C, D, and E in this paper. The first partnership in each school was as expected with the school head or principal. In each school, four teachers took part in the study.

To probe into the underlying assumptions of the teachers' participation, a focus group interview was conducted in each school. (See Appendix A for questions asked during the focus group interviews). It was felt that the interviews could aid in the elicitation and evaluation of the participant intended motives and the perceived characteristics needed for the success of the project. The teachers were interviewed to explore their level of involvement and commitment to the project and to what extent they were ready to embrace the use of ICT in sharing and learning. Table 1 gives a profile of the teachers.

**Description of the teachers**

Table 1:
Profile of the teachers

<table>
<thead>
<tr>
<th>School</th>
<th>Teacher</th>
<th>Gender</th>
<th>Forms taught</th>
<th>Subjects taught</th>
<th>Teaching Experience</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>A1</td>
<td>Female</td>
<td>4, 5</td>
<td>Chemistry</td>
<td>28 years</td>
</tr>
<tr>
<td></td>
<td>A2</td>
<td>Female</td>
<td>4, 5</td>
<td>Physics</td>
<td>11 years</td>
</tr>
<tr>
<td></td>
<td>A3</td>
<td>Female</td>
<td>3, 4, 5</td>
<td>Mathematics</td>
<td>10 years</td>
</tr>
<tr>
<td></td>
<td>A4</td>
<td>Female</td>
<td>1, 3, 5</td>
<td>English</td>
<td>15 years</td>
</tr>
<tr>
<td>B</td>
<td>B1</td>
<td>Female</td>
<td>2, 5</td>
<td>Mathematics</td>
<td>6 months</td>
</tr>
<tr>
<td></td>
<td>B2</td>
<td>Female</td>
<td>4</td>
<td>Mathematics</td>
<td>4 years</td>
</tr>
<tr>
<td></td>
<td>B3</td>
<td>Female</td>
<td>3, 4</td>
<td>English</td>
<td>11 years</td>
</tr>
<tr>
<td></td>
<td>B4</td>
<td>Male</td>
<td>1, 2</td>
<td>Mathematics</td>
<td>8 years</td>
</tr>
<tr>
<td>C</td>
<td>C1</td>
<td>Female</td>
<td>4</td>
<td>English</td>
<td>8 years</td>
</tr>
<tr>
<td></td>
<td>C2</td>
<td>Female</td>
<td>1, 5</td>
<td>English</td>
<td>14 years</td>
</tr>
<tr>
<td></td>
<td>C3</td>
<td>Female</td>
<td>6</td>
<td>Biology</td>
<td>10 years</td>
</tr>
<tr>
<td></td>
<td>C4</td>
<td>Female</td>
<td>4</td>
<td>Biology</td>
<td>5 years</td>
</tr>
<tr>
<td>D</td>
<td>D1</td>
<td>Female</td>
<td>1, 2</td>
<td>Science, Mathematics</td>
<td>2 years</td>
</tr>
<tr>
<td></td>
<td>D2</td>
<td>Female</td>
<td>1, 4</td>
<td>Biology, Science</td>
<td>4 months</td>
</tr>
<tr>
<td></td>
<td>D3</td>
<td>Female</td>
<td>2, 3</td>
<td>Mathematics</td>
<td>5 years</td>
</tr>
</tbody>
</table>
Each school had four teachers from the Science, Mathematics, and English Language subjects. See Table 1 for a profile of the teachers. Their experiences in teaching range from 28 years to only 4 months. There is a good mix of teaching experiences. There are nine teachers with teaching experiences of 10 years and more. As for teachers with 9 to 5 years of experience, there are seven of them. Four teachers have less than 4 years of teaching experience. Out of these four, two are very new with only 4 and 6 months of teaching experiences. Fifteen out of the twenty teacher participants revealed that they were asked to join the project by their school principals and five said that they volunteered on their own free will. The volunteers said the use of ICT was the key factor that spurred them to join. They further felt that the sharing of practice with peers would help them learn new ways of teaching that would help them improve their students’ performance.

Fifteen out of the twenty teacher participants said that they were asked to join by their school principals and five said that they volunteered on their own free will. The volunteers said the use of ICT was the key factor that spurred them to join. They further felt that the sharing of practice with peers would help them learn new ways of teaching that would help them improve their students’ performance.

**Teachers’ views of their involvement.**

The main themes of the focus group interviews are shown in Fig 3. The data are analysed according these themes.

1) **Participation**
On the whole, the teachers were apprehensive about what they were required to do for the project but nevertheless were eager to be involved. A closer analysis of the data revealed that, fourteen teachers had highly positive feelings about their involvement and four teachers had moderately positive feelings about their involvement. However, two participants were not quite sure about their feelings. Using the categories mentioned above, the following illustrated the continuum of responses derived from the fourteen teachers who had positive feelings about their involvement.

Six of these teachers (1:Sch.A, 3:Sch.C, 2:Sch.D) were of the opinion that the project could improve their teaching skills. For instance, one teacher from School A enthused,

“I can also see that it’s a way that can help me in improving my teaching, sharing my problems with other teachers.”

Three teachers from School A believed that they could learn from others and gain knowledge. Another two (C:1, D:1) felt that the project could improve their ICT skills.

Five of these teachers (A:2, B:1, D:1, E:1) opined that the project would be interesting; while two teachers (B:1 & E:1) said that they were lucky to be able to participate in this project. One of the participants from School E declared,

“I think I’m a lucky person to be in this project because I can get more information from other schools and can share the experience. I’m a pioneer. I think not everyone get this opportunity.”

Six of these teachers (A:2, D:1, E:2) felt that could share their experiences and problems. One teacher from school E explained,

“I am interested and happy to join this project because I love to share and get knowledge from others”.

One teacher from school B stated that the project could benefit their students, and one teacher from School C felt her involvement could help her become more creative.

An analysis of why the four teachers had only moderately positive feelings about their involvement revealed feelings of apprehension towards the ability in meeting the demand of the project. Uncertainty regarding outcome was their prime concern. One teacher from school A said that she was not quite sure what to expect but was sure they would come up with something helpful. Another from School D said that while she did not know much about the project, she hoped it would be beneficial for her. Yet another (from school D) said she was a bit nervous because this was her first time participating in such a project and she was afraid she would not be able to carry out the activities. Finally, one teacher said that although she was excited to learn new things and she was worried about how much time would be needed and whether she could cope or not.

2. Expectations

The analysis of data for the second issue revealed that except for one teacher who did not comment, nineteen teachers (95%) expressed their confidence that the project would benefit them in many ways.

Eight teachers (A:3, B:1, C:3, D:2; E:4) hoped the project would help them in improving their teaching methods and ICT skills. A teacher from school A clarified,

“For me, I think it’s more of finding ways to actually improve my teaching as well as to find new ways to actually make my lessons more interesting”.
Another from school E added,  
“I hope I can come up with effective and interesting lesson plans, so that my lessons will be interesting for my students. I also will learn new skills...there are just so many ICT skills and they keep changing.”

Another from School C even hoped that,  
“we can impress the students ... since they are good at computers. So we can show we are better than them.”

Seven teachers (A:1, B:2, D:3, E:1) hoped that they would be able to learn from each others through the sharing and exchanging of knowledge, experiences, opinions, and ideas. To quote a teacher, from school D,  
“I think it’s a very beneficial programme because it involves many schools - Smart schools, good schools, using ICT, so we can see the difference in the other schools and learn from there.”

A teacher from School A elaborated,  
“So probably with this project, may be I’ll be able to see how other people teach and may be I’d like to find what my weaknesses are and work on that basically. I think collaboration is something that’s very good because I’ve actually been online with other teachers for many years but more on an informal basis because it’s a teachers’ website, a teacher’s chat room whereby I chat with them. So I think the exchange of ideas will be very good.”

3) Collaborations

All twenty teachers had positive opinions about collaborating with teachers from other schools. Nine teachers (B:2, C:3, D:2, E:2) expressed that they liked sharing because that could help them gain experience, learn new techniques and methods, and obtain new information and ideas. For example, a teacher from school B said,  
“Maybe by sharing what other teachers are doing in the classroom, this way we can compare and see the advantages and disadvantages of using certain techniques, patterns used in the classroom. We are not aware of certain techniques and whether what we are doing is bad”.

Another teacher from school E added,  
“Because we can learn from one another. Only by sharing, we learn. I can get ideas how to improve my teaching, come up with interesting lessons. Like I always go to the MELTA (Malaysian English Language Teaching Association) website. There I can get so many interesting lessons, activities I can use in my class.”

One teacher explained this very aptly.  
“I think sharing is something that you do very naturally. Actually, it’s something which the moment we leave our classrooms, sometimes we talk to our colleagues, sometimes with teachers who’re actually teaching the same subject, or even teachers who teach a different subject but teach the same class. Sometimes when we go on courses, we actually share. But all this sharing is done...of course, nobody records it, but we actually do share. So it’s not anything that’s really new. But just that may be this project, we actually document it. Consciously share about it and we actually don’t let it pass, not just a passing comment but something that we actually think about thoroughly. And from
there, may be learn from it. Maybe find things that are helpful there...something we’d do more consciously.”

One of the teachers from School A clarified why she liked the idea of sharing, “If we have any problems with our students, so we can tell other teachers and ask them what should we do if we face this kind of problem and I think it’s good to share the experience with other teachers.”

One (from School C) hoped to learn from others as she was a new teacher. She explained, “For me, since I’m very, very new here, so I hope I can get the experience from the experienced teacher. So I can improve my teaching.”

4) Openness to criticism

All twenty participants expressed willingness to be open in their blog entries and discussion forums and accept criticisms. A teacher from school D said, “For me, I can accept if the opinion is to develop myself.” Another teacher from School A added, “Sometimes we can’t see our weaknesses. A third party gives feedback, can criticize and we can learn from them.”

Table 2 provides a summary of the main findings of the first four themes. The overall findings indicated that the majority of the teachers had positive views on participation, expectation, collaboration, and openness to criticism.

Table 2: Main findings of the first four themes

<table>
<thead>
<tr>
<th>Teachers’ views</th>
<th>Highly positive</th>
<th>Moderately positive</th>
<th>Not sure</th>
<th>Negative</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Participation</td>
<td>14</td>
<td>4</td>
<td>2</td>
<td>0</td>
<td>20</td>
</tr>
<tr>
<td>Expectation</td>
<td>19</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>20</td>
</tr>
<tr>
<td>Collaboration</td>
<td>20</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>20</td>
</tr>
<tr>
<td>Openness to criticism</td>
<td>20</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>20</td>
</tr>
</tbody>
</table>

5) Readiness to embrace ICT

To gauge participants’ readiness to embrace ICT, they were asked regarding the ICT training they had undertaken and to what extent they used ICT in the classrooms. All participants admitted to having received training in ICT in one form or another. Two types of training were available to these teachers. Outside-school training programmes were those organised for Smart Schools, such as those by the Ministry of Education (MoE), Professional Teaching Guide in ICT (BPPT), MDeC, and Teaching of Mathematics and Science in English (PPSMI). In-house training was conducted by ICT coordinators from the schools who had been sent for training courses organized by the MoE. All teachers had received training organised by the MoE or by their schools. Only two teachers undergone ICT training organized by external agencies. One was government-sponsored (from School A) and one (from School B) was keen enough to pay for a training course.
by a non-government agency. As shown in Table 3, the teachers have the necessary ICT skills to participate effectively in the online project.

Table 3: ICT Training Received

<table>
<thead>
<tr>
<th>Excel</th>
<th>powerpoint</th>
<th>+ Active Board</th>
<th>Smart management system</th>
<th>Videoclips/animation</th>
<th>e-portfolio/creating website/weblogs</th>
<th>Dream weaver/Flash</th>
</tr>
</thead>
<tbody>
<tr>
<td>School A</td>
<td>1 (Ext), 3(O)</td>
<td>4 (I)</td>
<td></td>
<td></td>
<td>4 (I)</td>
<td></td>
</tr>
<tr>
<td>School B</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>2 (O)</td>
<td>1 (Ext)</td>
</tr>
<tr>
<td>School C</td>
<td>4 (I), 3(O)</td>
<td></td>
<td></td>
<td></td>
<td>1 (O)</td>
<td></td>
</tr>
<tr>
<td>School D</td>
<td>3(O)</td>
<td></td>
<td></td>
<td></td>
<td>4 (I)</td>
<td></td>
</tr>
<tr>
<td>School E</td>
<td>4 (I)</td>
<td>4 (O)</td>
<td></td>
<td></td>
<td>4 (O), 4 (I)</td>
<td></td>
</tr>
</tbody>
</table>

(Ext): external agencies; O: Outside school training; (I): In-house training

With regard to the extent they have been using ICT in the classroom, ten (50%) out of the twenty participants said they used ICT in their teaching ‘quite often’, ‘a lot’ and ‘always’. Out of the five schools, all the four teachers from School E claimed to have used ICT quite often, followed by two out of four teachers from Schools A and C, and 1 teacher each from Schools B and D respectively. Six respondents (30%) said they moderately use ICT, while 4 of them (20%) said that they only use ICT sparingly. It should be pointed out here that all five teachers from School A were teachers with much experience and they all volunteered to take part in this project. Another point to take into consideration is that three of the four teachers who claimed not to have used ICT were new teachers. For example, one of the teachers had only been in school for 3 weeks before the interview. She would probably be using more of it once she has gained familiarity and access to the ICT facilities. Table 4 shows the frequency of use according to schools.

Table 4:
Frequency of ICT Use by Schools

<table>
<thead>
<tr>
<th>School Often</th>
<th>Sometimes</th>
<th>Seldom</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>2 (50%)</td>
<td>1 (25%)</td>
</tr>
<tr>
<td>B</td>
<td>1 (25%)</td>
<td>1 (25%)</td>
</tr>
<tr>
<td>C</td>
<td>2 (50%)</td>
<td>2 (50%)</td>
</tr>
<tr>
<td>D</td>
<td>2 (50%)</td>
<td>2 (50%)</td>
</tr>
<tr>
<td>E</td>
<td>4 (100%)</td>
<td>0 (0%)</td>
</tr>
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</table>
The findings reveal that these teachers have the necessary basic ICT skills and they use ICT on a fairly regular basis. This suggests that they are equipped to participate actively in the project.

6) Willingness to embrace ICT

The data obtained in response to the questions on the first four themes (participation, expectation, collaboration, and willingness to be criticized) revealed evidence of their willingness to be actively involved in this project. However, the data on the teachers’ views on the support given by the schools cast some doubts on the extent of their willingness to participate actively. The data based on support given by the schools indicated that sufficient support had been given in the form of infrastructural, technical, and pedagogical support. Infrastructural support received by these Smart Schools included computers, laboratories, LCD projectors, and wireless areas. Technical support was provided in the form of technicians and Internet connections. Training and encouragement were also given to support these teachers.

However, the data on support needed indicated that the teachers felt they needed much more support. Twelve teachers (52%) reported the need for pedagogical support; i.e. lesser workload, training, courseware, mentor, and emotional support. School A seemed to particularly require such assistance as that was the main complaint of all the teachers. Emotional support was the second request and one teacher explained that the teachers had to rely on each other for support, especially in applying and troubleshooting problems related to ICT. Eight teachers (35%) mentioned the need for physical support claiming that the number of students in their classes was too big to use ICT effectively. Only three teachers (13%) asked for more technical support which suggested that this was not a problem in most schools.

These findings are a bit disturbing as teachers felt that they were overloaded with too many types of responsibilities. The project can endeavour to provide the necessary support in terms of training, courseware and, mentor, and emotional support. However, it has no say as far as reducing teachers’ workload is concerned. Hence, this may pose as a major problem despite teachers’ expression of willingness and eagerness to participate in the project.

Overall discussion and conclusion

Bransford et. al (2000) reminds us that effective partnerships are based on trust and respect and recognizing that participants needed to work independently and interactively. The study reveals that the teachers are willing to work together interactively towards self-achievement and the achievement of the goals of the project. However, it is too early to say to what extent the teachers can work independently. Another factor that needs to be given due consideration is the expression of apprehension towards their abilities in achieving their personal goals and the goals of the project. These concerns include reservations about their abilities in terms of ICT skills and time management.

According to Nias et al (1992) teachers who want to improve their practice have four characteristics: first, the acceptance that it is possible for them to improve themselves and this is evident from the findings of this study. Second, the acceptance of criticism
(self and by others) and this is voiced by the teachers. Third, is the recognition that there is better practice than their own within their schools. This is clearly seen in the data too as the teachers frequently reiterated the advantages of learning from other teachers in other schools, and finally the willingness to learn more in order to be able to do what are needed, and this is also consistently expressed by the teachers.

Thus, it is evident that the teachers are enthusiastic and willing to collaborate towards achievements of their personal goals and the success of the project despite some apprehension on their roles and levels of possible involvement in the project. However, one worrying factor is the rather high expectations of the teachers. The impression one gets is that they expect a great deal of support and contribution from the project team in helping them achieve the various goals. This may be problematic as the model aims at providing a platform for teachers to develop communities of practices and not to provide continual support in the form of continual monitoring and feedback from the mentors and ongoing provision of online modules, tasks, and assessment. Thus, this misconception may pose a problem later on, and hence steps on how to rectify this “misconception” should be addressed from the start of the project. Studies on the autonomy of Malaysian learners have further indicated a lack of autonomy in the conventional sense (Thang, 2009, Thang & Azarina, 2007) among Malaysian learners and this has to be given due consideration too. Despite that, it is good to know that the foundation of the project which is the establishment of trust has been established. In addition, teachers’ awareness of the possibility of strong contributions to their involvement in classroom pedagogy and student performance is encouraging. Another factor to be concerned about is the teachers’ heavy workload which hinders their current attempts to be more actively involved in the use of ICT in their classrooms. This same factor may also dampen their initial intentions to “give their best” and work diligently on the ICT tasks assigned to them. This needs to be handled assiduously and delicately to assure the success of this project.

References


Appendix 1

Focus Group Interview questions
1. Did you volunteer or were you asked to join this project?
2. How do you feel about being a participant in this project?
3. Have you ever been involved in any research project before...whether it is a university project or a MoE (Ministry Of Education) project?
4. Do you think our project is going to be different from those projects?
5. What do you think you hope to gain from this project?
6. How do you find the idea of sharing your experiences with some teachers from other schools?
7. During sharing, do you think you will have problems in being open, to be frank
8. What about to share during interviews? We’ll have a few more interviews. Regarding the project, regarding the materials that will be given to you, regarding the experience that you have with other teachers, do you think you can be open with us?
9. To what extent do you use ICT for your teaching?
10. What kind of training have you received in ICT?
11. How does your school support you in the use of ICT?
12. Anything else you want to add before we end this interview?