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Chapter 3

Best Practices for Capacity-Building in Cambodian Distance Education

Doung Vuth, Chea Sok Huor & Chhuon Chan Than

Foreword by Mr. Doung Vuth (Government of Cambodia)

Mr. Chairman, Distinguished Delegates, Ladies and Gentlemen:

Today, it is a great honour and pleasure for me and my colleagues from Cambodia to attend the International Symposium on Information and Communication Technology (ICT) for Social Development. Cambodia values the opportunity to share its experiences in this area and to learn from the practices adopted in partner nations. I would like to offer my thanks to the ASEAN Foundation for organising this meeting, and inviting us from Cambodia to participate in this important meeting.

The meeting provides a forum for the promotion of e-learning measures and strengthening of regional cooperation in support of the socioeconomic and education development of our countries. We recognise there are many challenges associated with the development of e-learning and ICT infrastructures in Cambodia, but the potential benefits are many. At this meeting we will learn important lessons from our regional neighbours on how best to use ICT for science, maths and language curriculum development and teacher training.

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In Cambodia, we recognise that we are at the early stages of using ICT to broaden access and to improve the quality of education. We anticipate that ICT will become an increasing part of distance education, especially for expanding secondary and higher education opportunities. Therefore the Royal Government of Cambodia has set up the National Information Communication Technology Development Authority (NiDA) to develop and promote the national approach to e-learning standards. In this context, I would like to focus on the policies and strategies Cambodia is adopting to broaden e-learning opportunities, especially with respect to the Royal Government’s National Education For All (EFA) Plan, and to specific reform measures in the education sector. In 2003, the EFA plan provided, for the first time in Cambodia, specific policies and strategies for the use of ICT in education. These were developed in consultation with national and international partners through a series of workshops and meetings in Cambodia and the region. The Plan was officially launched in March 2005.

In the Ministry’s Education Sector Support Program (ESSP) and EFA Plan, two overarching policy objectives have been identified that will contribute to national ICT human resource development. Firstly, the Ministry will contribute to developing Cambodia’s international competitiveness by reducing the technology gap with more developed countries. Secondly, the Ministry will enhance learning opportunities within schools and other institutions through the utilisation of ICT, multimedia and e-learning technologies. At present the number of computers in education remains comparatively low. We estimate that there are around 2,000 computers in schools and education offices across the country. However, it should be remembered that until 1994, computers in education in Cambodia were virtually non-existent.

A key strand of the Ministry’s ICT program is to strengthen networking opportunities, in a number of ways. Firstly, we are extending the Ministry’s own internal network between the central offices of the Ministry of Education, Youth & Sport (MoEYS) and 24 provincial departments, as a means to improve information exchange for better planning and management, and to support decentralisation. This program involves approximately 3,000 managers and senior technical staff. We anticipate extending the network to 183 districts and a further 2000 staff in the next two to three years.
The trainees at teacher training colleges in Cambodia are required to spend at least two hours per week using ICT for teaching and learning. Increasingly, we are using ICT to improve access to and quality of teacher training programmes. For example, we have created mobile ICT training resources which travel around the more disadvantaged provinces. This has enabled approximately 5,000 teachers to learn how ICT can enrich more traditional forms of teaching and learning. In addition, trainee primary and secondary school teachers are receiving ICT instruction related to improving teaching of the maths, science and language curriculum.

We are learning a number of lessons from these programmes. Firstly, ICT should not be seen as replacing traditional teaching, but rather as a collection of supplementary and complementary tools. Secondly, we have seen that in remote areas the use of ICT is a more cost-effective way of providing training than bringing teachers in for workshops and seminars. In conjunction with some donors, we intend to conduct a comprehensive evaluation of this programme as a basis for seeking support for its expansion. We are also piloting the use of ICT support materials in the revision of the school and teacher-training curriculum. For example, we are testing the use of spreadsheet methods in enriching the maths and science curriculum. We are also using other readily available software to enrich the teaching of the Khmer language. The Ministry faces a number of constraints in expanding ICT in education. While an Internet service provider offers preferential rates to MoEYS, for example, the recurrent costs remain high. Another problem is that not all offices or schools have electricity, and the Ministry is investigating innovative ways of dealing with this. In particular, we see opportunities for increasing public/private partnership in ICT.

In conclusion, we are committed to continually sharing our experiences of the education reform programme with our Asia-Pacific friends, and their strong commitment to supporting projects that involve ICT for social development, and enhance teaching and learning. I hope our projects will rapidly move towards best practices, in the interests of fulfilling the UN’s Millennium Development Goals (MDG). This is a good time for us to evaluate the actions and results that benefit our region. Thank you.

Doung Vuth
Ministry of Education, Youth and Sport, Government of Cambodia
Jakarta, May 23, 2006

Best Practices for Capacity Building in Cambodian Distance Education

1) Background and Objectives

Since 1998, higher education in Cambodia has changed from public university to private university. Private universities have increased every year in that period, until now Cambodia has more than 30 universities including the public ones. All universities provide the traditional education system (classroom, face to face study). In early 2005, eLearning was created for the first time in Cambodia. The International Institute of Cambodia (IIC) is an institute with a special interest in providing and promoting tertiary education in Cambodia with the joint support of the Asia Foundation (TAF), the United States Agency for International Development (USAID), the Internews Network, SDlearn, and the IDRC's PANdora projects.

The current PANdora project (see Chapter 2) aims to provide a basis for ICT developments in distance education, by studying:

- the computer facilities of learners and teachers;
- computer-based work methods; and
- attitudes to distance education.

To understand the context of e-learning in Cambodia, existing studies on e-learning initiatives in developing countries were reviewed. Cambodian documents such as the Policy for Curriculum Development (2005-09), the Current Level of ICT in Education and Policy, and Strategies on ICT in Education in Cambodia were examined, to provide guidance on research implementation. The Asia Foundation also assessed reactions to early e-learning initiatives. This review phase oriented the team to the need for new data in the project.

2) Survey Methodology

The study has paid particular attention to three provinces (Phnom Penh city, Kampong Cham, and Banteay Meanchey). A sample of 100 participants has been studied by means of a questionnaire. The sample has been drawn from:

- the private sector and NGOs;
- universities (lecturers and students); and
- government officers.
The breakdown of participation in the three provinces is: Phnom Penh (50%); Kampong Cham (30%), and Banteay Meanchey (20%). The sample includes individuals who are familiar with e-learning courses in two of the provinces, and others who are not (Phnom Penh).

Before the questionnaires could be administered, training was provided to all those involved in conducting the interviews. The questionnaire and training were prepared by the project core group in Phnom Penh, and communicated to the other PANdora project partners in Laos and Viet Nam, for translation and adaption if necessary. The training aims were to improve the knowledge and skills of the project assistants in using questionnaires, interviews techniques and communications.

The new data were collected in one-on-one interviews, so as to understand the identified target groups’ perceptions and experiences of e-learning. A Microsoft Access database was developed for tabulation of the data and graphing of key findings. This survey tool was made available to the other PANdora projects on the network’s web site (see Chapter 2), so that they would not have to duplicate the effort in conducting similar studies.

3) Results

Descriptive statistics were used to analyse the sample’s educational level, IT knowledge, Internet connectivity, and other questions related to e-learning and distance education.

The sample. The 100 interviewees comprised 68% males and 32% females, of whom 65% were less than 25 years old, and 35% were between 25 and 34 years. They work on the staff of universities (24%), NGOs (19%), as students (study only: 18%), in business/industry (12%), government (10%), training centres (6%), schools (5%), or in other work (6%). Their occupations are Student (51%), Lecturer/Teacher (17%), Administrator (15%), Staff (10%), Manager (4%), Coordinator (2%) and Other (3%).

Type of Education. The sample was trained in campus-based institutions (34%), Open University (34%), other university (11%), business training (9%), industrial training (6%), distance education (5%), NGOs (4%), and Other (10%). The languages used in their education was Khmer (93%), English (70%), French (2%), and Chinese (1%). Although Khmer is the national language, English has become popular in Cambodia since the nation changed its economy system from planning to market economy. Most Cambodians in companies, NGOs, and government speak English, and nearly all students study English as their second language. The 5 respondents who had studied previously by distance education were all IIC students, supported by TAF and USAID. E-learning is not yet well known in Cambodia. Since IIC has introduced offered its e-learning programme, Cambodians have become more aware of its advantages.

Computer Facilities. The computers used by the sample in their work are: PC (91%), Mac (2%), and Other 7%. The computer operating systems are Win XP (73%), Win 2000 (20%), Win 98 (18%), Linux (6%), Win Me (2%), Win 2003 (1%), and Other (1%). Win XP is the most popular platform in Cambodia because the colour is good, and its use is simple and fast. The sample’s computer RAM sizes are 64 mb (1%), 128 mb (33%), 256 mb (18%), 512 mb (7%), and 1 gb (1%). Forty per cent of the sample don’t know about their RAM size.

Many Cambodian students and workers are seeking independent knowledge of ICT through self-study, in order to improve their studies and job prospects. Most computer users, especially rural ones, do not have their own computers, but use them in universities (52%), in the workplace (24%), in Internet cafés (24%), and at home (13%). Those who have their own computers usually bought in the last 4-5 years, with 128 mb RAM capacity. Now that computers are becoming less expensive, people can afford to buy RAM capacity from 256 mb to 1 gb.

The Internet in Cambodia is very expensive, depending on the speed of access. Internet cafés charge very low hourly rates, but provide very slow connections. The usual internet connection speeds of the sample members are: 28.8 kps (1%), 56 kps (14%), 128 kps (13%), 256 kps (1%), ADSL (5%), and T1 (1%). Once again, a high proportion of the sample (65%) doesn’t know the answer to this question. The reliability of their internet connections is described as: very reliable (3%), reliable most of the time (11%), not very reliable (12%), OK (32%), very unreliable (6%), and don’t know (36%).
Using other media to learn. Other media used by the sample for their learning/teaching are: the telephone (16%), audiotape (17%), radio (13%), TV/videotape (32%), film (2%), none (45%), and other (3%). Although many types of education in Cambodia have media-based materials, relatively few people seem to use those options, hence the low proportion (45%) stating that they use the media to teach/learn. People use audio media when they study foreign languages.

The exception, however, is the cell-phone. Only 14% of the sample never uses “texting” (SMS) for their general purposes, and 24% uses it every day. The sample’s responses about their computer and cell-phone usage are presented in Table 1.

Table 1. Computer and cell-phone usage for different purposes.

<table>
<thead>
<tr>
<th></th>
<th>Every Day</th>
<th>Often</th>
<th>Sometimes</th>
<th>Never</th>
</tr>
</thead>
<tbody>
<tr>
<td>I use e-mail</td>
<td>4</td>
<td>27</td>
<td>50</td>
<td>19</td>
</tr>
<tr>
<td>I use the World Wide Web</td>
<td>34</td>
<td>8</td>
<td>49</td>
<td>9</td>
</tr>
<tr>
<td>I use online discussion boards</td>
<td>4</td>
<td>6</td>
<td>30</td>
<td>60</td>
</tr>
<tr>
<td>I use online Text-chat rooms</td>
<td>1</td>
<td>14</td>
<td>27</td>
<td>58</td>
</tr>
<tr>
<td>I use &quot;texting&quot; (mobile SMS)</td>
<td>24</td>
<td>29</td>
<td>33</td>
<td>14</td>
</tr>
<tr>
<td>I use Internet telephone</td>
<td>2</td>
<td>4</td>
<td>17</td>
<td>77</td>
</tr>
<tr>
<td>I use online audio-conferencing</td>
<td>1</td>
<td>2</td>
<td>15</td>
<td>82</td>
</tr>
<tr>
<td>I use online video-conferencing</td>
<td>1</td>
<td>3</td>
<td>11</td>
<td>85</td>
</tr>
</tbody>
</table>

Use of online applications. In using the Internet, most of the sample use e-mail with friends, family, or for business (81%), and 50% use it sometimes. Only 19% never use e-mail. According to Table 1, 85% do not use internet for online audio- or video-conferencing, and most of them don’t know about these conference systems. Knowledge of the Internet in Cambodia is still poor and people do not yet get full benefit from it.

Attitudes to Distance Education (DE). DE plays an important role in Cambodia in reducing the education gap between the cities and the remote provinces. Moreover, DE helps workers in the countryside and busy people who have no time to attend classes, but still want to upgrade their knowledge. Materials and documents supporting DE is still poor, however, and the capacity of teachers needed for DE work is generally poor. Only 46 persons have trained in the DE skills offered by SDlearn, for example. Most of the current sample was unaware of DE, though stated (75%) that it sounds important for Cambodia, and that they would like its national role to be improved. On all of the attitude statements about DE in Table 2, the sample was very positive.

Table 2. Response to attitude statements about distance education.

<table>
<thead>
<tr>
<th>Statements</th>
<th>Agree</th>
<th>Agree slightly</th>
<th>Undecided</th>
<th>Disagree slightly</th>
<th>Disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1) DE plays an important role in my country?</td>
<td>75</td>
<td>14</td>
<td>8</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>2) The role of DE in my country could be improved</td>
<td>72</td>
<td>22</td>
<td>3</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>3) Teachers and trainers in my country lack DE skills</td>
<td>73</td>
<td>17</td>
<td>5</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>4) DE can bring education to remote communities in my country</td>
<td>57</td>
<td>21</td>
<td>12</td>
<td>2</td>
<td>8</td>
</tr>
<tr>
<td>5) The public will never accept DE in my country</td>
<td>18</td>
<td>18</td>
<td>17</td>
<td>11</td>
<td>36</td>
</tr>
<tr>
<td>6) Politicians will never accept DE in my country</td>
<td>18</td>
<td>14</td>
<td>25</td>
<td>6</td>
<td>37</td>
</tr>
<tr>
<td>7) DE can play a positive role in assisting women's groups in my country</td>
<td>64</td>
<td>21</td>
<td>8</td>
<td>4</td>
<td>3</td>
</tr>
<tr>
<td>8) DE can never be as good as face-to-face education</td>
<td>38</td>
<td>31</td>
<td>9</td>
<td>4</td>
<td>18</td>
</tr>
<tr>
<td>9) More training in DE skills is needed in my country</td>
<td>86</td>
<td>5</td>
<td>7</td>
<td>1</td>
<td>1</td>
</tr>
</tbody>
</table>
Conclusions

In Cambodia, relatively few people have knowledge of IT or of how to use the computer. Only university students and the younger generation know how to do so. Internet facilities in the country are still poor, and most people don’t know about its educational benefits, especially if they don’t understand English. The sample chosen for interviewing in this study tends to know more about computers and the Internet than the general public, because it was composed of students, lecturers, NGOs staffs and government officers. Even they, however, are unfamiliar with much of the Internet’s potential.

A few people have their own computer at home, and most access is in the workplace, computer centres or Internet cafés. Internet usage in Cambodia is expensive compared to neighbouring countries, and is available in particular areas only. It is therefore interesting to note the high proportion of cell-phone users in the country, for this technology may have the potential to become a useful DE medium in the future. The great majority of the sample’s members show very positive attitudes towards the potential of DE in Cambodia. It is encouraging that they are educated people who are, or will become, key decision makers in the country. It is important for Cambodia to use DE methods in upgrading its educational system, in reducing the educational gap between cities and remote areas, and in providing increased study opportunities for rural workers and busy people. Cambodian society in general is very hungry for the educational application of ICT technology, in the interests of developing the national economy and eliminating poverty.