

## **Teacher Training and Support in Brunei A Knowledge Platform Case Study October, 2014**

### **Background**

In 2008, the Ministry of Education, Negara Brunei Darussalam, commissioned a large-scale project for the design and implementation of solutions to enable teaching through technology for all the higher education institutes and 'A' Level Schools in Brunei. The project spanned five years (divided into a design and implementation period and a support period) and covered 19 institutions (University of Brunei Darussalam, medical and polytechnic colleges, and 'A' level schools).

The project was awarded to a five-member consortium: Knowledge Platform (project leader); Yi Ecomodern Solutions ('YES', Brunei implementation partner); Mercer Human Resource Consulting (change management consulting); Dell (hardware provider); and Ask N Learn (learning management system provider).

The project involved development of a 5-year strategic and implementation plan for ICT in education, design and delivery of a teacher training and support program, establishment of an instructional design lab, implementation and distribution of technology hardware, installation of five learning management systems and development of online learning content.

This case study describes the teacher training and support program, designed by Knowledge Platform and implemented by Knowledge Platform and YES. The teacher training and support program was rolled out to approximately 500 teachers, and played a critical role in the success of the project.

### **Challenge**

To design the strategic and implementation plan and teacher training and support program, Knowledge Platform and YES conducted a survey of teachers, administrators and students of the following scope:

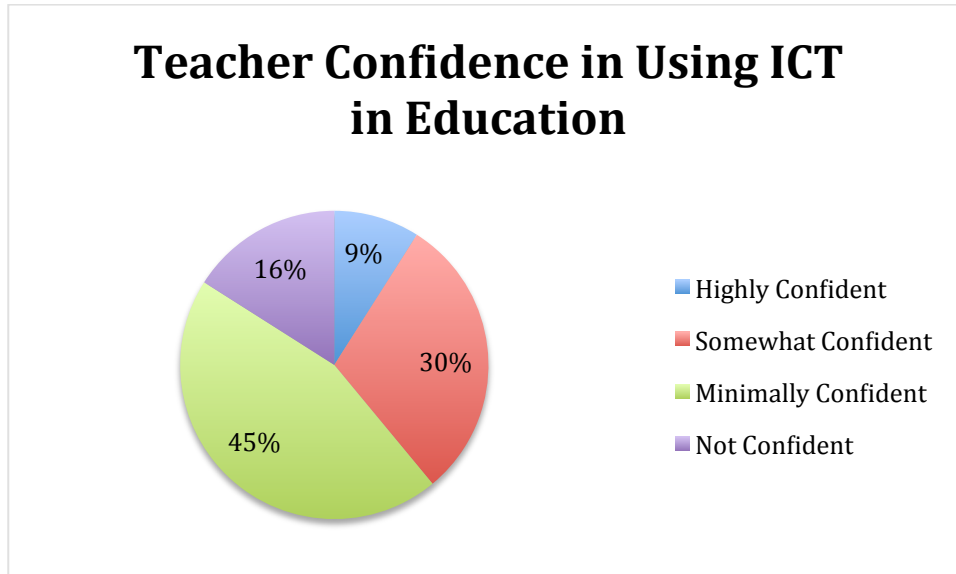
Institute	No. of Teacher Responses	No. of Admin. Staff Responses	No. of Student Responses
UBD	9	0	508
ITB	21	4	110
DTE Institutes	67	25	262
A-Level Schools	66	8	59
<b>Total</b>	<b>163</b>	<b>37</b>	<b>939</b>

In addition, the team held focus group meetings and consultations with smaller groups of teachers, administrators and students. The survey and focus group meetings revealed that the project had strong support at the institutional (MOE and university / college / school) level and among the students.

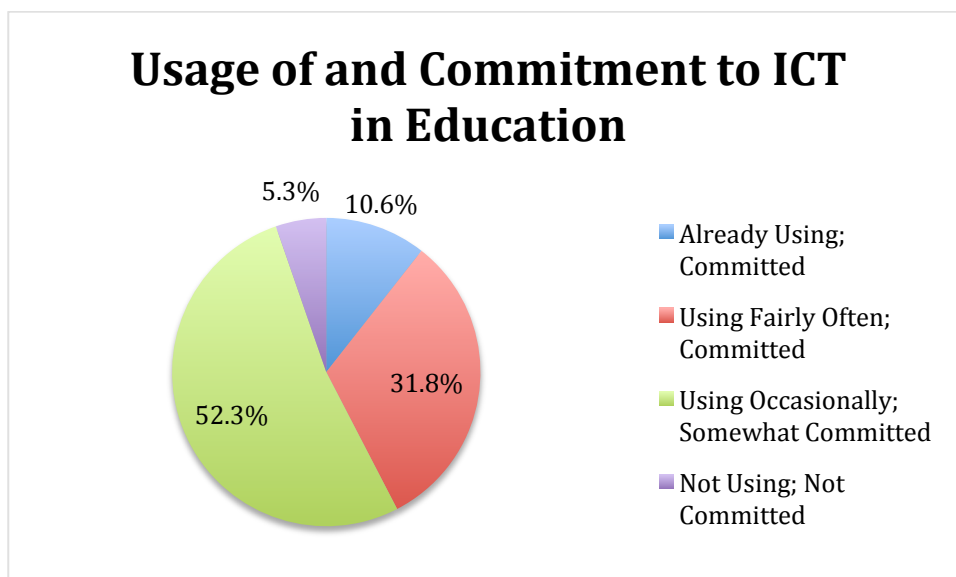
However, the ICT in education initiative received mixed reactions from the teachers. Some of the teachers were already using ICT in education and enthusiastically embraced the initiative. Others were intensively using computers and the Internet for their own lesson planning and development, or were interested in using ICT in education, and were strongly supportive. Yet others had reservations, including the following:

- **Awareness and Training.** A number of teachers indicated lack of awareness regarding best practices in and expressed the need for training in deployment of ICT in education.
- **Freedom to Adopt.** Teachers also indicated that they should not be forced to adopt ICT in education and the pace of adoption should be left in their hands.
- **Support.** Teachers indicated the need for strong support systems, including technology support and instructional and content development support.

Confidence levels among the teachers in using ICT in education varied considerably:

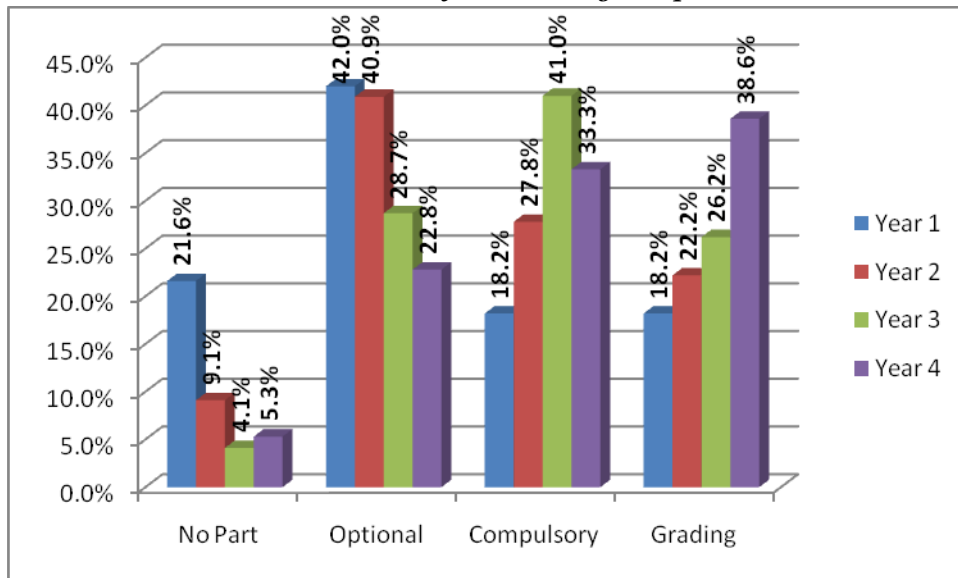


This confidence level mirrored, to a considerable degree, the level of usage at the time of the survey by teachers of ICT in education (including for purposes of lesson planning and development):



However, teachers generally appeared to recognize that ICT will gradually play an important role in the education system in Brunei, with this development to occur fairly gradually over a number of years.

*Chart: Teacher Data on of E-Learning Adoption Timeline*



Based on our discussions and interactions with the teachers and administrators, we identified the following reasons, in order of priority, that teachers were not fully committed:

<b>Top 5 Reasons Holding Back Adoption of ICT in Education</b>	
Reason # 1	Lack of Knowledge of Pedagogic Best Practices
Reason # 2	Limited Time to Learn and Adapt
Reason # 3	Lack of Equipment and Software
Reason # 4	Lack of Knowledge Regarding Using Technology
Reason # 5	Do Not Believe in ICT as a Driver of Effective Learning

With these constraints in mind, we were tasked to develop an effective training and support program. We were also informed that any solution should not include change in teacher compensation or bonuses, or curriculum redesign or any major intervention outside training and support.

## **Knowledge Platform Solution**

To address the challenge of empowering and winning over the teachers, we developed a four-part solution:

- **Awareness Campaign**
- **Training Program**
- **Certification, Recognition and Laptop**
- **Technical and Instructional Design Support**

Each of these elements is described in further detail below.

### **Awareness Campaign**

With the leadership of the MOE and University of Brunei, an awareness campaign was launched through which the benefits of the use of ICT in education and the details of the initiative were communicated to the teachers. Components of this awareness program included the following:

- **Seminars.** Large-scale teacher seminars, with presentations by (1) senior officials, (2) online learning experts and (3) teachers who had deployed online learning solutions.
- **Media Coverage.** Press coverage of the seminars in television and newspapers.
- **Institutional Visits.** Visits and talks at individual institutions by senior officials, online learning experts and experienced teachers.

Through the awareness program, the MOE and University of Brunei were able to communicate the importance of the initiative. The induction of the support of teachers from Brunei who had deployed ICT in education was particularly helpful as all teachers could relate to the experiences of their peers.

## Training Program

A training program was designed and developed that had the following features:

Training Program Summary			
<b>Principal</b>	Pedagogic best practices in using ICT in education.		
<b>Content Focus</b>	Training on use of technology and development of content.		
<b>Certification Levels</b>	<b>Level</b>	<b>Description</b>	<b>Format</b>
	<b>Yellow Belt</b>	This level is aimed at building awareness and introducing teachers to online learning.	Online learning
	<b>Green Belt</b>	This level is aimed at building deeper knowledge and trialing the use of ICT in education in the classroom.	Workshops and in-class projects.
	<b>Black Belt</b>	This level is aimed at building deeper knowledge and leadership, including by mentoring green belts.	Workshops, in-class projects and mentoring of Green Belts.

By combining training on pedagogic best practices, technology usage and content development, we were able to provide the teachers with a holistic introduction to the use of ICT in education.

The break down of the program into three certification levels proved to be highly successful because teachers could progress at a measured pace, gain recognition and certification at each level, and gain confidence to proceed further.

The use of an online learning program for the initial course proved effective in demystifying online learning through a practical instance and imparting to the teachers an actual experience, as learners, of an online course.

The use of workshops, in-class deployments, and mentoring by more more experienced teachers, gave a highly grounded, practical dimension to the program and was very much appreciated by the teachers.

### **Certification, Recognition and Laptop**

Teachers who passed each level were provided an informal certification by the MOE, usually through a simple ceremony at which the teachers were given due recognition.

Upon qualification at the yellow belt level, teachers were also provided laptops for their personal and school use.

Both these strategies proved effective. In particular, the provision of laptops to the teachers proved highly effective because it brought all teachers on a relatively common level of ICT utilization. We have consistently found that teachers who use ICT for personal use also tend to use ICT more effectively for educational purposes.

### **Technical and Instructional Design Support**

A technical and instructional design center was established at the University of Brunei. Through this center, teachers could seek technical assistance and could also use the facilities for developing digital content.

Utilization of the center varied, with greater utilization of the center by teachers who had qualified at the black belt and green belt certification levels. The creation of such a center was instrumental in bringing those teachers 'across the line' who had some degree of interest in deploying ICT in education, but not sufficient knowledge or confidence to do so themselves.

### **Results**

Over two years, the following results were achieved:

<b>Training &amp; Support Program</b>	
<b>Level</b>	<b>Qualified Teachers</b>
<b>Yellow Belt</b>	484
<b>Green Belt</b>	122
<b>Black Belt</b>	18
<b>Laptops Delivered Under Program</b>	484
<b>Online Courses Assisted</b>	22

The MOE has continued with additional initiatives to drive ICT in education, and today most teachers in Brunei are comfortable in using ICT in education and regularly conduct ICT driven lessons in their classroom.

While our brief did not include a formal results analysis, from all accounts, our ground breaking project, with its multi-dimensional emphasis on teacher

training and support, laid an extremely strong foundation for growth of ICT in education in Brunei.

### **Practice Notes**

We believe that we have developed a very effective combination in (a) a simple, effective and tiered training program and (b) instructional design and content development support. Since our Brunei project, we have continued to improve these solutions in terms of (1) modularity, (2) simplicity and (3) practicality.

We also believe that empowering teachers with laptops, usable for both personal and educational purposes, is a critical best practice. We recommend it to all our educational sector partners.

### **Next Steps**

We are now planning more advanced interventions in Brunei to further drive excellence in teaching and education through the use of ICT.