FEASIBILITY OF USING eLearning IN CAPACITY BUILDING OF ICT TRAINERS AND DELIVERY OF eLearning COURSES IN TVET SECTOR IN SRI LANKA

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The Dissertation was submitted to the Department of Computer Science & Engineering of the University of Moratuwa in partial fulfilment of the requirement for the Degree of Master of Business Administration.

Department of Computer Science & Engineering
University of Moratuwa
December 2009
DECLARATION

“I certify that this thesis does not incorporate without acknowledgement any material previously submitted for a degree or diploma in any university to the best of my knowledge and belief. It does not contain any material previously published, written or orally communicated by another person or me except where due reference is made in the text. I also hereby give consent for my dissertation, if accepted, to be made available for photocopying and for interlibrary loans, and for the title and summary to be made available to outside organizations”.

Signature of the Candidate

Date

To the best of my knowledge, the above particulars are correct.

Supervisor
(Ms. Vishaka Nanayakkara)
ABSTRACT

Capacity building of instructing staff in Technical Vocational Education and Training (TVET) sector in Sri Lanka is a prevailing difficulty. Trainer competencies on technology are to be continuously upgraded to match the industry developments. Geographical distribution of the trainers throughout the country adds more complications for fulfilling this need of on-going, real time training of the trainers. Therefore this research has been focused on analyzing whether eLearning is a better alternative to deliver trainer training programs for ICT trainers in the TVET sector. Further the feasibility of converting some selected training courses in to eLearning based material is evaluated.

The existing literature was reviewed to identify the major requirements of conducting trainer training programmes and delivering such programmes in eLearning environment. Based on the identified requirements, a questionnaire survey was conducted for main stakeholders namely trainees, trainers and TVET administrators. The survey was conducted according to a sample selected from the population using simple random sampling method. An extensive analysis of the collected data was the basis for final recommendations.

From the survey, several favorable indications were revealed in the areas of English language ability, effectiveness of training delivery and trainers with good educational background which are plus points for implementation of eLearning. The need for trainer training is specially elaborated in the areas of eLearning strategy, technology and the technical support on learning management systems. The need for awareness in eLearning is identified in many instances of the research outcome. When considering the outcomes from all three categories, there is a very high potential to change the traditional course delivery methodology to eLearning.

Several recommendations in the broad areas of infrastructure, training and institutional requirements were made for the development and implementation of eLearning in TVET sector in Sri Lanka. Infrastructure development was a key recommendation with setting up of centralized server facility including internet connection to every ICT training center. Trainer capacity building and thereby converting traditional training course modules to eLearning based materials were some important recommended activities.
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List of Abbreviations

ADB  Asian Development Bank
ADL  Advanced Distributed Learning
BIT  Bachelor of Information Technology
CBT  Computer Based Training
CD-ROM Compact Disk Read Only Memory
DEMP Distance Education Modernization Project
DEPP Distance Education Partnership Programme
FIT  Foundation in Information Technology
GCE A/L General Certificate of Education – Advanced Level
GCE O/L General Certificate of Education – Ordinary Level
ICT  Information and Communication Technology
IMS  “An organization dedicated to developing specification for distributed learning”
ISO  International Standards Organization
IT  Information Technology
KSL  Knowledge, Services and Learning
LIP  Learner Information Package
LMS  Learning Management System
LOM  Learning Object Metadata
NACs Network Access Centres
NDEN National Distance Education Network
NeLC National eLearning Center
NODES National Online Distance Education Service
OUSLCE Open University of Sri Lanka Capacity Enhancement Project
PAN  PAN Asia Networking
PANdora Pan Asia Networking Distance and Open Resource Access
PPP  Public Private Partnership
QTI  Question and Test Interoperability
SCORM Sharable Content Object Reference Model
SCOs Sharable Content Objects
TOT  Training of Trainers
TVEC Tertiary and Vocational Education Commission
TVET  Technical Vocational Education and Training
UCCA UCSC Certified Computer Assistant
UCCU UCSC Certified Computer User
UCSC University of Colombo School of Computing
UNDP United Nations Development Program
VDA  Virtual Development Academy
WBT  Web Based Training
WWW World Wide Web