

**e-Readiness of warehouse workers:
an exploratory study**

by

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Submitted in partial fulfilment of the requirements for the degree

Philosophiae Doctor

in the

Department of Curriculum Studies

Faculty of Education

University of Pretoria

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December 2006

Acknowledgements

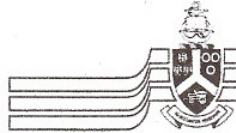
Several people have inspired and contributed to this thesis.

- Prof. Dr Seugnet Blignaut, who acted as supervisor for this study. My most sincere gratitude for the professional way in which this research was guided and managed. Thank you for the way the project, as well as the person was managed. I am honoured that this thesis was supervised by a qualitative research leader and learnt much from this experience.
- Prof Dr Piet de Kock, who edited and proofread the thesis. Those words of encouragement were never lost
- Prof Dr Toy White, who acted as critical reader
- International Healthcare Distributors (IHD) who granted me the opportunity to do this research within the organisation
- All the employees of IHD whom I have interviewed and observed to make this study possible. The knowledge and friendships I gained go far beyond this research
- The eight subject matter experts who shared their knowledge and guided me in what e-readiness entails
- Colleagues at work who assisted where they can to edit, advise and gave their support throughout this project
- The Faculty of Education of the University of Pretoria by providing guidance and advice in the form of workshops for postgraduate students
- My father Theunis who have always enforced the importance of reading and developing an enquiring mind.
- A final acknowledgement to my wife Isabel, who has been the silent power behind this thesis. Thank you for all the advice, encouragement, but above all the love and loyal support.

Dedication:

I dedicate this thesis to my family: Isabel, Dorette and Herman.

Ethics Clearance Document



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e-Readiness of warehouse workers: an explorative study

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.....

PD de KOCK

1 June 2006

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Appendix Thesis

Abstract

The purpose of this research was to investigate the e-readiness of warehouse workers in a supply chain management environment. Organisations increasingly contemplate e-learning as a training option to develop their employees. Globalisation of commercial ventures increasingly demands that organisations become more competitive by introducing Information Technology (IT). e-Learning is seen as a stepping stone for empowering employees.

Supply-chain management organisations use unskilled warehouse workers to perform manual duties such as registering, storing and quick location of stock for distribution. IT supports these logistic procedures – emphasising the need to introduce e-learning to warehouse workers. Questionnaires confirmed that the unit of analysis was multi-racial, mostly black, between eighteen and sixty years old and of both genders. Their limited educational qualifications are representative of many similar developing communities of work across Africa.

e-Learning requires access to technology, computer literacy, self-discipline, the drive to develop and the confidence to use technology to achieve objectives. Warehouse workers as developing communities are trapped by the digital divide amidst calls to bridge the divide by introducing IT to such communities. Questions are raised whether they have the discipline, motivation, and skills to learn from such a complex learning strategy. Interviewed corporate learning experts cautioned that specific infrastructures and personal attributes are crucial. Insufficient computer experience, anxiety and technophobia, may cause warehouse workers to become unlikely candidates for e-learning.

My inquiry was an interpretive, qualitative case study, intent on understanding emotional, technical, and social aspects influencing e-readiness. I collected my data in four phases. Phase one was a questionnaire to collect biographical information of the warehouse workers. During phase two, by means of a Delphi technique, I established consensus from a group of e-learning experts of what e-readiness encompasses. Phase three consisted of interviews with and observations of workers performing their daily tasks and also while completing a computer-based tutorial. In phase four I conducted interviews with warehouse managers on their perceptions of the e-readiness of their workers.

From the literature I extracted Reeves' (1999) three learner inputs, as well as six fundamental categories of e-readiness. With these nine theory codes, I followed an inductive-deductive grounded theory approach to analyse the data. I constructed six sub-questions as basis for the enquiry. I tallied the frequencies of the conceptual codes of e-readiness and created an inventory of applicable conceptual codes according to the theory codes. Patterns of technical and affective experience, aptitude, origins of motivation, access to computer infrastructure and organisation culture culminated as my seven main findings on the e-readiness of warehouse workers. I determined inter alia that warehouse workers do not suffer from technophobia, nor are they really intimidated by technology.

However, they need guidance and expert facilitation to become successful e-learners. They are aware that they are dependent on the organisation's infrastructure to develop their skills and capabilities. Therefore, the e-maturity of an organisation can greatly benefit from warehouse workers' involvement in e-learning.

Keywords:

Warehouse workers

e-readiness

developing communities

digital divide

computer experience

access to technology

technophobia

motivation

organisation-dependent

e-maturity

List of Abbreviations

ABET	Adult Basic Education and training
APEC	Asian Pacific Economic Cooperation
ASTD	American Society for Training and Development
ATM	Automatic teller machine
Becta	British Educational Communications and Technology Agency
CAT	Computer assisted training
CAQDAS	Computer assisted qualitative data analysis system (Atlas.ti™)
CBT	Computer based training
CI	Community Informatics
CID	Centre for Information Development
CSPP	Computer Systems Policy Project
CTI	Computer Training Institute
DC	Distribution Centre
DOT Force	Digital Opportunity Task Force
EKP	Enterprise Knowledge Platform®
EBMS	Electronic Business Management System
GCI	Growth Competitiveness Index
HR	Human Resources
ICT	Information and Communication Technology
IDP	Individual development plan
IHD	International Healthcare Distributors
IKS	Indigenous Knowledge System
ILS	Instructor led systems
ILT	Instructor led training
IS	Information Systems
IT	Information Technology
NEPAD	New Partnership for African Development
NZCER	New Zealand Council for Educational Research
PC	Personal Computer
SA	South Africa
SAPICS	Professional Society for Supply Chain Management
SC	Supply Chain
SCM	Supply Chain Management
SME	Subject Matter Experts
SOP	Standard operating procedures
UCT	University of Cape Town
UNISA	University of South Africa

WBT	Web based training
WEF	World Economic Forum
WITSA	World Information Technology and Services Alliance
www	World wide web

Definitions

ABET	Adult Basic Education and training programme by Mediaworks used as a training tool to develop the education of learners in developing countries. Can be done online or by completing exercises in assignment books. Includes literacy and numeracy programmes
Atlas.ti™	Qualitative data analysis system
ATM	Automatic teller machine
CBT	Computer based training lessons that enable learners to learn with computer technology
DC	Distribution centre – remote warehouses belonging to the organisation to serve other regions of the country
Delta	The Delta system is the customized application designed and developed to manage all the logistics procedures of IHD
Digital Divide	The technological difference between developed and developing countries and communities
EBMS	Electronic Business Management System – an interactive, online facility available on the organisation intranet. It explains all the business procedures by means of flow diagrams and interactive explanations. Staff are expected to follow these guidelines to execute the business procedures
EKP	Enterprise Knowledge Platform (EKP) is a series of e-learning lessons from Laraghskills® that are available to all aspiring employees
IDP	Individual development plans – initiative from the South African Departments of Labour and Education to ensure that employee skills are developed at work. It entails a formal “development plan” to structure the training and learning of the employee
IHD Warehouse	The warehouse where the pharmaceutical goods are stored and picked to be delivered to customers
Internet	The electronic information network available across the world
Intranet	The electronic information network within the organisation – available to all employees
Mainframe system	The Delta system, a customized electronic application designed and developed to manage all the logistics procedures of IHD

MS Outlook®	Microsoft Outlook® e-mail application
Warehouse worker	The employees of the SCM industry responsible for the receiving, packing, and dispatching of goods
Web based	Applications or training that relate to the world wide web (www)