

**Perceptions on the Diffusion and Adoption of SkillSoft® an e-learning program:
A Case Study of a Military Organization**

By

Warren E. Snyder

Dissertation submitted to the Faculty of the Virginia Polytechnic Institute and
State University in partial fulfillment of the requirement for the degree of

Doctor of Philosophy

In

Human Development

Marcie Boucouvalas, Chair

Marilyn V. Lichtman

Letitia Combs

Linda A. Morris

Stuart H. Weinstein

March 26, 2003

Blacksburg, Virginia

Keywords: Diffusion, Adoption, Perceptions, Distance Learning, e-learning

2003, Warren E. Snyder

**Perceptions on Diffusion and Adoption of SkillSoft® an e-learning program:
A Case Study of a Military Organization**

Warren E. Snyder

Abstract

The purpose of this qualitative case study was to better understand how the diffusion (spread) and adoption (acceptance) of SkillSoft® (an e-learning product) occurred among employees of one military organization and to distill individual perceptions regarding influences that affected the process. This case study focused on the process and its challenges. Relating personal perceptions of the process and how various categories of influences (personal, organizational, technological, mandated policy, change) may have affected the process in a military organization provides a unique account that has been lacking in the literature.

The results of this case study resonate with earlier research by Rogers (1983), Weinstein (1981), Sherry (1997), and Schein (1985), which found that influences (personal, organizational and technological) can have a dynamic effect on the diffusion and adoption of an innovation such as SkillSoft®. The study findings revealed that interviewees preferred job related e-learning experiences which support prior research by Bonk and Wisher (2000), and research by Thomerson and Smith (1996) who found that change in the way training is delivered can have an effect on the individual's willingness to adopt an e-learning program like SkillSoft®. The study augments previous findings by Berge, (1997) indicating that culture can be a barrier to the implementation of on-line learning.

The findings illuminated that awareness of the organization's environment (culture, mission, organization structure, decision-making process, communications channels, skills of employees), users' requirements, as well as the product's (SkillSoft®) fit with individual learning styles, are key elements to be considered when implementing an e-learning product in a military setting.

Post Script

With the acquisition of SMARTFORCE®, SkillSoft® Corporation was able to diversify its e-learning training opportunities (course library) to better meet the learning

requirements of military personnel since the initiation of this case study. Currently the 2003 SkillSoft® SMARTFORCE® library of courses is available free of charge on-line and is enhancing the knowledge and skills of active duty, reserve military personnel and Department of Defense government civilians.

Dedication

This study is dedicated to my wife, Karen Schneider, who encouraged me to pursue my dream of completing this degree. Without her constant love, support, patience, and understanding, this study would not have been possible.

This study is also dedicated to my parents, Edward R. and Catherine M. Snyder, who always believed in me and taught me to strive for my goals.

I dedicate this study to my family whose love is an essential part of my life.

Author's Acknowledgements

Dr. Boucouvalas, my dissertation chairperson, whose constant encouragement, invaluable insight, analysis and wisdom, made this study possible.

Dr. Lichtman, my research professor, who believed in my skills as a researcher and inspired me to explore this study using qualitative methods.

Stuart H. Weinstein, my technical advisor, whose advice guided me down the path of understanding diffusion and adoption theory.

My committee members, Letitia Combs, Harold Stubblefield, and Linda A. Morris, whose expertise provided valuable contributions to my professional development.

Michele Eldredge at the Northern Virginia campus of Virginia Polytechnic Institute, Department of Adult Learning and Human Resources, whose attention to detail and interest in my success kept me on track through the entire process.

Debra Parker, Public Affairs Officer, who made this study possible by championing the approval for this research within the military organization under study.

Lastly, I acknowledge my family, Karen, Holly, Dawn, Christopher, Jennifer and Amanda whose love, support and patience were never-ending.

TABLE OF CONTENTS

Cover Sheet	i
Abstract	ii
Dedications	iv
Acknowledgements	v
Table of Contents	vi
Chapter I Introduction and Background	1
Chapter Overview	1
Background to the Study	1
Statement of the Problem	6
Purpose of the Study	6
Significance of Study	6
Research Questions	7
Conceptual Framework	7
Assumptions	8
Definition of Terms	8
Limitations of Study	9
Organization of the Study	10
Chapter II Literature Review	11
Chapter Overview	11
Introduction	11
Review of Literature Related to this Study	11
Literature Related to Diffusion and Adoption	11
Literature Related to the Influences Affecting Diffusion & Adoption	13
Individual Influences	13
Organizational Influences	14
Technological Influences	16
Summary of Diffusion and Adoption Influences	17
Theories of Adoption	17

Literature Related to Diffusion, Adoption of Distance Learning	18
Additional Research Related to this Study	19
e-learning and Distance Learning	19
Distance Learning in the Military	20
Learning Styles	22
Lifelong Learning	22
Change	23
Learning, Learning Styles and Models	25
Summary	25
Gaps in the Research	26
Where this Study fits into the Research	26
Chapter III	28
Chapter Overview	28
Introduction	28
Research Questions	28
Study Design	28
The Case Study Approach	29
Case Study Description	29
Selection of Military Organization	29
Selection Criteria of Study Participants	30
Subject Selection	30
Methods and Procedures	31
Qualitative Research Approach	31
Interviews	31
Researcher's Data Collection Tool	32
Research Journal	32
Agency Records	33
Conducting the Interviews	34
Challenges to the Original Research Plan	34
Mix of Study Participants	34

Data Analysis and Interpretation	35
Data Analysis and Interpretation Approach	35
Coding	35
Interpretation of Reality	37
Researcher's Role	37
Validity and Reliability	37
Researcher's Biases	38
Chapter IV	40
Chapter Overview	40
Introduction	40
Description of the Organization	40
Selection of SkillSoft®	43
SkillSoft® Implementation Objectives	44
Audience for SkillSoft®	45
Awareness of SkillSoft®	47
Interest and Trial of SkillSoft®	48
First Log on Experience	49
Liked about SkillSoft®	51
Dislikes with SkillSoft®	52
Influences of the Diffusion and Adoption of SkillSoft®	53
Mandated Policy	58
Change	60
Comparison of SkillSoft with Classroom Instruction	61
Key Findings	63
5. Chapter V	65
Chapter Overview	65
Introduction	65
Purpose of Study	65
Review of Research Methodology	65
Research Questions	66

Question # 1	66
How did diffusion occur within this organization?	66
Awareness of SkillSoft®	69
Adoption of SkillSoft®	69
Question # 2	69
Conclusions	72
Contribution to Literature	73
Questions for Future Research	74
Post Script	75
References	76
Appendices	82
Appendix A: Complete List of SkillSoft® Courses	83
Appendix B: Flyer Used in the SkillSoft® Awareness Campaign	92
Appendix C: Letter of Informed Consent	94
Appendix D: Original Interview Questions	97
Appendix E: Final Interview Questions	98
Appendix F: Warren’s Data Collection Tool	101
Appendix G: Calendar of Research Activities	102
Appendix H: Structured Coding Model	103
Appendix I: Unstructured Coding Model	104
Appendix J: NVIVO Data Queries	105
VITA	108

Table 1. Selection of Study Participants	30
Table 2. Categories of Interviews	33

Figure 1. Channels of Communication	67
Figure 2. Influences on the diffusion and adoption of SkillSoft®	71