### Table of Contents

<table>
<thead>
<tr>
<th>Page</th>
<th>Title</th>
<th>Authors/Editors</th>
</tr>
</thead>
<tbody>
<tr>
<td>iii</td>
<td>Foreword (HE Kusmayanto Kadiman, State Minister of Research &amp; Technology, Republic of Indonesia)</td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>Introduction (Apichai Sunchindah, Executive Director, ASEAN Foundation)</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>1) Researching and Evaluating ICT for Social Development (Colin Latchem)</td>
<td></td>
</tr>
<tr>
<td>21</td>
<td>2) Building Collaborative Open &amp; Distance Learning Research (Jon Baggaley, Tian Belawati &amp; Naveed Malik)</td>
<td></td>
</tr>
<tr>
<td>29</td>
<td>3) Best Practices for Capacity-Building in Cambodian Distance Education (Doung Vuth, Chea Sok Huor &amp; Chhuon Chan Than)</td>
<td></td>
</tr>
<tr>
<td>39</td>
<td>4) Evaluation Needs of Medical Distance Education in Mongolia (D. Amarsaikhan &amp; S. Oyun)</td>
<td></td>
</tr>
<tr>
<td>45</td>
<td>5) Using Open-Source Software for Open and Distance Learning (Batpurev Batchuluun)</td>
<td></td>
</tr>
<tr>
<td>55</td>
<td>6) Innovative ICTs in the ASEAN Region (Felix Librero)</td>
<td></td>
</tr>
<tr>
<td>69</td>
<td>7) Viability of SMS Technologies for Non-Formal Distance Education (Angelo Ramos)</td>
<td></td>
</tr>
<tr>
<td>81</td>
<td>8) Using SMS Methods to Combat Avian ‘Flu (Bambang Wijayanto)</td>
<td></td>
</tr>
<tr>
<td>93</td>
<td>9) Instructional Design Training for ICT-Based Distance Learning in Asia (Felix Librero)</td>
<td></td>
</tr>
<tr>
<td>99</td>
<td>10) Summary: Establishing a Collaboratory as an Infrastructure for International ICT Research (Jon Baggaley &amp; Eddy Bahfen)</td>
<td></td>
</tr>
<tr>
<td>111</td>
<td>List of Symposium Delegates</td>
<td></td>
</tr>
</tbody>
</table>
Chapter 4

Needs of Medical Distance Education in Mongolia

D. Amarsaikhan & S. Oyun

Introduction

The purpose of this study is to identify the particular needs and priorities of distance education (DE) in rural areas. Physicians and medical workers in rural areas tend to select postgraduate continuing education rather than formal academic training, and there are many areas in which they need upgrading. Currently, their knowledge of DE is low, though they do believe that it can save them time and money. An important priority, therefore, is to develop DE curricula based on research indicating current social and medical needs.

For this purpose, the Postgraduate Training Institute of the Health Sciences University of Mongolia (HSUM) has, since 2003, implemented an IDRC-supported project entitled ICTs for Health Services in Rural Mongolia. It has launched a distance learning centre at HSUM, and at hospitals in 10 rural areas. The physicians who work at these hospitals all have Internet connections and engage in online distance education and diagnostic activities. This Chapter indicates the curricular decisions being based on this research, for the benefit of medical workers in selected rural areas.

Survey Method and Materials

The research took the form of a survey to collect data from medical trainees, in four categories: 1) the trainee’s history, 2) attitudes to DE, 3) knowledge of DE, and 4) its needs and priorities. The questionnaire content also included questions about the kinds of course that are important, and on what needs to be improved. The questionnaire was distributed in selected rural areas, during existing training and seminars. In addition, it was posted on the Web. Trainees were given 15 minutes to respond to it. The research team had the full participation of trainees, and all parts of the questionnaire were made clear them. Not all questionnaires were returned on time, however. Data were collected from a total of 231 physicians and medical workers.

Results

The following statistics show the demographic and psychographic characteristics of the 231 survey participants (75% female, and 25% male).

1) Occupation of participants:

- physician in department (46%);
- head of department (20%);
- inspector (8%);
- head of family physicians (3%);
- family doctor (8%); and
- other (15%).

The participants work in:

- rural hospitals (69%);
- local health centres (physicians and medical workers: 25%);
- professional inspection authority (2%);
- private (2%); and
- other (2%).

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How long have you been working?

- At least 15 years (46%);
- 11-15 years (18%);
- 6-10 years (17%);
- 3-5 years (10%); and
- 1-2 years (7%).

2) Continued postgraduate training:

- doctoral degree (0.4%);
- master’s degree (5%);
- residency (66%);
- sub-specialist (26%);
- advanced (39%); and
- combined sub-specialist and advanced (63%).

Credit courses are a major component of postgraduate training, and we need to identify their quality, processes, and the satisfaction of trainees in them. In recent years, physicians received credits from:

- courses (24%);
- seminar (37%);
- training (47%); and
- other (22%).

Sixty per cent of the sample received credits from both courses and training programmes. They regard credit course status as:

- good (21%);
- bad (68%); and
- don’t know (12%).

“What kind of style of credit training is best?”

- traditional training (51%);
- distance learning (24%); and
- at their workplace training (16%).

Many participants may have chosen traditional training owing to the low quality of workplace training, and their lack of awareness of DE.

The question “Will you sign in your interesting postgraduate continue training?” was answered: no (81%); and yes (8%). Reasons for postgraduate training dropout are:

- not enough training (37%);
- lack of finance (53%);
- low training quality (49%); and
- lack of human resources in remote areas (39%).

3) Awareness of distance education

Physicians answered the question “How well do you know about DE?” as follows:

- well (16%);
- not well (54%);
- poorly (22%); and
- no opinion (7%).

The perceived benefits of distance learning are:

- include save time (70%);
- at the workplace (70%);
- save money (80%); and
- access new information (51%).

Eight-nine per cent answered positively to the question “If possible, will you attend DE?” Fifteen per cent had already been involved in DE, of which all had computer-based training and 12% had Internet training. Their reasons for not taking e-learning options were:

- can’t use computer (37%);
- no awareness of DE (22%); and
- have enough credits (12%).

The question “If your computer had an Internet connection, would you access e-learning?” was answered: yes (56%) and no (44%). We identified their computer knowledge as:

- beginning (32%);
- intermediate (36%);
- advanced (36%); and
- no opinion (17%).
4) **DE curriculum planning.**

The sample’s priorities for DE are:

- medicine (37%);
- medicine and traditional medicine (15%);
- public health (12%);
- medicine and public health (20%);
- traditional medicine (7%);
- dentistry (4%);
- pharmacy (3%);
- bio-medicine (3%); and
- other (10%)

The sample was also asked about the priorities of DE in specific disciplines. They responded:

- internal medicine (51%);
- gynecology (22%);
- pediatrics (19%); and
- surgery (27%).

Within the internal medicine category, three priority areas were identified:

- cardiology (28%);
- pulmonology (22%); and
- gastroenterology (33%).

The sample would like to study theory (34%), clinical practice (13%), or both (49%) through DE. They would be interested in the following types of clinical medicine training by DE:

- disease factors (26%);
- treatment (30%);
- diagnosis (38%);
- prevention (39%); and
- clinical symptoms (40%).

Physicians want clinical knowledge in:

- public health (47%);
- environment (12%);
- epidemiology (10%);
- maternal and child health (16%);
- labor health (6%);
- toxicology (4%);
- health management (5%); and
- psychiatry (4%)

Of all the participants, 37% think their public health knowledge is low. They stated that they would like to take the following subjects anywhere and at any time:

- traditional medicine (27%);
- acupuncture (6%);
- moxibition (2%);
- blood-letting (2%);
- manual (12%); and
- rehabilitation (12%).

We asked them, “How well do you know the English language?”:

- beginning (48%);
- intermediate (29%);
- advanced (3%); and
- no opinion (19%).

We conclude, therefore, that we need to add English lessons to the medical DE programme, and to translate some medical curricular materials into English.

**Conclusions**

Rural area physicians tend to select postgraduate continuing training rather than academic training. Physicians and medical workers have a low awareness of distance education, but they assume that it could save them time and money, and could increase their knowledge in important areas. We are now planning DE curricular for them based on these research findings. Priority areas for the creation of medical DE materials include disease factors, prevention, and diagnosis.