

**THE PERCEPTION OF USING WEB BASED LEARNING
BY UNDERGRADUATE STUDENTS IN THE KINGDOM
OF SAUDI ARABIA**

Abdulrahman Abdulaziz Aboalhaj

Doctor of Philosophy

University of York

Education

March 2015

Abstract

Recently, the Kingdom of Saudi Arabia implemented a policy to develop its educational infrastructure to reduce oil dependency. Saudi Higher Education (SHE) has come under increasing pressure to mobilise new technologies; however, pedagogical change has proven difficult.

Web Based Learning (WBL) has recently emerged as a tool increasingly used within education for communicating and sharing information. A growing number of studies into WBL have largely ignored students' perspective, a necessity to conceptualise the next generation of WBL. Therefore, this Thesis explores WBL's nature and how it facilitates individual learning and knowledge sharing in Saudi Arabia.

48 SHE students participated in a user-oriented, process-based, exploratory and qualitative study. Research questions were conceptualised using theoretical sampling, in-depth interviewing, 3-step coding, and Constant Comparison Data Analysis methods. Investigative issues consisted of two perspectives. The technological perspective researched participants' digital technologies constructs, perceived self-efficacy and awareness of technology importance and usefulness. The administration perspective investigated the roles of undergraduate students; importance of technology integration; infrastructure, training and support; and the importance of building a technology resource-base.

The core findings highlight that effective integration of digital technologies currently appears challenging. All participant groups exhibited difficulties in conceptualising effective technology integration, however other results were optimistic. Participants reported a high degree of technology familiarity, expertise, awareness and self-efficacy. However, three major challenges were identified; domination of cultural-religious conservatism; traditionalism in curriculum design/associated pedagogical practices; the centralised process of implementing technology.

The research sheds light on the role of Experiential Learning Theory and Narcissism Theory and how learning is conceptualised, tacit knowledge made explicit, and shared within different contexts of using WBL. Furthermore, this study provides educators and educational organisations with real data that defines good practice in WBL's use.

TABLE of CONTENTS

Abstract	i
Table of Content	ii
List of Tables	vi
List of Figures	vii
Acknowledgement	viii
Declaration	ix
Chapter 1. Introduction	1
1.1 Background of the study	2
1.2 Significance of the Study	4
1.3 Limitations of Generalisability	5
1.4 Thesis Structure	7
Chapter 2. Literature Review	10
2.1 The Kingdom of Saudi Arabia	12
2.1.1 History, Culture and Development	12
2.1.2 Education Policy and Educational Leadership	16
2.1.3 Economic & Technological Transformation	20
2.1.4 Implementation of Technology in Education	23
2.2 Learning theories	24
2.2.1 Behavioural-Associationist Theories	25
2.2.2 Cognitive Approaches	27
2.2.3 Constructivism	29
2.2.4 Experiential Learning Theory	31
2.2.5 Carl Rogers & ELT	34
2.2.6 Narcissism in Psychology Studies	41
2.2.7 Current Concerns	45
2.3 Knowledge Sharing	49
2.3.1 Knowledge Theory and Tacit Knowledge	50
2.3.2 Knowledge Sharing & Learning	53
2.3.3 Concerns for Sharing Knowledge	56
2.4 Web Based Learning	58
2.4.1 An Introduction to WBL	58
2.4.2 Communication Tools	60
2.4.3 Contexts: Web 2.0	61
2.4.4 The Perspective of Students	63
2.4.4.1 WBL Perceived concept	64
2.4.4.2 WBL Perceived Awareness	67
2.4.4.3 WBL Perceived Self-Efficacy	69
2.5 The Gap in the Research	73

2.6	<i>Summary</i>	74
Chapter 3.	Methodology	76
3.1	<i>The Research Journey</i>	76
3.1.1	Literature Review	77
3.1.2	Pilot Study	77
3.1.2.1	Starting Questions	77
3.1.3	Main Study Phase	78
3.1.3.1	Essential questions	79
3.1.3.2	Emergent questions.....	79
3.1.4	Analysis & Write-Up Phase.....	80
3.2	<i>Rationale for Using Qualitative Research</i>	80
3.3	<i>Overview of the Qualitative Study Process</i>	81
3.4	<i>Data collection procedure</i>	90
3.4.1	Sampling	90
3.4.2	Sampling in the pilot study.....	92
3.4.3	Sampling in the main study	94
3.4.4	Interviews	98
3.4.4.1	Research questions in relation to interview questions	100
3.4.4.2	Preparing, Conducting and Sequencing The Interview.....	101
3.5	<i>Ethics Issues</i>	101
3.6	<i>Trustworthiness</i>	102
3.6.1	Validity and reliability in qualitative research	103
3.6.2	Strategies to establish trustworthiness.....	104
3.6.3	The use of audit trail	104
3.6.4	The use of member checking	105
3.6.5	The use of peer debriefing	105
3.6.6	The use of reflexivity	106
3.7	<i>Summary</i>	106
Chapter 4.	Formal & Informal Learning	108
4.1	<i>Trajectory of Using WBL</i>	108
4.2	<i>Memories</i>	113
4.3	<i>Addiction to IT</i>	113
4.4	<i>Individualisation</i>	115
4.5	<i>Peer acceptance</i>	116
Chapter 5.	Individual Learning & Personal Responses to WBL	117
5.1	<i>The Desire to Be Visible</i>	117
5.2	<i>Maintaining the Writing Habit</i>	118
5.3	<i>Personal Use Orientation</i>	119
5.4	<i>Reflective Use Orientation</i>	120
5.5	<i>Maintaining and Expanding Relationships for Learning</i>	121

5.6	<i>Knowledge Construction on Using WBL</i>	127
5.6.1	<i>Broaden Perspectives</i>	127
5.6.2	<i>Self-Censorship</i>	127
5.6.3	<i>Promoting Creativity & Imagination</i>	128
Chapter 6.	Social Communication	130
6.1	<i>Social trends in Using WBL</i>	130
6.2	<i>Cultural Concerns Over Privacy</i>	131
6.3	<i>Breaking Social Taboos</i>	132
6.4	<i>Overcoming Geographic Distance</i>	133
6.5	<i>Countering Effects on Students</i>	134
6.6	<i>Supporting different interest users</i>	136
6.7	<i>Social Uses</i>	138
6.8	<i>Self-Liberation & Self-Expression</i>	139
6.9	<i>Promoting Online Identity</i>	141
Chapter 7.	Attributes of WBL	145
7.1	<i>Free Relaxation on WBL</i>	150
7.2	<i>Free Professional Development</i>	153
Chapter 8.	Strategies for Using WBL	156
8.1	<i>Privacy Concerns</i>	156
3.8	<i>Credibility Judgement of Information on WBL</i>	158
3.9	<i>Strategy for Using WBL as an Information Resource</i>	163
3.10	<i>Towards a Strategy for Using WBL</i>	165
Chapter 9.	Discussion	169
9.1	<i>Integrating model</i>	169
9.2	<i>A Theory Storyline</i>	171
9.3	<i>Contribution to knowledge</i>	176
9.3.1	<i>Motivations for using WBL</i>	176
9.3.2	<i>Conceptions of learning</i>	181
9.3.3	<i>Learning theories</i>	182
9.3.4	<i>Knowledge sharing of practice</i>	184
9.3.5	<i>Narcissism use of WBL</i>	185
9.4	<i>Implications of the theory for practice</i>	187
9.5	<i>The Practitioners' Technological Perspective</i>	189
9.5.1	<i>WBL Expertise & Familiarity</i>	189
9.6	<i>Tentative Conceptualisations of the Effective Integration of WBL</i>	190
9.7	<i>High levels of WBL awareness</i>	192
9.8	<i>High levels of Perceived General Self-Efficacy</i>	195

9.9	<i>Challenges and Obstacles</i>	197
9.10	<i>WBL as a Global Power Vs Domination Of Cultural-Religious Conservatism</i>	200
9.11	<i>The Impact of Traditionalism on Students' WBL</i>	204
Chapter 10.	Conclusion	212
10.1	<i>The Emergent Research Questions</i>	212
10.2	<i>The Research Methodology</i>	215
10.3	<i>Theory and WBL in KSA</i>	217
10.4	<i>The Relevant Findings in the Literature</i>	221
10.5	<i>Implications for Further Study</i>	225
10.6	<i>Summary</i>	227
Appendix 1:	Glossary of Terms	228
Appendix 2:	Ethics Issues Audit Form	230
Appendix 3 :	Participant Information Sheet	244
Informed Consent	245
Appendix 4:	Interview Process	247
	<i>Practical Guide</i>	247
	<i>Sequencing the interview</i>	249
Appendix 5:	Pilot Phase Semi-Structured Interview	250
Appendix 6:	Main Phase Semi–Structured Interview Questions	253
Appendix 7:	Additional flexible interview questions (over Main phase)	256
Appendix 8:	An example of memo (the research personal diary)	257
Appendix9:	The paper is published in the University of Michigan in the United States	258
Appendix 10:	Researcher CV	259
List of Abbreviation	261
References	262

List of Tables

TABLE 2.1 - DISTINCTIVE FEATURES OF FORMAL LEARNING AND INFORMAL LEARNING	47
TABLE 2.2 - THE SHIFT FROM WEB 1.0 TO WEB 2.0.....	62
TABLE 3.1 - AN EXAMPLE OF CODING AND CATEGORISING (TEXTUAL LEVEL & CONCEPTUAL LEVEL).....	86
TABLE 3.2 - AN EXAMPLE OF CODING & CATEGORISING (TEXTUAL & CONCEPTUAL LEVELS).....	90
TABLE 3.3 - THE 11 PARTICIPANTS' INFORMATION (PILOTING PHASE)	93
TABLE 3.4 - THE 7 PARTICIPANTS' INFORMATION (ANCHORING PHASE)	95
TABLE 3.5 - THE 17 PARTICIPANTS' INFORMATION (CENTRING PHASE)	97
TABLE 3.6 - THE 13 PARTICIPANTS' INFORMATION (FORMING PHASE).....	97
Table 0.7 - The 12 participants' information (support data).....	98
TABLE 3.8 - RESEARCH QUESTIONS IN RELATION TO INTERVIEW QUESTIONS	101
TABLE 7.1 – THE EMERGENT CATEGORIES AFTER OPEN CODING AND AXIAL CODING.	146

List of Figures

FIGURE 1.1 - BOUNDARY OF THIS RESEARCH STUDY	4
FIGURE 2.1 - THE 4 COMPONENTS OF THE LITERATURE REVIEW.....	11
FIGURE 2.2 - MAP OF SAUDI ARABIA (SOURCE: MINISTRY OF INTERIORITY)	13
FIGURE 2.3 - A DYNAMIC SELF-REGULATORY PROCESSING MODEL OF NARCISSISM.....	43
FIGURE 2.4 - THE GAPS IN THE BODY OF LITERATURE.....	73
FIGURE 3.1 - ANALYTIC PROCESS.....	83
FIGURE 3.2 - WRITING EXAMPLE IN ATLAS	87
FIGURE 5.1 - AN EXPLICIT PROCESS OF CREATIVITY IN WBL USE.....	129
FIGURE 6.1 - FORMING A COMMUNITY OF INTEREST.....	137
FIGURE 9.1 - A MODEL OF WBL IN FACILITATING LEARNING AND KNOWLEDGE SHARING	170
FIGURE 9.2 - THE INTER RELATIONSHIPS BETWEEN CONSERVATISM, TRADITIONALISM AND CENTRALISATION.....	198

Acknowledgement

I would like to thank my supervisor Dr John Issitt for his unstinting support and continual encouragement over the last few years as I compiled and wrote this PhD.

I would like to extend sincere gratitude to my family, who are my true inspiration and guide and who showed unflagging support – and patience – as I gathered the materials, conducted the research and learned how to put together a serious academic work in a second language. I would like to make particular mention of a few individuals; my mother Muneerah, and my father, Abdulaziz, whom I lost last year. I would like to thank my wife, Fauzia, and my children, Faisal, Sarah, Abdulilah, Abdulmalik and Joana. I would also like to thank my brothers who have never failed to support me.

I am deeply grateful to have such a wonderful family.

I would thank the University of AL-Qassim and the University of York, because they extended an amazing opportunity to study in the UK, to learn more about my field of study. In this regard, I would like to thank, in particular, the Director of the PhD programme, Professor Chris Kyriacou.

Finally, I would like to thank all the students – and their supportive families – who took part in the research study, as well as anyone who helped me in completing this research programme.

Declaration

No portion of the work referred in this Thesis has been submitted in support of an application for another degree or qualification of this to any other university or other institute of learning.

Chapter 1. Introduction

This Thesis focuses on a relatively new expression of technology and learning: Web Based Learning (WBL). It presents a formal analysis of the usage and usefulness of WBL for facilitating the learning and knowledge sharing of SHE (Saudi Higher Education) students in the Kingdom of Saudi Arabia (KSA).

This Thesis is an individual-oriented, process-based, exploratory, qualitative and empirical study.

The research programme aims to uncover the nature of using the WBL phenomenon and map its potential usage and usefulness in facilitating personal learning and knowledge sharing. The long-term objective is to develop a theory to interpret the studied phenomenon.

This thesis therefore seeks to do the following:

- 1) To identify the nature of Saudi Higher Education (SHE) students' learning and sharing in a web-based learning (WBL) environment.
- 2) Explore their views and behaviours on the role of WBL in facilitating knowledge transfer and informal and formal learning on an individual level.
- 3) Identify patterns in Saudi students' learning, mostly in higher education (HE), to address the focus and importance of the study.
- 4) Determine the conditions, strategies and consequences of using WBL.
- 5) Explore how WBL can facilitate SHE students' learning and sharing.
- 6) Comprehend WBL's implications for understanding students' behaviours associated with the use of online information.
- 7) Provide context-appropriate recommendations include enhancing SHE students' technological beliefs, enforcing innovative WBL, and developing effective use of WBL.

1.1 Background of the study

KSA, despite its rapidly developing economic base and government support for technology adoption, remains culturally and socially conservative (Al-Asmari, 2008, Burkhart & Goodman, 1998). To increase productivity of its education sector and lessen dependency on crude oil, the government has implemented a multi-billion dollar investment programme to reform its educational infrastructure (Onsman, 2011).

Technology is central to the KSA government's aim to develop educational infrastructure; it is considered key to improving professional preparation and development (Lee et al., 2007; Northcote, 2009; Sang et al., 2010; Wabuye, 2003). However, despite the first steps being taken in 1985 to integrate and implement technology in the education system, reluctance remains to deliver pedagogical change in KSA (Al-Issa, 2009, 2010).

Since 1990, the "web" "provides a flexible framework to support advanced pedagogies based on active learning, collaboration, multiple perspectives, and knowledge building" (Harasim, 1999, p. 45). Its pervasive use has become a growing area of interest in recent educational research and theory, in particular the two layers of information of web content and web relationships.

WBL has emerged recently as an online publishing tool increasingly being used by students and staff within education for communicating and sharing information. WBL is being used to facilitate teaching and learning in SHE settings.

An increasing body of evidence indicates that WBL in HE is positive. Based on various perspectives, such as Genre Theory (e.g. Lewis, and Goodison, 2004), Information Communication Technologies (ICTs) (e.g. Bennett and Lockyer, 2006) and Learning Management Environment (e.g. Housego, and Freeman, 2000), publications support WBL as a useful part of the intellectual and cultural fabric of HE.

With the rapid Information Technology Revolution, SHE is under increasing pressure to take advantage of IT. The past decades have seen a growing body of literature on developing SHE by investigating new technology applications, including Computer-Mediated Communication (CMC), distance learning, e-Learning and virtual learning to learning content management, social software, current Web 2.0 and Learning 2.0. Educators have sought to use diverse ways to value not only the intellect of the learner, but the person as a whole.

In addition, the notion that knowledge needs to be shared rather than hoarded has been increasingly and practically emphasised. Ras, Avram, Waterson and Weibelzahl suggest that knowledge needs to be shared and is best undertaken by the acquisition and storage of knowledge in knowledge bases, followed by “countless and costless sharing” (2005, p. 396).

A considerable body of literature has also shown WBL’s use in encouraging knowledge sharing; for instance, Ojala (2005) explained that WBL benefits enterprises by capturing and disseminating product information and knowledge in a collaborative cross-cultural work environment.

Mills (2009) suggested that WBL tends to be more interactive than mainstream media sites and pointed out that using WBL in an organisation requires a staff member who is trained in effective dialogic communication and has built trust with readers so as to maintain WBL. Lin et al. (2006: 15) proposed that “Web users are not only noting down their experiences and thoughts, but also trying to reach out to broader audiences, share opinions and to manage their personal knowledge base”.

Thus, WBL has a place in knowledge-sharing practice, because it provides people with a virtual space in which to express personal opinions, experiences, stories and moods; it also affords opportunities to exchange ideas, experiences and interests and helps people transfer knowledge.

Nevertheless, looking at WBL alone could result in a serious bias with regard to understanding the motivation, value and consequences of using WBL, especially in facilitating SHE students’ learning and sharing. For instance, since 2002, a number of studies have been conducted into WBL, but a need is growing to understand the students’ perspective, in order to conceptualise a new generation of WBL and sharing.

Therefore, to fully understand the impact of WBL, a programme of research would need to be multi-faceted, bringing together a complex array of intersections including, personal learning, knowledge sharing practice and of course the use of WBL itself.

The types of questions that this Thesis is attempting to frame, in the simplest form, include:

- Why do students use WBL?
- To what extent do they use WBL for learning and sharing?
- To what extent do they create knowledge repositories through WBL?

A key premise for the research programme is that student's experience of using WBL inside and outside classrooms and the interactive practices on the web are unplanned or non-scheduled, but occur based on the student's interest. Also, the learning process may be synchronous or asynchronous.

In Figure 1.1, the blue line marks the boundary of this study investigating WBL use from three Knowledge Management aspects. The research investigates WBL use from a formal learning or organisational learning perspective and not to develop WBL as a technology.

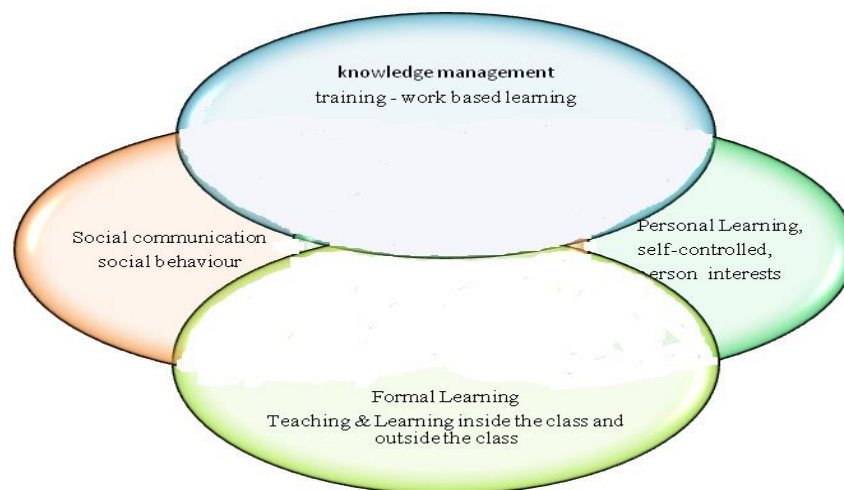


Figure 1.1 - Boundary of this research study

The research programme aims to make sense of the nature of WBL and develop its potential for promoting students' interaction among peers. Findings of the research will therefore shed light on developing strategies to understand and promote WBL, principally in KSA, and potentially further afield. This Thesis is therefore not about WBL itself, but explores its nature, and how using WBL would facilitate individual learning and knowledge sharing practice in a network environment.

1.2 Significance of the Study

To date, there has been no major study that has collectively investigated WBL use by Saudi SHE students. There is a dearth of studies into WBL in KSA in general, and almost

non-existent studies into the perceptions of students. To date, no study has directly sought to also research the perceptions of female undergraduates.

It is hoped that this study will therefore genuinely contribute to the field of WBL in general and to SHE in particular. It is also hoped that this study will contribute to the improvement of education in KSA, in relation to WBL as a field, and in ways to better integrate technology in the future.

In addition, it is hoped that the findings of this study can provide insights into other similar contexts of developing countries in the conservative Arab and Islamic world. At the same time, findings from this the Middle East, offer a timely contribution to the international literature as the region undergoes social and political upheaval.

1.3 Limitations of Generalisability

Research limitations that affect the generalisability of the current thesis can be categorised into four main points, which include; subjectivity, limitations of the research methodology, sample size and choice of type of participant.

Personal Subjectivity

As an Arab Muslim researcher from KSA, the researcher is influenced by one of the world's most conservative Islamic and Arab societies. Generally, Saudis hold to the law and traditions of the society and believe social stability is paramount where the needs of the group and society in general are more important than any single individual.

Despite these conservative assumptions the future of WBL is assured in KSA. Technological developments globally are widely influencing the lives of ordinary citizens in KSA, including in the realm of education. Educational systems and learning and teaching environments are a part of these developments, thus WBL should be effectively integrated to create and manage meaningful technology rich educational settings. However, this cannot be achieved without the effective integration of WBL into the lives of Saudi students.

In addition, over recent years a growing number of Saudi students have travelled abroad, outside the Middle East and Arab world, in particularly to the West, ostensibly to study; this forms part of a strategy to reduce dependency on oil and build the intellectual wealth

of Saudis (Onsman, 2011). Therefore, Saudi students, male and female, are returning to KSA with different interpretations and views of the world.

As the research relates to KSA, a key component of the Literature Review (See 2.1) is centred on the culture and traditions of the nation, and this sub-section also incorporates the take-up of technology.

Male Female Participation

Female participation in the current study was associated with countless difficulties at multiple levels such as culture, ethics, methodology and methods. However, the current findings applied to the female section, because females also belong to the same context and agency.

One might argue that the research methodology could be modified to include alternative context-appropriate data collection methods such as face-to-face interviews with male and female participants. The challenges of carrying out research with female participants was difficult, but by no means impossible with the support of the families of the female students and working sensitively to take into account cultural and social norms and beliefs.

Sample Size

The third limitation noted in the current study was in terms of the study sample size.

Despite the fact that the numbers of participants (47 HE students), in the current study appear satisfactory from a qualitative perspective, these numbers may fall short if the total number of SHE students is taken into account. When considering female participants, this number can be doubled or even tripled since working in education is preferable for Saudi females more than in other sectors such as health or economy, since it is segregated.

Geographic Scope

The current study was conducted in three universities in KSA. However, in terms of diversifying the current results, it was hoped to include more than three universities, but unfortunately this was difficult.

Gaining access to more than three universities required more than three applications to the HE and more than three letter of permission, which can be an obstacle in light of the Saudi centralised system.

In addition, it required more time and effort to establish effective communication with people such as policymakers to facilitate access to research sites and participants. Moreover, as most universities were located in different regions and cities, including more than three universities could be significantly exhausting.

Although Saudi students widely adopt the same approach, ideology, standards and most importantly, the same cultural-religious fundamentals, each university has differing policies in terms of logistic support, curriculum and learning activities as well as in the operation and the implementation of WBL. Therefore, the results may not be generalisable.

Student Focus Area

Finally, taking carefully into consideration issues such as accessibility to research sites, locations and participants demanded that this research focuses only on undergraduate students. It is hoped, however, that the research is generalisable for Postgraduate students.

1.4 Thesis Structure

Chapter 2: Literature review.

This chapter defines the scope of the literature and reviews the literature on WBL usage, relevant Learning Theories and Knowledge Sharing and includes an exploration of the literature which relates to KSA itself, but not just in terms of its history and social context, but how the Saudi social background is related to the WBL effect on personal learning and its ability to facilitate knowledge sharing in a web-based environment on the individual learning level.

Note that this chapter includes two emergent literature areas: Carl Rogers' Experiential Learning Theory and Narcissism Theory in psychological motivation studies. These two areas were not the focus at the beginning of the study, but became relevant to the findings during the course of the research programme. These areas were reviewed to confirm, extend and validate the findings in very late stages of the study in the polishing and condensing stages of the research study.

The chapter also highlights the core theoretical ideas and current relevant research into WBL in SHE settings, especially the research gap and importance of the study.

Chapter 3: Methodology.

This chapter is devoted to the Thesis' research methodology and elaborates the research process.

It illustrates in detail, the rationale for adopting a qualitative method as the central research approach and how such a methodology would be used in this study.

The chapter also describes the data collection and analysis procedures in detail and explains how the ethics were taken into account and trustworthiness was implemented to ensure the validity of the research. It is useful to note that the Pilot Study is described in detail and it provided the framework for the Results section (Chapters 4 to 8).

Chapter 4, 5, 6, 7, and 8: Results from the Research.

These chapters analyse the results of the research study, highlighting the attributes of WBL and WBL users that emerged from the data.

Primarily, it indicates the elements that affect SHE students' use of WBL, such as reading by using WBL, maintaining WBL and stopping WBL. Meanwhile, it provides a contextual explanation of the WBL phenomenon in later chapters as well as to identify a generic learning trajectory of using WBL.

The focus of these chapters is discussion of the core strategies of WBL users. Comparing the groups, the chapters develop a strategic model of using WBL to present the key concepts and their relationships. In particular, it illuminates three major aspects of the use of WBL as a mechanism for acquiring information.

These chapters move towards thinking about the consequences of using WBL, that is, the nature of WBL itself. It concludes that three core concepts – self-therapy, interpersonal skills and intellectual abilities – are root causes for using WBL.

Also, this chapter elaborates five types of learning in WBL use and discusses knowledge sharing actions that link to the emergent concept of moderate narcissism. Furthermore, it provides an analysis of the constraints for using WBL in formal learning.

Chapter 9: Discussion.

This chapter lays out an integrated theoretical model for using WBL to facilitate learning and knowledge sharing. By adopting the storyline technique of qualitative approach, it shows how theories were linked and how a central category, a channel of ambivalent self-image assurance, emerged; it also explains the link to the existing literature.

This chapter details the contributions of this study by analysing the findings in relation to motivation theories, Learning Theories, and knowledge sharing in practice and narcissism studies. In addition, it provides in-depth information regarding the implications and limits of the study. Six suggestions for possible further research are offered.

Chapter 10: Conclusion.

This chapter reflects on the research programme as a whole and summarises the study's process, findings and theory, research design, contribution to knowledge and impact on further research work.

This chapter also provides a deeper insight into the study. It introduces the background, motivation for the research and research purpose and explains key terms used in the thesis and presents a process map of the study and considers how the research questions were emerged over the conceptualisation process.

Finally, it generates a theory for interpreting the nature of the WBL phenomenon and its potential use to facilitate SHE students' learning and knowledge sharing.

Chapter 2. Literature Review

This chapter presents a consolidated Literature Review. From the onset, the intention was not to review literature at the beginning of the study, but later in the process. This was particularly important as the research programme was a Qualitative one. Strauss and Corbin (1998) indicate that when using Qualitative Methods, literature is perceived as a source of data. It can stimulate theoretical sensitivity, to direct theoretical sample, or to formulate questions; it is therefore possible to review literature relating to concepts that emerge from the data at a later stage, and to confirm, refine or extend knowledge in the field.

The key topics or components selected for investigation include items which elucidate the themes of this Thesis which focussed on uncovering the nature of using the WBL phenomenon and its usage and usefulness in facilitating personal learning and knowledge sharing in KSA. The Literature Review process also aimed to determine gaps in the literature and thereby identify a suitable area of study to explore further.

As the research study progressed, four areas emerged as critical for this Thesis; they were identified as supplementary sources to help validate, refine and/or negate the findings during the course of the research. The key components include the following:

- A. The culture and traditions of KSA.
- B. Learning Theories.
- C. Knowledge Sharing.
- D. Literature on WBL.

To explain further, any research connected with KSA would need to illustrate the key elements of its culture and traditions to provide context to the study. Similarly, WBL is a specific and specialised area and any research connected with it would be incomplete without incorporating the body of literature which draws from Learning Theories and Knowledge Sharing as Web Based Learning incorporates elements of Learning and Knowledge Sharing.

These four component areas may be illustrated as in Figure 2.1:

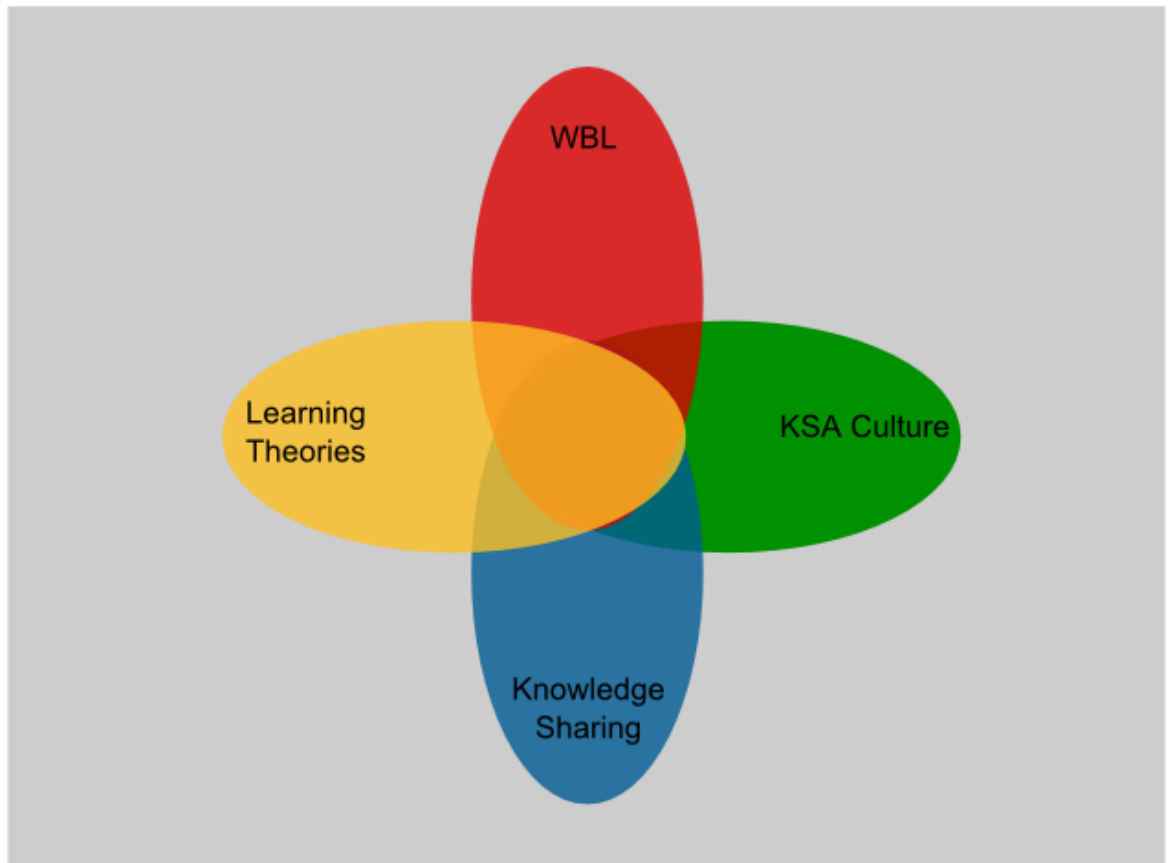


Figure 2.1 - The 4 Components of the Literature Review

The Literature Review therefore embarks with a thorough purview of the literature on KSA. In addition to describing the key features of its traditions, this sub-section always peers at the development of technology as this is relevant to the Thesis topic.

Following the sub-section on KSA, the chapter will review the literature relating to Learning Theories; this sub-section unpacks Formal and Informal Learning in particular. In addition, while this research focuses on the most prevalent theories, the concept of True Self as an aspect of Experiential Learning Theory, as well as Narcissism as a motivator are elaborated.

Following a review of the literature on Learning Theories, the chapter will hone in on Knowledge Sharing, which is increasingly being studied in the Knowledge Management field and which offers new concepts to SHE. In this sub-section, the aim is to review knowledge sharing theories, with an emphasis on sharing tacit knowledge (one type of knowledge) into practice. Moreover, the wider and connecting studies on Learning, Knowledge Sharing and WBL will be explored.

The Literature Review's final component area is aptly WBL. In this sub-section, the research study focuses on its development, key features and studies which investigated its effects on learning and sharing in educational settings. It is useful to note that literature relating to WBL in KSA is to be found in the WBL sub-section.

Finally, this chapter will draw to a close by concentrating on identifying gaps in the corpus of literature.

For the purpose of the Literature Review, the selected component study areas are used individually and together "to focus on theory effectively through comparative analysis" (Glaser and Strauss, 1967: 163). However, the four component areas feature major cross-overs. Here in the Thesis, a conceptual diagram (See Figure 2.4) is presented showing the key intersections and gap in the literature. This gap will be crucial in informing the development of the Methodology.

2.1 The Kingdom of Saudi Arabia

This section provides general information relevant to Saudi history, culture and development. An overview of Saudi education, leadership and policies is also provided. It also discusses Saudi technological transformation in relation to globalisation and technology consumption. Finally, this sub-section section focuses on the implementation of technology in education.

2.1.1 History, Culture and Development

KSA is located in the southern part of Asia and occupies almost four-fifths of the Arabian Peninsula. Figure 2.2 shows the map of KSA with its 13 main administrative regions.



Figure 2.2 - Map of Saudi Arabia (Source: Ministry of Interiority)

The first state of Saudi Arabia was established in the early eighteenth century. This fledgling state increased its territory, and in 1932 it was renamed the Kingdom of Saudi Arabia by King Abdulaziz ben Abdulrahman Al-Saud (Ministry of Foreign Affairs, 2006).

KSA is a major force in the Gulf region and the Arab world and globally (Onsman, 2011). Since crude oil repositories were discovered in KSA in the early 1930s, the income from the petroleum industry has ameliorated the country in various areas and to different degrees. The speed of development has been blistering. For instance, Krieger (2007) stated that, “Saudi Arabia has been developing at breakneck speed since the end of World War II, when oil production transformed this country of Bedouins into one of the richest polities in the world” (p. 1). The most dramatic changes have been observed in terms of the economy and social change (Ramady, 2010).

The modern state of KSA possesses the largest oil reserves in the world and also ranks first in oil production and oil exports. KSA is estimated to harbour a quarter of the world’s total crude oil reserves (Ministry of Petroleum and Mineral Resources, 2009).

The increasing economic role of KSA permitted the state to join the World Trade Organization in 2005 as well as to meet its obligations (Ramady, 2010).

The Saudi population is increasing rapidly and globally it is one of the fastest-growing (Al-Issa, 2009). According to the Saudi Central Department of Statistics and Information, the most recent statistics indicate that in 2010 the Saudi population numbered 27 million with

a growth rate of 3.2 % since 2004 (Central Department of Statistics & Information, 2013). The Saudi population is projected to reach 43 million by 2025 (Al-Hamed, 2007). While this goes against global trends in richer nations, the Saudi rapid growth rate is a direct result of its economic boom, in addition to other cultural and religious factors. Saudi wealth has aided the creation of a more stable environment with proper social services, including work, housing and healthcare (Al-Hamed, 2007). As a case in point, Krieger (2007) affirmed that, “The country’s oil wealth has led to a sweeping rise in living standards and subsequent population surge” (p. 2). From a cultural perspective, Saudis tend to have and prefer large families.

Culturally, KSA is an Islamic country with the *Holy Quran* as its constitution and Arabic its national language. The two holiest cities (Makkah and Al-Madina) of the Islamic world are located in KSA. Hence, Saudi culture may be defined as a mixture of social, historical, and religious principles that influence individuals’ behaviours, practices, relationships and worldviews (Al-Aqeel, 2005; Al-Issa, 2009; Saleh, 1987). KSA is driven by strong social and religious beliefs. In fact, Islamic law, known as *Shariah*, dominates Saudi culture, identity and social life, especially education, which is essentially religious (Al-Aqeel, 2005; Al-Issa, 2009; Bingimlas, 2010; Krieger, 2007; Ministry of Foreign Affairs, 2006; Oyaid, 2009; Prokop, 2003).

Al-Asmari (2008) classified Saudi culture as “Islamic, Arabic, mono-cultural, and conservative” (p. 5). Accordingly, Saudi people may contradict ideologies that might conflict with their cultural customs and/or religious fundamentals or beliefs. For example, Ziadah (2007a) warned that globalisation would lead the Saudi national identity to melt by causing tension between the local and the global cultures. Hence, it is acceptable in such a context to prefer centralised systems that may assist in protecting religious and cultural fundamentals from exposure to incompatible cultures, especially those that are western-related.

According to Al-Asmari (2008), this role of authority in conservative contexts such as KSA can be described by what is known as “cultural sheltering”, which he defined as “The proactive measures undertaken by authority figures/educators in a conservative environment to minimise perceived threats to C1 by blocking exposure to FC” (p. 250). In this definition, C1 refers to local culture, while FC means foreign culture.

From an outsider's perspective, Burkhart and Goodman (1998) argue that, "The Saudi society remains one of the world's most conservative" (p. 22). More recently, Krieger (2007) mentions that KSA is still strongly committed to its social and religious character. Therefore, introducing any cultural change into KSA is challenging. Burkhart and Goodman (1998) point out that:

Changes come slowly, usually preceded by extensive debate. Religious and social concerns are often more important than technical or economic benefits. In turn, telegraph, telephone, television, and now the Internet have been denounced as systems that could easily be abused, only eventually to be controlled and accepted. (p. 22)

However, there is no doubt that societies change. In Saudi Arabia, Al-Saif (1997) concluded that several important factors are responsible for social and cultural change. Some of these factors are the country's unity, stability and peace, coupled with its good fortune in terms of crude oil, minerals and many natural resources.

Ramady (2010) lists additional factors, such as population increase, economic growth, and changes in social structure. Globalisation may also be a strong factor (Al-Aqeel, 2005; Ziadah, 2007a). Recently, Saudi Arabia has experienced many remarkable changes. Some of these changes include more openness to the world; increasing numbers of migrants moving from rural areas to urban cities to seek better opportunities; an increase in imported foreign labour force as either specialists or general workers; increased consumption of new technologies; and increased private businesses and trading activities (Al-Aqeel, 2005; Abanama, 1995).

Despite the success of Saudi modernisation and development, especially in the last three decades, KSA has succeeded in preserving and strengthening its cultural principles and beliefs, especially in education (Al-Issa, 2009; Krieger, 2007). In doing this, KSA aimed to prepare its society for the challenges of the twenty-first century by embracing a modern approach while also conserving its uniqueness (Ramady, 2010).

While preserving its cultural and religious fundamentals, KSA recently started thinking, acting and interacting differently. With a more global outlook, "opening up to the rest of the world by a process of inter-faith dialogue, fostering a culture of moderation and dealing with other nations and cultures based on mutual respect" have been three important demands in KSA (Ramady, 2010, p. 4). In this regard, it may be argued, "ultimately,

international competitiveness is likely to impact significantly and possibly irrevocably on Saudi cultural traditions and religion norms” (Onsman, 2011, p. 1).

2.1.2 Education Policy and Educational Leadership

Educational policies in KSA evolved from Islamic ideology, which viewed by Muslims as being a way of living, conducting relationships, and devising strategies and systems (Abd-Al-Jawad, 2005; Al-Aqeel, 2005; Metwalli, 2008a; MoE, 1980).

Education in KSA is completely free and shaped by four main factors; Islam, the Arabic language (the language of the *Holy Quran*), centralised monarchy political views and economic growth (Al-Aqeel, 2005; Al-Garfi, 2010; Al-Sonbol, 2008; Metwalli, 2008a).

Thus, the education system as a whole is subject to the Supreme Committee for Education Policy that is responsible for planning, supervising, directing and funding education (Al-Aqeel, 2005; Al-Sonbol, 2008).

The main goals of the educational policy are to eliminate illiteracy among Saudi citizens; to ensure more efficiency for education as well as to ensure equal access to education for both boys and girls; and finally to meet the country’s needs in its religious, social, cultural, and economic development (Abd-AlJawad, 2005; Al-Aqeel, 2005; Al-Garfi, 2010; Metwalli, 2008a; MoE, 1980; Ramady, 2010).

According to Al-Issa (2009), more than five million Saudi students, both male and female, are enrolled in the education system.

In 2008, the amount of government spending on the education sector in KSA was the second highest in the world, totalling more than US\$20 billion and representing a quarter of the Kingdom’s budget (Al-Issa, 2009). As a case in point, Onsman (2011) confirms that KSA currently is implementing a multi-billion dollar investment programme to build new schools and universities. The key aim for this is to increase the productivity of its education sector and lessen dependency on the oil industry (Onsman, 2011).

However, despite the main goals and the quantitative expansion of Saudi education (Al-Aqeel, 2005), there was no evolution in terms of pedagogical and educational philosophical foundations (Al-Issa, 2009, 2010).

Educational policy in KSA needs to be revised and updated with more global goals and relevant practical objectives (Abd-Al-Jawad, 2005; Al-Aqeel, 2005). Al-Issa (2009; 2010) argues that Saudi education generally focuses too much on teaching Islamic knowledge and the Arabic language in all stages of public education, neglecting areas such as natural sciences, mathematics and social studies.

Saudi education is predicated upon the traditional model of teacher-centred education (Al-Aqeel, 2005; Al-Otaibi, 2007; Bingimlas, 2010; Krieger, 2007; Oyaid, 2009). Factors that have contributed to the formulation of Saudi teachers' traditional role and students may be summarised in four points, according to Al-Otaibi (2007):

1. The initial preparation of Saudi teachers and students is dominated by traditionalism and lacks effective access to global and modern trends including technology.
2. Preparation of Saudi teachers and students is isolated from the requirements of the social organisations of society such as schools.
3. There is hidden resistance to the role of technology by many in-service teachers and students, especially those who avoid change and prefer traditional methods of teaching.
4. The prevailing style and/or culture of leadership in schools often prefers traditional teachers who act traditionally and move away from new approaches that may bring trouble for management.

These factors have resulted in moulding students so that they act and think in a similar way. Students always revolve in the orbit of their traditional teacher (Al-Aqeel, 2005; Al-Otaibi, 2007). Other cultural-religious issues also contribute to the enhancement of this role. For instance, Saudi students who are typically conceptualised only as receivers ultimately respect their teachers' identity, knowledge and practice (Al-Aqeel, 2005; Al-Gamedi, 2005a; Al-Otaibi, 2007; Bingimlas, 2010; Oyaid, 2009). Teaching from the Islamic perspective is highly respected, as it is the profession of prophets and apostles (Al-Gamedi, 2005a; Metwalli, 2008a, 2008b).

In relation to policy, educational policies in KSA lack relevant practical objectives in their performance (Al-Miman, 2003). Some of these policies have not been implemented at all

and other policies have been applied inappropriately according to Al-Miman (2003) who also found that:

- The educational administration is centralised, which results in inadequate and unqualified staff, monotony, routine, and fewer opportunities for renewal and change.
- There is dissociation between the functions of educational institutions, creating misconceptions and disturbances in the learners' vision, concepts and behaviours.
- Schools lack key assets and infrastructure such as laboratories and audio-visual equipment.

Similarly, Al-Otaibi (2007), Al-Sonbol (2008), and Al-Issa (2010) emphasised that the Saudi educational system suffers from centralisation, like the rest of the educational systems in the Arab world. All education related decision-making processes rest in the hands of the central educational authority. Key processes include determining educational needs, building schools, appointing teachers, staff and personnel, and determining curricula content and textbooks (Al-Issa, 2010; Al-Otaibi, 2007; Al-Sonbol, 2008). This system has reflected negatively on the efficiency of Saudi education and has resulted in complex bureaucracy and an apparently boring routine (Al-Issa, 2010; Al-Otaibi, 2007). Centralisation leads to other consequences, such as a lack of innovative leaders, a lack of attention to research and development, and a lack of financial resources (Al-Sonbol, 2008; Al-Issa, 2010). Most significantly, human resources working under central regulations usually resist change, in spite of its importance to the organisation (Al-Issa, 2010; Al-Otaibi, 2007).

Despite the fact that globalisation may threaten Saudi identity (Abd-Al-Jawad, 2005; AlAqeel, 2005; Ziadah, 2007a), ensuring the delivery of an appropriate education to cope with its propositions appears to be a non-existent concern in KSA (Al-Issa, 2009, 2010). In this regard, Al-Mane (2004) conducted a study aimed at investigating global education in Saudi schools and investigated teachers' attitudes towards it. Al-Mane (2004) discovered that curricular activities place emphasis on national, cultural and religious principles. Activities that contribute to building independent learning skills and socially interactive personality are only partly emphasised. Finally, activities that enhance or develop knowledge about global changes and international relationships are non-existent.

Conversely, a high percentage of the teachers surveyed had not heard about global education and did not understand the importance of its implications to the educational system.

KSA's education system needs to be improved to meet the challenges of globalisation the greatest of which is preserving the Saudi cultural-religious identity (Abd-Al-Jawad, 2005; Al-Aqeel, 2005; Ziadah, 2007a). In this context, education should emphasise the Arabic-Islamic character as a fixed constituent in the Saudi national identity (Abd-Al-Jawad, 2005; Al-Aqeel, 2005; Ziadah, 2007a). Curricula take the lead in stressing Saudi history, geography, heritage, values and the *Holy Quran* (Abd-Al-Jawad, 2005; Al-Aqeel, 2005; Ziadah, 2007a).

Globalisation has accelerated market needs and Ramady (2010) argues that the Saudi educational system should align itself with market needs. Further, Al-Jarf (2004) recommends delivering courses on global education in junior and high schools as he contends they would; assist students to understand the world as being a group of related and cooperating relationships and cultures, to analyse and participate effectively in global issues, and to understand the relationships between their own country and other countries.

Al-Bakr (2004) stresses the necessity of a total revision of the current educational system's objectives. He argues objectives should incorporate educational concerns, not only ideological ones. In this way, the education system will be able to meet international standards and consequently students graduating from such an educational system will be equipped to compete in the international labour market.

Al-Homaid (2004) reported similarly and contributed four principles to improve curricula in KSA in relation to globalisation. These principles are:

- Learn to know.
- Learn to work.
- Learn to participate.
- Learn to be.

However, re-shaping the curriculum, both to address globalisation and to qualify students to meet the demands of the future appears impossible without integrating technology into

the education system along with maintaining the Saudi uniqueness and cultural perspective (Hamdan, 2004).

2.1.3 Economic & Technological Transformation

KSA has boomed economically in the last few decades. As a rapidly developing Islamic country, it has participated willingly in the development of global digital technology. Largely through earnings from the petroleum industry, wealth has aided health, public education, higher education, and levels of consumption of technology (Al-Issa, 2009; Bank Audisal, 2008; Hartley & Al-Muhaideb, 2007; Joseph & Lunt, 2006; Nelson, 2010; Onsman, 2011; Ramady, 2010; Saudi Ministry of Education [ME], 2005 Saudi Ministry of Higher Education[MHE], 2004; Zeen, 2007).

Despite KSA being considered a monocultural and conservative society from the viewpoints of both insiders (Al-Asmari, 2008) and outsiders (Burkhart & Goodman, 1998), it is a valuable source for insight into the cultural changes that accompany the global competitiveness of the digital age (Onsman, 2011).

In KSA, public policy supports the technological development for every aspect of daily life, including education. In the Eighth Development Plan (EDP) 2005– 2009, the government highlighted the challenge faced by the nation in the current era. In particular, the Ministry of Economy and Planning (MEP) in the EDP emphasised four important needs, which are to update and expand the present digital technology infrastructure, broader Arabic online content, provide digital availability to the entire nation, and develop the concept of e-government (MEP, 2005).

In addition, in 2007 the Ministry of Communications and Information Technology (MCIT) took the initiative to formulate and implement the National Communications and Information Technology Plan (NCITP). This plan set out a long-term vision to transform KSA into an information society and increase productivity through providing Information and Communication Technology (ICT) services to all sectors and parties of the Saudi community (MCIT, 2007). As one implication of this plan, the Communication and Information Technology Commission (CITC) began sponsoring the Saudi Arabian Home Computing Initiative (SAHCI), which has the core mission of making personal computers available to all Saudi families by offering an affordable financing plan (CITC, 2010). Through cooperation with private sectors, the mission of the CITC is also to provide

support and supervision to ensure that this initiative fulfils the long-term vision of the NCITP (CITC, 2010).

Most recently, in the educational policy, the ME released its Ten-Year Plan 2004– 2014, which includes a goal to ensure that digital technology can be effectively implemented in educational institutions (ME, 2005).

Over the last decade or so, the consumption of technology in KSA has dramatically increased. This sizeable consumption of technology lessens Saudi's dependency on its oil industry and builds a strong economic system, which is anticipated to be "one of the top 10 competitive economies in the world" within the coming few years (Bank Audisal, 2008, p. 3). More recently, many observers such Krieger (2007), Ramady (2010), and Onsman (2011) noted that the Saudi government's primary aim is to lessen the dependence on its oil industry, which is predicted to come to an end in less than 100 years.

Leaders in KSA have devoted much effort to adopting new technologies and coping with enhanced technological development, globally. This increase in the variety of available technologies has provided the Saudi community with various resources for entertainment and research (Al-Towjry, 2005). Al-Towjry (2005) also demonstrating that most Saudi families have at least one computer, one telephone line, one mobile phone and one satellite television. For instance, according to the latest statistics of the MCIT (2011), the mobile phone market has experienced massive development in terms of both quality and quantity. In 2001, the total number of mobile phone users was less than 3 million. This number grew to more than 53 million by the end of the first quarter of 2011 (see Figure2.3).

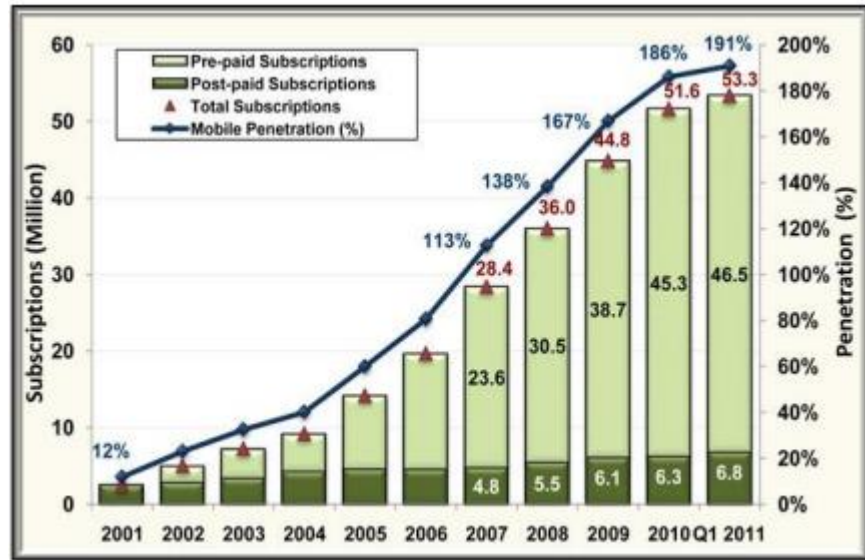


Figure 2.3 - Saudi Mobile phone market (MCIT, 2011)

Further, investment in the technology business in KSA has boomed recently. Sutton (2007) reported that KSA's disbursement on security solutions was the largest in the Gulf, 41 % of the total market of this region. The investment in the technology industry in KSA has expanded from US\$2.92 billion in 2006 to US\$3.4 billion in 2007 (Bank Audisal, 2008). Moreover, according to the ninth International Gulf Information Technology Exhibition (GITEX) held concurrently with Saudi Communications (GITEX Saudi Arabia, 2010), the Saudi market for software solutions remains the largest in the Gulf region, with a value of \$637 million in 2009. This market is expected to grow at 12 % over the forecast 2008–2013 period (GITEX Saudi Arabia, 2010).

Internet services started in KSA in 1994, but were limited to academic, medical and research purposes. They were made available for public access in 1997 by an official ministerial decision and were released completely in 1999 (Communications and Information Technology Commission, 2011). The Internet is commonly accessible and available through five main media: dial-up, Digital Subscriber Line (DSL), satellite, wireless networks and broadband connections (Communications and Information Technology Commission, 2011). Internet usage in the Gulf region grew by more than 300% between 2000 and 2005, whereas in Saudi Arabia, it grew by 1,000 % (Joseph & Lunt, 2006). Figure 1-3 presents the growth in the Internet market in KSA between 2001 and 2011.

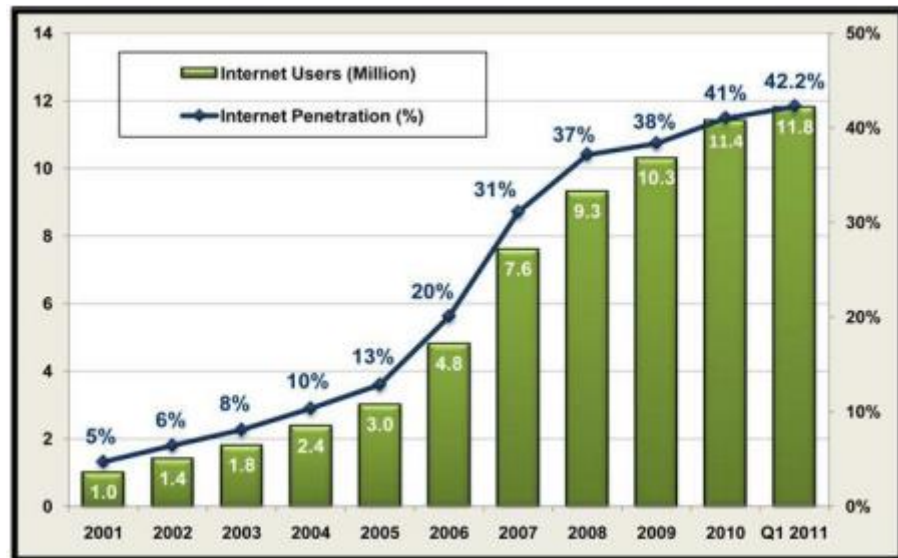


Figure 2.4 - Internet market in KSA (MCIT, 2011)

According to the Internet World Stats (2010), the number of Internet users in KSA has increased from only 200,000 in 2000 to 9.8 million users in 2010. As shown in Figure 2.5, this number was estimated to reach about 12 million users by the end of the first quarter of 2011, with a diffusion to 42 % of the population (MCIT, 2011). This shows that the number of Internet users in KSA has grown by about 800 % between 2000 and 2010 (Internet World Stats, 2010). In addition, the number of Facebook users reached nearly 2.6 million in August 2010 (Internet World Stats, 2010). Furthermore, these numbers are expected to triple within the next few years.

However, despite this, there are still restrictions. For instance, the only way to access the Internet is via the Communications and Information Technology Commission. This Commission is a highly specialised institution authorised by the government and charged with regulating the ICT sector in Saudi Arabia. The Commission monitors Internet access and blocks websites that are considered culturally or religiously inappropriate, such as pornographic web sites, anti-religious web sites, and violence-related websites (Communications and Information Technology Commission, 2011).

2.1.4 Implementation of Technology in Education

Educators in KSA have realised the importance of implementing and integrating new technologies in the educational system. The educational policy document released in 1970 asserted the importance of integrating new technologies, especially in education, to cope with accelerated development around the world (ME, 1980). Thus, KSA has a remarkable growth rate in the consumption of computers and related technologies in the “knowledge-

based economy” (Ramady, 2010, p. 4) and in “non-oil activities or knowledge-based industries” such as education (Bank Audisal, 2008, p. 3). This is the result of massive financial expenditure (Krieger, 2007; Onsman, 2011).

The first steps in integrating and implementing technology in the education system of KSA were taken in 1985. The ME initiated teaching computer courses in all public secondary schools. Following this, implementing technology in KSA went through several stages at multiple levels of the educational system, including the ME as well as the Ministry of Higher Education (MHE). As a result, the development in the education system of KSA grew rapidly in many areas such as teaching, learning, the curriculum, technology, policies and strategies (Abd-Al-Jawad, 2005; Al-Aqeel, 2005; Bank Audisal, 2008; Hartley & Al-Muhaideb, 2007; Joseph & Lunt, 2006; Krieger, 2007; MoE, 2005; Nelson, 2010; Onsman, 2011; Ramady, 2010; Zeen, 2007).

The wide expansion of technological development in KSA brings to the fore the need for the effective integration of new technologies, especially in education. However, despite the increasing consumption of technology, its integration, particularly in education, has been ineffective.

According to Al-Otaibi (2007), this inefficiency mainly stems from the lack of technology awareness (importance and usefulness) among educational leaders and curriculum designers. Consequently, Saudi curricula traditionally focus on theory over practice and on conventional methods of teaching rather than innovative use of technologies (Al-Otaibi, 2007).

Due to the prevailing traditionalism, learners also became passive and develop negative attitudes towards traditional learning. Another factor that contributes to the dilemma is the lack of financial resources dedicated to providing, supporting and enhancing the effective use of technology (Al-Otaibi, 2007).

2.2 Learning theories

A number of competing Learning Theories exist; this variety is probably due to the fact that, “different theories of learning have resulted from various investigators approaching the phenomenon of learning from different directions and armed with different initial ‘hunches’” (Phillips and Soltis, 1998: 5).

This sub-section illustrates the fundamental dimensions of Learning Theories: Behavioural, Cognitive, and Constructive Theories. Furthermore, as Marton and Booth (1996: 538) indicate, “If we want to understand more about learning, then it is the subject pole of experience – the learner – that we must focus on” and therefore a concerted attempt was made to better understand the Learner Experience.

To expand further, in this study, the data largely support those conceptions of HE students’ learning by investigating their experience of using WBL. In particular, at the late stage of the study, the experiential learning theory, especially Carl Rogers’ (1967; 1969; Rogers and Freiberg, 1994) humanistic approach, and the Motivation Theory of Narcissism in daily activities, appear as the most relevant theories to the model built in this research study.

2.2.1 Behavioural-Associationist Theories

Five Behavioural theorists are cited most often with respect to classical Learning Theories: Edward L. Thorndike (1874-1949), Ivan P. Pavlov (1849-1936), John B. Watson (1878-1958), Clark L. Hull (1884-1952), and Burrhus F. Skinner (1904-1990).

Thorndike’s experimental studies of animal learning offered the assumption that human learning involves the formation of S (stimulus) and R (response) connections. His contribution to Learning Theory lay in the concept that reward was more effective than punishment in motivating learning (Child, 2004: 125) and in the Law of Effect.

“The law of effect maintains that learning consists of the strengthening of a connection between a stimulus situation and a response and that this connection will be strengthened (or, as we would say, reinforced) if the response has the effect of producing satisfaction to the animal, or weakened if the response has the effect of producing discomfort or an annoying state of affairs.” (Bolles, 1979: 9-10).

Pavlov put forward the notion of conditioned reflexes, which he discovered incidentally during his research on the digestive process (Bolles, 1979: 20). His contribution to Learning Theory was that behaviour modification is due to the mechanisms of classical conditioning; that is, human reaction occurs, because of many conditioned responses in the course of their lives (Gagné, 1985). While today’s research involves voluntary learning unaccompanied by conditioned stimuli, Pavlov’s theories were innovative and inspired the investigation of learning mechanisms (Bolles, 1979).

In his short career, Watson impacted the field of psychology enormously. He pointed out that behaviour was firmly based in the nervous system and that every aspect of our behaviour, personalities and emotions were learned (Bolles, 1979: 53). He argued that “millions of conditionings” during early childhood experience in upbringing and education resulted in personality and intellectual capacity (Walker, 1984). His conclusion that the frequency and timing of successful responses influence an S-R bond contributed to the theory of “trial and error” learning (Child, 2004).

Hull’s focus was on a biological theory of learning, that is, drive resulted from physical needs, such as hunger or thirst. Learning took place when a response resulted in satisfaction of the need and behaviour was learned from repetition of successful responses. This view of the process that took place in the organism provided an explanation of the S-R connection (Child, 2004). As Bolles (1979: 112) indicated, “most of Hull’s specific conjectures have now been shown to be wrong, but that is not important; what is important is that, because of Hull, we now know a great deal more than we used to”.

Like other early Behaviourists, Skinner believed in S-R bonds. In Skinner’s theory, he used the term “reinforcement” to describe the same circumstances referred to by Thorndike as the law of effect (Gagné, 1985: 7). Skinner’s definition of reinforcement required that the reinforcing stimulus caused a change in behaviour. Reinforcement could be either positive or negative (Gagné, 1985: 9). In his study, the distinctive difference of operant conditioning (or instrumental conditioning) from Pavlovian conditioning was that an organism could emit responses other than those using an existing reflex action (Child, 2004). This had a great influence on educational practices, such as considering schedules of reinforcement and their effects in establishing and maintaining practical self-management behaviour (Bolles, 1979).

As Child (2004: 123) mentioned, Behavioural Theory primarily involves the connections between Stimulus (S) and Response (R). Behaviourists believe that human and animal behaviour can be studied directly by observing how certain responses to given stimuli manipulate behaviour. They took the position that actual behaviour was the only indication that learning has taken place. They did not place any value on what might be happening in the learner’s mind (Yang, 2004). Yet, from another philosophical view, people tend to understand learning by providing a cognitive explanation; they argue that the learning process is not simply the mechanical repetition of S-R bonds, and emphasise the organism’s perception of a situation as a basis for responding to stimulation (Child, 2004).

2.2.2 Cognitive Approaches

In contrast to behaviourism, Cognitivism is a psychological perspective that studies behaviour as a mental process. The school of Gestalt psychology, founded by Köhler, Wertheimer, Koffka, Lewin, et al., developed theories about how people learn by concentrating on perception, insight, memory, problem solving and selection of stimuli. (Phillips and Soltis, 1998).

Unlike the Behaviourists, Cognitivists considered the process of learning to be an internal thinking process rather than a stimulus-response process. They studied motivation, thinking, intellectual development, cognitive structures and depth of cognitive process. In the 20th century, Jean Piaget (1896-1980) and Lev Vygotsky (1896-1934) were the leading and most influential Cognitive Theorists (Huitt & Hummel.2003).

Piaget is best known for his studies on the evolution of children's thinking. He found that children acquire information and learn as they progress through different developmental states. He observed that children thought differently from adults, while the prevalent opinion at the time was that children were less capable intellectually (Gagné, 1985).

Child (2004: 67) put a high value on Piaget's Cognitive Developmental Theory by three central components:

1. Generic, as intellectual ability develops from biological processes that take place in the nervous system;
2. It is a maturational one, because he believes the processes of concept formation follow an invariant sequence of four qualitatively distinct stages which emerge during specific age ranges, maturational, as children must pass through four fixed stages of development in each of which they are able to learn certain concepts; and
3. Hierarchical, in that children cannot skip stages, but must progress through them in a specific order that allows building of intellectual maturity.

Like other theories, Piaget's theory in practice also has been critiqued. For example, French, (2007) emphasised the influence of surroundings and culture on learning, and noted that the predictability of the stages proposed by Piaget is a function of the consistency of a child's learning pattern. Nevertheless, even today, Piaget's cumulative-

Learning theory is still of service in education, for instance, his words about the process of learning could describe contemporary elementary classrooms:

“Actually, in order to know objects, the subject must act upon them, and therefore transform them: he must displace, correct, combine, take part, and reassemble them. From the most elementary sensorimotor actions (such as pushing and pulling) to the most sophisticated intellectual operations, which are interiorized actions, carried out mentally (e.g. joining together, putting in order, putting into one-to-one correspondence), knowledge is constantly linked with actions or operations, that is, with transformations” (Piaget, 1970: 704).

Different from Piaget, who focused on the individual as a starting point, another notable psychologist, Vygotsky, placed emphasis on a socio-culturally orientated approach to learning, sometimes called Social Constructivism. He theorised that learning was achieved by the use of mental tools, just as physical tasks are performed with tangible tools. His focus was on how children came to understand and develop the skill to use these cultural tools (Child, 2004; Rogoff, 1999). The significant contribution of Vygotsky’s theory on education was his observation that a young person learns in social settings by imitating adults or older peers (Phillips and Soltis, 1998). Vygotsky’s notion of imitation was further developed, particularly, by Albert Bandura in his “Social Learning Theory”. Bandura (1977) described imitation theory as “modelling,” where children learned by imitating role models in their lives, but had the capacity to modify it through self-regulation. He proposed that two types of learning could be observed: (1) imitation, and (2) vicarious learning, wherein a learner modifies behaviour based on observation of someone else being rewarded or punished for similar behaviour (Chowdhury 2006).

From an educator’s point of view, both cognitive and behavioural theories have practical use in education, for instance, problem solving (e.g. the Gestalt approach), rewarding activities (e.g. stimulation, conditionings), cognitive strategies, and intellectual skills (e.g. computer as a learner and S-R bonds). According to Eysenck and Piper (1987: 214),

“Typically, a Behaviourist psychologist asked ‘how much is remembered?’ rather than ‘what are the qualities of what is remembered?’ So, when applied to education, Behaviourism has led to theories of instruction rather than theories of learning: learning is better when feedback is given, rewards and punishment discriminate desirable from undesirable behaviours, and so forth... By contrast,

cognitive models describe types of knowledge and so can be used to analyse subject matter”.

In addition, Eysenck and Piper (1987) stated that the major difference between cognitive psychologists and educationists was that the former rarely considered motivational and emotional factors. As they put it, Cognitive psychologists’ “failure to manipulate motivational and emotional states means that they do not know whether cognitive performance is affected by motivation and emotion” (Eysenck and Piper, 1987: 215).

In the field of Educational Theory, there is a growing school of Constructivists, who suggest knowledge is not merely transmitted verbally, but is constructed and reconstructed as learners have new experiences and assimilate them into their existing knowledge framework; therefore, learning is “built up” or accumulated (Kelly, 2000).

2.2.3 Constructivism

Constructivism is a theory of human learning rooted in both philosophy and psychology; it emerged in the 1980s and 1990s to promote a structured learning environment as the answer (Liu and Matthews, 2005). The Constructivist approach owed much to Piaget and Vygotsky to learning and teaching owed much to both of them, as the underlying theory of Constructivism is that learning occurs by doing, not merely from interpreting information. (Resnick, 1989: 2).

The following quotation exemplifies the Constructivist view by Piaget (1980: 23):

“Fifty years of experience have taught us that knowledge does not result from a mere recording of observations without a structuring activity on the part of the subject. Nor do any a priori or innate cognitive structures exist in man; the functioning of intelligence alone is hereditary and creates structures only through an organization of successive actions performed on objects. Consequently, an epistemology conforming to the data of psychogenesis could be neither empiricist nor preformationist, but could consist only of a constructivism, with a continual elaboration of new operations and structures.”

Constructivist Theory believes that learners make sense of their personal reality; “they learn by observation, processing and interpretation, and then personalize the information into personal knowledge” (Anderson, 2008).

Liu and Matthews (2005) distinguished between two types of Constructivist Theory. The first is cognitive, based on the principles of Piaget, Bruner, Ausubel and von Glaserfeld. This theory focuses on how the learner observes and imitates behaviour. The other is Social or Realist Constructivism, derived from Vygotsky's work and that of similar theorists, e.g. Kuhn, Green and Brown. It centres on the effect of the social environment and context in the development of learning.

In 1995, Phillips reviewed the educational literature and proposed three dimensions of Categorising Constructivism, which Perkins (2006) described as three distinct learner modes: (1) Active learning, where the individual reads, hears and also investigates and discusses new ideas to gain knowledge; (2) Social Learning, whereby the individual works with others to learn and absorb together historical, cultural and scientific information; (3) Creative learning, where the individual uses knowledge to discover truths or develop new concepts. From a Cognitive Constructivist standpoint, Resnick (1989: 1) attempted to explain learning as follows,

“First, learning is process of knowledge construction, not of knowledge recording or absorption. Second, learning is knowledge-dependent; people use current knowledge to construct new knowledge. Third, learning is highly tuned to the situation in which it takes place”.

Moon (2004: 17) further commented,

“In the constructivist view of learning, there are two important developments beyond the notion of an ‘accumulation’. First, there is the notion that the cognitive structure is flexible with the potential always to change, sometimes without the addition of new material of learning from outside the person. Second, the state of the cognitive structure at a given time facilitates the selection and assimilation of new material of learning. In other words, it guides what we choose to pay attention to, what we choose to learn and how we make meanings of the material of learning or how we modify what we know or feel already. The process of learning is not, therefore, about the accumulation of material of learning, but about the process of changing conceptions”.

Along with Eysenck and Piper's view mentioned above, Armando (2003) attempted to identify the differences between Instructionism and Constructionism. The first approach involves the direct transmission of information to the learner, and the second involves providing the learner with tools to develop knowledge independently. As he put it:

“But behind this there is a split that goes beyond the acquisition of knowledge to touch on the nature of knowledge and the nature of knowing. There is a huge difference in status between these two splits. The first is, in itself, a technical matter that belongs in an educational school course on ‘methods.’ The second is what ought properly to be called ‘epistemological’; It is close to fundamental issues that philosophers think of as their own”.

Although education has emphasised the depth of understanding and meaningful learning, Constructivists believe it has still failed to create a comprehensive and coherent reform of educational practice.

Recently, psychologists have voiced criticism of Constructivism. For example, McLoughlin and Oliver (1998) argued that Constructivism neglects the social aspects of learning, such as peer interaction and teamwork, instead focusing on the individual’s exposure to information and experience. Liu and Matthews (2005: 387) stated that both Behaviourist and Constructivist approaches, “failed to reflect either the active role of the Learning agent or the influence of the social interactive contexts in everyday educational settings”. Masani (2001) criticised Constructivism as being anti-scientific, fostering a lack of moral foundation and devaluing learning. Yet, from the researcher’s view, Constructivism has an important place in informal learning that occurs in people’s everyday life. As Weigel (2002: 3) suggested, “The best place to see Constructivist thinking at work is not in the classroom, but in those high-tech firms that encourage playfulness to induce creativity”.

All in all, according to Ally (2004), Behaviourism, Cognitivism and Constructivism are an appropriate categorisation for teaching strategies.

“Behaviourist’ strategies can be used to teach the ‘what’ (facts), cognitive strategies can be used to teach ‘how’ (processes and principles), and constructivist strategies can be used to teach ‘why’ (higher level thinking that promotes personal meaning and situated and contextual learning).” (Ally, 2004: 7).

2.2.4 Experiential Learning Theory

Experiential Learning Theory (ELT) describes the ways adults learn and grow intellectually. In ELT, using Kolb’s (1984: 41) definition, learning is “the process whereby knowledge is created through the transformation of experience. Knowledge results from the combination of grasping and transforming experience”. ELT demonstrates “how

individuals are always thinking and devising new practical knowledge for themselves in daily life” (Yang, 2004: 3). Jarvis et al. (2003: 55), in describing how ELT considers every facet of the learner, noted that,

“Human learning occurs when individuals, as whole persons (cognitive, physical, emotional and spiritual), are consciously aware of a situation and respond, or try to respond, meaningfully to what they experience and then seek to reproduce or transform it and integrate the outcomes into their own biographies. In this instance, biography is the totality of our experience, which is an integrated combination of the cognitive, emotive and physical, and learning is the process through which individuals grow and develop”.

Recently, Moon (2004) pointed out the problem of defining experiential learning Moon (2004: 113) illustrated some typical definitions of Experiential Learning in the educational settings and summarised its four limitations:

- Experiential learning is not easy; it requires energy;
- Some experiences are more conducive to learning than others;
- Learning from mistakes can be more valuable than learning new facts;
- Experience is by nature a subjective process, which requires recognition in the development of experiential learning.

Clearly, ELT is based on experience, and offers an unstructured, personalized approach to learning (Moon, 2004). In the school of this perspective, David Kolb has made a significant contribution with his learning cycle. Based on his empirical research into how adults learn (Kolb, 1984), Kolb et al. (2001: 227) further explained, “The theory is called ‘Experiential Learning’ to emphasize the central role that experience plays in the learning process”. the term “experiential” in ELT is used to distinguish it from Cognitive Learning Theory, which focuses on cognition rather than effect; and from Behavioural Learning Theory, which excludes subjective experience from the Learning process; and to clarify its origin from Dewey’s “Philosophical Pragmatism”, Lewin’s “Social Psychology” and Piaget’s “Cognitive Developmental Genetic Epistemology” (Sternberg & Zhang, 2000).

Kolb (1984) described the nature of Experiential Learning in his “Experiential Learning Cycle”, as beginning with having a concrete experience. This leads to a review of the

experience (reflection). The next step is to learn from the experience (conceptualisation), and finally trying out what has been learned (testing). If learning is effective, the learner can then use it to test hypotheses in future situations (Yang, 2004).

Kolb's model is based on the concept that the most successful learning arises from reflection and action following experience.

Kolb's theory implies that the learning process is a cycle with sequences and phases. Kolb's theory has been widely applied and developed as a means of describing learning; for example, Jarvis et al. (2003) restructured Kolb's model with ten phases and added to the complexity of the processes by including different forms of learning: non-learning; incidental self-learning; non-reflective learning; and reflective learning. Furthermore, since experience itself is a multi-faceted occurrence, they observed that experiential learning could be behavioural, action-based, cognitive or social, simultaneously or separately.

Kolb's ELT has been the subject of debate in many contexts. For example, Kayes (2002) looked at it from a management education aspect, proposing a post-structuralist ELT approach to learning, and arguing that Kolb's theory does not recognize the role of language in the comprehension of experience.

From the perspective of life-long education, Miettinen (2000: 54) doubted the generalisability of ELT and criticised that, "Kolb gives an inadequate interpretation of Dewey's thought". Moreover, from the hypothesis construct validity aspect, Webb (2003) concluded that ELT included assumptions that were incompatible and used "fallacious and erroneous first principles as starting premise"; therefore, its result "is inherent inconsistency and contradiction".

According to Kolb (2005), most of the criticism in the ELT literature originally focused on the psychometrics of the Learning Style Inventory, but has shifted to viewing the ELT as individualistic, cognitivist, and technological.

Moon (2004: 13) observed that Kolb's Learning Cycle "is more often used as a model of the management and facilitation of learning – a teacher rather than a learning model", and suggested using the cycle as a system based on either a sequence of learning activities or a facilitation of learning. Moon added to the cycle of experiential learning by noting that (Moon, 2004: 122):

- Experiential learning is not usually mediated.
- The process of learning involves direct experience.
- There is often a sense that it is a particularly good way to learn.
- Reflection is involved part of the learning process.
- There is usually an ‘active’ aspect to learning.
- There needs to be some type of feedback.
- There should be an intention to learn.

When Kolb’s theory is put into actual practice, ELT can help demonstrate how knowledge is created and changed, to explain the role of reflection, and to show how people learn to apply information to discover how and why things occur (Yang, 2004).

2.2.5 Carl Rogers & ELT

The early conceptions in Carl Rogers’ theory, such as “true-self”, “continuing openness to change”, and “positive self-regard”, provide an important source for confirming and validating the findings of this Thesis.

Carl Rogers (1902-1987), an American psychologist, is well known as one of the founders of Humanistic Psychology. Rogers’ approach, originally termed “client-centred”, differs from psychoanalysis and behaviourism in three primary ways. First, it addresses the individual’s phenomenal field rather than diagnosing from the outside. Second, it focuses on restoring a fully functioning person rather than just remediating the psychological problems. Third, it centres on humanistic concerns, such as will, choices, values, and freedom (Kirschenbaum, 2004).

Rogers extended his ideas to a variety of areas, for example, education, work and family. His theory of learning stemmed from his humanistic view of psychology, which had had a wide influence in the field of education. He (Rogers, 1969: 5) defined learning as follows:

“It has a quality of personal involvement – the whole person in both his feeling and cognitive aspects being in the learning event. It is self-initiated. Even when the impetus or stimulus comes from the outside, the sense of discovery, of reaching out, of grasping and comprehending, comes from within. It is pervasive. It makes a

difference in the behavior, the attitudes, perhaps even the personality of the learner. It is evaluated by the learner. He knows whether it is meeting his need, whether it leads toward what he wants to know, whether it illuminates the dark area of ignorance he is experiencing. The locus of evaluation, we might say, resides definitely in the learner. Its essence is meaning. When such learning takes place, the element of meaning to the learner is built into the whole experience.”

Rogers was convinced that all humans desire to learn, and that learning involves personal change, growth and advancement. Due to this belief, he proposed that the teacher’s role is to facilitate learning, not merely to transfer information (Patterson, 1973).

In Roger’s view, gaining knowledge such as learning vocabulary or statistics data is cognitive, whereas acquiring skills that require physical activity is experiential (Rogers, 1969). In his book *Freedom to Learn*, Rogers (1969: 157-164) proposed ten principles of facilitating learning:

- 1) Human beings have a natural potentiality for learning.
- 2) Significant learning takes place when the subject matter is perceived by the student as having relevance for his own purposes.
- 3) Learning which involves a change in self-organisation – in the perception of oneself – is threatening and tends to be resisted.
- 4) Those undertaking learning, which threatens the self, are more easily perceived and assimilated when external threats are at a minimum.
- 5) When threat to the self is low, experience can be perceived in differentiated fashion and learning can proceed.
- 6) Much significant learning is acquired through doing.
- 7) Learning is facilitated when the student participates responsibly in the learning process.
- 8) Self-initiated learning which involves the whole person of the learner – feelings as well as intellect – is the most lasting and pervasive.

- 9) Independence, creativity, and self-reliance are all facilitated when self-criticism and self-evaluation are basic and evaluation by others is of secondary importance.
- 10) The most socially useful learning in the modern world is learning the process of learning, a continuing openness to experience and incorporation into oneself of the process of change.

According to several authors' suggestions, such as Leplege et al. (2007), Kirschenbaum (2004), and Underhill (1989), the common ground of Rogers' theory of experiential learning includes four core factors.

Firstly, it stressed that learning involves the whole person rather than just the intellect. Learning is not staged, but a life-long process. As described by Rogers' statements below, learning is not affected by external elements (or "threat", named by Rogers), but rather by the individual's holistic properties, such as inner emotions and feelings that can severely inhibit learning of all kinds.

"Learning becomes life, and a very vital life at that. The student is on his way, sometimes excitedly, sometimes reluctantly, to becoming a learning, changing, being... When threat to the self is minimized, the individual makes use of opportunities to learn in order to enhance himself." (Rogers, 1969: 115, 162).

"Significant learning combines the logical and the intuitive, the intellect and the feelings, the concept and the experience, the idea and the meaning. When we learn in that way, we are whole." (Rogers, 1983: 20)

Many educators have supported this idea, from the 1960s onwards. For example, Brew (1993: 96) stated,

"When we talk of learning something, we refer to grasping or getting hold of or possessing something we did not previously have, or changing an aspect of our view of the world, but inner knowing, as I have described them, in that they are tied to our being, are in us all the time. They are a part of who and what we are".

Secondly, every individual aspires to good health and well-being. In education, young people are motivated intrinsically to succeed. According to Rogers (1969), everyone wants to learn, to discover and find solutions to problems. As people strive "to make the very best of their existence" (Boeree, 2006), they learn for themselves and achieve a process of development.

“They become scientists themselves, on a simple level, seeking answers to real questions, discovering for themselves the pitfalls and the joys of the scientist’s search. They may not learn as many scientific ‘facts’, but they develop a real appreciation of science as a never-ending search, a recognition that there is no closure in any real science.” (Rogers, 1969: 136)

Thirdly, Rogers stressed the importance of learning and remaining open to change. He believed that learning is experiential and involves a process of changing. For example, Rogers (1969: 104-105) described this process as follows.

“We are, in any view, faced with an entirely new situation in education where the goal; of education, if we are to survive, is the facilitation of change and learning, The only man who is educated is the man who has learned how to learn; the man who has learned how to adapt and change; the man who has realized that no knowledge is secure, that only the process of seeking knowledge gives a basis for security. Changingness, a reliance on process rather than upon static knowledge, is the only thing that makes any sense as a goal for education in the modern world. ... To free curiosity; to permit individuals to go charging off in new directions dictated by their own interests; to unleash the sense of inquiry; to open everything to questioning and exploration; to recognize that everything is in process of change – here is an experience I can never forget.”

Fourthly, Rogers (1969) proposed that it is important to respect an individual’s subjective experience. He stressed that learning is a personal experience; it is person-centred and individually encountered. He (Rogers, 1969: 120) noted a concept of “significant learning”:

“...the significant learnings are the more personal ones – independence; self-initiated and responsible learning; release of creativity; a tendency to become more of a person.”

Rogers believed that learning is meaningful when the learner motivates towards self-realisation, self-structure, self-discovery, self-appropriateness and self-empowerment (also called self-direction or self-orientation). Rogers argued Skinner’s control of human behaviour and spelt out three concepts of control, (1) external control (2) the influence of B on A (e.g. A agreeing to the conditions from B), and (3) internal control. He explained his view on the second control concept, which Skinner placed under external control in his theory of Behaviourism (Rogers and Skinner, 1962). Affirming his belief that freedom,

growth, creativity, self-actualization and self-direction are preferable for people to any direction from external sources, Rogers (1969: 282) advocated that the individual “would be open to his own experience”, “defend himself against any treat of alternation in the concept of self”, and take responsibility to set his/her own goals and to evaluate the achievement of those goals.

“...he would be free to live a feeling subjectively, as well as be aware of it... the self and personality would emerge from experience, rather than experience being translated or twisted to fit a preconceived self-structure.” (Rogers, 1969: 284-285)

Two decades later, several authors stressed this concept; for instance, Sherry Turkle’s (1997) study of interactive computer use and virtual reality pointed out that “people tend to learn best when they learn in their own styles” (Turkle, 1997: 46). Turkle’s view of inner conceptions of self is, to some extent, what Rogers called “true self” (1951).

Bargh et al. (2002) stressed that self-expression, in particular expression of the “true self”, could cause consequences for the development of links, understanding and rapport with other people, and would be likely to have a major effect on the social interaction of the Internet.

Based on a study of relationships on the Internet, McKenna et al. (2002) proposed a concept of “Real Me”, reminiscent of Carl Roger’s (1951) description of “true self.” McKenna et al. found that voicing the “real self” on the Internet allowed a person to incorporate virtual relationships into his/her “true self” in real life (McKenna *et al.*, 2002).

More recently, by exploring constructive understanding, Fyrnious et al. (2007) proposed four approaches to understanding: sifting; building; holding and moving. This result specifically reflects that holding - “an intention to reach a final goal” and moving - “continuously striving for a change in perspectives” (Fyrnious *et al.*, 2007: 149, 156) are deep-level learning approaches. These approaches seem to be incorporated in Rogers’ (1969) concepts of “self-initiated” and “self-actualised”.

In addition, Rogers (1969: 304) also proposed that the focus of education is “not upon teaching, but on facilitating of self-directed learning”. Education is a lifelong process and educators should be openly and flexibly involved in this process (Rogers, 1969). Education should “develop individuals who are open to change” and “develop a society in which

people can live more comfortably with change than rigidity” (Rogers, 1969: 304). These ideas are similar to those in Patterson’s (1973: 21) discussion of humanistic education:

“Education must not only provide a knowledge and understanding of the past, and of the present, but prepare people for the future – a future in larger part unknown, except that it will involve continuing change.”

Unquestionably, there is disagreement with Rogers’ ideas. According to Kirschenbaum (2004) and Nye (2000), much early criticism of his theory involves seven aspects.

First, Client-Centred Therapy is superficial, because it is extremely difficult for a person to express and understand “real” feeling or thought; and Rogers, as the listener, may have a subjective bias for discovering the most basic determinants of human functioning. People did not believe his data were reliable or valid.

Second, Rogers had an overly optimistic view of human nature. He underestimated the possibility of human evil and overemphasised the “better side”, probably due to his personal experience and environment.

Third, humanistic psychology encouraged selfishness, egotism and moral laxity, because of its emphasis on self-actualisation.

Fourth, psychoanalysts accused Rogers of providing little attention to unconscious processes, as “psychoanalysis holds that certain portions of the personality will always remain at the unconscious level” (Nye, 2000: 154).

Fifth, Behaviourists point out that “Rogers fooled himself into thinking that his clients developed freedom of choice as therapy progressed” (Nye, 2000: 154) by arguing unspecified contingencies of reinforcement. In addition, certain concepts in his theory are imprecise and too general, such as “self-concept” and “organismic experiencing”. Furthermore, Salmon (1989) and Claxton (1984) drew people’s attention that learning as personal and experiential is empowering, but also difficult and risky. As Claxton (1984: 165) criticised, “The kind of learning that involves possible change to the content of identity is all the more risky, because there is a chance not just of objective failure, but of subjective annihilation”.

Nevertheless, although Rogers has been criticised as overly optimistic, his ideas about human nature are fairly simple and helpful in the understanding of human behaviour. The

influences of his approaches still contribute to humanistic education, counselling and psychotherapy today. As Rogers (1995: 21) stated,

“I do not have a Pollyanna view of human nature. I am quite aware that out of defensiveness and inner fear, individuals can and do behave in ways which are horribly destructive, immature, regressive, antisocial, hurtful. Yet, one of the most refreshing and invigorating parts of my experience is to work with such individuals and to discover the strongly positive directional tendencies which exist in them, as in all of us, at the deepest levels”.

Patterson (1973) further clarified that to develop self-actualising persons does not mean to encourage selfish and self-centred behaviour. A self-actualising person, or, as Rogers described it, a fully functioning person (Rogers and Freiberg, 1994) recognizes that he/she is part of a society and will grow to be mature and socialised. The goal is the same for both the individual and the educational process. It is the single, basic, common motivation for both. In addition, Nye (2000), who leaned toward a Behaviourist’s notion that behaviours are reinforced, even agreed that Rogers’ suggestions such as “trustworthy”, “congruence” or “attitudinal conditions” can have very beneficial effects on the thoughts about us as human beings. Rogers’ ideas are as useful today as they were 40 years ago. For example, in Ronald Barnett’s book, *A Will to Learn* (2007), he described the concept of “will”, which is, to some degree, similar to Rogers’ “true self” and ELT.

“If students are to develop the wherewithal not just to survive in, but to make an effective contribution to this challenging world, this world of the twenty-first century, they will need just such a ‘will to learn’, a will to learn not just while on their course – and so pursue their engagement with their programme of study –, but also to go on learning throughout their lives. However, even to say that is slightly to skew things; for what is in question here are forms of human disposition, a readiness to keep going, a willingness to open oneself to new experiences, and a propensity critically to be honest with oneself and critically to interrogate oneself.” (Barnett, 2007: 7)

Yet, people’s understanding of learning has advanced along with the extraordinary speed of technology change, so there are no right or wrong ways to approach life and learning. Human learning is lifelong, combining both being and becoming (Jarvis, 2005).

Later chapters shows that the data in this study support that students search for self-appropriated approaches to gain benefits from using WBL. These approaches are self-

oriented and self-evaluated, which they feel help them to achieve psychological health, develop expertise, see their changes and learn more about themselves.

2.2.6 Narcissism in Psychology Studies

“Narcissism” today may have a different sense from its original common definition. According to Jonassen and Grabowski (1993: 381), “motivation, more broadly described, is what energizes us to action and includes needs, values, attitudes, interests, aspirations, and incentives”, while Child (2004: 176) stated that motivation “consists of internal processes and external incentives which spur us on to satisfy some need”. Smith and Spurling (2001: 3) attempted to clarify some common misconceptions of motivation as follows:

- People who are strongly motivated are also emotional.
- Some people are strongly motivated, because they have big appetites.
- Some people by their nature have strong motivation, just as others can run very fast.
- Some people have good reasons for learning, so they must be motivated.
- Motivation means applying sticks and carrots to get people to act as you want them to.

In Cognitive Psychology, motivation is “a question of working out what the learner wishes to achieve and setting an action plan for getting there...”, so that learning “becomes a study of each stage of the mental process from perception to problem solving and long-term memory” (Cotton, 1995: 51, 64).

In Social Psychology, motivation is “primarily concerned with how behaviour is activated and maintained” (Bandura, 1977: 160), so that learning becomes a study of exploring the social behaviour process. However, standard Educational Psychology is mostly a mixture of neo-behavioural and cognitive information-processing psychology, including memory, intelligence, development, personality, motivation, and cognitive styles. Motivation therefore is only one component for facilitating learning (Cunningham, 1992; Entwistle, 1988; Zhang and Sternberg, 2005).

Narcissism offers an important psychology perspective on motivation theories. Narcissism has been defined in the Oxford English Dictionary in two ways, first, “self-love or vanity; self-admiration, self-centredness”, and second, in the field of psychology,

“The condition of gaining emotional or erotic gratification from self-contemplation, sometimes regarded as a stage in the normal psychological development of children which may be reverted to in adulthood during mental illness”.

Narcissism appears to be a contradictory term. To avoid confusion in terminology and concept for the purposes of the Thesis the term “moderate narcissism” is used to represent the desire/feeling of striving for excellence. It is a normal personality trait that everyone possesses, for instance, the person stands before a mirror, telling him/herself: “I’m the best”, or “be myself” is a normal primitive feeling, rather than a pathologic delusion.

In a large body of literature studies into narcissism may be classified as, (1) psychopathology and mental disorders, (2) philosophical views of self and ego, and (3) self-esteem and mental health.

The first category of literature is not relevant to this study. The two other groups of literature were reviewed and will be discussed with respect to narcissism.

Much of the research showed that narcissism has a negative effect on individuals. Referring to Goren’s (1995: 329) definition, “narcissism involves an alienation of the reflected self from the inner self, which leads to a particular set of dynamics to regulate self-esteem”, Morf and Rhodewalt (2001: 178) argued that,

“... although narcissistic strategic efforts generally help maintain self-esteem and affect short term, they negatively influence their inter-personal relationships and in the long run ironically undermine the self they are trying to build”.

They proposed narcissism to be a pretentious self-concept, and a narcissist’s continual self-absorbed activity was designed to validate the grandiose self-image (Morf and Rhodewalt, 2001). They proposed a self-regulatory processing framework (Figure 2.4) to explain the study of personality dispositions. In this model, they (Morf and Rhodewalt, 2001: 180) stressed that,

“It assumes that narcissists have certain identity goals that they pursue with more or less success through their social interactions. The main focus of the model is on

the inter- and intrapersonal dynamic self-regulatory processes through which narcissists actively (although not necessarily consciously) operate on their social environments to create and maintain their self-knowledge”.

Andersen et al. (2001) criticised Morf and Rhodewalt’s model for focusing on the motivation of the narcissist to justify their inflated self-opinion, but ignoring that the narcissist also seeks approval or real social feedback. They advocated a concept of “self-with-significant-other” to explain the importance of human connection in bringing attention or acceptance of narcissists (Andersen *et al.*, 2001).

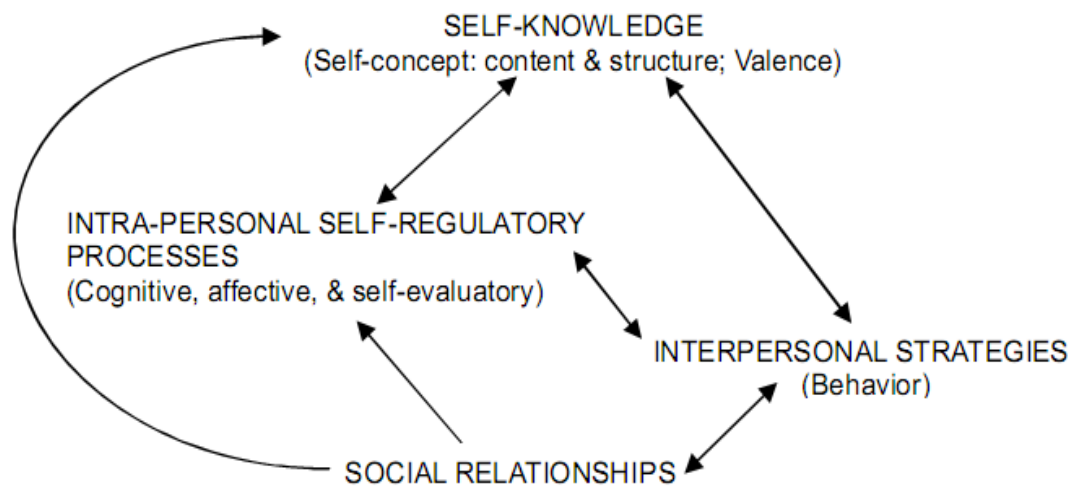


Figure 2.3 - A dynamic self-regulatory processing model of narcissism
(Morf and Rhodewalt, 2001: 180)

In addition, some studies on narcissism relate to the younger generation’s increased violence and aggression. For example, Baumeister (2000) proposed that high levels of narcissism and poor self-esteem could predict aggression. Lowen (1985) mentioned that a narcissist is often unable to empathise with others and may even be destructive to other people.

Relating to web technologies, Young (1997) pointed out that cyberspace provides the opportunity for people to use a network excessively and to develop manipulated self-presentations, which conceal negative self-concepts, and lead to potential psychological problems, including depression and anxiety. Traditionally, a narcissistic person is seen as self-absorbed, fragile, empty and interpersonally dismissive (Elliot and Thrash, 2001).

On the other hand, a growing body of literature has investigated the positive effects of narcissistic traits on people’s lives. Based on Narcissistic Personality Inventory data,

Trzesniewski et al. (2008) argued that there is no evidence to claim an increasing trend of narcissism in today's young people, compared with previous generations in 1980s. Using Freud's original conception of narcissistic personality, "embodiments of the survival instinct and praised for their efforts at self-preservation", Campbell (2001: 215) suggested a more positive view. He (Campbell, 2001: 215) proposed that normal "narcissism may be a functional and healthy strategy for dealing with the modern world". Sedikides et al. (2004: 401) also reported that narcissism benefits psychological health when it is associated with high self-esteem, according to their findings that narcissism is:

1. Inversely related to sadness, depression, loneliness, anxiety and neuroticism,
2. Positively related to subjective well-being

More importantly, according to narcissistic styles in psychology, Sturman (2000) stated three motives of narcissism in daily activities: (1) need for power (people who need power worry about interpersonal influence, having impact, and shaping their surroundings), (2) affiliation (a desire to establish and maintain close interpersonal relationships), and (3) achievement (a desire to meet standards of excellence).

Sturman (2000) described three narcissistic styles: adaptive, which is associated with a need to both dominate and affiliate; maladaptive, which is associated with the need to dominate, but not to affiliate; and covert narcissism, which is associated with neither a need to dominate or affiliate. There were no significant differences between men and women on measures of narcissism, motives and behaviours.

More recently, Campbell and Foster (2007) elaborated on an extended agency model of narcissism that accounts for both interpersonal and intrapersonal aspects of self-regulation. They (Campbell and Foster, 2007: 11, 18) noted:

"It is not surprising that the narcissistic self is perhaps most usefully conceptualized as a self regulatory system: It is an interactive group of traits, abilities, beliefs, strategies, behavior, and emotions that mutually predict and reinforce each other... we think the 'goodness' or 'badness' of narcissism depends on the contexts and outcomes being measured. In certain social contexts (e.g. initiating social relationships, emerging as a leader) and with certain outcome variables (e.g. feeling good about oneself and one's abilities) narcissism is helpful. In other contexts (e.g. maintaining long term relationships, long term decision

making) and with other outcomes variables (e.g. accurate self knowledge) narcissism is harmful.”

Nevertheless, narcissism is a neglected, but useful concept in Educational Psychology studies into learning. In this study, narcissism occurs as a moderate and positive self-image, but not morbid. It subscribes to the three motives of narcissism presented in Sturman’s (2000) study. Meanwhile, considering Rogers’ (1969) idea that learning is a process of self-discovery, self-acceptance, and self-structure, narcissism could be a facet of the search to become a unique person. As Rogers and Freigerg (1994: 52) said,

“...we are, perhaps all of us, engaged in a struggle to discover our identity, the person we are and choose to be. This is a very pervasive search; it involves our clothes, our hair, our appearance. At a more significant level, it involves our choice of values, our stance in relation to parents and others, the relationship we choose to have to society, our whole philosophy of life.”

Narcissism has the potential to be a variable that can provide a newer perspective for researchers to investigate the younger generation’s online behaviours and WBL, not only in educational psychology, but also in the educational informatics area.

2.2.7 Current Concerns

Compared to traditional Learning Theories, current studies on learning have faced new challenges due to the effects of social evolution developments in IT, e.g. computers, mobile devices and the Internet. These recent studies have emphasised the social nature of learning processes at an individual level, considering learners’ needs, intentions, motivations, perceptions, and experiences, and adopting more reflexive, experiential, and pragmatic practices (Jarvis *et al.*, 2003; Jonassen *et al.*, 1998). As Åkerlind and Trevitt (1999: 96) stated,

“Increasing student autonomy is a core concept in many of the non-traditional approaches to teaching and learning achieving popularity over the last two to three decades, including peer-assisted and collaborative learning, experiential and active learning, problem-based learning, as well as computer-assisted learning”.

The postmodernist thinkers’ attention on learning and teaching has changed in three major aspects.

First, it has increasingly studied WBL, which addresses technology and environment, in educational settings. Largely using the Constructivist perspective, researchers have seen information technology as tools that students learn with, but not from; they emphasise the interaction between the technology and the learner (Jonassen *et al.*, 1998). Computer Mediated Communication (CMC) is one of the important areas that has developed based on socio-cultural views and communication theories (e.g. studies conducted by Kraut *et al.*, 2001; Mann, 2005; Warschauer, 1997).

In particular, its emphasis on interaction in both an online and offline environment results in a number of studies about the online community (e.g. Dennen, 2006; Haughey, 2002; Tang and Yang, 2006). The web-based environment offers learners not only the benefits of fast speed, economical cost, and an accessible wide range of reading sources, but also a method of individually driven learning (Devedži , 2003; Fiedler and Sharma, 2005). For example, Shih and Gamon (2001) addressed the importance of the learner's motivation in WBL, comparing three key factors: attitudes, learning styles, and selected demographics.

Anderson (2004) developed a model of online learning addressing the difficulties in simultaneously devising content, community and an assessment centred learning environment.

Second, informal learning has attracted growing interest from academics. Coombs and Ahmed (1974) first proposed “informal learning”, which was subsequently developed by the organisational learning area using the perspective that learning is a spontaneous, unplanned and improvised process (Cross, 2004).

Recent related studies have included Livingstone's (2001) collective informal learning, Marsick and Watkins' (2001) informal and incidental learning, and Conner's (2004) informal accidental learning. According to McGivney (1999: 1), “there is no single definition of informal learning.

It is difficult to make a clear distinction between formal and informal learning as there is often a crossover between the two”. Eraut (2000) strongly suggested the term “non-formal” rather than “informal”, because informal learning may take place in formal environments and formal learning may occur in an informal local setting. Table 2.1, displays the major differences between formal and informal learning in an educational environment.

Clusters	Informal learning	Formal learning
Purpose	Not-assessed, non-certificated Unplanned Undirected, not legislated for Learning is either secondary or implicit	Assessed, certificated Planned Legislated and directed Learning is the main explicit purpose
Setting	Outside of formal settings Located in familiar surroundings Shared background and experience	Classroom and institution based Located in institutional settings Social distance
Process	No teacher involved Open-ended engagement Voluntary Haphazard, unstructured, un sequenced Learning mediated by learner democracy	Teacher as authority Closed and fixed time frame Compulsory Structured and sequenced Learning mediated by agents of authority
Content	Learner-led Learner-centred Social aspect central	Teacher-led Teacher-centred Social aspect less central
Outcome	Many unintended outcomes Difficult to track	Fewer unintended outcomes Monitored on specific criteria

Table 2.1 - Distinctive Features of Formal Learning and Informal Learning
(Adapted from Colley *et al.*, 2002; Malcolm *et al.*, 2003: 314-315; Wellington, 1990: 248)

Harri-Augstein and Thomas (1991: 5) depicted informal learning as a “messy” method. They observed that the content and process was unpredictable, with neither teacher nor student knowing what to expect or what would be learned. These studies primarily look at

culture and ordinary activities. Cross (2004) and Jackson (2004) both held that the best way to learn was to make the most of connections with others. Jackson (2004) expressed it in his meta-learning study, “my learning process was about developing relationships with people who I had never met and acquiring new knowledge about the people who were helping me in the process”. Plainly, Informal Learning Theory provides new conceptions of learning for formal education.

Third, much research has been done on the current generation’s learning process, especially in areas of psychology and sociology. As Du and Wagner (2005) and Cross (2004) noted, learning is achieved by trial and error, and discovering knowledge on a voluntary basis, sometimes succeeding, sometimes failing, but then trying again. Oblinger and Oblinger (2005b) distinguished the characteristics of new generation learner compared with their predecessors:

1. Ease of communicating visually,
2. Ability to integrate virtual and physical reality,
3. Learning more easily by doing than by being instructed,
4. Ability to multi-task and to ignore anything failing to interest them, and
5. Rapid response times.

Up to this point, there has been an increasing body of literature on the learner’s thinking style, personality, online perception and experience (e.g. Heinström, 2003; Lazzaro, 2004; Shin, 2006). In particular, the affective/emotional dimension has become a noticeable factor in these studies. For instance, based on the thought that emotion comprises both cognitive and dispositional elements, Ingleton (1999) developed a model to study how emotion helped to achieve self-esteem and identity in learning. Later, Sharpe and Benfield (2005) suggested that e-Learning involves an emotional reaction from both the teacher and the student that affects its success. Jones and Issroff (2005) investigated affective issues, e.g. curiosity, confidence, control and challenge, in collaborative learning and suggested that affective aspects have their roles in studies of cognitive learning. Moreover, Illeris (2005: 87) illustrated human learning as follows,

“The understanding presented is based on two fundamental assumptions: first: that all learning includes two essentially different types of process, namely an

external interaction process between the learner and his or her social, cultural and material environment, and an internal psychological process of acquisition and elaboration in which new impulses are connected with the results of prior learning. Second, that all learning includes three dimensions, namely the cognitive dimension of knowledge and skills, the emotional dimension of feelings and motivation, and the social dimension of communication and cooperation – all of which are embedded in a societally situated context”.

Therefore, it appears that textual socio-emotional communication has become a crucial element in online learning, involving sharing, interaction and collaboration (Garrison and Anderson, 2003).

Meanwhile, a considerable amount of literature has dealt with the conceptions of learning, approaches to learning, strategies of learning, outcomes of learning and models of learning. Saljo (1979) first reported five different conceptions (the understanding) of learning based on analysing interviews with adult students and later Marton et al. (1993) developed the sixth conception as follows:

- Acquiring information.
- Storing and retrieving information.
- Being able to apply information to situations with learned skills and techniques.
- Understanding how things work in the real world.
- Being able to look at reality differently, because of information learned.
- The ability to change as a person, because of learning.

As Wickett (2005: 158) mentioned, “the three theories that have gained prominence in recent decades with respect to the learning of adults are referred to as experiential learning, self-directed learning, and transformative learning”.

2.3 Knowledge Sharing

This section discusses basic Knowledge Theories and Knowledge Sharing research, which combine tacit knowledge transferring and learning based on the notion of conserving tacit knowledge at an individual level.

Rooted in these theories, is the notion of Knowledge itself. “Knowledge” has been a contentious concept since the Ancient Greeks. This is arguably because knowledge is an intangible, complicated and provocative concept and it “can mean different things to different people” (Kluge *et al.*, 2001: 64), and it resides in people’s mind rather than in machines or documents (Hildreth and Kimble, 2002). Another feature of knowledge is hoarding, which leads to the phenomenon of an “information isolated island” (Al-Hawamdeh, 2003: 83).

2.3.1 Knowledge Theory and Tacit Knowledge

Knowledge is both a thing and a flow, interpreted content, available to people and shifting between different meanings in different contexts (Norris *et al.*, 2003a). The term “knowledge” has been used in a wide range of disciplines, in particular, philosophy and cognitive science.

Plato (427-347 B.C.), the father of Epistemology, is “the first philosopher in the Western world to think seriously about the nature of knowledge” (Welbourne, 2001: 1). Plato viewed sense as perception, and reason as a way to knowledge. He argued that all knowing is the knowing of objects, and all knowledge is a priori knowledge (Pojman, 1999).

René Descartes (1596-1650), a pioneer of modern philosophy, brought an emphatically epistemological perspective to philosophy. He acquired the knowledge of the material world by means of senses (Williams, 2001). This philosophical debate then continues with Locke, and later Kant, Hegel and Marx and still today (Stenmark, 2000).

Modern Knowledge Theory, a branch of philosophy lends weight to the nature of cognition and its objects (Woozley, 1949), to serve as a link between knowledge and understanding, and to give rise to more discussion about the factual attributes of knowledge (Williams, 2001).

One of the most significant theories is Polanyi’s (1891-1976) (1966: 4) “We can know more than we can tell”. Polanyi (1958) was the first to distinguish between the tacit and explicit dimension of knowledge. He defined (Polanyi, 1958, 1966), tacit knowledge as unconscious knowledge that most people realise even exists. He also proposed that all knowledge is rooted in tacit knowledge (Al-Hawamdeh, 2003). “Explicit knowledge is precise and codifiable, while tacit knowledge is more intangible and personal” (Sallis & Jones, 2002: 10).

At the same time, Piaget, the Swiss biologist and psychologist mentioned above, developed Genetic Epistemology. Based on investigating child development and learning, his theory contributes to answering the basic questions about the growth of knowledge and the development of intelligence within an educational setting (Kitchener, 1986). According to Piaget, the emergence of human intelligence is from inside, and people's intellectual experience grows with education, and more "in the creative acts of the mind" (Polanyi, 1958: 395).

Another important contributor to Knowledge Theory is Sir Karl Popper (1902-1994), who regarded the world as three entities: "world 1" – the physical world; "world 2" – knowledge, that is, people's mental (conscious) experiences; and "world 3" – the products of thought (art, music, stories, science, etc.). He discussed what he called the body-mind problem, which refers to the relationship between "world 1" and "world 2". From biological and falsification perspectives, he argued that people could not understand "world 2", which is inhabited by people's mental states "without understanding that its main function is to produce world 3 objects, and to be acted upon by world 3 objects" (Notturmo, 1994: 5-7). Popper's methodological and philosophical suggestions were debated widely in academia (e.g. Svozil, 2003).

Recently, the phrase "tacit knowledge" increasingly appears in literature on Knowledge Management (KM). As a branch of KM, sharing tacit knowledge is increasingly addressed to sustain a competitive advantage as well as to gain economic benefits. Many studies of KM have examined the organisational level, but few have looked at the individual level. For example, Baumard's (1999) research revealed that, through organisational learning, tacit knowledge can be made known and shared in communities of people who work in the same area of interest (communities of practice) (Wenger, 1998)), but tacit knowledge is also embedded in organisational culture; in this dimension, it is difficult to express.

Nonaka and Takeuchi (1995) proposed a SECI model of knowledge creation theory, which identifies tacit knowledge and explicit knowledge as the two main types of human knowledge, and describes four ways to convert tacit knowledge into explicit knowledge: Socialisation (tacit to tacit knowledge transfer); Externalisation (tacit to explicit knowledge transfer); Combination (explicit to explicit knowledge transfer); and Internalisation (explicit to tacit knowledge transfer). Their theory provided a critical view of Western philosophy of knowledge epistemology and appealed to many arguments and research on tacit knowledge.

Based on a social cognitive view, Bliss and Saljo (1999: 10) put forward that sharing knowledge is “a symbiotic interaction of individuals, tools, artefacts and social practices”, and becomes very important for “the development of human thinking, learning and reasoning”.

In terms of the original context described by Polanyi, tacit knowledge is highly personal and context specific, and thus deeply depends on the individual knowledge, experience, ideas, values and emotions (Gourlay, 2002; Renzl, 2002). Polanyi claimed that tacit knowledge was a personal form of knowledge, which can only be obtained through personal experience.

In contrast, according to Nonaka and Takeuchi’s view, tacit knowledge can be shared and generated through interaction with explicit knowledge in continuous and spiral manners (Al-Hawamdeh, 2002). Nevertheless, Li and Gao (2003) pointed out that Nonaka’s SECI model had a different dimension of tacit knowledge from that of Polanyi, due to idiosyncratic “implicitness” in the Japanese context.

Tsoukas (2002) argued that Nonaka and Takeuchi’s view was erroneous -- and that tacit knowledge cannot be converted into explicit knowledge, because it ignores the essential ineffability of tacit knowledge. He (Tsoukas, 2002) said that people cannot operationalise tacit knowledge, but can find new ways of displaying and manifesting tacit knowledge in social interaction.

Stenmark (2000: 8) suggested, “Trying to externalise tacit knowledge can lead to serious problems since the nuances and details that are exchanged in physical interactions are lost”. Hedesstrom and Whitley (2000) also mentioned that knowledge cannot be formalised by holding the view that the key attribute of knowledge is it exists in people’s heads.

There is little doubt that the literature on knowledge sharing is still controversial about what is meant by tacit knowledge and if it is sharable. According to Baumard (1999), there are two main perspectives on tacit knowledge: one group of researchers (e.g. Haldin-Herrgard, 2000; Polanyi, 1958; 1966; Szulanski, 2000; 2003; Tsoukas, 2002) believe that tacit knowledge is unconscious, innate and indeterminate, thus cannot be expressed or transferred. The other group of researchers (e.g. Martz and Shepherd, 2003; Nonaka, 1997; Stenmark, 1999; 2000; 2001; Vesiluoma, 2005) believe that tacit knowledge is withheld to increase the individual’s power, even though it could be transferred. In this study, the

researcher takes the second group's view that tacit knowledge is tacit to the person him/herself. It is hard to convert to explicit knowledge (e.g. formal, systematic language) completely, but it can be converted between people in certain ways (e.g. metaphors, analogies, or images) in certain contexts (e.g. imitation or observation). Relating to the forms of knowledge, the researcher agrees that experience, as a tacit form of knowledge, can possibly be converted to explicit knowledge. This view became an assumptive premise to help the researcher investigate the observed phenomenon, but was not a conclusion derived from the empirical data.

2.3.2 Knowledge Sharing & Learning

Since the middle of the 1990s, knowledge sharing has been widely studied as a primary aspect of KM. The perceived importance of knowledge sharing is in its ability to allow people to understand and share "tacit knowledge" (a predominant form of human knowledge, as mentioned before). Potentially, it encourages learning according to Moon's (2004: 20) opinion:

"Humans do not learn everything from scratch. Knowledge is accumulated in ways that have been largely agreed through social means (Wilkes, 1997). Even the means of agreement are learned and socially agreed. On this basis, the notion of meaning resides between the locus of social agreement and the individual's efforts to understand, for herself, on a personal level. Having understood something, the individual then contributes to the pool of social meanings by adding her perspective when she represents her learning in some form ..."

Knowledge sharing and learning are not separable; both are highly personal and need a specific context (Norris *et al.*, 2003b).

Vesiluoma (2005) suggested that knowledge sharing is distributing and absorbing knowledge, that is, it is an action requiring learning. Yet, some people have questioned if knowledge sharing is equivalent to learning. Compared to the studies on organisational learning in KM, little was found in the literature on the relationship between knowledge sharing and human learning (Rowley, 2001). The researcher provides three aspects of the relationship that were found in the literature as follows.

Firstly, a large amount of literature distinguishes between data, information and knowledge; yet, less effort has been put into distinguishing knowledge sharing from information sharing. The terms data, information, and knowledge are often used

interchangeably, but their meanings are different. Data are a collection of unorganised facts, figures, or a record of signs without meaning in itself (e.g. Bellinger, 1997; Norris *et al.*, 2003a). Information is data that has been given meaning, and has been collected, organised, processed, or communicated in a way to describe a particular situation or condition (Marchand, 1998; Nonaka, 1994). As Bellinger. (1997) noted, information provides answers to factual questions. Knowledge requires understanding and interpretation of data and information. Knowledge answers How and Why questions and is always relevant to a particular context and environmental condition (Baumard, 1999; Frappaolo, 2002; Kluge, 2001). Knowledge differs from information in that it has established meaning and belief to those who use it, that is, “it is always personal” (Marchand, 1998: 255).

Burton-Jones (1999) defined 1960s-1970s as the Data Management Era, 1980s-1995 as the Information Management Era, and from 1995 to present as the Knowledge Management Era.

Linking to what was mentioned in the last section, Al-Hawamdeh (2003) regarded knowledge that can be generally codified into information as explicit knowledge, whereas he regarded knowledge that heavily requires different types of trust and ties in the form of social relationships as tacit knowledge. Meanwhile, Marchand (1998: 255) stressed that although both information and knowledge are context-specific for their meaning, “knowledge depends on context for expressing beliefs and commitments, whereas information depends on context for its use or application”; the two terms relate to different ways of acting.

Therefore, to an extent, sharing information and sharing knowledge have different focuses. As Sharratt and Usoro (2005: 189) stated, “the sharing of information covers a broad spectrum of exchanges and does not necessarily lead to the creation of new knowledge”, whereas sharing knowledge must generate knowledge for the person who uses it. This kind of new knowledge generation is considered learning, which transforms static information into active knowledge. This view is supported by Senge (1998: 11) who wrote:

“Sharing knowledge is not about giving people something, or getting something from them. That is only valid for information sharing. Sharing knowledge occurs when people are genuinely interested in helping one another develop new capacities for action; it is about creating learning processes.”

Secondly, both learning and knowledge sharing can be viewed as social action. Knowledge sharing takes place when people receive, process, and absorb knowledge, in particular, tacit knowledge, which can be effectively transferred between people by communication and collaboration (Al-Hawamdeh, 2003). Knowledge sharing is an interactive learning process (Klimkeit, 2005). In this sense, “to learn something can mean to come to know or to have knowledge or it can mean that a person is able to do something. Sometimes this is clarified as ‘know that’ and ‘know how’” (Moon, 2004: 15). “Know that” and “know how” thus far not only mean learning from external teaching or training, but also include constructing knowledge by sharing and interaction among people themselves

Thirdly, implicit learning is addressed in analysing the relationship between learning and sharing tacit knowledge. Implicit learning, a factor of cognitive psychology is very much related to individual experiences. As Martz and Shepherd (2003) noted, experience is one form of tacit knowledge, and can be transferred in implicit learning processes. Similarly, Raelin (1997) suggested implicit learning is individual learning, acquired through experience that becomes the foundation for tacit knowledge, which can be studied, understood and shared. Experience, in some respects becomes a predominant threshold of linking learning and knowledge sharing.

Using Rowley’s (2001: 227) words, “knowledge and learning are closely intertwined”, knowledge individually feeds into the learning process and learning is embedded in knowledge sharing activities. People learn through receiving and absorbing knowledge themselves, as well as through exchanging and communicating knowledge with others. In the past fifteen years, research on tacit knowledge and KM has added to a growing body of literature in education.

Gerholm (1990), for example, concluded that there are five types of tacit knowledge related to students and graduate study programmes. He pointed out that two forms are crucial in academia: one is knowledge that “has grown out of long experience in the discipline”, and the other is knowledge generated by students themselves to make sense of what they are experiencing in a programme (Gerholm, 1990: 270-271). Rowley (2000) examined KM applicability in the UK HE institutions with four goals: to identify knowledge sources; to improve access to knowledge; to enrich the knowledge setting; and to raise the significance of knowledge. She pointed out that the most difficult task is to create a knowledge environment and to achieve acceptance of knowledge as intellectual capital.

Meyer (2003) provided six “knowledge-inaction” theorems and argued that professional knowledge (e.g. intuition, experience, or tacit knowledge) is less emphasised than technical knowledge in the preparation of education leaders. More recently, Perkins (2006) categorised a variety of troublesome knowledge issues in Constructivism learning practice and urged educators to clear the subtle differences and troublesome dimensions of knowledge in learners’ articulations of “understanding”. Moreover, Sallis and Jones (2002) clarified the role of knowledge management in education by observing, “learning to know what we know”. They (Sallis & Jones, 2002: 95) addressed the importance of building up learning networks to help share and to make sense of knowledge when they wrote,

“Education may have made people think, but it did not necessarily teach them how to think, or provide thinking skills. Education has often used too narrow a definition of learning, based on a restrictive model of intelligence, concerned largely with academic ability. Consideration has also been given to the synergy between work, innovation and learning. This narrow model of learning filters out some of the most important intelligences and abilities. It ignores that relationship between work and learning, and the relationship between work and learning and change and creativity”.

Clearly, unlike information, which is the processed data that is given meaning by its context, knowledge is non-static, rich, and ambiguous. In today’s society, people have come to realise the important role of knowledge. In particular, tacit knowledge to some extent comprises the majority of available knowledge; therefore, the ability to sustain and exploit tacit knowledge at an individual level is drawing the attention of more researchers (Stenmark, 2000). Human knowledge is difficult to conceive, as Baumard (1999) claimed, “What we know” and “what we can express” are still crucial in studies of human learning.

2.3.3 Concerns for Sharing Knowledge

Knowledge sharing has pitfalls. As Sallis and Jones (2002: 4) mentioned,

“Knowledge is after all not a tangible product, or a material thing like land, labour and physical capital. Neither is it all of a kind. Some knowledge is very easy to access and cheap to harness, while other knowledge is locked away in people’s minds and harder to use effectively”.

Three important facets raise concerns for sharing knowledge. Firstly, as a crucial form of knowledge, tacit knowledge itself is without a clear foundation. Tacit knowledge has been

observed from many perspectives, yet how to share tacit knowledge is without a clear direction or action. Therefore, when people are asked to share knowledge, they often do not know what requires sharing, and that generates little enthusiasm. As Perkins (2006) stated, different concepts of knowledge used in various disciplines often result in double trouble. Knowledge sharing on the surface is a desirable goal, but in practice often fails due to the troublesome concepts (Robertson, 2004).

Secondly, social barriers, such as lack of a common language, desire to avoid conflict, bureaucratic organisations, and unclear standards affect knowledge sharing (Disterer, 2003; Engström, 2003). For example, Graves (1973) questioned whether tacit knowledge could make sense for both rationalists and empiricists when translated to different languages. There is no convincing answer, yet Renzl (2002) stated that knowledge sharing is based on an interactive process between individuals, and needs cognitive structures, whereas Haldin-Herrgard (2000) argued that knowledge, especially tacit knowledge, is stored in a wordless form, making it difficult to explain to another. Apparently, knowledge is more difficult to share "...than information, because it is about relationships rather than data" (Kluge, 2001: 191).

Last, but not least, there are individual barriers. Disterer (2003) mentioned individual barriers as: the revelation; uncertainty; unconsciousness; motivation; and viewing knowledge as personal power. In organisations, people often hoard knowledge due to worrying negative influences on their status and reputation; this makes knowledge sharing difficult to put into practice (Al-Hawamdeh, 2003).

According to von Krogh (1998), knowledge implies cognition, and cognition implies awareness, which is highly dependent on people's perceptions. Perception, thus, is one of the main difficulties in sharing knowledge. Without doubt, knowledge itself is subjective and experience-based, involving intangible factors such as personal belief, perspective and instinct, which are difficult to express in words, sentences, and formulae (Norris, 2003a).

In a nutshell, at an organisational level, a bulk of research on KM has been undertaken and presents both lessons and successes. To maintain an organisation's performance and competitive benefits, research into knowledge sharing at an individual level becomes inevitable as well as important. Without exception, for education to facilitate better learning for students, it requires studies on how to use knowledge, how to encourage

knowledge creation and conversion, how to create knowledge repositories, and how to improve knowledge (e.g. experience-based knowledge) accessibility in HE settings.

2.4 Web Based Learning

Multiple perspectives exist about WBL in SHE and educational curriculum (Nkonge & Gueldenzoph, 2006; Polly, 2010). As Smolin and Lawless (2007) argue, “technology-based reform is especially challenging, because it is a multifaceted endeavour” (p. 2). Further, the process of WBL in pre-service SHE and educational curriculum can be described as a “terrain of complexity, multiplicity and interconnectedness” (Gale, 2007, p. 471). Hence, a Literature Review must include the following three main perspectives:

1) The practitioner perspective

This includes perceived concept, perceived self-efficacy and perceived awareness in terms of technology importance and usefulness.

2) The pedagogical perspective

Which includes curriculum design and technology based pedagogical practices.

3) The administration perspective

This includes the role of the educational policies and the main functions of effective leadership such as infrastructure, training and support.

These three perspectives are incorporated into the following sub-section.

2.4.1 An Introduction to WBL

From the earliest days of the internet, there have been many efforts to use it for education, and a significant amount of materials exist for that purpose and it is possible to distribute educational materials without the limitation of place or time. Furthermore, teachers and experts in educational policy agree that using the internet for education can support novel approaches to learning, such as sharing instructional materials between educators and learners. Internet tutoring systems that use different educational strategies offer good means of learning strategies (Kinshuk & Patel, 1997). As reported by Alpert (2000), Mitrovic (2000), and Peylo (2000), there are many advantages in using the internet as a medium for learning:

- It allows educators to reach a wider audience and students to achieve greater learning.
- Learners are not constrained by time and place; they can use and interact with the educational system from anywhere and at any time.
- The web offers tutoring material for learners, and they do not have to purchase the educational software.

In addition, several further advantages have been reported in studies regarding web learning's acceptance among learners and academics:

- Learners agree that they have more flexibility with online courses, which permits them to schedule studies to accommodate their personal life manner. That they do not need to physically attend the university is reported by most learners as a key advantage (Smith, 2000).
- The best advantage of enhanced computer communication technology for WBL is that the instruction is provided directly to the individual learner and strong interaction exists between educators-learners and learners-learners (Smith, 2000). In addition, Jones (1999) argued that using WBL can increase the interaction between educators-learners and learners-learners.
- One study found that using the internet for learning increases learners' motivation and interest. Learners are more interactive with regards to knowledge and they are more likely to distribute their achievements to their partners (Smith, 2000).
- Smith, (2000) found that the internet provides the ability to create a central environment for learners to support independent students using WBL. Using WBL can be more efficient than standard means of instruction, because of its easy collection and distribution of assignments and convenient communication with groups; in addition, it facilitates accumulating individual learners' information and distributing grades.

Even though WBL is beneficial and provides positive experiences, many problems and barriers have to be fixed to ensure that WBL is effective. For example, Jerrams.S (2000) argued that the natural way for users to approach WBL is by browsing.

However, browsing might not be an appropriate method of learning, because many problems can appear in connection services, as well as in cognitive overhead (Jerrams.S,

2000). For example, connection problems can occur if services are very weak or students do not have the skills to solve a connection problem. In addition, problems with cognitive overhead may occur when learners must deal with a large number of links; learners become unfocused and these results in “information myopia” (Jerrams.S, 2000).

Another problem with using WBL, which can be a barrier to learning, is the connection to pursuing goals. This link can influence both affective and cognitive aspects of learning (Hara & Kling, 1999).

The use of WBL versus traditional teaching has increased in academia. Many kinds of educational activities that incorporate appropriate online communication with learners can be found (Smith.G, 1999; Smith, 2000). However, communication with learners in different countries and in different time zones can be difficult (Smith, 2000).

2.4.2 Communication Tools

As network technology develops, each new online phenomenon draws people’s attention, induces hot arguments of its pros and cons, and generates studies on its impact on the user. Communication tools are no exception. From the late 1990s, development of communication tools has been on an unprecedented increase. As influential web-based tools, they create a new concept of online communication.

Although there is no precise statistical data, the emerging new technologies (e.g. blogs, wikis, instant messaging) appear to have a shorter popularity period than those (e.g. email, mailing-list) that emerged in the previous twenty years. Moore’s Law, that computer processing power doubles every two years, might also explain this; yet, Moore’s Law does not explain the meaning and motivations behind the trend (Milne, 2004).

Enterprises first noticed that communication tools provide powerful opportunities, for instance, using the Internet as a marketing platform to communicate with customers, or as a journalism tool or as a collaborative environment for knowledge sharing (Treem & Leonardi, 2012). The educational setting began using communication tools later than the business area did. In academia, people use communication tools primarily to share information with each other, with such solutions as e-Learning.

2.4.3 Contexts: Web 2.0

More recently, Web 2.0 has become one of the most popular buzzwords in social software discussions. Anderson (2007) proposed the original notion of Web 2.0, as follows:

“There Are A Number Of Web-Based Services And Applications That Demonstrate The Foundations Of The Web 2.0 Concept, And They Are Already Being Used To A Certain Extent In Education. These Are Not Really Technologies As Such, But Services (Or User Processes) Built Using The Building Blocks Of The Technologies And Open Standards That Underpin The Internet And The Web. These Include Blogs, Wikis, Multimedia Sharing Services, Content Syndication, Podcasting And Content Tagging Services. Many Of These Applications Of Web Technology Are Relatively Mature, Having Been In Use For A Number Of Years, Although New Features And Capabilities Are Being Added On A Regular Basis.”

Web 1.0 “was about the development of the basic platform of the internet and the ability to make huge amounts of information widely accessible” (Richards, 2007). Web 1.0 focussed on the data, developing the platform and structure of the web, and providing information to the user. By contrast, Web 2.0 is oriented toward the user, making sure the web is usable, sites are clear and navigable, and creating ways for people to communicate with each other (Richards, 2007).

As O’Reilly (2005b) observed, the second approach was not a separate new step, but an evolution over time to transform the user experience through a variety of individual applications that connected with each other (Craig, 2007). Table 2.4 provides a comparison between Web 1.0 and Web 2.0.

Web1.0	Web2.0	Evolution of the concept
Double Click	Google AdSense	Evolution of the product
Ofoto	Flickr	
Akamai	BitTorrent	
mp3.com	Napster	

Britannica Online	Wikipedia	Evolution of the application
personal websites	Blogs	
Evite	upcoming.org and EVDB	
domain name speculation	search engine optimization	
page views	cost per click	
screen scraping	web services	
Web browser	browser, RSS readers, mobile devices, etc	
content management systems	Wikis	
directories (taxonomy)	tagging ("folksonomy")	
Stickiness	Syndication	
Publishing	Participation	

Table 2.2 - The shift from Web 1.0 to Web 2.0
(Adapted from Curran et al., 2007; O'Reilly, 2005b)

Web 2.0, despite the name, is a concept and orientation rather than a specific application or software upgrade version. Initially, references to Web 1.0 and Web 2.0 were in the context of commerce, marketing and technology.

Recently, new buzzwords including Web 3.0, 4.0 or Web N.0, have appeared in the media and company websites, mostly with respect to the newer communication applications (e.g. Lee, 1996; Godin, 2007; Waters, 2008). This discussion draws people's attention to current web applications, their usage and their future.

Similarly, the educational area has seen a surge in new concepts such as Library 2.0, Learning 2.0, E-Learning 2.0, and Education 2.0. For example, Miller (2005) saw the value of Web 2.0 to facilitate communication and interaction among users. He recommended the establishment of Library 2.0 to bring together not only libraries, but also publishers,

regulatory bodies, government agencies to promote their services. (Miller, 2005). According to Curran et al. (2007: 288), “Library 1.0 is a one-directional service that takes people to the information that they require”, whereas Library 2.0 creates an interaction with the user by making library services available on the internet and encouraging feedback. Geser and Research (2007) analysed how three important applications of Web 2.0 assist in learning: blogs, wikis and podcasts; he observed that e-Learning 2.0 is a combination of e-Learning 1.0, Web 2.0 and human factors. Alexander (2006) noted that Web 2.0 did not replace Web 1.0, but instead is a completely new approach to the development of network infrastructure. At the same time, Stephen Downes (2004b) pointed out “...the emergence of the Web 2.0 is not a technological revolution, it is a social revolution”.

Clearly, Web 2.0 applications include social software: E-mail and Listserves, Instant messaging and Chat rooms, Blogs, Wikis, Discussion Boards, Forums, Content Management Systems, and so on (O'Reilly, 2005b).

This concept not only emphasises learning and sharing technologies, but also is indicative of the current generation's desire to integrate their entire learning experience online, by initiating new ways to obtain a degree (online universities), new opportunities to communicate with others in social networks and communities, new methods to create and share information on blogs, bulletin boards, and web applications.

This integration has the potential to be a learning platform throughout an individual's life. (Blackey, 2006). On the other hand, the Web 2.0 concept is undoubtedly still at an early stage in educational settings.

There are no adequate reliable academic sources in the literature on how to migrate to and manage Education 2.0 or Learning 2.0. Web-based applications such as wikis or online forums were born before Web 2.0 and now are embedded in it. Studies on these applications continue to increase in number, but all contribute to part of the philosophy of Web 2.0 (or Web N.0 or something else in the future).

2.4.4 The Perspective of Students

In the context of students, understanding SHE students' perceptions and beliefs related to digital technologies holds the key to improving their professional preparation and development (Lee, 2007; Northcote, 2009; Sang, 2010; Wabuye, 2003). Beliefs also

contribute to their successful integration of digital technologies in their future classroom (Sang, 2010). As Leach and Moon (2008) state, “good teachers are intellectually curious about pedagogy” (p. 4) and a better understanding of their beliefs may effectively contribute to the enhancement of pedagogies as well as learning styles and approaches with digital technologies.

The importance of studying perceptions in relation to WBL and their role has been emphasised in the literature. For example, Roberts (2004) suggests that “teacher educators with a sense of designer self-efficacy and flexible or symbolic perceptions of technology and its function(s) are more likely to integrate WBL into their practice in ways that extend and support specific teaching and learning goals and processes”(p. iii). As such, Sang et al. (2010) pointed out that “ICT integration is influenced by the complex of students’ constructivist teaching beliefs, teaching self -efficacy, computer attitudes in education and their computer self-efficacy”(p. 109).

Therefore, the focus here is on three main perceptions: perceived concept, perceived self-efficacy, and perceived awareness of technology importance and usefulness, as shown in Figure 2.5.



Figure 2.5 - Practitioners’ Technology Integration-Related Perceptions

2.4.4.1 WBL Perceived concept

Perceived concept can be defined as the constructed mind image that practitioners hold for the concept of WBL. According to the Oxford Online Dictionaries (2011), a concept is a “mental image which corresponds to some distinct entity or class of entities, or to its

essential features, or determines the application of a term (especially a predicate), and thus plays a part in the use of reason or language”. Shortly, “a concept can be understood as an abstract object, abstractum, or a mental representation” (Bergman, 2010, p. 171). It is the way of understanding the world in accordance with Einstein (1936):

The first step in the setting of a “real external world” is the formation of the concept of bodily objects and of bodily objects of various kinds... the concept owes its meaning and its justification exclusively to the totality of the sense impressions which we associate with it. (p. 4)

Accordingly, this mind image can be shaped and constructed by many factors such as beliefs, attitudes and ability. Mumtaz (2000) argues that what students and teachers believe about teaching and learning with computer technologies is essential to the process of technology integration in education. For the same reason, Chai. (2009) highlight the complexity of the relationships between students and teachers’ epistemological and pedagogical beliefs as well as their perceptions of WBL.

Regarding attitudes, Teo (2008) found that student and teachers’ attitudes intersect with their perceptions about WBL by stating that “success of any initiatives to implement technology in an educational program depends strongly upon the support and attitudes of students and teachers involved” (p. 128).

Similarly, Judson (2006) argues that there is a possibility that students and teachers’ poor attitudes towards integrating technology result s in a less effective implementation of technology in their classrooms. Therefore, increasing students’ ability to use technology results in are relatively significant degree of change in how they perceive technology (Pianfetti, 2005).

However, one significant challenge is how to conceptualise the integration of WBL for effective implementation and use of technology in SHE programs (Pianfetti, 2005). Although a clear definition is needed to understand the wide implications of this concept in teaching and learning environments, there is currently no common definition or agreed conceptualisation. Regardless, the most recent conceptualisations in terms of the effective integration of WBL face the difficulty of establishing a common understanding. Hence, a diachronic perspective for the development of this concept shows certain changes in experts’ perceptions.

Dockstader (1999) defined technology integration with some specific concepts that are related to teaching and learning environments. These concepts include the effective and the efficient use of computers, the enhancement of student learning and the coordination between technology and curriculum (Dockstader, 1999).

Moreover, *Technology in Schools* (2003) broadly defined the concept with the focus on the effective use of technology in the daily routines of work, school and management. Such concepts recently have been developed into shorter definitions, but with ideas that are more sophisticated. For instance, Dawson (2006) stresses that to integrate technology effectively; it must be an integral part of the normal everyday pedagogical practices of the classroom. Further, Smolin and Lawless (2007) argue that it is a multi-dimensional effort that involves collaboration between various domains such as learners, teachers, personnel, curriculum and administration.

As this concept becomes more complex, Gale (2007) approved the difficulty in establishing common understanding of the effective integration of technology by describing this concept as “terrain of complexity, multiplicity and interconnectedness” (p. 471). More recently, Dede (2011) affirmed the complexity of this concept. He addresses that the concept “integration” needs to be re-conceptualised beyond the dominant view of introducing technology such as computers into a traditional teaching/learning environment. Instead, the integration of technology in education as expressed by Dede (2011) implies new meanings of teaching/learning related pedagogical practices, especially with technology.

Previous studies indicate the importance of appropriate technology conceptualisation. Pianfetti (2005) developed a framework that aimed at helping student and teachers achieve specific technological skills that are related to their content areas. His framework resulted in a considerable perceived gain in National Educational Technology Standards for students and teachers.

At the same time, there were no changes to a significant degree in their perceptions of the value of integrating technology in education generally (Pianfetti, 2005). Moreover, Willis and Raines (2001) conducted a study to examine changes in attitudes of teachers towards educational technology and their perceptions about technology in the classroom. They found that positive changes occurred in the attitude and self-efficacy of students by using various educational technologies. Students also reported that a lack of access to technology

might hinder or limit their participation. This study found that there is a need to provide more opportunities for instructors and academic staff to renew and refresh their technological skills. They also recommended that education staff should have the appropriate skills to teach students the necessary skills to integrate technology in their classrooms in the future. Further, all content offered in educational technology courses should be assessed using performance-based measures rather than only using content knowledge assessment.

Most recently, Chitiyo (2010) found that technology conceptualisation by the majority of lecturers was narrow and has not exceeded the view of traditional audio-visual tools. Technology is used for illustration and lecture delivery rather than being effectively integrated into pedagogy.

2.4.4.2 WBL Perceived Awareness

Another critical perception to the effective integration of digital technologies is the perceived awareness of the importance and the usefulness of technology. Existing literature has suggested that perceived awareness of the importance and usefulness of technology contributes to the integration of technology into SHE and educational curriculum (Gregor, 2005; Hall, Loucks, Rutherford & Newlove, 1975; Lee, 2007; Lockyer & Patterson, 2007; Nkonge & Gueldenzoph, 2006; Robertson, 2007; Sime & Priestley, 2005; Smith & Kelley, 2007; Yuen & Ma, 2002).

As a definition, Lee (2007) state that “perceived usefulness reflects the prospective users’ subjective probability that applying the new technology will be beneficial to his/ her personal and/or the adopting organisation’s well-being” (p. 556). Therefore, raising technology awareness should be an initial phase in the educational change process model (Robertson, 2007).

In this regard, Gregor (2005) state that “what you do is less important than how you do it and success requires ICT awareness, persistence and being open to change” (p. 14). Accordingly, determining the users’ level of technology awareness seems to be a key factor for the effective integration of technology. Hall (1975) emphasised four levels of technology awareness. These levels include:

- Non-use: Technology users have no knowledge about technology.
- Awareness: Users have limited knowledge. They are aware, but need more skill training and support
- Proficient: Users have the skills to use technology, but their skills need to be expanded.
- Advanced: Users are expert in the use of technology and have the ability to transfer this knowledge to others.

Consequently, WBL integration into students and educational curriculum has been influenced by students' level of technology awareness. In other words, different levels of users' technology awareness affect their real practice of technology in the educational institutions.

However, different students programs incorporate the use of technology in the classroom in their curriculum, but at different levels of technology awareness (Smith & Kelley, 2007). For example, students in the study of Sime and Priestley (2005) perceived the importance of using technology as a feature of modernisation. Further, students observed the usefulness of this process in the latter study as a catalyst that has the possibility to innovate the nature of teaching and learning (Sime & Priestley, 2005).

In the study by Lockyer and Patterson (2007), digital technologies such as the Internet were perceived by students as useful tools that can effectively enhance pedagogy in their future classrooms.

For the instructors' technology awareness, Nkonge and Gueldenzoph (2006) found that integrating technology such as online instruction is perceived by the US higher education context to facilitate "constructivism, communication, feedback, encouraging collaboration and cooperation, enforcing academic rigor, providing both structure and flexibility, and supporting student success" (p. 42).

Nonetheless, high technology awareness may not always reflect the real practice. Technology awareness is one component to the effective use of technology. Despite the fact that users reported high technology awareness levels in the study of Nkonge and Gueldenzoph (2006), some users had difficulties teaching in online environments such as

WebCT and managing the students' learning activities including discussions and files sharing.

2.4.4.3 WBL Perceived Self-Efficacy

One's self-efficacy influences the level of technology integration into SHE students and educational curriculum. Bandura's theory of self-efficacy in the early 1970s is the key concept in the social cognitive theory, which has triangulated the relationship between one's personality, behaviour and environment (Chao, 2003). In addition, Bandura's theory advocated the educational field to adapt it in different settings, populations and problems (Chao, 2003).

A definition of self-efficacy is that it is the individuals' judgements of their abilities to execute a certain and conditioned course of behaviour/s or to complete specified tasks (Bandura, 1997). In other words, self-efficacy is a strong component that comes from learners' beliefs, which influences their capabilities and performance in certain tasks (Driscoll, 2000). It can also be defined as a concept of self-related perceptions in personality and social psychology interests (Bong & Skaalvik, 2003; Chao, 2003). Sumner and Niederman (2003) clarify self-efficacy as the positive expectation that what needs to be done can be done depending on the degree of trust they have in their own abilities.

The perception of self-perceptions is deeply rooted in learners' previous experiences and history of achievement, which can affect their further growth and development in the future (Bong & Skaalvik, 2003). Accordingly, self-efficacy is predicted to contribute to students' learning and academic performance as well as the general environment of educational institutions (Jungert & Rosander, 2010; Lancaster & Bain, 2007).

SHE students usually have different self-efficacy levels of cognitive, social and emotional engagement in their preparation (Bong & Skaalvik, 2003).

Chao (2003) stresses the influence of self-efficacy on technology integration in students and education by emphasising that "for many people, the ability to utilize computers is limited by an incapability of controlling or even using them.

As for self-efficacy expectations, it may be the beliefs of an individual that results in the inability to use computers" (p. 414). According to Bong and Skaalvik (2003), there are different levels of self-efficacy among students. These differences in self-efficacy levels occur depending on several key questions including the way they construe themselves, the

attributes they think they possess, the roles they presume they are expected to play, the capabilities they believe they have acquired, the view they share in comparison with others, and the way they judge that they are viewed by others.

One important issue that should be considered in studying self-efficacy is the ambiguity in the general understanding of self-efficacy and other relatively similar self-related perceptions such as self-confidence. To clarify this, Webb (2006) explains that “self-efficacy is closely related to self-confidence; however, it is self-confidence about a particular task rather than overall self-confidence”(p. 118).

Bong and Skaalvik (2003) found another ambiguity between self-concept and self-efficacy, stating that establishing clear definitions for both self-concept and self-efficacy is not an easy task due to a lack of educational research in this field. However, they also identified several similarities between self-concept and self-efficacy, stating that “self-concept and self-efficacy share many of the presumed antecedents such as past experience, social comparison, and reinforcements from significant others. They share many of the presumed outcomes related to cognitive, affective, and behavioural functioning as well” (p. 6).

In contrast, self-efficacy level is shaped by the individual’s near short history, unlike self-concept, which is usually characterised by the long-term history (Bong & Skaalvik, 2003).

Lucas, Cooper, Ward and Cave (2006) have suggested that self-efficacy can be classified into two different forms. According to Lucas (2006), the first form is general self-confidence, which is based on an individual’s judgement about his or her ability generally towards adventure, and to accomplish certain tasks in a domain. The second form is an individual’s confidence in his or her ability to use new technology in that domain.

The standard process to determine self-efficacy with learners is to present a problem or a certain task that is relevant to the actual problems they must solve (Bong & Skaalvik, 2003). This may include reports on the task or the problem, such as “How sure?” and “How confident?” (Bong & Skaalvik, 2003).

Another way to measure self-efficacy includes expectations about accomplishing the task, such as “I expect to do...” and “I am sure that I can...” (Bong & Skaalvik, 2003).

In the case of digital technologies, self-efficacy is highly significant (Compeau & Higgins, 1995; Hakverdi, Gücüm & Korkmaz, 2007; Liang & Tsai, 2008; Lin, 2005; Milbrath &

Kinzie, 2000; Mosenson & Johnson, 2008; Sam, Othman & Nordin, 2005; Sang, 2010; Webb, 2006; Yi & Hwang, 2003).

Self-efficacy strongly influences learners' decision making in specific content areas and tasks (Bandura & Wood, 1989; Galpin, Sanders, Turner & Venter, 2003). For instance, Liang and Tsai (2008) and Sam (2005) found that students with higher levels of self-efficacy tend to demonstrate more progress and ease in their using online learning tools. Further, perceived self-efficacy has a strong correlation with the one's expectations, emotions and reactions towards using technology such as computers (Gong, Xu & Yu, 2004).

Judson (2006) found that fears and a low level of students' confidence in integrating digital technologies caused them to decide not to implement them in their learning. Similar findings were reported by Gosselin (2009), who suggests that instructors in students should be provided with professional development programs to boost their technological self-efficacy levels.

Therefore, self-efficacy has a strong relationship with self-confidence, self-competence, self-esteem and self-worth (Miller & Moran, 2006).

In the case of pre-service teachers, Bahr, Shaha, Farnsworth, Lewis and Benson (2004) examined the relationship between students' confidence in using digital technologies and their willingness to use them. This study demonstrated that being prepared to use technology increased their willingness to integrate this into their learning. Moreover, Compeau and Higgins (1995) and Webb (2006) explain a hesitation to use computer technologies by weak self-efficacy, which could be an obstacle to their performance. In relation to this, Webb (2006) emphasises, "if technology consumers have low computer self-efficacy, they generally find new technologies more difficult to use"(p. 119).

The integrating of WBL into SHE education courses has the potential for shaping students' practices and beliefs as well as improving students' self-efficacy towards the effective use of technology (Wang, Ertmer & Newby, 2004).

Therefore, it is recommended that courses in education that are related to technology integration should be designed to target and reduce computer technology anxiety and increase self-efficacy in teachers' instruction environments (Brosnan & Thorpe, 2006). Maninger and Anderson (2007) highlight the importance of relationships between

prospective students' beliefs about technology integration and their possible implementation of technology in their classrooms. They found that "students' beliefs regarding technology integration were significantly correlated with their intentions to use technology in their future classrooms. However, although their technological abilities correlated with self-efficacy beliefs, they did correlate with value beliefs or intentions (p. 122). Accordingly, they recommended that it is important to enhance students' technological beliefs such as self-efficacy; develop strategies for overcoming potential obstacles to their future technology use; develop clear understanding of how technology can contribute to their learning future approaches; and develop strategies for initiating with confidence technology activities that are fully integrated into the curriculum.

As such, Hakverdi (2007) found that technology use, especially computers by Turkish students, is influenced by their perceived self-efficacy. Therefore, they recommended that teacher education programs should motivate their students to develop higher levels of self-efficacy.

More recently, Sang (2010) show how important the self-efficacy is to the process of effective integration of technology. In the context of Chinese students, Sang (2010) used a survey technique to investigate the impact of students' "gender, constructivist teaching beliefs, teaching self-efficacy, computer self-efficacy, and computer attitudes" (p. 103) on their future use of digital technologies. They found that students' intention to integrate technology effectively is significantly correlated with all the previous variables except gender.

In summary, the effective integration of technology as a process must go beyond gaining technology-related skills to embrace the facilitation of positive attitudes, beliefs such as self-efficacy, and even emotions regarding the integration of technology in education (Vannatta, 2007).

It is strongly suggested that HE preparation programs, especially in terms of implementing digital technologies, should provide students "with a conducive and non-threatening environment to experience success in using the computers" (Sang, 2010, p. 109). However, Judson (2006) states that research regarding the relationship between self-beliefs such as self-efficacy and technology integration in education is limited. Therefore, this issue needs to be further explored and investigated at a deeper level.

2.5 The Gap in the Research

As mentioned earlier, this aim of the research was not to focus on WBL itself, but rather on exploring the Saudi Students use of WBL to facilitate individual learning, social communication and knowledge sharing in a network environment.

During the course of the research, gaps in the Literature began to emerge. In sub-section 1.2, it was asserted that no major study had been done into WBL in KSA and the Literature Review expanded on this.

Fig 2.4 illustrates the 4 key components of the Literature Review elements and their intersections.

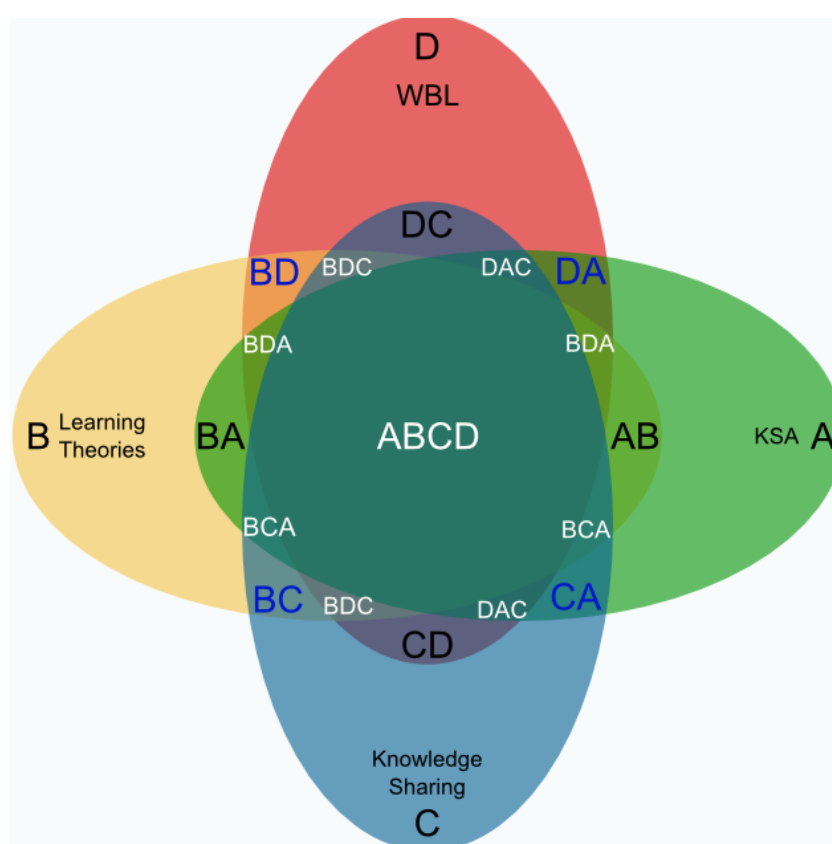


Figure 2.4 - The Gaps in the Body of Literature

The gaps emerge, not only within the key component areas areas (namely, KSA Culture, Learning Theories, Knowledge and Sharing, WBL), but most noticeably in the intersections between them.

The research into each component area (Designated by the letters A, B, C and D) started with an overview of that area. The research began with KSA (Area A) before locking into

the other components. In this sub-section of the Literature Review, research drilled down into the intersectional areas namely designated by SA, BA and CD. It was soon determined that little research existed in this arena relating to KSA. This was of considerable interest as the research was mooted on KSA; now the intention was comprehend where the general body of research relating to the other component areas lay to inform the development of the Primary Research questions.

When the Literature Review moved to Area B, it was clear that a large and growing body of literature had contributed to Learning Theories. Therefore the focus shifted to informal learning and discuss and its connection with Categories C and D.

Whilst delving into Knowledge Sharing (Category C), research relating to tacit knowledge in particular was investigated. The interconnecting area shown by BC and BDC here were particularly of interest.

As the Literature Review deepened, it became clearer that it would be useful to explore SHE views on the role and use of WBL, with a particular interest on individual learning, social communication and knowledge sharing and thoroughly investigating them in order to add new knowledge to the field. This is indicated by the area DAC.

At this point the core research problem (elaborated upon in the Research Journey (Sub-section 3.1) was condensed into one question:

- How does WBL affect SHE students' learning and socially use and facilitate knowledge sharing?

2.6 Summary

The aim of this chapter set out the key components from the current body of literature which connects with the themes of this Thesis, namely, KSA, Learning Theories, Knowledge Sharing Theories and WBL itself. In addition, it was vital to determine the gap in the literature.

The process of carrying out the Literature Review granted deeper insight into the subject area of the Thesis and informed the developed of the research and it helped identify gaps in the body of literature relating to the study.

To summarise, the research uncovered a gap did exist. In particular:

- 1) The corpus of literature lacked in-depth studies into the WBL phenomenon from a sharing knowledge perspective and on an individual level, and
- 2) There was a need of further investigation of students' learning and knowledge sharing experience in using WBL, especially tacit knowledge sharing.

Having clarified the question at the heart of the Thesis, the Methodology will be expounded.

Chapter 3. Methodology

Methodology can be described as, “the choices we make about appropriate models, cases to study, methods of data gathering, forms of data analysis etc. in planning and executing a research study” (Silverman, 2006: 402). It mirrors the researcher’s perspective and angle applied to the question in the study. This Chapter elaborates the methodology chosen for the research programme, the emergent research design as well as the methods adopted to examine the research problem: what is the nature of WBL and it facilitates personal learning, social communication and knowledge sharing.

This chapter focuses on the gaps identified in the Literature Review in Chapter 2.

In Chapter 2, four areas were investigated, namely; Saudi Culture, Learning Theories, Knowledge Sharing and WBL. One of the key aims of this chapter was to determine gaps in the literature which would inform the research study.

The chapter begins by narrating the Research Journey, which ultimately led to the key decision to use a specific type of research methodology (Qualitative) and the rationale for this is expounded in detail. Following this, the Chapter presents the data collection and analysis procedures at different stages, with a focus on a Pilot Study and then onto the Main Study Phase. In addition, it outlines the strategies employed for establishing rigour and trustworthiness in the collection of data.

3.1 The Research Journey

This research programme began in October 2011 and was originally driven by an interest in knowledge sharing and personal learning based upon previous study of individual interventions in knowledge sharing, work experience and academic interests.

Essentially, interest was being directed into an area of study that would be feasible and practicable and yet add a fresh and new perspective to the field.

The research process was defined as consisting of eight steps (Directing, Launching, Sensing, Exploring, Reflecting, Evaluating, Polishing, and Condensing) and the research questions that were developed over the process were viewed as Starting Questions (Pilot Phase), Essential Questions (Main Phase) and Emergent Questions (Main Phase).

3.1.1 Literature Review

Following seven months of reviewing the literature, the study focused in on exploring SHE students' learning and sharing (Socially & Knowledge-wise) by investigating the WBL phenomenon. Over the following three months, further gaps in the literature were identified (see 2.3), and this centralised the focus of the study and specified the research aim as well as the research questions.

At this stage, the research programme began to focus on who would help inform the study, how any data would be collected and collated and what research methods to adopt. Taking into account that the study was to inquire into SHE students' views of using WBL, different research approaches were compared.

At this point, it became clearer that inductive logic and a qualitative approach for the study would be preferable. However, it was only until further literature review and suggestions from more experienced researchers that a qualitative method was chosen as the research approach.

3.1.2 Pilot Study

From October 2011 to August 2012, a Pilot Study was undertaken with Saudi students in the Department of Education Studies, English Language, Arabic Language and Engineering from 3 Saudi universities.

The aim of this Pilot Study was to ensure the efficacy of the research questions, test the method selected and discover concepts and conceptual categories for the phenomenon studied. This stage is sometime referred to as the "launching" stage in literature. During the data collection process in the Pilot Study, data was concurrently analysed using the Constant Comparative Method. Therefore, the important concepts were being *sensed*, and these *emerged* through analysis of 11 interviews (male and female students). These findings helped generate models to explain the nature of WBL.

3.1.2.1 Starting Questions

The pilot study was conducted using the following research questions with 11 SHE students who had WBL experience:

- What are the motivations of WBL users?
- How do WBL learners think of their courses?

- What are WBL users' learning needs when they use WBL?
- What is worthy of WBL learning?
- What have they learned through WBL environments?
- What are the views of WBL users regarding comments and feedback?
- What are the constraints for WBL users in facilitating learning?
- What are the constraints for reading by using WBL to facilitate learning?

The Pilot Study determined different orientations towards using WBL and most participants clearly separated WBL from studying (See 3.4. for further details). In essence, students viewed WBL as a substitute for entertainment and individual use. This meant that differences and similarities amongst different usage orientations, including a leisure purpose could be investigated. It also implied that students have their own understanding of learning and personalisation. Therefore, the findings refined the research questions.

From these findings and coupled with the Literature review, a framework for the research emerged. The purpose of the Main Study would now be to uncover findings that connected with the following:

- Formal & Informal Learning
- Individual Learning & Personal Responses
- Social Communication
- Attributes Of WBL
- Strategies for using WBL

In addition, two hypotheses were selected for further investigation:

Hypothesis 1: WBL may help Saudi HE students achieve self-organised informal learning.

Hypothesis 2: WBL users are more likely to use WBL to build unplanned learning, whereas for academic purposes, they are more likely to use WBL to engage in self-organised learning.

3.1.3 Main Study Phase

“Exploring” was a crucial part of this study. Exploration covered four months, corresponding to the stages of “anchoring” to “forming”. In this phase, bearing in mind the tentative models and hypotheses developed in previous stages, research questions evolved

and categories selected by adopting the constant comparative method in an intertwined data collection and analysis procedure.

3.1.3.1 Essential questions

During the Main Study, understanding of WBL deepened. New data was continually compared with collected data, differences and similarities analysed and distilled which led to the emergence of categories and relationships.

It was soon clear that most users regarded WBL as an information source, and to acquire benefits according to different use orientations. In addition, concerns emerged regarding privacy and individualised judgment in using WBL as an information source in relation to the relationship between WBL users. Due to this, new research questions emerged (see below).

- What are the motivations for WBL use?
- How do WBL users think of their WBL course with respect to its help in learning?
- What are WBL users' learning needs when they use WBL?
- What is worthy of WBL?
- What have they learned through WBL?
- What are the views of WBL on comments and feedback?
- What are the constraints for WBL in facilitating learning?
- How do WBL users think of their WBL course for sharing knowledge?
- What is the WBL user's use orientation?
- What is the WBL user's concept of learning?
- What are the WBL user's opinions of using WBL in the SHE setting?

3.1.3.2 Emergent questions

Compared with the starting questions, and to gain an understanding of the impact perceived by WBL users themselves on their learning, socially and sharing, the present study focused on the motivations for using WBL and how participants constructed learning and sharing knowledge while applying WBL.

Despite not directly interpreting the impact, it still adheres to the two objectives of this research: (1) to better understand SHE students' learning and sharing behaviour by investigating WBL usage and (2) to test a theory and explain the phenomenon of SHE students' use of WBL in an online social environment.

- What is the participant's experience of using WBL?
- What are effects of using WBL as an information source?
- To what extent does the participant use WBL as an information source for learning?
- What are the strategies to achieve certain benefits (e.g. self-therapy, professional development) according to the participants' WBL use (e.g. for social use)?

The research further developed sampling, interviewing, transcribing and conceptualising, defining categories in terms of their properties and dimensions. Also, assumptions about those categories and related categories were hypothesised on relationships until a sense that all the major generated categories were saturated.

A total of 37 students participated in this phase.

The results from the Main Study are presented in Chapters 4, 5, 6, 7 and 8.

3.1.4 Analysis & Write-Up Phase

“Reflecting” refers to the analysis process undertaken from July through October 2013. The research further refined the emergent concepts by considering the data set (48 interviews) as a whole. The categories were checked, relationships and emergent models for linking categories and decided not to sample onwards because, in a broad sense, this process confirmed that no new category varied in terms of its properties or dimensions. From October onwards, the stages of Evaluating, Polishing, and Condensing the research were undertaken.

3.2 Rationale for Using Qualitative Research

After considering the various forms of research available and the aim of this study, which is the use of WBL and its impact on individual learning, social communication and knowledge sharing, the focus of investigation was set on understandings, meanings, perceptions and the subjective experiences of using WBL. Therefore, knowledge was sought through a social constructivism perspective and chose a qualitative approach.

As Thomas (2006: 238) said below, highly inductive, loosely designed research can allow the researcher to gain a more profound comprehension of the information gathered.

“The primary purpose of the inductive approach is to allow research findings to emerge from the frequent, dominant or significant themes inherent in raw data, without the restraints imposed by structured methodologies.”

The research aimed to investigate the application of WBL with a conceptual analysis rather than by a statistical approach, i.e. exploring the WBL phenomenon by collecting data in a natural setting and studying a theory in depth, rather than by testing or verifying an existent theory. A quantitative approach was not practicable in such a setting.

It would be possible to research the WBL phenomenon using a mixed approach, but again, this research was proceeding based on in-depth inductive reasoning from multiple practitioners' perspectives leading to a substantive conclusion, that is, studying WBL phenomenon in depth. Thereby, considering the practical exigencies of time, financial support, and other resources, a mixed method would have been a poor choice. Possibly additional qualitative research may develop the theory further, or that complementary studies can validate it through quantitative analysis.

In addition, qualitative research serves an emergent design that enables the researcher to develop theories in addition to presenting the results of the data (Hoepfl, 1997).

3.3 Overview of the Qualitative Study Process

A variety of ways exist to demonstrate the results of a qualitative study. Some examples include a streamlined diagram (Bryman, 2004: 404; Eaves, 2001); a circular graph (Pandit, 1996), a programme flow chart (Fernández, 2004b; cited Lehmann, 2001), or a diagrammatic wheel presentation (Vasconcelos, 2007, adapted from Rudestam & Newton, 1992). This necessitates a review of the data multiple times, refining and categorising until he can find no more connections.

Undoubtedly, this type of study process differs considerably from standard qualitative research in the constant interaction of data collection and analysis, evolving gradually into a conceptual study.

Glaser and Strauss (1967) recommended that researchers should keep an "open-mind". They encouraged the researcher to "use any materials bearing on his area" (Glaser and Strauss, 1967: 169). Glaser (1998) emphasized the need to take a fresh approach, without the use of established concepts and theories. Yet, "nobody starts with a totally blank sheet" (Goulding, 2002: 55) and "an open mind does not mean an empty head" (Seidel & Kelle, 1995: 56). As Heath and Cowley (2004) observed, no one can ignore completely what has been learned or experienced.

For the purpose of this research programme, the literature was reviewed pertaining to the whole study widely and variously, centring on different aspects at different phases. The intention was that any research offer an up-to-date overview of the latest research is in the area, an idea of what factors have been studied with which approaches, and which similar studies exist, but also will help foster sensitivity to different theories.

From the onset, it was borne in mind that the data needed to be dissociated from literature sources, that is, preclude influence by previous theories or other research relating to the area.

The research began with broad questions, in which, as Strauss and Corbin (1990) and Denscombe (2003) suggested, the questions are not fixed nor necessarily right; they are simply a tentative starting point for launching the investigation. Some theoretical preconceptions were postulated, for instance, “Students may use WBL according to their ability”. However, here the “hypotheses” are not “hypotheses” in the quantitative research sense of the word, and were treated as provisional ideas rather than empirical facts (Seidel & Kelle, 1995).

With the starting questions established, key informants in the University departments were sought.

Semi-structured interviews were selected for data collection, and ATLAS was chosen to analyse the data. ATLAS is popular computer-assisted qualitative data analysis software (CAQDAS), which has been used extensively in the field. It was principally chosen for this research study, because of its speed and data management functionality.

Interview recordings were transcribed (Arabic Language) using an audiocassette transcriber and stored all transcriptions separately in .txt documents (supported by ATLAS.ti).

The participants’ basic information such as name, email, department, into a password protected ACCESS database. The raw data (the original recordings of the interviews) and transcriptions included outcomes of the activity. Transcriptions were the transcribed interviews with designated symbols for use in the analysis.

In certain contexts, transcriptions are referred to as “data” in this thesis. Bias was minimised by multiple reviews of each transcription. During the review, the focus was on the transcript accuracy and checking for inaccurate coding or missing information.

As Seidel and Kelle (1995: 58) stated, codes are “heuristic devices for discovery”. Coding is fundamental to analysis, essential to the process of organising and interpreting textual data (Basit, 2003).

The transcripts were analysed following the dynamic and fluid coding procedures used in grounded theory: open coding; axial coding; and selective coding, suggested by Strauss and Corbin (1990).

Figure 3.1 illustrates this procedure, adapted from Warburton (2005) (was adapted from Harwood (2002: 76)).

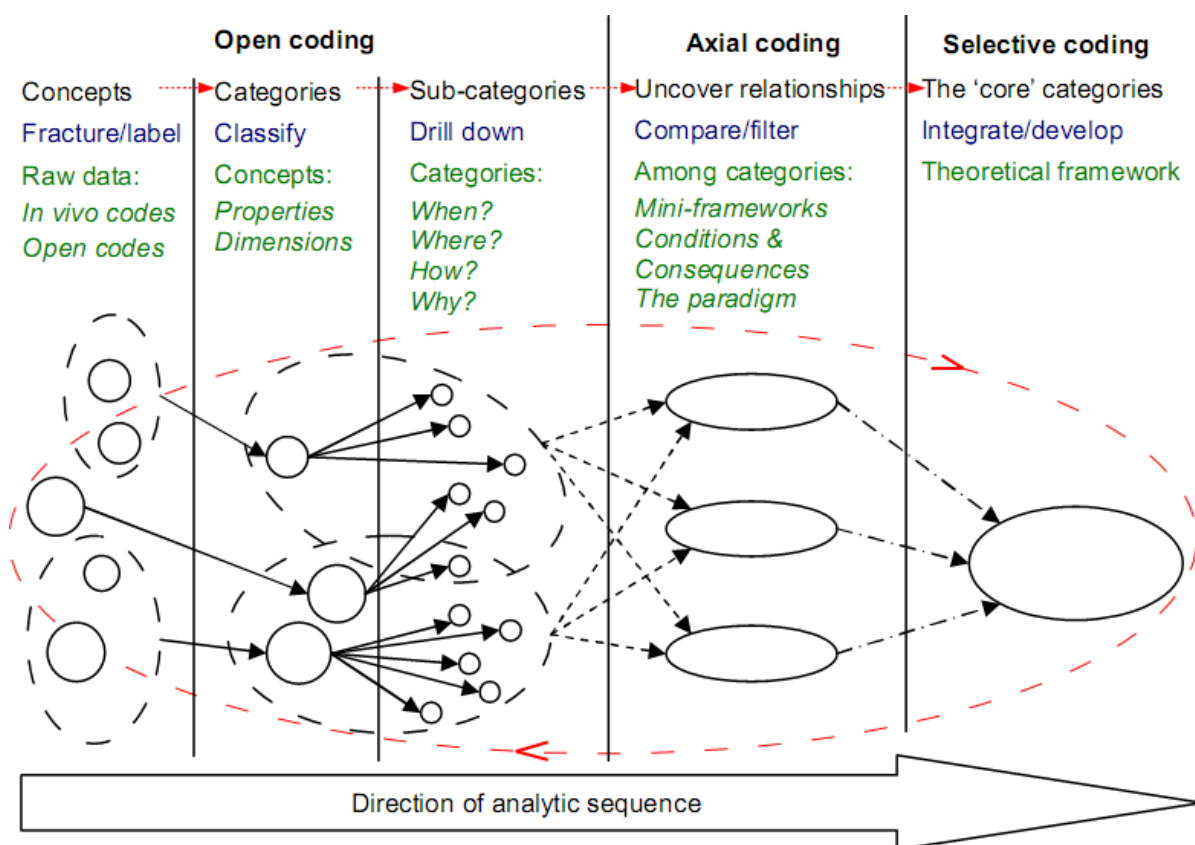


Figure 3.1 - Analytic process
(Adapted from Warburton, 2005, which was adapted from Harwood, 2002: 76)

As Glaser (1992: 39) wrote, “open coding is the initial step of analysis that pertains to the initial discovery of categories and their properties”.

The process is to read and reread the data and begin to group it into general categories according to the meaning you gather from it. Strauss and Corbin’s (1990) recommendation was to review the data multiple times, word-by-word and line-by-line, to pick up every possible meaning in the words.

Allan (2003) noted that this type of microanalysis would be extremely time consuming and could lead to so many detailed codes that the meaning could be lost. Considering this warning, the data was not analysed word by word, but rather, grouped the data into meaningful concepts.

The use of ATLAS.ti software permitted the labelling of the data and assign codes to each identifiable unit of meaning, whether it was a line, a sentence or a paragraph. Both representational and conceptual codes were assigned to each highlighted unit, add relevant notes to the codes, and transition easily from the dataset to the codes to the interview transcripts. This process helped reduce any doubt about what was sought. .

Often, these codes comprised key words, phrases or sentences that stemmed from the similarities and differences amongst events, activities, functions, relationships, contexts, influences and outcomes (Corbin & Strauss, 1990; Douglas, 2003a; Goulding, 2002; Pandit, 1996). Concepts in this thesis refer to these codes.

According to Goulding (2002: 77), “a concept is basically the underlying meaning, uniformity and/or/pattern within a set of descriptive incidents”. A segment, incident, passage, or entire dataset similarly was used as “quotation” in ATLAS.ti, to denote the smallest meaningful unit of analysis and the most essential element of a concept or a code.

Glaser and Strauss’ (1967) described the two rules of the method as (1) “while coding an incident for a category, compare it with the previous incidents in the same and different groups coded in the same category” (1967: 106), and (2) “the second rule of the constant comparative method is: stop coding and record a memo on your ideas” (1967: 107).

By categories, Goulding (2002: 77) provided a definition, “categories are higher order concepts. They have much wider explanatory power, and pull together all the identified concepts into a theoretical framework”. Therefore, when a passage of text was selected it was also coded and compared with all those previously coded passages, and explored whether it was similar to other passages or if “one of the passages coded that way don’t fit as well ... or ... there are dimensions or phenomena in the passages that might well be coded another way as well” (Gibbs & Taylor, 2005).

According to Boeije’s (2002) step-by-step approach of a constant comparison method, this technique was used similarly, linearly and concurrently.

Each interview was examined for common elements and differences. If one segment was labelled “self-liberating”, for instance, other segments with a similar sense would be given the same code. This internal comparison technique was to help categorise the interviews and identify the meaningful concepts to code.

In addition to the internal comparison technique, during the analysis process, the researcher compared interviews within the same group and from different groups. Some interview cases could be grouped together, because they met the same criteria. In comparing data from different groups, new questions emerged about certain categories, some of which were collapsed into a more general category, or put into a new one. It became evident that categories might have different meanings for different groups, and facilitated a better understanding of the differences.

Categories, subcategories and properties became clearer by use of the constant comparison method, and thoughts were noted as they arose. Properties were defined, using Strauss and Corbin’s (1998: 101) definition as “characteristics of a category, the delineation of which defines and gives it meaning”.

An example of open coding process at a textual level appears in Table 3.1; here open coding means, “a running log of analytic sessions” (Strauss & Corbin, 1998: 153).

Outcome	Quotation	Open code	Category	Code type
Codes	“Because it's always like sharing, and just exploring our own views.” (students9)	Exploring views	Purpose of WBL	In-Vivo code
	“In terms of chronological feature of the WBL, it was very useful for me.” (student12)	Reverse chronological Order	Feature of WBL Operability	A-Priori code
	“...you learn a little bit about yourself really.” (student7)	Learn themselves	Self-censorship	Question addressed
	“Sometimes I just read their discussion, observe what kind of characteristic is inside.” (student10)	Observe people	Self-perception	New idea

Note codes*	“I think that helps us to put our ideas a bit more clearly.” (student4)	Directly make things more clear	Clarify views	New idea
	“...there is a slight awareness of audience when you are writing, particularly, because of the comments” (student5)	Who are readers	Relationships	Question addressed

Table 3.1 - An Example of Coding and Categorising (Textual level & Conceptual Level)

NB: Here notes codes does not mean the note in note writing, In ATLAS.ti, it refers to a code that is longer than three words. It also belongs to concept, a part of open coding outcome. ‘In-vivo code’ means the participant specifically mentioned the code word. ‘A-Priori code’ means that the researcher was aware that code has been used in relevant literature. ‘Question addressed’ means that the code raises new research questions and hypotheses. ‘New idea’ means that the code designates an original concept. The participant is identified by a pseudonym.

There is little doubt that note writing begins with the first coding session and continues until the very end of the research project. The note codes may serve as the descriptions of behaviours, theoretical insights, the researcher’s thoughts, interpretations, experiences and questions, or a source of direction for further research (Goulding, 2002).

Strauss and Corbin’s (1998) strict note code forms were avoided, but treated writing notes as part of the analysis process. Using note codes helps to bring fragmented information together, as well as to suggest other areas to examine and to find missing information. Using coded notes made it easier to compare data collected at different times, as the notes offered a way to organise the information on a timeline.

All the participants spoke Arabic. As Arabic was the original language in which data was collected in the current study, translation into English was critical. In addition, ATLS was used, because it supports the Arabic language. The researcher first translated significant parts of the data analysed by ATLS in Arabic. Therefore, specialists and native Arabic speakers who were familiar with English helped to check the accuracy of the translation from Arabic to English following analysis.

The study used several types of note codes.

Firstly, In ATLAS.ti, the following types of notes were made:

- 1) For a new code, the concept of the code, the reason for the label and any assumptions;
- 2) During axial coding (relating the categories to each other) to identify the concepts that were similar or different;
- 3) During review of a transcription, to document questions or observations that came to mind.

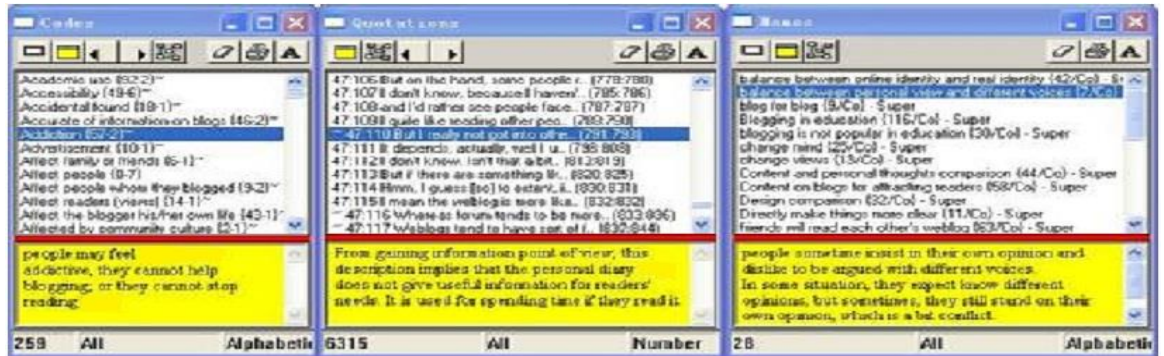


Figure 3.2 - Writing Example in ATLAS

Secondly, a personal research diary was kept to record ideas, inquiries, hypotheses and provisional ideas. The notes were in the form of conversations between the researcher and himself.

Thirdly, the most conceptualised notes were recorded in a Word document. As the work progressed, interesting concepts were noted, and expanded upon during the research process. Sometimes, one of those analyses evolved into a formal outcome, such as a conference paper or a research report.

The concepts between existing and new data were continuously compared. After analysing 15 interviews at the piloting stage, it was ascertained that certain concepts and categories were emerging repeatedly. In other words, some categories became saturated, “When no new properties, dimensions, conditions, actions/interactions, or consequences are seen in the data” (Strauss and Corbin, 1998: 136). At this point, the previously coded data was regrouped into new categories and subcategories (Pandit, 1996; Strauss and Corbin, 1998). This is referred to as axial coding.

In axial coding, Strauss and Corbin (1998: 124) said, “A category stands for a phenomenon” about which the researcher should ask questions to formulate an explanation. They (Strauss and Corbin, 1998) provided a “paradigm model” that would assist in defining the relationships among categories, and in identifying the core categories.

“The paradigm is nothing more than a perspective taken toward data, another analytic stance that helps to systematically gather and order data in such a way that structure and process are integrated.” (Strauss and Corbin, 1998: 128)

Based on Strauss and Corbin’s (1998) advice, the research employed axial coding, including: (1) describing the properties and dimensions of a category, (2) identifying the conditions, context, actions, strategies and consequences associated with a phenomenon, and (3) linking a category to its subcategories with statements identifying their relationships.

Next, an effort was made to select and integrate the core categories for validating the statements of relationships among concepts. This was the main task of selective coding. As described by Leedy and Ormrod (2005: 141), in this process, “the categories and their interrelationships are combined to form a story line that describes ‘what happens’ in the phenomenon being studied”. As Bartlett and Payne (1997: 193) indicated,

“Selective coding uses exactly the same techniques as axial coding, but relates all the categories to the core category and the categories are then related not only at the conceptual level, but also at the property and dimensional levels”.

According to Coffey and Atkinson (1996: 26-27), it was not “to search for the ‘right’ set of codes, but to recognize them for that they are: links between particular segments of data and the categories we want to use in order to conceptualize those segments”. This promised a sense of “reflective orientations” in WBL usage. Research questions were developed by using two tentative hypotheses and five tentative models and the interview questions were refined further.

Category		Maintaining & expansion of relationships	
Subcategory		Keep in touch with people	Think about other when using WBL
Subcategories	Where	Social connection; Personality – like to be online;	Social connection; Awareness of security; Personality – like to be online; Personality – observe people; Personality – teaching;
	When	Geographic distance; Operability – easy; Operability – convenience; Operability – flexibility;	Interaction; Reading by using WBL; Reading other people’s ideas;
	What	Communication styles; Supplement of information;	Online etiquette; Self-anxiety; Relationship in readers’ interests; Clarify thoughts;
	Why	Care; Friends; Reflect reality; Present personal experience; Present personal opinions;	Social connected lessons; Online identity; Gain distinction; Online business;
	How	Reading other people’s ideas; Leave comments; Interaction; Friends will read each other’s messages;	Content on WBL for attracting WBL user; Who are WBL user; Use WBL for WBL user;
	Consequence	Promote relationship; Learn about WBL; Sense of belonging; Sharing;	Reciprocity; Probability of meeting like-minded people; Learning how to communicate with people; Balance between online identity and real identity;

		Build confidence;
Property	Strategy	Perception
Dimension	Learning community; Self-therapy; Professional development	Online identity; Self-censorship; Self-evaluation;
Statement	Through WBL or reading by using WBL to keep in touch with people is a strategy of maintaining and expanding social connections.	Thinking of WBL user is a perception process by using WBL to form his/her own identity in social connections.

Table 3.2 - An Example of Coding & Categorising (Textual & Conceptual Levels)

Once the Pilot Study was completed, a deeper process of data collection was instigated. The same process and techniques were used to collect and analyse data, but for this second collection, a tentative hypothesis and model had been formed.

As Punch (1998) noted, open coding, axial coding and selective coding do not necessarily occur in a linear order. Rather, they are likely to be overlapping and concurrent. Knowing this, every interview was re-transcribed the data coded into the data for the three departments. However, expanding theoretical sampling to 9 faculties at Saudi universities provided a larger pool of potential participants from whom to select key informants. An explanation will follow in detail in the following section (3.4).

3.4 Data collection procedure

3.4.1 Sampling

Sampling means finding a smaller number of cases, units or sites to study that is representative of a larger population (Bryman, 2004; Wellington, 2000). While quantitative sampling focuses on obtaining an adequate sample size, qualitative sampling looks specifically for information-rich cases that can be studied in depth rather than every case in a broad population (Hoepfl, 1997).

There are three interchangeable terms in the literature about qualitative research sampling techniques: “selective”, “purposeful” and “theoretical” sampling. All these terms address the non-probability and purpose-directed features in sample selection. Coyne (1997)

pointed out that there was no explicit distinction between selective sampling, defined by Schatzman and Strauss, and purposeful sampling, described by Patton.

According to Sandelowski (1992), who agreed with Patton, all sampling in qualitative research is purposeful (Coyne, 1997). Selective sampling differs from theoretical sampling in that the researcher designs a sampling frame before the study begins. This allows the development of concepts that drive theoretical sampling; but theoretical sampling is determined and emergent during the theory generating procedure.

Theoretical sampling, an aspect of qualitative research (Glaser & Strauss, 1967), implies that the sample is collected with a theoretical purpose, that is, it is purposeful, although purposeful sampling may not be driven by a theoretical purpose, but by a determination to examine the phenomenon where it is found to exist (Coyne, 1997)

Selective sampling is “shaped by the time the researcher has available to him, by his framework, by his starting and developing interests, and by any restrictions placed upon his observations by his hosts.” (Schatzman & Strauss, 1973: 39)

“The logic and power of purposeful sampling lies in selecting information-rich cases for study in depth. Information-rich cases are those from which one can learn a great deal about issues of central importance to the purpose of the research, thus the term purposeful sampling.” (Patton, 1990: 169)

Selective sampling “refers to a decision made prior to beginning a study choosing to sample subjects according to a preconceived, but reasonable initial set of criteria. Theoretical sampling refers to a sampling decision made on analytic grounds developed in the course of a study.” (Sandelowski, 1992: 302)

Proper sample selection is essential to ensure the quality of any research. As Coyne (1997) stated, clarifying these concepts will help comprehend sampling strategies clearly.

“...theoretical sampling is always purposeful and it could be said that some qualitative studies may contain purposeful and theoretical sampling. However, other studies may contain only purposeful sampling since purposeful sampling is not always theoretical. It may be acceptable to view theoretical sampling as a variant within purposeful sampling.” (Coyne, 1997: 629)

3.4.2 Sampling in the pilot study

Patton (2002: 244) stated, “There are no rules for sample size in qualitative inquiry”. In this study, the intended pilot sample size was 9-10 SHE students from the Department of Education Studies at the Qassim University, who had experience using WBL.

After the granting of departmental ethical approval, the participants were recruited between March and July 2012 through three channels in light of practical conditions: (1) snowball method, (2) recruitment email, and (3) recruitment in lectures.

Following Pickard’s (2007) suggestion below, snowball sampling was used to identify purposive informants who used WBL, who liked WBL and would be willing to share their perspectives with the researcher. The first three interviewees were recruited by this means.

“Snowball sampling ... is the technique that is most commonly used to identify a sample and it can be accomplished in two ways. The first and original method of this type of sampling is to make initial contact with key informants who, in turn, point to information-rich cases. The second is to begin with an initial participant who, through the process of interview and observation, will point out characteristics and issues that need further inquiry.” (Pickard, 2007: 65)

At the same time, to recruit more informants to interview, a research support officer sent out a recruitment email in May 2012 on behalf of the researcher to all 200 undergraduates in the student’s department. Six volunteers responded to the recruitment email.

Due to the low response rate, staff’s permission was sought to recruit volunteers in person during two lectures (comprising approximately 50 students). This resulted in nine students participating in the study.

By June 2012, thirteen students had voluntarily attended interviews. There were six male and five female students, ranging in age from 19 to 24. All the participants were undergraduate students. Two participants did not use WBL. Half of the participants had at least one year of WBL experience.

N	NA	G	A	EB	WBLE	IUE
1	A1M	M	19	UG1	1	9
2	S1F	F	20	UG2	2	11
3	K1M	M	22	UG3	3	12
4	W1M	M	23	UG4	2	11
5	A1F	F	22	UG3	2	7
6	R1F	F	20	UG2	2	8
7	A2M	M	21	UG2	2	9
8	T1F	F	20	UG2	2	8
9	L1F	F	19	UG1	1	7
10	A3M	M	19	UG1	1	9
11	A4M	M	22	UG4	4	13

Table 3.3 - The 11 participants' information (Piloting phase)

NB: N=Number, Na= Name, G= Gender, A= Age, EB= Education background, WBLE= Web based Learning experience (years), IUE= Internet use experience (years), F= Female, M= Male, UG= undergraduate (years)

During the piloting procedure, the researcher realised the research limits, identified some weaknesses in the process, and modified the research design as follows:

The first steps were to tweak the recruitment email, which had had a low response rate, refine the interview questions and improve interviewing skills. After listening to the participants' suggestions and following advice from the literature on interviewing, the researcher developed a guide for conducting interviews to avoid repeating the errors. As Berg (2001: 100) suggested, "the only way to actually become proficient at interviewing is to interview", thus, the probing skills needed to ask fruitful open-ended questions were improved by conscious practice, and the interview questions were refined.

Secondly, following the suggestions in the literature on qualitative study (e.g. Gibbs & Taylor, 2005; Muhr, 1997; Strauss & Corbin, 1998), the concurrent collection and analysis process contributed to answering the research questions.

Two hypotheses were proposed during the pilot process:

Hypothesis 1: WBL may help Saudi HE students achieve self-organised informal learning.

Hypothesis 2: WBL users are more likely to use WBL to build unplanned learning, whereas for academic purposes, they are more likely to use WBL to engage in self-organised learning.

Thirdly, sampling was designed for the next stage, based on the tentative models and hypotheses. Another group of students, who occasionally used WBL or read materials on WBL on a regular basis, also had opinions on WBL use. Thus, this brought two distinct target groups into the research questions: students who had used WBL for more than one year, and students who had not used WBL very often, but have read material on WBL on a regular basis. The sample was also expanded to other faculties (School of English) to see if there were any educational factors relating to the participants' WBL experience.

3.4.3 Sampling in the main study

As discussed above, qualitative sampling is “an ongoing process and is concerned with the refinement of ideas, rather than boosting sample size” (Bryman, 2004: 305). The main data collection process took place from May 2012 to September 2014 in three key phases: Anchoring, Centring, and Forming Stages.

The Anchoring Stage refers to the beginning of the main study between June 2013 and July 2013, when the researcher chose as a target sample all students (213) from the School of Education, School of English Language, School of Arabic Language and School of Engineering at King Saud University and Qassim University.

With permission from the heads of schools and tutors, students were approached directly through and 213 WBL users invited to attend interviews; in addition, an invitation was sent via email to recruit volunteers.

Data analysis of the interviews took place concurrently with each transcription. It was felt that the initial purposes of using WBL might not be subject/educational-related, as most of the participants said they “enjoy writing”. This led to an expansion of the sample to investigate if WBL users from other disciplines had the similar motives.

The centring stage started at the end of August 2013 and finished in September 2013. It was the toughest as well as the most fulfilling phase in data collection.

Through the Corporate Information and Computing Services special-list service in the university, the researcher sent out two refined recruitment emails to nine faculties (Faculty

of Science, Management School, Faculty of Engineering, School of Architecture, School of Law, Faculty of Medicine, Department of Politics and Department of Arabic Studies).

The decision to send out an email to a large sample (2,545 students) resulted from the assumption that WBL had become popular at SHE, and to identify important informants, the researcher should first search for WBL users as widely as possible. Forty-eight students expressed willingness to attend an interview.

Taking into consideration the summer vacation break and the fact that seven of the volunteers were in their final year, the interviews were conducted from 1 August 2013 to 25 September 2013.

Due to the narrow time frame available for interviewing, full transcription was not possible immediately after each interview.

Thus an alternative method was employed to write down memos and to note interesting and key points immediately after each interview. Full transcription of the interviews took place in the first available period free of intensive interviews.

N	NA	G	A	EB	WBLE	IUE
12	F2F	F	22	UG3	2	10
13	A6M	M	23	UG3	3	9
14	A5M	M	22	UG2	1	8
15	W1F	F	23	UG2	2	9
16	A2F	F	20	UG2	2	8
17	S1M	M	23	UG1	1	8
18	A3F	F	22	UG2	1	9

Table 3.4 - The 7 participants' information (Anchoring phase)

NB: N=Number. Na= Name, G= Gender, A= Age, EB= Education background, WBLE= Web based Learning experience (years), IUE= Internet use experience (years), F= Female, M= Male, UG= undergraduate (years)

Rather than transcribing and analysing (including open coding, axial coding) each interview in detail, then selecting the next informant and repeating the process, new

concepts were looked into based on the previous findings (e.g. tentative models, hypotheses, and coding).

This process was useful to avoid omitting important information according to the practical response situation. There was no substantial deviation from what was suggested by Glaser and Strauss (1967), but agreed “one of the major goals of qualitative research is the generation of concepts that can form the building blocks of theory” (Bryman & Burgess, 1994b: 219). As Denscombe (2003: 235) pointed out, “...the researcher can know neither how many or which people or events will be investigated until the end of the research”.

Based on the length of their WBL experience, 17 informants were selected to participate in the study over this period.

N	NA	G	A	EB	WBLE	IUE
19	F1F	F	20	UG2	2	9
20	N2M	M	19	UG1	1	8
21	U1M	M	20	UG2	2	8
22	N1F	F	23	UG3	3	10
23	B1M	M	20	UG2	2	8
24	S2F	F	22	UG4	4	10
25	N2M	M	20	UG2	2	9
26	E1F	F	19	UG1	1	7
27	M1F	F	20	UG2	2	7
28	M1M	M	19	UG1	1	10
29	T1M	M	23	UG4	4	13
30	J1F	F	19	UG1	1	9
31	B1F	F	19	UG1	1	7
32	R1M	M	22	UG4	3	11
33	T2M	M	19	UG1	1	10
34	A7M	M	20	UG2	2	10
35	C1M	M	21	UG3	3	9

Table 3.5 - The 17 participants' information (Centring phase)

NB: N=Number. Na= Name, G= Gender, A= Age, EB= Education background, WBLE= Web based Learning experience (years), IUE= Internet use experience (years), F= Female, M= Male, UG= undergraduate (years)

The forming stage refers to the period between 20 July and 28 September 2014.

After analysing the 17 interviews as a whole (coding and comparing concepts) at the centring stage, 13 additional participants were selected to saturate the categories and “to find any disconfirming evidence that may suggest revisions in the categories identified or in interrelationships among them” (Leedy & Ormrod, 2005: 141).

N	NA	G	A	EB	WBLE	IUE
36	E2F	F	19	UG1	1	7
37	A8M	M	22	UG4	3	10
38	A4F	F	20	UG1	2	9
39	J1M	M	19	UG1	1	9
40	M2F	F	20	UG2	2	7
41	D1F	F	20	UG2	2	10
42	M2M	M	23	UG4	4	12
43	W2F	F	19	UG1	1	8
44	L2F	F	20	UG2	2	8
45	A5F	F	19	UG1	1	6
46	A6F	F	22	UG4	4	9
47	V1F	F	20	UG2	2	7
48	N1M	M	19	UG1	1	9

Table 3.6 - The 13 participants' information (Forming phase)

NB: N=Number. Na= Name, G= Gender, A= Age, EB= Education background, WBLE= Web based Learning experience (years), IUE= Internet use experience (years), F= Female, M= Male, UG= undergraduate (years)

The 13 interviews were fully transcribed and concepts, as well as drilled down categories, were created one after another. Twelve respondents on the list were still available for subsequent interviews and the researcher added the results to the existing data.

N	NA	G	A	EB	WBLE	IUE
49	B2M	M	20	UG2	2	6
50	B2F	M	23	UG4	3	8
51	E1M	F	20	UG1	1	7
52	D2F	F	22	UG3	2	8
53	K2M	M	21	UG3	3	8
54	K1F	F	20	UG1	1	9
55	F1M	M	23	UG4	4	12
56	F2M	F	20	UG2	2	9
57	L1M	M	21	UG2	2	7
58	L2M	F	20	UG2	2	8
59	R2M	M	22	UG4	4	9
60	J2M	M	20	UG2	2	7

Table 3.7 - The 12 participants' information (support data)

NB: N=Number. Na= Name, G= Gender, A= Age, EB= Education background, WBLE= Web based Learning experience (years), IUE= Internet use experience (years), F= Female, M= Male, UG= undergraduate (years)

3.4.4 Interviews

In qualitative research, interviews normally utilise semi-structured, open-ended questions, which allow individual variations, helping the researcher to gain rich data, forming and refining theoretical categories (Hoepfl, 1997).

In this study, a series of questions were developed to address the research problem and employed a semi-structured, open-ended, face-to-face, in-depth interview method. This decision was based on the concept that “interviewing is a basic mode of inquiry” (Seidman, 1998: 2).

It provides “access to the context of people’s behaviour and thereby provides a way for researchers to understand the meaning of that behaviour” (Seidman, 1998: 4), and conforms to the research aim of exploring WBL phenomenon. As Law et al. (1998) claimed, “Interviews can be done relatively quickly, with little expense, and are useful when a particular issue needs to be explored in depth”.

Open-ended questions require the respondent to reply with more than a “yes” or “no” answer. Although Newman (2002) argued that “psychological distress” may affect face-to-face interviewing (e.g. the level of information revealed by an interviewee is positively related to the level of privacy of the interview), the interviewer needs to be able to ask further questions to explore significant responses.

Although it would have been possible to use the participant’s WBL, such as VLE or Website or Model, as a data resource in this study, giving potential direction for the analysis, the researcher decided to use the interview transcriptions as empirical data and constantly compared it with relevant material in the literature.

This decision resulted from three main points: firstly, not every participant’s WBL was accessible. Some WBL users who had set up a password for the WBL were unwilling to provide addresses. 16 participants provided their WBL documents voluntarily. These documents were read to avoid misinterpreting the participant’s expression in the interview.

Nevertheless, there were not enough using WBL to provide the entire data set that fairly included every participant’s WBL.

Secondly, it was decided that the collected interview data were sufficient to allow the emergence of main categories and their interrelationships.

Thirdly, the interest of the research topic mainly focused on understanding the perception of using WBL experience and comparing students’ views of WBL. It was not intended to observe how participants wrote or expressed their experience, as an ethnographic content analysis would have done.

Once the potential interviewees were identified, the researcher arranged to meet them face to face explain the purpose, mode, and process of the interview and to obtain their consent to be interviewed. Male and female participants were interviewed in university campuses.

Due to the Saudi cultural norms, which prevent meetings with females without relatives, the researcher struggled to carry out interviews with females face to face. He therefore arranged interviews with some student’s families to obtain consent and he subsequently interviewed female students face to face on university campuses. He also arranged some interviews with female students with their teachers as chaperones and carried out interviews in their presence. He also carried out some interviews with female students in

the presence of female doctors who in the university. The challenges faced were therefore formidable, but finally an array of interviews with female students were carried out and high quality data was collected.

Therefore, according to the research purpose, there was no doubt that ‘individual interviews’ rather than ‘focus groups’, ‘group interviews’, or ‘analysing WBL models as primary data sources’ was an appropriate method to help investigate the WBL phenomenon from the user’s point of view.

Weaknesses in the researcher’s interview technique were noted through feedback and the interview technique was improved upon considerably during the data collection procedure.

The following sections will present the procedural steps and format of the interviews.

3.4.4.1 Research questions in relation to interview questions

To explore the nature of using WBL, the basic interview questions were designed following Patton’s (2002) suggestions, to ask questions about behaviours, opinions, values, feelings, knowledge, and demographics that would be relevant to the research questions.

The above sections described the sampling process.

During the development of sampling, the interview questions were refined and developed, from defined open-ended questions at the very beginning to more alternative flexible questions.

Table 3.11 presents the major research questions on which the subsequent interview questions were based. Appendix 6 provides additional details of the interview questions.

Research questions	Relevant interview questions
What are the motivations for using WBL?	P1.1, P1.2, P1.3, P1.4, P1.6, P1.8, P1.10 M1.2, M1.4, M1.6, M1.7, M1.8, M1.30 D2, D3, D17, D18
How do WBL users think of their WBL?	P1.2, P1.12 M1.2, M1.24 D5, D7, D10, D12, D14, D15, D16
What are WBL users’ learning needs when they use WBL?	P1.3, P1.4, P1.9, P1.10, P1.12 M1.1, M1.2, M1.3, M1.5, M1.7, M1.8, M1.9, M1.23, M1.30 D6, D9, D10, D11, D16, D18, D19

What is worthy of using WBL?	P1.2, P1.8, P1.13 M1.7, M1.8, M1.9, M1.18, M1.19, M1.22, M1.29, M1.30 D1, D11, D19
What have they learned through WBL?	P1.5, P1.12 M1.20, M1.21, M1.25 D13, D14, D15, D17
What are the attitudes of WBL users to comments and ideas?	P1.6, P1.7 M1.15, M1.16
What are the constraints for WBL in help learning?	P1.5, P1.9, P1.11, P1.12 M1.21, M1.24, M1.25, M1.26, M1.27, M1.28, M1.29 D6, D10, D19

Table 3.8 - Research questions in relation to interview questions

NB: P = questions in the pilot phase, M = questions in the main phase, D = developed additional questions

3.4.4.2 Preparing, Conducting and Sequencing The Interview

In accordance with the sources from Patton (2002: 382), Brenner (1985: 19-20) and Mack (2005: 48-49), as well as his own experience, the researcher developed a checklist for interview preparation, conduct and management.

The practical guide is listed in Appendix 6.

To ensure a smooth interview, the researcher should conduct all the interviews in as similar a manner as possible (McNeill and Chapman, 2005) and remember, “Your role is to listen and to learn, not to preach, praise or condemn” (Gorman and Clayton, 2005: 130). Adding Mason’s (2002) recommendations to the sources mentioned in the above section, a checklist was developed to guide the interview:

3.5 Ethics Issues

Ethics issues often arise when using human subjects in research. Leedy and Ormrod (2005: 101) claimed, “Any participation in a study should be strictly voluntary” and defined four categories of ethics issues: safeguard from harm; informed consent; right to privacy; and honest interaction.

Wellington (2000: 57) outlined eight rules to check ethics in a study, such as “no parties should be involved without their prior knowledge or permission and informed consent”, “relevant information about the nature and purpose of the research should always be given”, “all participants should be treated fairly, with consideration, with respect and with

honestly”, “confidentiality and anonymity should be maintained at every stage, especially in publication” and so on.

Also, Patton (2002: 408-409) provided an ethical issue checklist, which highlighted ten aspects: explaining purpose; promises and reciprocity; risk assessment; confidentiality; informed consent; data access and ownership; interviewer mental health; advice; data collection boundaries; and ethical versus legal.

Therefore, ethics approval had to be sought before undertaking research with humans, in accordance with the definition of personal data in the Data Protection Act 1998 and with university regulations. The necessary ethics application forms were submitted, including a Participant Information Sheet, a Participant Consent Form, emails for recruiting participants, an interview guide (for participants), the interview questionnaire (for researcher), and a University Research Ethics Application Form. These forms may be found in Appendix 2.

The Participant Information Sheet covered the ethics issues, such as the research purpose, right to withdraw, sensitivity representation, confidentiality, anonymity, protection and support, etc., and the participants were asked if they agreed to the interview being recorded to enable the researcher to transcribe and analyse.

At the end of May 2013, the department’s ethics approval was obtained and data collection started. This permission was just the first part of ethics approval.

During the main study, a series of ethical approval applications were completed in order to obtain permission to be “on site” collecting data, including authorisations from the departments at the anchoring phase.

3.6 Trustworthiness

As discussed, qualitative research has become more influential and widely adopted in sociology since the 1990s. Judging the quality of a qualitative study is of vital importance. In this section, the researcher explores the notions of “validity” and “reliability” in qualitative research and discusses the quality criteria. It then presents the strategies employed in order to establish trustworthiness in this empirical study.

3.6.1 Validity and reliability in qualitative research

Quantitative research aims at generalisability and uses validity and reliability as two key criteria to examine methodological appropriateness.

In general, validity addresses whether the researcher explains or measures what they said they would be explaining or measuring. Reliability addresses how accurately the research methods and techniques produce data (Cryer, 2000; Fink, 1998; Kumar, 1999).

In contrast, because qualitative inquiry is inclined to focus on the coconstruction of meaning between the researcher and the informants (Lietz, 2006), Silverman (2004: 362) argued for the use the generalisability criteria in qualitative research:

“in qualitative research, working with smaller data-sets open to repeated inspection, you should not be satisfied until your generalization is able to apply to every single gobblet of relevant data you have collected.”

In recent years, “it is widely accepted that qualitative researchers should adopt a rigorous and self-conscious examination for bias at each stage of the research process” (Goulding, 2002: 18). Without treating reliability and validity separately from those terms in qualitative studies, terminology that encompasses both such as credibility, transferability, and trustworthiness occur in the literature broadly (Golafshani, 2003).

As far back as 1985, Lincoln and Guba proposed alternative criteria to traditional reliability and validity, consisting of four factors: credibility (truth value); transferability (applicability); dependability (consistency); and confirmability (neutrality). To enhance the rigour of qualitative research, Padgett (1998) developed these criteria into six strategies: prolonged engagement; triangulation; peer debriefing and support; member checking; negative case analysis; and auditing. In 2000, Creswell and Miller reiterated these six verification procedures and identified two more: clarifying researcher bias and thick description. It was recommended that qualitative researchers engage in at least two of the eight verification procedures in any given study (Creswell, 2003).

Furthermore, Anfara (2002) based on Lincoln and Guba’s strategy, proposed four additional factors: time sampling; purposive sampling; code-record strategy; and practice reflexivity to add to the criteria for assessing qualitative research quality and rigour.

More recently, Lietz (2006) conceptualised the idea of rigour using seven strategies: prolonged engagement; triangulation; peer debriefing; member checking; negative case

analysis; audit trail; and reflexivity. Flick (2006: 378) claimed that researchers should critically assess the study by questioning:

- The validity, reliability, and credibility of the data,
- the plausibility, and the value of the theory itself,
- the adequacy of the research process which has generated, elaborated, or tested the theory, and,
- the empirical grounding of the research findings.

All in all, as Patton (2002: 51) noted,

“Any research strategy ultimately needs credibility to be useful... Both qualitative/naturalistic inquiry and quantitative/experimental inquiry seek honest, meaningful, credible, and empirically supported findings”.

The qualitative researcher works to control bias through the practice of building trustworthiness, and “moves back and forth between design and implementation to ensure congruence among question formulation, literature, recruitment, data collection strategies, and analysis” (Morse et al., 2002), and focuses on how meaning is constructed and how well the design “fits” the circumstances of construction (Holstein & Gubrium, 2004).

3.6.2 Strategies to establish trustworthiness

In accordance with Strauss and Corbin (1998), Lietz (2006), and Patton’s (2002) suggestions, the researcher employed multiple strategies to establish trustworthiness and to minimise the risk of avoidable errors in this study.

These strategies consisted of: audit trail; member checking; peer debriefing; triangulation; and reflexivity.

3.6.3 The use of audit trail

The audit trail also refers to the confirmability audit. It allows an external reviewer to view and inquire the process to determine whether the evaluation procedure was dependable and confirmable (Morse and Richards, 2002). It often follows the six Halpern audit trail categories including: (1) raw data (2) data reduction and analysis products (3) data reconstruction and synthesis products (4) process notes (5) materials relating to intentions and dispositions, and (6) instrument development information (Lincoln and Guba, 1985).

In this study, an audit trail was maintained relating to three aspects.

Firstly, all interview records were kept in both hard copy and electronic format, for instance, the informants information was saved and managed using an ACCESS database. The interview cassettes and formal interview materials were kept in a safe place in the researcher's house. The transcriptions of the interview (raw data) were kept and managed using ATLAS.ti software. Memos were saved in ATLAS.ti, Word documents, and hardcopies (with archival number).

Secondly, data analysis products were presented through meeting-discussion notes, stage analysis reports, and memo writings about possible tentative models, hypotheses and relevant ideas in both hardcopy and electronic format (with archival number).

3.6.4 The use of member checking

According to Lietz (2006), member checking refers to asking participants and other researchers to check the accuracy of findings and confirm which aspects of data analysis best fit their perspectives.

An effort was made with 8 participants who were still contactable at that time (10th April – 19th December 2011) to confirm the transcriptions and the analytical description about their views of WBL usage. 5 of them were confirmed through email, and the other three informants were confirmed in separate face-to-face informal interview (half an hour for each one).

Also, one transcription was randomly selected with its codes and categories and three experienced colleagues were asked to verify the analysis. This procedure guaranteed the analysis in data as well as having consistency and credibility of the coding process.

3.6.5 The use of peer debriefing

“Peer debriefing involves the process of engaging in dialog with colleagues outside of a research project who have experience with the topic, population or methods being utilized” (Lietz, 2006: 451).

The research was openly judged and viewed throughout the procedure of the study in two ways. Firstly, the work was presented through department seminar presentations in KSA, conference poster presentation and paper publications. This made the study peer reviewed and discussed by colleagues and professionals inside and outside the university.

Secondly, during the research process, experienced staff was approached in KSA and articles submitted to present research findings. This helped the researcher to confirm the study and to develop better strategies to establish research credibility.

3.6.6 The use of reflexivity

McGhee (2007: 334) stated that “reflexivity is viewed as the explicit quest to limit researcher effects on the data by awareness of self...”, whereas Lietz (2006: 447-448) pointed out,

“Reflexivity involved considering the multiple identities and perspectives of the researchers in consideration of ways in which these factors could both support the process of data analysis while also acknowledge the potential for reactivity and bias”.

In previous discussions, it has been noted that decisions in data collection and analysis would inevitably impact on the interpretation of the experience/perception under investigation. According to Mills (2006: 7-8), she realised that,

“Researchers, who first identify their ontological and epistemological position, are able to choose a point on the methodological spiral of grounded theory where they feel theoretically comfortable, which, in turn, will enable them to live out their beliefs in the process of inquiry”.

As Glaser and Strauss (1967) emphasised, the importance of qualitative research is that the analysis grounds in empirical data rather than existing materials. They suggested that reviewing literature at the beginning or the researcher’s previous knowledge of a study topic is not the most crucial factor in qualitative study.

Therefore, prior knowledge and those perspectives from the literature as data and sources for helping comparative analysis were used. Wide resources were used to develop theoretical sensitivity. However, the sensitivity is subjective, and the awareness was throughout the study, especially in data analysis procedure.

3.7 Summary

Methodology is “the philosophical and theoretical underpinning of research that affects what a researcher counts as evidence” (Balnaves & Caputi, 2001: 52).

Choosing a methodology was a primary part in this study.

This chapter presented the rationale of using A qualitative approach according to the research aim, i.e., not to verify theory or test hypotheses by numbers, but to discover, conceptualise and explore the meanings of WBL, learning and sharing by words. It also presented the research processes in detail, covering how sampling was designed, how data was collected such as recruiting and interviewing, and how transcriptions were analysed by using ATLAS.ti.

As a methodology to study WBL phenomenon through the concurrent data collection and analysis, qualitative tradition built on compared concepts and suggests that similar data is grouped and conceptually labelled.

Chapter 4. Formal & Informal Learning

This is the first Chapter which seeks to explore the key findings from the research programme, and in particular, this chapter seeks to understand the key motivations of WBL Users, including both WBL Learners and Readers.

4.1 Trajectory of Using WBL

An analysis of the drivers that affect Saudi Higher Education WBL and their use orientations, identifies a basic process of WBL according to participant accounts. Although each participant has a personal inspiration for using WBL, such as accepting a social trend or gaining an inner feeling, the research created a conditional matrix through which to present the basic trajectory of WBL use.

At the beginning of WBL awareness, many participants (20 of 48) showed interest or excitement, 10 felt incredulous, 13 said they would just accept it without a clear impression, four participants were not very interested and two participants felt the “egoism” of WBL.

Initially, most WBL users were excited by the idea of using formal and personalised writing (e.g. Participant “A8M”), they felt the idea was acceptable (e.g. Participant “A2M”) and they were curious why students would write personal things and put the information online (e.g. Participant “R1F”).

However, at the same time, they did not understand why students read the information (e.g. Participant “A4M”) (see examples below). They began to regard WBL with ambivalence. The research labels this period of inquisitiveness “Starting”.

Extrinsic incentives had an influence on this beginning, such as peers using it to contact each other, being mentioned in student meetings and coming across a personal WBL:

“It’s quite exciting really. It’s like email, but better. You can do more things with it ... it could have my own style. I could design what it looked like and also I could post whatever I like. I could post things for everyone to read or just for my friends to read” (Participant “F2F”).

“I haven’t got any specific feeling. I think just — I accept it. I don’t think of it as very good or bad, just OK. It’s odd” (Participant “A6M”).

“I thought it was very strange [feeling]. I couldn’t really understand why students were willing to share the things about themselves, about their thoughts and feelings to potential audience of others... [I use WBL because] part was curiosity, and another part was to keep updated with my friends, to keep them updated about me very quickly, because it takes a while to text everybody that I know; it takes a while to email everybody that I know., but if I keep on WBL, then other students can look at it and can instantly see how I am doing, and they can see chronologically how that changed. So I am able to keep up with a lot of students, and they keep up with me in a very compact and efficient manner, and I can share thoughts and feelings in more depth, because I have the ability to write more in a short space and time. I would say for a text, or an email, which is limited” (Participant “A4M”).

“I thought it’s strange really., because it does seem like — particularly WBL — does seem like an online access. You think, well, everyone is allowed to see, aren’t they? ... I thought to begin with, a lot of students are putting quite a lot of information on there, that everyone is free to read and I thought that was quite brave, to begin with. Also I think it makes a lot of students who perhaps shouldn’t look at it may look at it” (Participant “L1F”).

After experiencing a short Starting stage, some students felt that the WBL was not interesting. They soon forgot it or developed a negative attitude towards using it; for instance, Participant “B2M” felt that he had many ways to exchange opinions with students and he had no need for WBL (see statement below).

Thus, some students abandoned the WBL experience. Many other students tried using WBL. They wanted to see whether it was useful. This stage, which is mostly driven by intrinsic incentives, is called “Groping”. It reflects that with a provisional feeling, the WBL user experienced WBL for him/herself before he/she passed an opinion on it. For example, Participant “K1M” felt the benefits after he tried using it:

“I dislike when someone’s feeling is often important and — just putting their things about their opinion, and their viewpoints of study, that doesn’t make sense to me. I cannot see why students read that...” (Participant “B2M”).

“The first time I realised what they were — it’s quite confusing, I don’t really understand how students could like — just write down stuff and everyone to see I

cannot think. I can do it almost., but then the most I started using, it's really like — handy, really enjoy doing, so I carry on” (Participant “K1M”).

The “Attempting” stage follows the Groping stage in which the WBL learner still has the sense of testing it. However, it differs from Groping, because in this process the WBL user feels enjoyment and makes more of an effort to use WBL. Extrinsic incentives also tend to drive this movement, such as receiving encouraging comments, meeting students who have similar experiences or feeling that someone is interested in the user’s writing. Those external drivers positively influence students to continue updating in the WBL. Two examples are below:

“Sometimes I get lazy. I don’t want to keep in WBL. After a certain time and some students may go into it and say ‘oh, the place is so cold, you should warm it up’, Most students say, ‘put more writings, more pictures, we want to see that’. I suppose students expect me to say something, so I will keep writing” (Participant “S1F”).

“I think it took me a little while to get interested enough to actually set up and use it, because I’ve never really been a person to keep a diary, or anything like a journal. I might have done when I was younger, but I am not good at doing it every day... I think the first time I really got interest in using WBL was when I became more interested in my study and in the community aspect, where you can join in and talk to other students about the same thing you are interested in and about our courses” (Participant “A5M”).

Despite receiving comments and interacting, after the Groping stage a few participants expressed that they finally decided to give up using WBL due to a strong intrinsic feeling (e.g. “uncomfortable”, “it is odd”). They would rather keep reading by using WBL than studying by using WBL. Typical examples (e.g. Participants “W1F” and “A2F”) were discussed earlier.

In the Attempting stage, some WBL users decided to stop WBL due to a lack of intrinsic motivation.

For example, “S1M”, who used WBL during a difficult period, and A4F and T1F, who used WBL to share a particular experience (e.g. course files, discussion), all expressed that they became busy with their studies and did not have special topics to publish.

However, largely, because of satisfying and enjoyable feelings, many WBL users gradually formed their own styles for using WBL. Some realised what students are interested in and developed their own writing style, some felt other students supported and understood them, some felt that they broadened their views and expanded their perspectives, and others felt WBL was informative, so kept reading it and improved personal skills. The researcher calls this period of time “Norming”. Norming reflects that WBL users did not question themselves about why they used WBL or why other students use WBL. They became accustomed to WBL.

Many participants similarly stated that it was “like a habit” (e.g. Participants “A4M”, “S1M”), “I am used to doing it” (e.g. Participants “S1M”, “M2F”), “I quite enjoy doing it” (e.g. Participants “A3F”, “A6M”, “F2F”) or “I am addicted to it” (e.g. Participants “N2M”, “L1M”, “U1M”). Meanwhile, the following statement provides an example of how WBL users start to read by using WBL regularly:

“The first time I was a little bit suspicious. I thought the information didn’t have all that much credence, because you never know about who is writing it, but as I kept visiting the site, I started reading this student’s ideas and information, and at first I was rather dubious, but he didn’t seem to have any ulterior motives; that gave me a certain amount of trust, they’re all through the WBL. So now whenever he does link to WBL, or when he has some extra ideas or information and improve my personal skills, I take it account that measure of trust I’ve built up him as a source. That ideas and information he is linking or to a certain degree or authority as well. So, yeah, that’s how I’ve kind of come to trust that source of ideas and information... I check them about 3 or 4 times a week” (Participants “A6M”).

In the Norming stage, there is still a possibility of abandoning WBL, because of external and internal effects. For example, some participants mentioned that they would probably give up WBL when they graduated and started a job. They pointed out that students have flexible time. Being a WBL user does not affect their student status or life, but it may influence their professional development and career (see Participants “L1M”’s statement below):

“... I’m in the university; I use WBL, because I think it’s easy., but I think once when I graduate and I will go to work, I will need to be very careful, because obviously, my employer could access any WBL courses or web. I don’t know,

definitely in the university. I continue to use WBL, because it's important for my study. I might change" (Participants "L1M").

Many participants noted that they would continue WBL and develop its use. This stage therefore is named "Reforming". It implies that the WBL learner has confirmed the benefits of using WBL in his or her learning, started to take into account how to better utilise it and to consider how it further benefits the students in terms of their purposes, such as learning use, community of interest use, reflective use or social use.

The following statements from Participants "N2M" and "N1F" provide evidence of further promoting WBL use:

"... I like to keep students informed., because I'm so curious to different areas, I can explore using my WBL. ...But I think there are potential — that may get massive resources for a lot of things, including education, and I like to have somewhere where I can write basically whatever I like, but there is an opportunity for other students to read and discuss it. So I get instant feedback on something rather than just writing or discuss it down. It's a nice way — it takes me to write something, but it takes other people to look at it, read it and leave comment, and makes them own opinions about it... I've shown WBL to other students... they seem to be quite impressed with the nature of the WBL, and that's gone with few limits" (Participant "N2M").

"I've been wondering how it [the WBL] will fit into my life style and my study and improve my personal skills, because I know the student's life style is very different to working until 4... Well, I will definitely keep on WBL. I don't know what shape or anything that will take, but it's not really something I would want to give up. I think there is a desire like — students I know to — have more students in WBL, so for example, particularly related to WBL, if you have students who make decision in the university, for example, like discussion or something, if they had in WBL, could kind of writing about what they are doing today, or write about why I made the decision, I think that would really help, and there is a space for that, students particularly will be really open to that. I think so. For example, in education, I think there is definitely audience in my generation for them to be writing thing on the WBL, which will be very well received. So I think that's why I wouldn't stop, because I know that, in myself, I am hungry to see what other students are going to

write and discuss. So I want to continue to be part of that, I think” (Participant “N1F”).

The interpretation of the trajectory of using WBL was mainly based on the WBL user experience. However, their reading experience showed a similar process. They began to use WBL (similar to the Starting stage), found interesting topics and useful information (similar to the Groping stage), expanded and built trust in WBL sources (as in the Attempting stage) and read them on a regular basis (like the Norming stage).

4.2 Memories

Learners use WBL as an online space for studying, expressing feelings, opinions or emotions, discussions and even reading back to check certain things written earlier. As stated earlier, WBL services provide WBL users with a free and large online space, and its features (e.g. reverse chronological order, date-stamped entries, WBL roll, and searching function) allow WBL users to store and manage information flexibly. Therefore, WBL provides documentation of the WBL user’s individual learning. In the end, like computer memory, WBL helps WBL users store part of their memories.

Three examples reflect this point:

“I can keep documenting my progress in my research and improve my personal skills” (Participant “A6M”).

“I suppose just, because it’s somewhere that I can put things or otherwise I forget. It’s a nice way to store my memories to improve my personal skills” (Participant “B1M”).

“[I read back my WBL] ... suddenly just think that how can I forget that I have gone through this... so it’s a good way of refreshing a memory” (Participant “A4M”).

4.3 Addiction to IT

WBL users were likely to be “addicted” to digital technologies and sources. They use new technologies often, adopt technological applications quickly, and apply mobile and network tools heavily. Technology has become one of the digital generation’s routines and typing has become one of its most representative behaviours. Most participants find typing to be easy and they enjoy surfing online for entertainment and information.

Most WBL learner participants mentioned that when they have free time, on average they spend more than 1.30 hours every two to three days on their WBL, and an hour every day reading WBL.

Half of the WBL readers (5 of 11 participants) spend 0.50 hours daily reading with WBL and the other half read using WBL on a weekly basis.

WBL learners appear more likely than WBL readers to read regularly using WBL. Several examples reflect this orientation:

“... because I had touch typing I found typing faster than writing up by hand, so I like to use it a lot”. (Participant “A8M”, 21 years old)

“I like writing, but if you mean writing, I prefer typing, because I’m too lazy to write”. (Participant “F1M”, 20 years old)

Five participants explicitly used the word “lazy” to describe their way of connecting with people on the Internet. As Participant “A1M” (a 19-year-old, with one year WBL experience) said:

“...because people get so lazy nowadays, they don’t want to leave a message. When I write down something, maybe only one or two students will give me messages and the messages just say, ‘I saw it’ or ‘I know’, very simple”.

“Lazy” can be seen by comments such as, “putting short description, even no title, just put pictures, let people see” (Participant “A1M”), “talk becomes short in conversation, but more happens in WBL” (Participant “K1M”) and “too lazy to meet up often” (Participant “A1F”). In a sense, this implies that the social connection between students is diminishing and moving to an online and virtual activity.

Although this study did not investigate the change in social connections between different generations (e.g. 1960s, 1980s, current generation), some participants did express their feeling that social connections are lessened (see W1M’s opinion below), whereas others noted that they maintained their old relationships in real life, met new friends through WBL and expanded online relationships to real relationships (see Participant “S1M”’s words below):

“It’s quite depressing to know that the world was stolen, [become] so virtual. It becomes such a small place through things like Facebook, — network things inside. I hate that, because you are accessible to everyone... you just become obliged to keep in touch with everyone [online] and you don’t really have a choice...” (Participant “W1M”).

“Most of my friends now, we actually met through WBL. When I went back to Riyadh, I met one friend, and I would meet another friend, and then we go out together”. (Participant “S1M”, a 2-year WBL user)

4.4 Individualisation

Individualisation is a crucial attribute that emerged from the data, reflecting that the WBL user has a strong sense of his/her identity and ideas through emphasising “It is me” and “Who I am”.

On WBL, students’ could achieve personalised needs through learning, design of external appearance and writing style. A few examples show this clearly; Participant “R1F” addressed the importance of using “graphics” on WBL to identify the WBL user him/herself and to show a unique individual. ParticipantS “A2M”’s and “T1F”’s definitions of their WBL presented the individualised demand:

“... that’s [graphics] such an important part in WBL, I think, because it’s not just about the text and the content, it’s really like a double thing. I mean, I think if you don’t use graphics, images, then you’re losing part of the nature of WBL... there are lots of people who use photographs themselves as well, so it’s very visual”. (Participant “R1M”, age 20, 1- year WBL experience)

“... I can go onto the web and say, ‘this is me and this is my WBL. This is part of my identity, I suppose, and it almost gives me a base on the web...” (Participant “A2M”, 21 years old, 2 years’ experience).

“Nobody can change the world, but the WBL to be one of changing on students thinking, WBL gives us to think in different ways and see or say things in different ways”. (Participant “T1F”, 20 years old, 1 year of WBL experience)

4.5 Peer acceptance

In comparison with individualisation, WBL users have explicit demands for achieving peer acceptance through sharing their opinions and experience. Most WBL users seek a sense of WBL acceptance on the Internet.

From the two examples below, one can see that possibly they acquire this sense from interaction through WBL commentary, using a personalised writing style to draw others' interests or contributing to discussions of social issues. Gaining peer acceptance, to some extent by contrast, provides assurance to the WBL users about his/her own value and further reinforces the WBL user's sense of identity and individualisation:

“... [for example, I] just watch if they have dinner tonight. It's nice that you can get involved with that. So I do try to leave comments, because it's a way of telling students that you're reading and you appreciate what they're putting down” (Participant “L1F”, 19 years old, 1 year of WBL experience).

“... maybe someone answers what you expect to, or if I'm sharing another experience or opinions, I suppose, let my friends know that they are not the only person who is feeling in a certain way, undergoing a certain thing. I hope it's sort of, a thing that my friend can relate to” (Participant “A3M”, age 18, about 1 year of WBL experience).

In this study, the findings regarding the attributes of WBL users did not suggest support for “personality” as a predominant concept; rather, the study found that certain personal traits do affect WBL use behaviours (more discussion in the section on social aspects).

It is clear that WBL users, especially WBL learners, are likely to apply digital technologies and online sources heavily. They are accustomed to typing instead of writing on paper. They demand both individualisation and peer acceptance. Gaining peer acceptance further helps the WBL user to confirm his or her individualisation.

Chapter 5. Individual Learning & Personal Responses to WBL

This Chapter continues the process of analysing the findings of the Qualitative Research and relates specifically to individual learning and WBL users' personal responses. In overview, the findings revealed that many users continue to use WBL for inspiration, understood as a strong feeling of personal worth.

Six positive categories of intrinsic incentives for learning were identified, namely:

(1) The desire to be visible to other students, (2) To increase the quality of their writing, (3) Personal use orientation, (4) Reflective use orientation, (5) Maintaining and expanding relationships and (6) Knowledge construction.

5.1 The Desire to Be Visible

A strong motivation is to be visible to the student's peer group. Some individuals particularly enjoy social visibility and the satisfying experience of being online; these traits may motivate WBL users to keep using WBL.

As Participant "S1F" stated:

"I like to be on the web... I don't like to be hidden. I like to be visible. I want students to see me. I want students to know what I'm doing".

Similarly, Participant "A1M" said:

"I don't know why, I want to share some ideas, information to study or I want to express myself. That is the most important motivation, I think".

Participant "S1F" and other similarly motivated students enjoy recording and sharing their experiences, concerns, emotions, opinions on WBL. They feel that sharing with other students is desirable.

The data also showed that more than half of WBL users, especially females (39 of 47), clearly used WBL as a place to share feelings, describe personal difficulties and solicit interactions (e.g. support, discussion, suggestions, encouragement). This inclination to share personal information online not only reflects the personal features of the individual WBL, but also the capacity of WBL in general to provide a forum for such sentiments. WBL platforms provide a way for members of the younger generation to confirm their

identities. By using WBL, they feel enjoyment and satisfaction, and in turn these feelings reinforce their positive views of using WBL.

For example, Participant “S2F”, a user with one year of WBL experience, explained why she would continue using WBL, as follows:

“I usually use WBL for learning, so — everything I do is part of learning. As long as things keep happening in my life that I want to tell about or are interested in using WBL for, so — I like using WBL since I feel a need to discuss with other students”.

Participant “N2M” a WBL user for about 2 years mentioned that he kept using WBL, because of “a desire to communicate and discuss”; he said:

“On WBL, there is something that I want to show students. That’s not very personal, I think. [It’s] something I feel free to show off, or share or discuss with my friends, with those students who are interested in my topics”.

5.2 Maintaining the Writing Habit

In the data, 34 out of 47 WBL users mentioned that they like writing. Participant “S1M” is an education student and has used WBL in English for about 2 years. To him, WBL is a way to practice English writing. He said:

“It’s very useful to keep writing in English. Since I am motivated to write in English, I want to continue to do so. It make English more interesting and easier to learn. Writing in WBL is a good and effective way to improve English”.

Participant “E1F”, an undergraduate in information management, uses WBL as a diary. She explained that WBL is a new version of a diary:

“When I was a child, my parents encouraged me to write a diary to basically keep notes of what I was doing every day. Now that I spend so much time in front of the computer, I forget to write in a book what I’m doing every day. I think it’s easier to type, because I type much faster than I write. So I got used to using that [WBL] as a formal diary. Just write down”.

Participant “F1F” is an English Language student. She uses WBL for two reasons; one is keeping a personal diary and the other is writing fiction and stories. She uses WBL to maintain her writing habit:

“...I do enjoy writing. It’s fun, and when I was younger, I used to start diaries. I wrote so often and the last few weeks, I lost the book that I kept in. So having something online, you cannot really lose it. So it’s a good way of keeping a diary and it’s easy to just go online and write something quickly”.

In terms of exploring feelings, personal traits, such as the desire to be on WBL and share personal thoughts, and preferences, such as “like writing” and “want to write” are two important incentives that positively lead to WBL use. An anxious feeling, such as concern about privacy or a misconception of identity, is an element that negatively hinders a student from using WBL; this will be discussed later.

5.3 Personal Use Orientation

Use for Personal Orientation relates to when WBL users make use of the technology for purposes other than sharing information, persuasion, conversing about specific topics and expository writing.

Those WBL users who maintain WBL as an online teacher have a distinct tendency to think, “WBL is for me”.

As Participant “A1M” perception below reveals, students regard the WBL as a personal online place:

“Actually, to be honest with you, if nobody reads my messages or ideas, I still have an interest to use WBL, because at least I am the only reader of my messages and ideas. I write myself, I read it later on, and I enjoy that. I learn from discussion, arguments and ideas, So it’s not a deal, if nobody reads it, I read it. No problem. I think of the WBL as an online teacher”.

WBL users are likely to remove entries in terms of personal criteria (e.g. feel regret writing something, mood). They are also likely to self-express and have lower expectations of comments than those who use WBL to exchange ideas.

Many participants made similar statements on this point.

It is worth looking at an example. Participant “M1F” is a 2-year WBL user. Typically, she uses WBL as a self-liberating participant to share her ideas with friends. She mentioned that “... just to write something to express my feelings, or make myself feel better with

learning if I suffer from something, I got some feedback and learn from others” and her comments implied the sense that “WBL is for me rather than others” (see below).

The researcher: *Do you use WBL for communicating with your friends?*

Participant “M1F”: *Not really. Although I do receive some feedback, it is not the main thing that I use it to communicate.*

The researcher: *So only your friends read your ideas on WBL, not everyone?*

Participant “M1F”: *Yeah, not everyone. I don’t want everyone to know who I am or what I look like. Personally, I don’t believe it’s important to show my ideas or messages to others, because they are strangers. They don’t really know me. I think it’s not necessary to let them know my life or thinking, So only my friends [can read my messages or ideas]. It’s ok. I have learnt a lot by using WBL.*

5.4 Reflective Use Orientation

Reflective Use Orientation relates to when WBL users tend to use WBL for personal learning and self-development, such as to reveal their “selves”, their development and their interaction with other students, or as a source of information.

Typically, as discussed previously, some WBL learners like to write; therefore, WBL helps them improve their writing skills.

In addition, some WBL learners stated that they learn how to express thoughts and how to communicate with students on the Internet. 30 out of 47 WBL users explicitly stated that they thought about what they should put on WBL and how they have changed through WBL.

Prime examples are as follows:

“...every day I would like to think about, especially during the night. I would like to think about what I should write down and what I should read, any special things happened around me or some things I study...” (Participant “M1M”).

“...it could be like — I want to catch my own progress. I want to see how I am growing as a learner. What mistakes I have made when I start using WBL, and I would like to improve my presentation and using language better” (Participant “T1M”).

“... I think the way which helps you is a kind of helping personal development. Let’s say, how’s your personal development, how’s the changes in yourself as you grow up... It’s really help me academically. And, yeah, personally...” (Participant “L1F”).

It is important to note that all above interpretation is based on WBL. By investigating, we found that WBL users have similar orientations experience.

5.5 Maintaining and Expanding Relationships for Learning

Reducing geographic distance and being able to talk about certain matters that are difficult to talk about with others face-to-face are vital elements that drive SHE students to use WBL. Therefore, many participants used WBL as an additional way to learn and communicate. In the literal sense of the phrase, “Maintaining and Expanding Relationships” was granted a category, because it evolved from three subcategories: keep in touch with students for learning, communication channels and think about other students.

Most participants use WBL to keep in touch with friends and other students for learning. They use it as a strategy to maintain existing relationships. Some participants have met new students and made friends through WBL, demonstrating a way to expand relationships. In addition, some participants initially use WBL for themselves but, after receiving comments from others about their ideas or discussion, they were encouraged to learn more. In a sense, this implies the possibility of broadening relationships for learning.

At first, as discussed earlier, WBL provides a way to keep in touch with other students and friends, which will lead them to learn more through discussion and sharing ideas. Although it is not synchronous or face-to-face, it is inexpensive, updated, traceable and easy to access. It helps the student who is far from campus to lessen feelings of isolation. It also helps to reduce the information invisibility and communication delays caused by distance. In addition, it helps to maintain social connections and further expand those connections for personal learning.

For example, as Participant “J1F” said:

“...I show my experience here in Riyadh. Students will respond to me and students will know how I have lived here. I think it’s good, because now my friend and other

students are so far in different city, it is a good medium for us to communicate with them and learn from others”.

Some WBL users use WBL to know what is going on with other students and friends who are not nearby. For example, Participant “S1M” said:

“...the initial reason for getting on [WBL] was to keep touching other students and get information... It’s lot cheaper than ringing them”.

Participant “B1F” also said:

“Some of them [her friends] might not talk at all, but I know what’s going on, because I read their messages or ideas on WBL .. I have learnt a lot”.

Second, as a technical device, WBL provides an alternative channel of communication for learning by satisfying students’ preferences in communication and learning, such as for shy students. For instance, Participant “R1M” said that WBL helps his communication and learning in terms of his personality:

“I quite like that [WBL], because I’m quite shy. I often find it’s difficult to talk about myself or how I feel...I have missed a lot of learning, because of that.... I found WBL was a way of really dealing with that [his personality] ... If someone is very isolated and didn’t talk to students in everyday, they can use that [WBL] as a substitute... to fill up space”.

Some WBL users were inclined to use text with words for learning rather than to communicate face-to-face verbally. For example, both Participants “T2M” and “A7M” suggested that words on WBL make things clearer than words in conversation, and WBL is archived, whereas normal conversations are not:

“I guess the advantage that WBL has over conversation is that when you write something on WBL, it’s there, and that’s it. In the conversation, students can say things and you get missed or they don’t hear or students forget things., but in WBL, it’s like sort of — a hard copy. It’s there unless the author changes and edits it” (Participant “T2M”).

Some participants thought that pictures, videos, music sound and animation might disturb WBL users and further affect conveyance of the content. In this regard, Participant “C1M” said,

“I think students who put some photos, videos and music on WBL; the reason is that they don’t like writing. They don’t think that the words can express their ideas effectively to learn., but for me, the words can express my ideas and learn from others”.

In contrast, a few participants (e.g. Participants “A8M” and “E1M”) suggested that talking is much easier than expressing oneself in writing. According to Participant “A8M”,

“It’s harder, because it’s so easy to use one sentence to mean two different things. I think if you’re saying it, you can put some inflection in your voice, should make your voice sound happy, or sound sad., but if you’re writing it down, you really got to think, ‘Does this mean what I wanted to mean?’ Particularly if you’re trying to use sarcasm... and if I was to write that down, they might read as ‘oh, he is going to think it’s very nice’, whereas with accent say it, I can say, like that and shake my head as well, and wave my hands, maybe to say ‘no’., but if you’re writing down, you don’t have that extra language”.

Whether verbal or textual for learning, all these orientations towards using WBL for communication and learning reveal that WBL is able to support different communication for learning styles. In addition, students exchange ideas, encourage one another and develop a sense of others caring about them by using WBL; in fact, students say that receiving comments from other students is one of the major reasons to maintain and expand online connections.

Many WBL users think that other students understand them. According to WBL users’ explicit descriptions, potential students can be grouped into supporters (e.g. Participant “A8M”), listeners (e.g. Participants “A4F” and “E2F”), similar-experienced students (e.g. Participants “C1M” and “L1F”), like-minded students (e.g. Participant “A4M”), advisors (e.g. Participant “A2M”), criticisers (e.g. Participant “S1M”) and pen pals (e.g. Participants “J1M”). WBL readers seem to lead WBL learners to maintain WBL and to write down thoughts more carefully.

As Participant “M2F” expressed:

“I have many friends help me and tell me when they found something. They usually tell me when they discover something. I also I have to write what I found on WBL

for them and I encourage to write more, because there are someone want to see it or discusses it”.

Receiving comments or discussions from others is a critical aspect of using WBL, which emphasises personal interaction and communication connections for learning.

Most WBL learners pointed out that students usually give friendly comments, either in agreement or critically, but rarely nastily.

As discussed previously, WBL users may have a strong sense of WBL for the self. To them, receiving comments is pleasing, but not essential. Participants “N1F”, a female, and seven male WBL users said that comments are not important, but nine females and one male WBL learners clearly expressed that comments are important. However, because of WBL for learning, they may not accept students’ views, but continue their old ways of using WBL or sometimes delete comments if they dislike them.

WBL users who do not have a strong sense of WBL for learning generally accepted comments and often responded to them. As Participant “S1F” reported, comments are not likely to weaken students’ use of WBL, but rather to inspire them to keep using WBL:

“...it’s a little less worrying than talking almost instantly with someone else you don’t know... Often I’ll learn things from comments or discussions that students make about things I’ve written, and kind of — makes me realise something about what I’ve written”.

Despite this, because of other WBL users, WBL users gradually become more discerning about what to publish or discuss, what WBL users’ interests are, how to write in an interesting manner and how to widen their online connections. Participants “J1M” Jamal typified this point. He told us his original idea for using WBL, his awareness of others and changes to WBL for other students:

“I only started doing little small things, like — funny quotes, for example, on WBL. I think I always had in mind to write about more substantial things, but I knew I can’t do that until I had some students who’re reading my message or my ideas. So I don’t really want to do that ‘well, it’s just me’, kind of thing”.

Then he developed more awareness of others:

“...so I started to kind of — think about what I wanted it to do and discussion about, so now I suppose, it’s partly a personal updating kind of thing, it’s not really personal, but for learning, so it’s more kind of things I would be happy and important for anyone. I am very aware that it is for all students, so I wouldn’t be putting things too personal on there, but would be putting things for learning”.

He later started to think about retaining his readership:

“... when I write something, I am a lot aware of what other students are thinking, and a lot aware of the fact that what they think is valid as well as me, and that probably helps me to be more understanding other students by comments on WBL... so in terms of getting WBL users and also in terms of just enjoying interaction with students, it is probably more likely to happen if you have different WBL kink on different themes. I can’t think of anything else about how I would use WBL

Moreover, Participants “J1M” explanation further supported this idea:

“In fact, probably make you think a bit more about what you put down. To be honest, I don’t — from time to time I believe I want to write or discuss that for learning, and then I believe if I write or discuss that for learning, then actually will be offended or I might be offended or someone might be offended. So I won’t say it’s easy to express your thoughts, because you have to think about it more., because you can if you post it yourself, you can delete it, but again, there’s always a chance somebody sees it. On that point, you are always thinking and learning”.

Furthermore, there is a sense that WBL may help WBL users expand online connections for personal learning, but reduce the social connections that surrounded them. Some participants pointed out that WBL makes it possible to meet more like-minded or common-interest students. They made more friends. As Participant “T2M” stated:

“...I met quite a few students who are WBL user in person as well. Like — if we introduce each other through WBL... I don’t believe I’m making friends with so many students like — who I have never met before.... And this will give me chance to improve personal learning and communication”.

However, Participants “C1M” argued that in reality, social connections have lessened between digital generations:

“...it’s [WBL] very relaxed., but I suppose the point is that it’s not the real world, it’s so comfortable that the comfort controls you, to an extent, I think, and you can almost escape into it... In a world where already we don’t communicate with each other and learn from each other, we don’t talk with each other or have social activities, we already spend too much time alone, and I think WBL is almost another way for spending even more time alone., because you don’t have to talk to students, you can just write it or share with them ideas and discussions”.

From a long-term perspective, there is no evidence that online connections will replace social connections or give more to personal learning. This implies that social connections are transferred from connections in real life to online/virtual connections, spread on the Internet and expanded from online/virtual back to real connections. Participants “M2M” mentioned this trend:

“... if you never met each other before, I think it’s really a good way of bringing together, students who have interests in a similar field or have a similar college, or have some comments who wouldn’t necessarily be put together about study... I suppose it helps globalisation... I can communicate with somebody in Riyadh or Jeddah, who I wouldn’t even know, who is existent from someone’s use WBL... you then feel kind of, a sense, kind of an affinity with them, something in common with them, which I wouldn’t do if I was just talking to students in university... You need sometimes go back into the real world, and realise WBL was sort of not that real, it’s escape, to some extent, it’s escape into a happy place where you can learn and debate things that you want to debate, but you’re still in reality”.

To conclude, the participants largely used WBL to maintain their social relationships for personal learning as well as to build potential new relationships. This is a key strategy for developing their interpersonal relationships, which will be discussed in depth in Chapter 6.

5.6 Knowledge Construction on Using WBL

Knowledge construction refers to a perceptible process of learning that the participants identified. It emerged as a strategy category, because it suggests the possibility to facilitate personal learning through certain ways of using WBL:

(1) Broaden Perspectives, (2) Self-Censorship and (3) Arousing Creativity and Imagination.

5.6.1 Broaden Perspectives

At first, most participants said that they used WBL to broaden their views, which may or may not directly relate to their professional knowledge, but help to increase their own knowledge of the world. For instance, Participant “N1F” suggested that WBL provides broad information sources, thus reading by using WBL could help students acquire knowledge and evaluate online information.

This experience of gaining broad views not only refers to a greater number of information sources for the students to view, but also means that the student needs to use them, compare their views with other students’ views and incorporate all as elements of their own knowledge. Participants “L2F” and “R1F” mentioned:

“I mean it offers kind of information on experience really, because I know some students who read my message or ideas, because they are interested in the experience of a undergraduate student or the experience of somebody who is doing education studies... I mean it’s an interesting way to transmit information very quickly, updating way, like, current awareness, sort of situation”.

5.6.2 Self-Censorship

To a certain extent, expectations of looking for peers, being involved, interacting, and knowing other students’ opinions on certain issues all relate to the humanities. Some participants clearly stressed that self-censorship is important with WBL, because they learn about themselves and their friends, clarify their thoughts and share experiences.

From Participant “W1F”’s statement (below), one can see that the realisation or perception of the self-changing is a primary element in constructing students’ own knowledge:

“I can see my development through WBL, because I used to be very much, — say, last year, and I’m different, so — I keep on changing, so does my writing, and I keep on tracking how I’m changing, and what I used to be before, and what I’m today”.

5.6.3 Promoting Creativity & Imagination

Next, arousing creativity and imagination were found to support knowledge construction as well. Representatively, Participant “L2F”, who had a short WBL experience and now is a regular WBL user, mentioned that she improved her imagination by using WBL:

“...the WBL that I choose to use, they actually pay attention to English. So I am not worrying that my first (Arabic Language) language will be destroyed, and they actually help me with my study. So some students can be really magic, and their lives happen to be so interesting every day. It kind of motivates me to keep smiling, be happy, stuff like that”.

Participant “N1F” suggested that WBL promotes users’ creativity:

“I mean if I didn’t create any background and being creative on MySpace for 5 hours a week, whatever, what else I’ve been doing, I really do a lot of sports and things like that. It’s [WBL] just something creative to occupy your time. I think that’s quite good, keep you doing things. If keep things just like watching TV, it’s just not that productive”.

Speaking about “creativity”, based on the analysis of the questions “What have you learned from using WBL?” and “Do you compare your using of WBL with other people’s using it?”, generated a graph (Figure 5.1) to present the knowledge construction procedure of WBL users through creativity.

The figure shows that WBL users individualised the WBL based on their preferences, such as layout, colour and font. They decided what they wanted to put or present on the WBL.

Sometimes, they presented their own ideas; at other times they reproduced information they found on the web and posted it on WBL, and occasionally they presented personalised designs and writing that they felt differed from those of others.

They also said they found interesting ideas from other students on WBL, which may lead them to have new ideas themselves. They started to have similar, different, or new ideas that could be used to improve their individual learning or thinking.

The two loops in Figure 5.1 show that WBL users who always use WBL for writing are unlikely to use ideas they see from other students on WBL; that is, they have fewer borrowed ideas. In contrast, those who are likely to be inspired by other students' ideas improve the information presentation by adding their personal ideas; that is, they borrow and convert ideas.

However, this presentation is not a thorough model of creativity, but an attempt to show how WBL users used WBL to foster creativity and further construct knowledge.

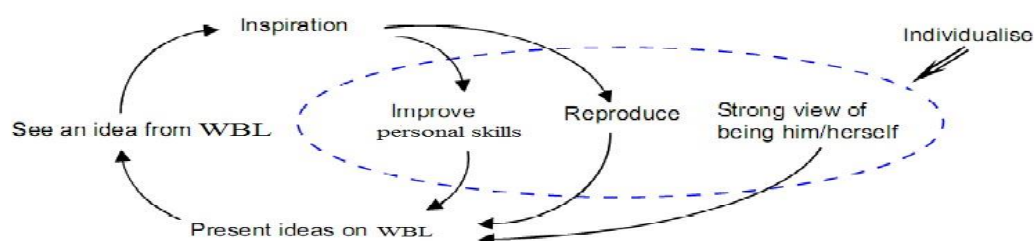


Figure 5.1 - An explicit process of creativity in WBL use

In a nutshell, “knowledge construction” appears to be a category that supports personal learning in WBL. It is a complex category, because it involves the participant’s preferences, WBL use orientation, relaxation, feelings of satisfaction, self-expression and reflection on him/herself. The category is not independent, however; it has intertwined relationships with other categories, which will be discussed further in the following chapters.

Chapter 6. Social Communication

This Chapter continues the process of analysing the findings of the Qualitative Research and relates specifically to Social Communication.

Saudi Higher Education (SHE) students' use of Web-Based Learning (WBL) varies across motivation of dimensions.

This Chapter discusses from nine aspects:

(1) Following Social Trends in Using WBL (2) Cultural Concerns to Prevent Unwanted Users (3) Breaking Negative Social Taboos (4) Reducing Geographic Distance, (5) Countering Effects on Students, (6) Community of Interest Use Orientation, (7) Social Use Orientation, (8) Self-Liberating and Self-Expression, and (9) Promoting Online Identity.

The last aspect is a major element that influences SHE students to maintain the use of WBL.

6.1 Social trends in Using WBL

20 participants reported that they first knew about WBL in 2009, while 33 participants were initially aware of WBL during 2010. The data echoed the rapid growth in popularity of WBL by 2010. Meanwhile, 28 participants mentioned that they became aware of WBL by means of education, and 20 participants through either online searching, WBL service advertisements or the news. However, only seven participants initially learned of WBL from friends' recommendations.

Clearly, trend is a key factor that affects the young generation's attitude toward new technologies. As discussed, young people tend to follow fashion and are pioneers in trying new IT products. With the rapid growth worldwide in the use of WBL, SHE has begun to investigate ways to use it.

When students try WBL, they either like and begin using it, or dislike and ignore it. In addition to school use, they frequently engage in social networking with Web2.0 applications, including video and photo sharing (e.g. YouTube and Flickr) as well as personal pages and messaging (e.g. Facebook, Bebo).

As these technological applications become popular, SHE students feel peer pressure to use them. For example, as Participant “S1F” expressed:

“...it’s the time for information age. We as Students can get information from anywhere easily. By having WBL or surfing on the web we are able to find information and share ideas with others anywhere.”

Participant “L1F”, who thought she was not good at computing, indicated how she became aware of WBL.

“...everyone uses WBL. So everyone [is] just like — ‘oh, they use WBL. My sister is really good at using WBL. She said, ‘you should try [to] use WBL, because it’s easy to use’, (she knows that I’m not really good at computers), so I said, ‘ok’. Now, I really like it, and it [turns out] that all my friends use WBL and I didn’t. ‘You must use WBL. So that’s now how I got that... I started, because everyone used WBL, and I didn’t want to have something different. ”

Another student, “A5F” explained her use of WBL from a WBL user’s point of view; and Participant “A6M” felt that WBL helped him to express certain views that he would not say in normal conversations.

“I communicated with other students to share information about political issues in my country, but they write in a funny way--- the first time I was concerned about that, but that way you can read it without any consequence or worries. It also can write about. That’s very nice” (Participant “A5F”).

6.2 Cultural Concerns Over Privacy

20 WBL users said that non-friends always read their ideas or messages on other social networks. To avoid this, they used WBL as their online communication medium without worrying about anyone having access unless they wanted them to. These users also mentioned that they do not want some students who know them in person to read their ideas or messages.

They prefer to select their readers. As Participant “L2F” explained:

“... they have to ask ‘can I be your friend?’ and then you say ‘yes’... you have some privacy settings, so you can say, ‘yes’, the person can be my friend and read my messages or ideas, and see my friends and the other friends I have. ‘No’, they

can't read my messages or ideas, or 'yes', they can read my messages or ideas. So you can decide what they have access to, which is good. On WBL, you can set it to different privacy settings."

Hence, a crucial reason why SHE students use WBL is to protect privacy and prevent other students from observing their personal ideas or comments. WBL enables SHE students to use it anonymously, share only with those others with whom they feel comfortable or share their personal opinions or concerns with peers.

This is indicative of the younger generation's strategy to react to the lack of privacy that they observe in real life. They move into the virtual world to find a "safer" place for themselves, because online they can be faceless. Two typical examples are below.

"But I prefer doing it [WBL] online. It's more private, because my family wouldn't find it and read them if I write it. So I decided to do it online when I was about 19 and have been keeping it ever since." (Participant "B2M", 2 years WBL learner experience)

"I don't [have access to WBL dally], because that's sort of ... my mum could read that. She could literally walk into my room and read it, whereas on my computer, it's a bit safer. She has to search for it, whereas my diary would be in a drawer or under my bed, maybe it's easy to be found." (Participant "A6F" 3 years WBL experience).

6.3 Breaking Social Taboos

Due to the features of WBL use, such as flexible operability and personalised communication style, WBL users control and manage the WBL. The WBL user decides what information to access on WBL. 27 participants similarly noted that WBL provides a free space for students to express opinions on certain sensitive topics, especially about political stands, religious beliefs, or personal affairs, which they may not often discuss in a face-to-face conversation.

For example, Participant "D2F" a two-year WBL user, an English Language student, defined herself as an information hunter, a thinker and a contributor to the society. She said:

"... WBL is not only a place to publish messages and post, but also an aggregator of news with the same issue, for example, about the world, discommendation, about

the things that I consider unfair... basically, ... I would say antagonism. That is not a clear political idea, because I don't consider myself into political, but I consider myself to [be part of] the journal of the political, which is against the corruption. It's not always against, but sometimes there is something different... [I use WBL] to make more contributions to these WBL users, to change the way our information is developed in the world. When we talk about freedom [of] information, this is a really good way to develop freedom [of] information. There were cases in which the WBL has been censored..."

Another student, Participant "A5F" explained her use of WBL from a WBL user's point of view; and Participant "A6M" felt that WBL helped him to express certain views that he would not say in normal conversations.

"I communicated with other students to write about political issues in my country, but they write in a funny way--- the first time I was concerned about that, but that way you can read it without any consequence or worries. It also can write about. That's very nice." (Participant "A5F")

"...or let's say, I have a very strong view on a certain issue that I find it's hard to share with friends, then I just WBL it, my opinions and views... like — maybe political views or issues on that. It's hard to talk in a conversation [sometimes]." (Participant "A6M")

6.4 Overcoming Geographic Distance

WBL users' participants, positively described WBL as helping them to keep in touch with other students who live in different places. By using WBL, SHE students reduce their feeling of isolation if they live far from the university or when they travel; they can easily inform other students about their lives, and keep up with other students' lives. It is apparent that the WBL provides a supplementary communication forum that is easy, inexpensive, and flexible.

For example, Participant "S2F" said:

"Let me tell my friends and other students about my life and my city. It's a chance for contacting with others and knowing others' life and what they think when we have been away from university..."

Similarly, Participant “N2M”, a second year undergraduate, does not use WBL every day, but does use it to stay in touch with friends at home. He noted:

“Generally, the most important thing of WBL for me — we both study far from our university, you know, if you keep contact with your friends in your university, it’s very expensive to use telephone, of course. It’s not very convenient to email to everyone with the same content. So WBL is very important in that sense.”

Participant “L2F” is another prime example of a student who uses WBL, because of geographic distance. She was a third year SHE undergraduate. She stated,

“The main reason that I use WBL is I live far from university ... I want my friends to be able to find out what I was getting up to rather than phone me, just, because it’s cheaper really and they could do it on their own time and just leave me a message... So I use WBL. I used it for about 6-7 months, but I haven’t updated it recently.”

6.5 Countering Effects on Students

One of the main reasons that weaken SHE students’ use of WBL, or cause them to rethink how they use it, is if they are concerned (possibly from experience) that the information on WBL will have a negative effect on students, friends, or the person about whom they wrote. Participant “K1M” was a typical example: he provided two negative cases of online information dissemination that he encountered (see below) to explain why he think to give up using WBL after three months. He emphasised that he made this decision to protect himself as well as his family:

“...a friend of mine got a job. He was working in the university IT support team, he was accessing this forum of friends, they [his colleagues who work in the university] went through it and they found there were a lot of insults through students... . So I think that was also one of the things made me think, it’s just a fact that this sort of information [is] out there forever, maybe it’s the best not to put this information out there.”

“I said, my family member is in university with IT support team, and there was a thing on this WBL, someone reported something in discussion part which happened and they have been mistaken and they reported it, and it’s looked, dodgy, should we say. Nothing should have happened. It was misreported. A week later they put it

right and qualified, but naturally the qualification where they said ‘we messed up there, we apologise. We never report on WBL, the only report which is something has been done which is wrong’. The WBL comments on there were really nasty, some really nasty stuff I never heard before, and I went on and I wrote something which I shouldn’t have written, under a pseudonym, but being a pseudonym isn’t entirely divorced from me — and that’s one of the things as well which made me to think, don’t use WBL ...”

Moreover, Participant “J1M”, a third year undergraduate, usually wrote about events that involved him and sometimes about his life. He provided an example that alerted him to think about what he should and should not write on WBL, and then he made a decision to write less about political matters.

“..... it wasn’t any negative comments or anything like that, and I just basically wrote. What happened was, I was searching for information about this person on the Internet, and I realised there was nothing out there, — information that I wanted — so I decided to write about what I did know, because I thought that’s an advantage, people like me, searching for this person and wondering who they are. So I started to write about them in discussion part in WBL, and things like that. Then I actually kind of looked at other student’s comments, what’s really well-known, automatically, googled this person... and my report is on the top, and I was thinking ‘oh, my goodness, so I was kind of offending this person.’ From my view, it’s only a point of view of this person. So I think in that sense, in that situation, for example, it did provide people information., but that was a lesson in what you made public, and what you made private.”

In summary, social trends, cultural concerns to prevent unwanted readers, breaking negative social taboos, reducing geographic distance between learners and countering effects on students are key elements that form external influences, and explicitly motivate WBL learners to continuously use WBL.

The countering negative effect on students is a vital factor that lessens the use of WBL, or affects the information they publish on WBL, which may further affect the orientation of using WBL.

WBL users will keep using WBL, largely, because they follow “social trends”; many students read discussions or stories, and spread information through WBL. It is easy and free for a reader to have access to a variety of information through WBL.

Secondly, some parts of WBL provide different perspectives, voices or views that students do not often discuss in normal conversations; consequently, students become interested in these perspectives. They use those parts of WBL, because they have a similar belief, feeling or view of those issues or social taboos. They feel their specific ideas are supported by WBL. Meanwhile, although they do not themselves make use of WBL, continuing to read WBL (e.g. to see a friend’s messages or comments) helps a WBL user to know what is going on with the WBL authors and decreases the isolated feeling caused by geographic distance.

6.6 Supporting different interest users

Community of Interest Use Orientation applies to WBL users who share their thoughts and comments with others, and by doing so, connect with other students who have interests or opinions in common with them. They create a “community” of users, writing, reading and discussing via communications on WBL.

Most of these WBL users are very inquisitive and communicative, and are eager to exchange ideas with others. Many WBL communities emphasise a specific topic or issue of interest to the members. These WBL users have aims of widening their perspectives and improving their interest-based skills.

Figure 6.1 draws together the concepts that give rise to the formation of a community of interest.

As the diagram indicates, WBL users who have similar hobbies, or meet on WBL, because of publishing interests or relevant information, are likely to share their interests, experiences and opinions.

For example, Participant “S1M” not only used WBL for practising English, but also for discussing football. He made new friends from other university’s’ departments who had a similar hobby and exchanged opinions with them:

“...I wrote something about football, because I’m a football fan. I wrote football comments on WBL and to share them with my friends, who like football.... I have some friends from other departments and colleges outside of England, and they are

football fans... Some of them, we support the same football team, for example, I support Naser Club and my friends, some of them support Helal Culb, some of them support the same team, they support NC or HC. On February, last week, it was a game, Naser played against Helal in Saudi Arabia, and we discussed it on WBL.”

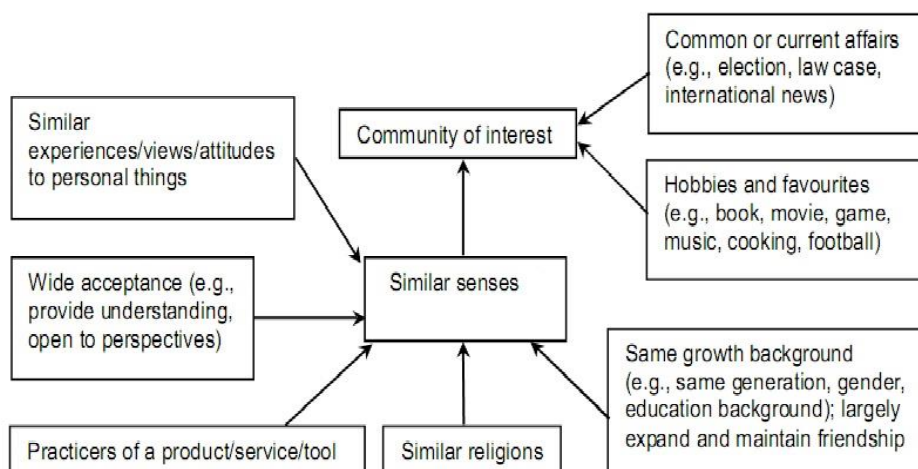


Figure 6.1 - Forming a Community of Interest

Participant “V1F” a two-year WBL user, who likes fashion, graphic design and online shopping, found many friends through her interests. She stressed that WBL is not only for personal expression or learning, but also for interacting with a community:

“... in my opinion, WBL is not just about personal learning. It’s like a community tool. It really takes WBL to a whole new level, because sometimes, students, from my experience, they set — their own opinions — they use WBL to the whole community. Usually students say ‘today I went out to this place’, stuff like that, and ‘I work this’, a picture, and ‘I went for tea’, a picture. [Previously they] just use WBL for their own, but now they WBL for the whole community, say ‘oh, look, I went today, I study today, I eat today’ ...

From a very personal side to a very socialised side, open, but it’s online, because when students mention on WBL, they always think a personal online, often updates studying or discussions or reading stuff, but they don’t really think that WBL could be more than that. It’s very flexible now, and has more tools.”

There was also an emergent suggestion that a community gradually forms on WBL, because of a common feeling of being a “WBL user” or “involved”.

This sense can be gained from meeting students who have a similar background, for instance, similar ideas (e.g. Participants “A8M” and “J1M”), similar generation (e.g. Participants “N1M” and “N2M”), similar views of social issues (e.g. Participants “B2M” and “A2M”), similar game playing interest (e.g. Participants “A4M” and “S1M”) or similar business ideas (e.g. Participants “R1M” and “M2M”).

Further, an individual can acquire this sense of belonging simply from discussion in WBL and feeling he/she is in a similar situation or has had a similar experience. For example, Participant “B2F” opened a WBL group to about 30 students, and she felt as if the other WBL users were related to her in a certain sense:

“If I read other girls’ [WBL], same ages as me, doing same kind of things as me, I will not compare myself [with them], but relate to them... if they are going through problems similar to me, it makes me feel a little bit reassured, because it makes you think that it happens to everyone... I do read some of the discussions, like film community, depression community... I just do it, because I enjoy it.” (Participant “B2F”)

There was not enough evidence to determine the life cycle of a community of interest, i.e., how long it takes to form, or how long it will exist. Communities can be formed, expanded and die out rapidly or slowly.

Nevertheless, as Participant “B2F” indicated, “...when you use WBL for a longer time, there would be a community; we always read each other’s messages, discussions and you leave your comments on it. It’s just like a community”. Such a community needs WBL effort and continuing interaction between WBL users.

6.7 Social Uses

Social use refers to WBL users who are likely to use WBL for entertainment, communication, social activities and connection. The data show that WBL users do not use WBL only for learning or academic purpose, or have an explicit intent on personal development, but also social life outside of study.

For example, to make friends and organise events (e.g. Participant “D1F”), write a travel journal for sharing experience (e.g. Participant “F2M”), or keep in touch with friends (most WBL users).

A few statements clearly reflect the orientation:

“... with my opinion, if I have a very bad day, I just go and type very quickly, like a crazy person, ‘oh, this is annoying me’ ... all my friends got my messages. They’re all very creative and crazy looking. It’s really good fun. We have a competition about who has the best background and things like that. So it’s quite good fun.”
(Participant “L1F”)

“Especially now, I’m studying English Language and I am far from the university, and my friends are all back home, we keep track each other by using WBL... if I want to talk to my friends, I just create a post and then only my friends can see that...” (Participant “F1M”)

“...it’s a fantastic way of keeping in touch with other students. Also lots of things you can keep private if you want to. You can keep it as private or open as you like. I’ve met a lot of students through it. It’s good for organising things... like — when I go conventions ... when they get several different times, different places, they can put down the room numbers that they are in the hotels to recognise, if you did not meet them before. You can organise a place to meet up, what time and stuff. It’s good for long-distance organising.” (Participant “A4M”)

6.8 Self-Liberation & Self-Expression

WBL users not only regard WBL as an alternative means of learning, they also use WBL as a place where they can air their personal voices, for instance, to describe individual experiences, or to discuss their own thoughts, ideas or feelings. WBL is a venue where they can feel self-liberated and free to express themselves.

The data showed that WBL provides a place for users to express moods (e.g. excitement, sadness, annoyance and complaint) without needing to be overly concerned about the social protocols of real life, such as good manners, appropriate words, maintaining relationships, not offending friends, etc.

Furthermore, by liberating young people to communicate freely, WBL may help them get through difficult times in their lives (e.g. disease, worries, or family affairs).

For example, Participant “K1F” and L1F both experienced this:

“ I went through quite like — a difficult time, because this friend introduced it to me and said, it’s really good way, just like — express your ideas and like — keep checking how your feeling is, you can look back on it. So I just thought I gave it a

go, and then after a few weeks I do find it did really help. So that, kind of, changed my mind, I guess.” (Participant “K1F”)

“..., because I was a little depressed for a while and I vent everything by using WBL. I wrote poems, and have all the secrets read between the lines, kind of meaning. Then I using WBL so much, because I need it more...” (Participant “L1F”)

Interestingly, different strategies emerged from female and male WBL users in this regard.

10 of the male participants mentioned that they wanted to present their own views, exchange views with other students and were likely to adopt an approach of “this is my opinion; let us discuss”; whereas 16 of the female WBL users leaned towards venting personal emotions by the attitude of “this is my feeling; let it go”.

A few typical explanations from interviewees below and in previous sections (e.g. “K1M” and “S1M”), imply that female WBL users are more likely to self-express personal matters, irritations, worries or sad feelings through WBL.

As Participant “L1F” noted, she is not very concerned what other students think of her, nor does she need students’ opinions; rather, she just wants to release her feelings:

“Post your feelings... you talk to yourself on WBL... Sometimes just, because I felt angry with someone, you know, it should be a private space where I could post some evil things.” (Participant “L1F”)

On the contrary, it seems that male WBL users express emotions much less often through an open WBL. They are more likely to present opinions about social issues or interests, and expect a wide discussion and exchange of ideas; for instance, Participant “K1M” expressed this typically:

“It seems I use that for social purposes. It’s just feeling — I enjoy that really. It’s almost liberating. You can write your own little journal without necessarily having to write it, then physically with stuff for students to see as well.” (Participant “K1M”)

Participant “L2M” like Participant “J1M” posted about things that annoyed him, but he always wrote and discussed in a sarcastic and interesting style, and he knew that students

read it. Participant “L2M” explained that he had kept a separate personal journal of ideas for two years, but did not open it to anyone.

“Actually I haven’t got a book about my ideas, but I keep another Word document as ideas every year. That’s more specific and more detailed, but it’s only for my personal references. Actually everything on WBL is mostly a copy from that personal idea, but it’s more in a personal version... It’s for my friends, but, because I know it’s very simple, I don’t expect my friends to leave detailed comments. If that comment is longer than your original, I think that’s abnormal.” (Participant “L2M”)

“... it’s good to know that students are actually reading. [Otherwise], you are just wasting your time, aren’t you? That’s why I didn’t really get keeping ideas, which no one reads. I thought if you post it that, if no one is going to read that, why are you writing it?, but if you keep it on WBL, and then anybody can read it.” (Participant “J1M”)

Hence, “individual liberation” implies that WBL users consider the WBL as a less limited individual place where they can speak about their thoughts, interests, or topics that obsess them, and further, where they can acquire a feeling of satisfaction and an emotional release. In a broad sense, WBL helps its user’s mental health.

Female WBL users tend to use it as an approach to self-expression and release of emotions, whereas male WBL users may be inclined to use it as a place for broader communication and release of views.

6.9 Promoting Online Identity

The emergent term “promoting online identity” refers to a perceptive process of identifying “who I am”. It is different from a real identity, because it exists in a virtual world and students do not often validate it. It depends largely on the person’s own definition. In this study, students felt that they are being themselves whether they choose anonymity or their real name.

First, there is no doubt that the participants used WBL, even though they are concerned that it is open and that any student could criticize their words. To an extent, the WBL thereby reflects the WBL users. Anonymity is a way for WBL users to be invisible online and still satisfy their needs for expression, particularly when discussing sensitive topics, secrets, or personal issues.

Participant “B1M”, who used WBL to present his viewpoints about social issues, explained that he did not like to use his real name, because:

“...some of my topics are sensitive., because it is a virtual world, you can play your best performance; you can also play the worst performance. It depends on you... Somebody doesn’t dare to speak in their ideas; they dare speak something on the WBL... So if WBL is just for academic uses, of course, I will use my real name. Why not? ”

Similarly, Participant “R2M” told us that using a pseudonym is a way to protect herself and avoid negative effects from her ideas, such as on her career:

“It’s advised not to [use a real name]., because we received an email from the university very recently, say, it’s an extremely bad idea, because prospective employers run ...your name through a search engine and if you put your ideas in your own name, then they will read through anything concerning personal information, and if they don’t like what they read, then it can come against you., but also I think ... in a way, it’s, because anyone of university students can access WBL and anyone can read that information — so you don’t want students knowing — being able to trace you, or things like that, because you don’t want them to read what you think or ideas, because a stranger could read, and you don’t know the person.”

Participant “E1M” and Participant “A7M” were two typical examples of students who had the same way of separating their WBL selves from their real selves, which provided a way to prevent negative effects from their WBL activity.

Both of them made friends by using WBL, but did not let friends in real life know their ideas. As Participant “E1M” said:

“... [if there is] something I don’t want to tell my friends [about] my ideas or my thinking, I prefer to use WBL without [my] own name”.

Furthermore, similar to the above two participants, Participant “E2F” felt that she can be herself through WBL, and see other student’s secrets and emotions that they do not usually share (see below).

“Because when you are using WBL, you are being another real you. You actually don’t pretend to be someone else. So it’s nice, knowing a real person who is not pretending to be someone else. It’s very interesting, quite entertainment... I can be myself, as I said, most WBL users that I know, they can be themselves online., because they are faceless completely... so you can be your real self, which about WBL use, it’s fascinating, can be yourself.”

Nevertheless, Participant “E2F” did not like to conceal her name. She believed that whether she uses a pseudonym or her real name, it would not influence her ideas, because she only discloses her ideas to a group of students whom she trusts. It was possible for her to select specific WBL users, because she used the WBL functionality to check the IP address of each one, which showed who the WBL user was, and, as she explained below, they met randomly, chatted and first built a sense of trust.

“... most of the students, who I have added, they are firstly I got to know through WBL, or for example, chatting site ... I don’t meet them face to face or know them before, I just meet them know them through the WBL, but they are kinds of friends. They are not real life friends.”

In contrast, a couple of WBL users are oriented only for personal use, for instance, Participant “S1M” uses WBL for recording student life; Participant “L1F” uses it for informing friends about her life; and Participant “F2F” for recording travel. They preferred to use their real names, because they did not write about sensitive topics on WBL; rather, they used it to share personal interests with friends. In their opinion, it is unlikely that what they post will affect their status or future. The WBL users have their own approaches which reflect WBL users’ unique lives, experiences and preferences.

The purpose for using WBL is crucial in determining a WBL user’s online identity. Users who employ WBL for e-business (e.g. Participant “R1M”), for communities of interest (e.g. Participants “D1F”, “F2M” and “J1M”), or for potential academic discussion (e.g. Participant “A8M”), prefer to use their real name. However, pertaining to the personal use oriented WBL users, some of them are inclined to use real names, while others prefer to use a pseudonym. This difference correlates to the relationships between WBL learners and WBL readers, and with their main for using WBL.

It must be stressed that creation of an “promoting online identity” is not the WBL user’s goal in using WBL, rather it is a perceptive process as they reflect on who they are and

with whom they feel comfortable. It is a self-regulative strategy for using WBL for interactions with other students, exchanging different viewpoints, or thinking about the influences on students by using WBL

Chapter 7. Attributes of WBL

The attributes of WBL have been conceptualised into four key categories: convenient accessibility; flexible operability; standardised structure; and personalised communication style at a functional level and an application level. These emerged largely from the participants' answers to the question, "What are the advantages of WBL?" and from the comparisons between WBL.

13 thirteen different communication styles were utilised by the participants:

(1) email, (2) journal, (3) book, (4) diary, (5) online chat, (6) mainstream media (newspaper/TV/magazine), (7) community, (8) forum, (9) normal website, (10) personal website, (11) phone and message, (12) other current social software (e.g. Facebook, Tagging), and (13) face-to-face conversation.

The participant opinions indicate that WBL has distinctive factors that combine the 13 communication styles. Table 7.1 below summarises the emergent categories after open coding and axial coding.

Levels	Features of WBL		Dimensions
	Key categories	Subcategories	
Functional level	Convenient accessibility	Expenses Availability	Free / Economical
		Spam	Open / Online / Government moderation
		Expenses Availability	
		Control	Personal / Editable
	Flexible operability	Request skills	Basic / Easy
		Space	Unlimited
		Integrating	Visitor counter / Multimedia /

		technologies	Advertising
		Syndications	RSS / Feeds
		Hyperlinks	Unlimited
		Speedy	
		WBL service	Reliable / Selectable
	Standardised structure	Sequence	Reverse chronological order
		Comments	
		WBL roll	
		Categories	
		Archives	
Application level	Personalised communication Style	Information & content	Individual selected / Text-based
		Language	Colloquial
		Update	Individual-paced
		Publishing	Personal
		Contributions	Individual
		Moderation	Individual
		Audience	Selected / Everyone
		Interaction	Not instant / Indirect
		Duration	Ongoing
		Profit aim	None / Less

Table 7.1 – The Emergent Categories after Open Coding and Axial Coding.

Convenient accessibility means that there are few limits to using WBL. Whether using an email account or browsing a website, “it was easily accessible” to WBL too, said Participant “J1M”.

Almost every participant positively confirmed that WBL services are free and supported, easy to start, and open to everyone on the web. Particularly, Participant “B4M” explained, “the only reason I could see myself stopping with [WBL] — if I didn’t have Internet access — which I also can’t see happening.”

Although most WBL users agreed that WBL is economical and handy to use, twenty participants mentioned that sometimes spam occurs on comments and is difficult to prevent. They either allow every student to leave comments, students who have WBL to leave comments, or use a filter to select who can comment.

Participant “T3M”, a WBL user with one year of experience, pointed out that the government occasionally mediates the information on WBL, as follows.

“... last year there was a small problem in the Department of the Tech-Communication, the government. ...they had to block some space in the Internet..., because some WBL had been used for anti- purposes... So many WBL pages have been blocked. Some WBL are also blocked for quite some time, because it’s a mastering. Nobody has accessed these pages for quite some time...this reason is for economic or political issues in some time”

Flexible operability refers to the ease of using WBL. WBL does not need particular IT skills to create a personal website or require long time training courses.

“It is one of the easiest facilities on the web, to be honest...and is very accessible. You don’t need to know any technical things or have to get training courses. It’s very easy, as easy as email for me” (Participant “A2M”).

WBL space has less size limitation with economy value and it is quick to publish a new entry online. It can easily combine various multimedia technologies, such as video and music, and nowadays, the popular services are stable and reliable with support by the university or free in the Internet.

“I get a kind of subscription to my friends’ using WBL. If they haven’t posted, then I just don’t get anything. So I don’t have to physically go to each separate WBL to

look at it. I just get a sort of list of recent posts, which makes it a lot easier.... Accessing WBL saved my time and my money” (Participant “B2M”).

Due to WBL’s flexible, personalised control and management functions, the user is able to write, edit, discuss, or remove information conveniently according to his or her preference, and this service is free.

“You can manage all the things yourself ... I could post music, video, anything. It’s interesting. It’s also like — experiments” (Participant “L2F”).

“...it’s easy to use, like having a Hotmail account. It’s like writing an email to somebody and you add pictures. It’s pretty straightforward and you just post it free and it goes up, and all the students can read it. So it’s all very simple” (Participant “F2M”).

“Because it is a free virtual world, you can play your best performance; you can also play the worst performance. It depends on you. Sometimes it’s a disadvantage” (Participant “B1M”).

Standardised structure of WBL helps users to manage and present information simply and free. As Participant “D1F” suggested,

“... all WBL users have almost the same kind of thing... the date, the post, the system, to each posting or discussion, so even though they change the template, the colours, the font free, they still have the same structure.”

It always displays the latest entry first. It provides a commentary function, and archives old entries by different time lines so that the WBL user is able to check previous entries and does not need support or training.

“I think it does quite well by the fact that I can go onto WBL and I can search back two years and like — I’ve read articles or download and things, I’ve written from two years ago free and this does not need training” (Participant “K2M”).

Moreover, there are category and WBL roll functions for the user to categorise information and link to other relevant WBL, and further make it possible to expand easily.

“... from that [WBL], I expanded into other pages, — got into these pages and followed links to others, and they link to other ones, and it becomes a web” (Participant “K2M”).

In addition, supporting a personalised communication style is the free foundation of the rapidly increasing use of WBL. In accordance with the flexible operability attributes, WBL provides students a free and safe communication channel. Students are able to find a suitable communication style in terms of their own preferences. They can put images, emoticons with textual description to help express, use informal language, update when they have the feeling of writing, or select WBL to read, checking subscriptions and so on.

For example, Participant “T1F” expressed that it is a good and flexible way to communicate; Participant “D1F” said it is easy to distribute information; and Participant “J1F” felt that the colloquial language helps the distribution.

“... they [friends] will argue some matters on the WBL, and give their approvals or disapprovals. I read their ideas, which I thought is quite good, because you can just get your viewpoint across in a textual form and you do it in your own time” (Participant “T1F”).

“It’s almost liberating. You can write your own little journal without necessarily having to write it, then physically with stuff for students to see as well. ... I suppose it’s like — just benefit my friends really as well... we are all over the country, cannot always be in touch with each other all the time. Just a quick and easy way of letting students know what happened” (Participant “D1F”).

“...it’s an easier way of hearing about this [news], it’s less technical language, I guess. Yeah, it’s more colloquial language, it’s enough, can be a lot easier to read” (Participant “J1F”).

Meanwhile, Participant “F2M” argued that WBL has less profit motivation compared to other websites. WBL services largely offer students a space for individual use, such as communicating with a group of students or self-expression without affect their budget. WBL does not require training or long time courses to learn how to use it and that makes it more economical. He pointed out:

“If you read by using WBL about a place, then it depends on what the source is. Generally a formal source free and keep your money, they try to sell you something, whereas somebody’s WBL has got nothing really to gain from that. They’re just writing about it, aren’t they? They’re just reflecting on their experiences. So, in general, you wouldn’t expect that they got anything to gain, so

they are going to be honest about it., but maybe misinformed, but at least they're going to be honest about their experiences.”

According to Table 7.1, it must be stressed that convenient accessibility, flexible operability and standardised structure represent the WBL technology and its fundamental functions; whereas personalised communication style is a concept that at a micro level, reflects the WBL user's individualised use in practice.

The attributes at the functional level support the attribute at the application level. In contrast, the attribute at the application level does not support the ones at the functional level.

7.1 Free Relaxation on WBL

The WBL participants have their own principles of using WBL. It showed that WBL has a low priority on their everyday to-do list, but serves as a routine-oriented and relaxing act, especially reading by using WBL.

30 out of the WBL users expressed that they used WBL for entertainment and relaxation and they enjoyed writing and reading with it. “Relaxation” emerged as a category, reflecting two aspects: “low priority” (i.e., time spending tactics in writing and reading by using WBL) and “entertainment”. It denoted that using WBL is a way of relaxing the mind.

The data revealed that most WBL user participants spent 2-5 hour using WBL each day; the frequency of using WBL depended on their feelings about using or the importance of issues.

2 extreme examples were Participant “B2M”, who spent 3-4 hours daily using WBL, and Participant “T2M”, who spent 4-5 hours daily using WBL.

One-half of WBL user participants spent an hour or more each time using WBL. 28 WBL users said that they used WBL daily; 15 participants said they used WBL when they wanted to find out news or events, or about 1 to 3 times weekly; and 10 WBL users said that it depended on their free time.

To an extent, it did not appear that WBL users spent a lot of time on WBL. They had a personal principle of when to read or write or discuss on WBL and how much time to spend

on WBL. For example, Participant “A8M” who wanted to use WBL as a personal academic mentioned,

“...I stopped doing that [using WBL], because it took me a longer time... I didn’t want to spend time on something which is not related to my study ... [I thought] if you spend time on this WBL, and it is about your research, — so I didn’t feel guilty... I have some other strategies to spend — possible time — and developing my skills on using WBL free. So I don’t spend a lot of time on it., but I definitely keep it in my to-do list. I won’t throw them away, probably, because I’m addicted to it... [When] I need to relax or enjoy, I put music on. I listen to music and read some news., but not for a long time, probably I spent, — half an hour every day on using WBL... and some days that I am busy, I don’t use WBL, no”.

Some participants expressed that they have fairly fixed time for WBL, such as on weekends, in break time, or in the evening. Participant “D2F”, who was a 2.5 year WBL user, said that she used WBL “less than half an hour and maybe once in a few days”, and used WBL every day “less than an hour”. She noted:

“I guess evening, like after dinner, when the day is about to end, and I can reflect on my day, and if there is anything interesting, I just use WBL”.

By investigating the frequency of using WBL, it was found that the more experienced WBL users regarded using WBL as a habit. As Participant “J2F”, a 2-year WBL user described, checking WBL is like checking email:

“It’s just a part of routine really, because I suppose kind of reading student’s entries on WBL... It’s like email updates on their lives really”.

Meanwhile, some users use WBL less frequently, for instance, Participant “F1M”, who used to have a WBL to write travel experience, ideas, addressed the “time” element and explained:

“I should have gone to write something then, I didn’t. I wanted to actually, I just ran out of time and I’ve got studies now, so I can’t do it”.

Without doubt, the WBL users use WBL in their leisure time, largely for relaxation without spending money. To them, writing and reading by using WBL is not a high priority. Using WBL is an act that they enjoy doing and voluntarily spend time on, but not

an act that is essential or they have to do, for instance, to write an essay, or to review the literature.

It is worth quoting Participant “R2M”’s expression as follows. Although clearly he uses WBL for doing online business, he retained WBL as a low priority.

“I am doing my business online. I got a lot of money from that by using WBL, but I also am studying at university full-time. I only spend maybe half an hour or one hour per day using the WBL, but sometimes more... sometimes three hours, because I enjoy it as well. I enjoy using the WBL, but I only need to spend maybe one hour per day to maintain WBL” (Participant “R2M”).

In addition, free entertainment is another outstanding category that reflects “relaxation”. It has been discussed before that most participants separated using WBL from study and formal academic use. Participant “J2M” typifies the idea:

“I suppose I use WBL more as a kind of outlet from my studies, more than something which is kind of healthy... something which is to get away from my study rather than to, kind of, improve it.”

Largely, they use WBL not only for self-expression, but also for amusing reading. As Participant “B2M” stated:

“I don’t write on WBL about everything in my life; there is a lot of missing out., but it’s usually silly, funny things. I like the idea of making my friends laugh. So I’ll write silly stuff usually”.

They also read messages for fun, free entertainment and getting away from study, because of the personalised, amusing and colloquial writing on WBL.

Participant “A4F” Asia shared the idea:

“...it’s interesting. I like using WBL, some students will use very funny sentences, and you will feel, you laugh just by using WBL”.

Again, without doubt for WBL users, WBL is a student’s voluntary action. In some respects, WBL users voluntarily share their interests and experience in leisure time freely as well as in amusing styles. At the same time, WBL users gain mental relaxation from reading by using WBL.

7.2 Free Professional Development

“Free professional development” refers to the participants using WBL to develop their professional abilities, such as IT skills, writing, organising and collaborating and judgement skills. It is free for all students who use WBL, without training courses. WBL users applied this approach to improve their own capabilities.

Firstly, clearly, IT skills are the most important one. To improve IT skills is not an initial aim of using WBL, but users gradually realise that they can use WBL for improving their skills free. In particular, WBL helps SHE students enrolled in a non-IT-oriented program, such as English, Law or Politics, to gain practical experience in using computers and the Internet.

For example, Participants “J2M”, “K2M”, “S2M”, and “M2M” expressed that their IT skills increased significantly, and they learned techniques of the Internet, such as programming and HTML.

A typical example, Participant “W1M” explained that his subject is not computing, but he wanted to use WBL to improve his IT professional skills:

“Because I am interested in IT, and I’m interested in webpage things, and that’s why I tried to use WBL. I mean WBL system, and still I need to put some content into it... It actually is to practise my IT techniques through WBL... especially I use WBL a lot, so I suppose I learn some techniques of programming, ... I’ve used WBL to find out more, because I can extend the system for many, many features, whatever I want to, I add into it, because there are huge resources on WBL that I can add into my study. That’s the way. I’ve learned a lot... It’s a great thing for me to practise both my IT techniques and my English language.”

Secondly, a group of participants mentioned that they use WBL to practise their writing free. Some detailed examples were provided before. They had different WBL use orientations, some of them were in Arts or Social Science subjects and expected to be good at writing, perhaps to become a good writer or journalist (e.g. Participants “D1F”, “R2M” and “T1M”); some of them were in Science or Engineering and expected to improve writing skills (e.g. Participants “D1F”, “E1M”, and “J1M”); and some of them were in English Language and expected to improve their written and oral English skills free (e.g. Participants “A2F” and “L1F”). Here, Participant “D1F” offered a representative description:

“I also learn how to cut news, how to prepare. I mean, after two years using WBL, — I’ve been also writing for a local newspaper before in English.— so I mean, I like to share information. When I was a child, I dreamed to be a journalist. Now actually I’m a journalist with WBL. This is a kind of activity that actually fully fills in my expectations and I got training free.”

Thirdly, information judgement skills, such as awareness about copyright, service reliability and a balance between private and public are relevant to the credibility of information on WBL. These skills are SHE used and improved in WBL. The research discussed the use orientation of WBL.

Here, Participant “S2F” provided an example that implies as WBL user, they realised the importance of information judgement skills.

“We’re often warned to be cautious using the internet, because — we need to make sure it is a reliable and safe website. If you want to retrieve information, it must be an academic website, and even if it’s a person from a university using WBL, you have to be very careful with that —, but it’s not just the opinions, what is posted is presented as information. We have to be careful not to trust everything we read on the Internet. We’ve never really been advised to use WBL in our studies.”

Fourthly, there is little argument that content management technique is one of the professional skills; however, few participants mentioned it directly. Participant “T1M” explicitly highlighted that he learned content management skills by using WBL.

“You can learn a lot about content management, because unless your post is properly written, proper structure, no one will read it. It could be one writes a whole bad post of 5,000 words. It will not be like that. If you have a good structure, then you can focus on the content, then you can focus on the style, so it’s a structure of writing, it’s very useful.”

Furthermore, organising capability and collaboration more required skills for the learning community. Participant “D1F” gave an example of how she used WBL to organise events.

In addition, a few participants indicated that they found some useful WBL sources that they kept using to gain broad views of their disciplines. These sources are like other online sources, but more interesting, relevant and updated. For example, Participant “F2F” explained:

“I saw someone on WBL; the opinion is very useful for me, for my dissertation, but only a part of it is useful, another part maybe just the author’s own opinions., but I saw that; it gave me some free ideas of how I should write my homework or essay. I think this is useful.”

The analysis above has shown that WBL users helped the participants develop their professional capabilities free without taking courses or spending money to learn. At the same time, it reflects how participants use WBL to benefit themselves, such as to improve professional writing, IT skills, or broaden views in their subject areas.

Chapter 8. Strategies for Using WBL

8.1 Privacy Concerns

“Privacy concerns” is a category particularly related to WBL. The data showed that most WBL user participants preferred to know whom their audiences were and were concerned with what they should post on WBL, either not to offend others or to protect their own privacy. This point especially drew the researcher’s attention, due to Participant “J1M”’s comments:

“...it’s that sort of levels of interaction. I actually posted it on my entry about this sort of situation where the more private information is, the more anonymous you prefer students [who are] reading to be because as I said, I have students who know me in real life, who read my messages or my ideas, but if I have a very private entry, I make sure that they do not read it, but completely anonymous strangers I don’t mind that they read it”.

This observation implied that the content of an entry might be affected by the relationship between WBL users themselves.

In a similar case, Participant “D1F” provided an explicit example that students prefer anonymity and are open only to strangers, in accordance with Participant “J1M”’s view. Participant “D1F”’s statements can be found in Chapter 6. She mentioned she could be herself, because she could speak out and express something that she would not say in reality or to students in her real relationships, for instance, friends, parents, etc. She intended to separate her real life or ideas from the online world. She said that she would not worry that she exposed her privacy, because on WBL, most students do not know her in person and they might not ever meet or know her in reality.

Looking further into these instances shows that WBL users tried to keep a balance between their own privacy needs and others’ needs. For example, Participant “W2F” provided her strategy,

“Some ideas I will say that only students who are on my friends list might read it, other ideas only I can read it, but most ideas anybody can read. So I choose if there is something I want to write about that’s too personal, and I don’t want anybody to

read, or I don't want random students to read, then I will make it either private for me or for friends only, but most ideas I make them all".

Importantly, different students had different concepts of privacy. For some participants, certain information (e.g. issues about the relationship between friends) should not be written down and available to all students in WBL (e.g. Participant "K1M"'s opinion, see below), but for other WBL users, it is not a serious issue participant "L1F" gave an example of her friend's WBL (see below).

"I don't like to put some real private feelings on it. For example, I don't want to mention any words about my thinking, ideas and me." (Participant "K1M")

"...she uses WBL and she had a problem with her friends. She wrote a lot of that; she wrote awful a lot about it, and it was quite a lot of personal things, and I could read it, and a lot of my friends could read it..." (Participant "L1F")

Therefore, the researcher defined "personal information" as identifying information (e.g. real name, address, student status, nationality) which can be revealed to all students; and "private information" as an individual's information that should not be exposed to all students (e.g. secret, personal information based on sensitivity or confidentiality, or personal views of sensitive topics that they would not usually present). This classification derived from analysing the participants' definitions of socially acceptable information on WBL.

In addition, it emerged that WBL users have their own strategies for protecting privacy in terms of their relationships with other students, as well as their perceptions of private and personal information. These are not exceptionally different from the privacy concerns in reality, but, because of the possibility of anonymity and not liking others to see what they think, WBL provides a more flexible choice for privacy management. However, at the same time, it does not decrease, but increases the SHE students' privacy concerns when using WBL (see two representative quotations below).

"There are stories, like — on the news about students who use the Internet to interact with others or a paedophile used the Internet to trace others. So in a way, it's — like a bank account number, — you wouldn't want to put personal information on WBL, but if you write about your ideas or thinking, in a way, even though it's very personal, it's not something that makes you traceable or the person

can track you down. I mean if you don't put your name, address, or telephone number..." (Participant "R1F")

"I think if you want to put very personal things or ideas on there, you do need to think about what you are doing rather than just let everyone read it, as it can cause a lot of trouble, I found." (Participant "A4F")

Analysis of comments produced six distinct strategies of WBL users to manage their privacy disclosures:

- 1) No private information (The WBL users clearly said that they would not put any private information on WBL). For example, ten participants explicitly stated that they have a private group that was not open to anyone, and it is separate from their WBL.
- 2) Little private information (The WBL users are less likely to put private information on WBL, but they might write private information depending on who the others are and why they are writing),
- 3) Some private information (The WBL users mentioned that sometimes they write something private on WBL to release emotions or they know that it is difficult for others to identify them)
- 4) Little personal information (The WBL users said they were unlikely to put personal information on WBL, but there was a chance of exposing information, such as gender, location, age etc.);
- 5) Some personal information (There is certain information that reflects the WBL user's identity on WBL).
- 6) Personal information (The participant clearly expressed that they put information such as name, gender, university, subject, location on the blog).

8.2 Credibility Judgement of Information on WBL

When the participants mentioned that they use WBL for acquiring information, it is clear that to an extent, they relied upon the information. Therefore, what are the SHE students' criteria for judging the credibility of the information?

The findings first suggested that it is not a matter of credibility, because the information is likely to be subjective opinion and it is different from judging true or false for a fact. Thirteen participants clearly claimed that in general, it is difficult to say WBL facts are credible or not, because they are reflections of individual views; they did not think about this question.

20 participants said that they mostly trusted WBL, because it is students' real feeling; seven participants expressed that they do not believe WBL generally, because anyone could say anything; whereas sixteen participants stressed that it depends on the author and the author's standpoint. They would not believe WBL in general.

A few examples are as follows:

“A lot of — it is opinion. So you always have to try. If you know the person, you know where they stand on the issue, so you can understand what they've written and know they come from some perspectives, but when you don't know someone's opinions, it's a bit more difficult. So there is an issue about credibility certainly. You cannot have to judge each thing, how much you're going to believe.”
(Participant “B1F”)

“...because I thought WBL that I've read doesn't have information with true or false. It would have arguments for information. That's not true or false. It's just an argument... It's not like — that can be credible or not.” (Participant “N2M”)

It also appeared that most WBL users believed that they had readers and by the discussion, they had a sense of who had potential. It follows that through continuing to discuss, WBL users come to know others and understand their thoughts, especially if they are already friends.

From the following examples, it appears that as time goes on, the relationships between WBL users gradually develop and the relationships then help to form the basis of online trust.

“I mostly trust it [WBL user], because I've been read them for so long. You sort of get to know them just through WBL, so you feel like — you understand them. So it just seems a strange idea that people would really want to read stuff that is not

credible unless it's very opinionated, in which case you can kind of tell" (Participant "B1F").

"I say probably about 25% the students whose use WBL I read; I've met them in real life, but say the other 75% spread all university departments. I probably won't ever meet them, but I feel I still know a little. It's kind of like — a pen pal you never meet, I suppose" (Participant "J1M").

Meanwhile, the findings show why/why not the participants trust WBL from three perspectives. First, whom to trust? Students trust WBL which is maintained by students whom they know (e.g. friends), authority (e.g. other students who study in a university), or recommended by students whom they know (e.g. a friend's friend).

For example, according to Participant "F1F", "If it's someone of authority, then I would definitely believe it", and Participant "A2F"'s following expression,

"..., because I know the author of WBL user. I believe it and I don't need to go and ask anybody else to make sure if it's right or wrong."

In general, students do not take a stranger's WBL on face value when they first meet them or discuss with them. As Participant "A6F" provided her way of judging credibility,

"...the more WBL users you have, I would think, more conscious you would be, — that you have a readership. If WBL has a very few users, it's usually written for the writer, so I would think it's more likely to be honest, because if something was written for a wide readership, then you have to ask why this person is doing this... perhaps they say what students want to hear...".

Next, what to trust? Regarding those entries that depict WBL users' experiences (e.g. difficult time, travel, lessons and sufferings) or interests, many participants will trust and give feedback. This point is evident in Participant "A6M"'s description above. In relation to those personal use oriented WBL or social entertainment oriented WBL, participants regarded them as personal views and did not take the information very seriously, often they partially trust them. As Participant "K1M" suggested:

"It depends. They can be very unreliable. ...you have to remember this: it's just students like you, behind WBL. So students get it wrong, or students are biased. It's not really the most credible thing."

Last, but not least, to what extent do they trust? As many participants noted, they seldom question the credibility of the information from their friends' or authoritative WBL. The close relationship and the background of WBL users weaken the users' ability to judge the credibility of the information on WBL. For WBL users that draw their attention, they often use prior knowledge, search second-hand resources, or keep reading for a while until they feel they can rely on and trust them. The trust of a stranger's WBL user gradually develops with a long time connection.

There are a few remarkable examples as follows.

"... WBL could be anyone using them, so you can't guarantee that the information is accurate or true." (Participant "E2F", does not trust WBL in general)

"The first point is I only browse my friends, so I know them., but if I browse someone else, maybe I don't really know him or her, maybe I will think, 'Did they really do this? Can they do this?', but if I know the person, I will [trust]." (Participant "M2F", depends on who the WBL user is)

"...the trouble with the Internet is that you have to trust the people who they say they are, but very often they are not..." (Participant "R1M", depends on the purpose of WBL)

"The information that I read regularly on WBL that I like, I think it's credible, because I've developed trust over the time I read... you have to test... try to find secondary resources... so for me, that created a certain amount of credibility... One of the reasons that I don't read other student's points on WBL on a regular basis, because I don't have that trust for them... Is it good, is it bad, is it worth my time really? ... And you have to realise that there is bias there." (User builds trust by long time discussion with others)

Overall, the comments reflected that the participants were not usually concerned with credibility as a question, even though they used WBL as an information resource. This is, because they felt that they used WBL mostly for relaxation, for study, coursework and discussion rather than an information resource. Since WBL is different from other media, such as newspapers or journals, people accept the information according to the publisher

and the origin; WBL users accept WBL in terms of the individuals, whom they feel are ordinary students like themselves.

Without argument, most WBL that students see on the web reflects a person's discussion, attitudes, experiences, and opinions, but contains little information for academic use.

Some academic purposes of WBL began to arise gradually after 2003, but they still were mostly personalised opinions and discussions from the participant's view. Using WBL is similar to watching movies, reading novels and other people's stories.

In a sense, WBL users do not think they should judge right or wrong, good or bad, credible or fake. In a very broad sense, it has low credibility as an information source when it is an ordinary individual's views of social topics; whereas it has higher credibility when the information reflects the WBL user's personal experience, such as travel, studying, or lessons.

Based on the participant's perception, eight degrees of WBL information credibility emerge:

- 1) Trust by the feeling of care (WBL users trusted WBL that they read, because either they felt the other student had the same concerns that they did, or they felt the other student cared what others read and was careful of what they posted on WBL).
- 2) Most trust (WBL users felt WBL was a person just like them and the information related to the individual. They could not see why the other student would give false information, so they trusted the student they read, in a general sense).
- 3) Credible information sources (WBL users thought that WBL that they read provided credible information. They not only trusted WBL users, but also used them as a useful information sources).
- 4) Half-trust (WBL users did not directly trust WBL they read, but had some suspicion. In a sense, they read the information with critical-thinking).
- 5) Need self-judgement (WBL users addressed that sometimes they needed to make a judgement about WBL. Especially when they felt the information was interesting or they wanted to use the information, they needed to have a strategy of information judgement).

- 6) Search second sources to prove the credibility (WBL users mentioned that they often searched additional sources to prove that the information on WBL was credible, because they were interested in it or, because they had different beliefs or views of it).
- 7) Suspect (WBL users felt that the information on WBL seemed incredible, unusual or bizarre, and they suspected the intent of WBL user).
- 8) Not take seriously (WBL users did not think WBL provided valuable information, because they read just for fun, for relaxation, or laugh and forgot it quickly).

8.3 Strategy for Using WBL as an Information Resource

As presented previously, there is a sense that the relationships between WBL users and the purposes of using WBL (from the WBL user's side) affect the extent of trust of the information on WBL. Many participants identified that some WBL use was for personal use and for leisure; some participants said WBL use was mixed, and only Participant "A1F" reflects an orientation of academic use. From WBL users' experience, many participants expressed that they preferred to use WBL for reading interest-relevant and informative content on a continuing basis.

Thus, here the analysis suggested two orientations for using WBL as an information resource: academic and leisure.

There were four distinct types of relationships between WBL users and the authors of WBL. Hence, those elements were developed as a strategy in terms of the relationships between WBL users, degrees of credibility, levels of privacy concerns and the purposes of a WBL.

Leisure refers to students who use WBL for relaxing or entertainment. Up to this point, it has to mention the "Online-identity" discussed in chapter 6. WBL do not worry about whether they use their real name or a pseudonym in terms of using WBL. The data has suggested that when WBL is used mostly for social connections or for friends' communications, the users are likely to use their real names; whereas when WBL is open to everyone online for social or leisure purposes, they will use a pseudonym. Mostly, they prevent WBL from affecting their real identity.

Academic refers to students who feel that WBL is a platform for presenting information, sharing experiences and exchanging ideas on a specific academic topic. WBL is used for updating useful subject-relevant information. According to many participants, for an academic use of WBL, it is necessary and reasonable for WBL users to provide their real personal information to build the credibility of WBL.

Self refers to a WBL user who is open only to his/her own friends.

Friends means that for WBL users, the audience is the people they know, friends. For WBL users, the author whom they discuss or read is a person they know, a friend. High trust results from this kind of relationship, where WBL users know each other in person.

Authoritative/Recommended means that for WBL users, WBL has been recommended by students they know or the WBL is authoritative. Trust develops from this relationship depending on the use orientation of WBL. For academic use WBL, WBL users trust, because of recommendations or, because of a self-judgement strategy over a long period.

Strangers means that for WBL users, the author whom they discussed or read is a person they do not know, have never met before, or is anonymous. The credibility built on this kind of relationship requires high judgement of the source by WBL users. Whatever the orientation of WBL usage is, WBL users have a suspicious feeling. They often do research to prove the credibility (if they feel the information is interesting or they want to use it) or they do not take the information seriously.

As revealed by WBL users themselves, whatever the use orientation of WBL, there are hardly any issues of trust or privacy concerns about WBL. Three noticeable orientations are shown in this study:

- 1) the more academically oriented the WBL is and the closer the WBL users are to each other, the higher the trust is and the fewer self-judgement skills are used;
- 2) the more leisure oriented the WBL is and the more alienated the WBL users are, the more self-judgement skills are needed and the less trust there is; and the more leisure oriented the WBL is and the more alienated the WBL users are, the more private information is likely to be exposed. In both relationships of “friends” (know each other in person) and “strangers”, personal information is likely to be exposed.

This study attempts to present the key elements in using WBL as an information resource and their complex relationships. It does not aim to explore an approach of how to protect privacy by using WBL or how to increase credibility of WBL, but helps students see what happened when WBL is used as an information resource. In a broader sense, it may suggest an interpretation of privacy disclosure phenomena on WBL.

8.4 Towards a Strategy for Using WBL

From the discussion in sections, WBL is revealed as a place for “self-liberating”, a memory in which to record personal matters, and for creating an “online identity”. WBL users do not release ideas or emotions in other student’s messages or discussions or through commentary, and they often are anonymous, which means it is difficult to find their true identity. Therefore, “self-liberating”, “memories”, and “online identity” are the three apparent distinctions.

WBL users enjoyed WBL as a way of relaxing. Some WBL users not only relaxed by using WBL, but also felt relaxation and satisfaction by writing ideas in WBL. WBL users also employed WBL as an information resource to maintain relationships as well as to pursue their own interests.

Apparently, some WBL users are able to gain updated information (e.g. related to friends, hobbies, interests) by using WBL, whereas other WBL users are likely not only to read or discuss to gain updated information (e.g. related to friends, hobbies, interests, similar views), but also to write or read for practising writing, presenting opinions or discussing issues.

When WBL users broaden their views through WBL, they also develop professional skills, such as improving writing, interacting with other students and building new relationships. WBL users felt they learned when they read certain WBL that related to their interests; they were able to gain information and think about what they learned. They also learned when they read back their ideas or discussions and saw their changes, received criticism or encouraging comments, interacted with other students and censored what they had acquired.

As presented before, a great amount of WBL online consists of personal experiences, views or other matters. According to the definitions in the previous section, events, news, or descriptions about students’ lives and ideas are information, whilst feelings, concerns, or reflections on their experience is knowledge that has been codified; in a sense, it is

expressed by WBL users and converted to knowledge by them. In addition, this knowledge construction process becomes apparent only when WBL users feel the sense of change or new ideas.

The data showed that WBL users develop strategies for managing WBL according to their needs, for instance, to vent emotions, for self-expression, to show off, to meet more students, to share experience, for discussion and so on. WBL users employ WBL as a way to maintain old relationships and broaden their own views. They also may help to form a WBL community and they contribute to the WBL they read, through commentary.

Firstly, most WBL users have adopted the strategy of storing memories on WBL. They put information on WBL and later check back. This clearly falls in the personal use orientation. WBL users are not the only ones to use these memories; they also provide a source for others. Memories could be classified as an attribute of “Information resources”, but considering the distinctions between different WBL users and the distinct role of memory in WBL, the researcher has kept “Memories” as an independent category rather than put it under the “Information resources” category.

Secondly, while online identity is not a purpose of WBL users, it is implied through the interaction between WBL users. As they interact, WBL users started to think about who will read their information on WBL how to present on WBL, and they gradually reflect on who they are or are comfortable being. Online identity is personal use oriented. It is a reflection of self-liberating when WBL becomes a personal space for releasing emotions and presenting opinions, which manifest the WBL user’s characteristics and views. Online identity is an attribute of “Interpersonal skills development”, which means it is not only identified by WBL users themselves, but also is largely reflected in the online interpersonal relationships.

A detailed analysis of “Interpersonal skills development” will be presented later as a potential benefit of using WBL.

Thirdly, using WBL for relaxation is a primary way that the SHE students reduced pressure and gained a feeling of satisfaction. This aspect implied both social and personal use orientations. As presented before, most participants suggested that WBL was not a priority for them, because they had a mental list of their priorities for each day. They regarded WBL as a hobby or habit to enjoy, laugh at and for fun.

Fourthly, WBL provides sources for WBL users to compare each other's insights and views, as well as to read back their own past opinions and experiences; these activities lead to self-censorship and facilitate knowledge construction. At the same time, WBL provides diverse information for WBL users to use as they develop their own interests and improve their information selection and judgement skills. "Information resources" can be social use oriented, but not reflective use oriented. It is categorized as either personal use orientation or community of interest use orientation.

Fifthly, many participants mentioned that they use WBL to maintain and expand relationships. It assists students to maintain old relationships and develop new ones, because without this information platform, there would be no vehicle to update information, read updates from friends and contact each other. This gradually helps WBL users to think about how to maintain the relationship and build new relationships, how to react to the new online students they meet and decide with whom they prefer to be in a relationship. Thus, it is a means for forming WBL user's online identity, a way of developing interpersonal skills, and a reflection of patterning WBL community and vice versa. There will be explanations about interpersonal skills development and WBL community in a later chapter. The formation of relationship fall into the category of community of interest use and social use orientations as it largely involves interactions and communications.

Sixthly, self-liberating refers to WBL user who created a space to release emotion, opinions and thoughts. They felt it is a channel to liberate themselves, and to acquire a free and enjoyable feeling. They achieve relaxation is a result of this liberation. As noted before, online identity also reflects WBL user's liberation. An individual uses the self-liberation category for personal release rather than for social interaction.

Seventhly, knowledge construction means WBL users gradually broaden their views and construct their own understanding and meaning of the world, society and life by comparing their own and others' ideas and views on WBL and modifying their own messages, ideas and discussions. Knowledge construction is a step in forming self-organised learning styles and professional development, because WBL users reflect on what they need, how to acquire effective information, what they are good at or lack, and what they want to develop. Their development and re-evaluation will help them form understanding and meaning. Knowledge construction is in the reflective use orientation category, because it involves personal perception rather than social interactions.

Lastly, Interpersonal skills development and Self-organised learning styles are reflective use, while WBL community is obviously community of interest use. The three categories pertain to the consequences of using WBL rather than the strategies of using WBL, because they are more likely to result from those strategic methods. Interpersonal skills development is a reflection of Self-organised learning styles, an approach to Professional development, and a way to facilitate the formation of a WBL community. Self-organised learning styles and knowledge construction affect and relate to each other, and WBL community and Professional development (for WBL users) affect each other as well.

Chapter 9. Discussion

In Chapter One, the main aims of the Thesis were set out, namely to explore the usage of WBL by undergraduate students in KSA. This Chapter draws from the research findings and begins a process of discussing the salient items which emerged.

9.1 Integrating model

Following Strauss and Corbin's (1998) framework and their techniques for coding (see a description below), codes were formulated to identify causal, intervening and contextual conditions. These three condition codes help to define the environmental context for use of WBL and the motivators and mediators of the users.

"Labels placed on conditions such as *causal*, *intervening*, and *contextual* are ways of trying to sort out some of the complex relationships among conditions and their subsequent relation to actions/interactions. *Causal conditions* usually represent sets of events or happenings that influence phenomena... *Intervening conditions* are those that mitigate or otherwise alter the impact of causal conditions on phenomena... *Contextual conditions* are the specific sets of conditions (patterns of conditions) that intersect dimensionally at this time and place to create the set of circumstances or problems to which persons respond through actions/interactions." (Strauss and Corbin, 1998: 131132)

As Strauss and Corbin (1988) observe, labelling and categorising the conditions is simply a means to allow the researcher to make sense of the interconnecting conditions that make up the phenomenon of WBL use. Breaking down the interviews into concepts and categories was the first step in this research.

The causal conditions include: (1) the desire of being visible, (2) anxiety of being visible, (3) writing habits, (4) social trends and (5) social taboos, which influence WBL user orientations and strategies. Intervening conditions consist of (1) preventing unwanted readers, (2) geographic distance and (3) effects on people, which affects the causal conditions and further influences WBL user orientations and strategies.

Contextual conditions refer to the pattern of conditions which have dimensions, such as personal use vs. community of interest use orientation and social use and reflective use orientation.

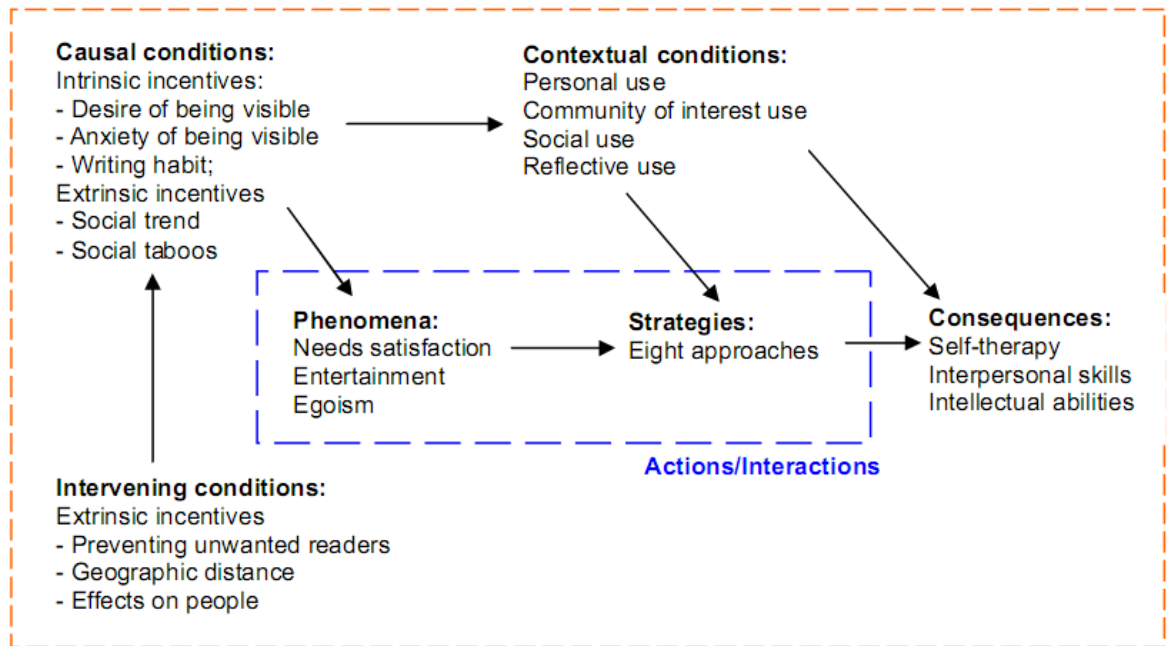


Figure 9.1 - A Model of WBL in Facilitating Learning and Knowledge Sharing

WBL users take different strategic actions/interactions to resolve situations, and in so doing they shape the phenomenon in some way. There are 8 elementary strategic actions/interactions:

(1) Relaxation, (2) Self-Liberation, (3) Online Identity, (4) Memories, (5) WBL as Information Resource, (6) Maintaining/Expansion of Relationships, (7) Professional Development and (8) Knowledge Construction.

In previous chapters, three occurred consequences were analysed: (1) interpersonal skills development, (2) WBL-centred community and (3) self-organised learning styles, and their relationships.

Afterwards, the three concepts with those tactics were abstracted into higher level core concepts, including (1) self-therapy, (2) interpersonal skills and (3) intellectual abilities, which implies why SHE students use WBL.

The next step was to identify the central category and integrate the concepts from the interviews. Strauss and Corbin (1998: 134), recommend describing and coding everything that is dynamic - changing, moving, or occurring over time, thus the technique of a storyline was selected. 6 criteria were then chosen in terms of Strauss and Corbin's (1998: 147) suggestions:

- 1) It must be central; that is, all other major categories can be related to it.
- 2) It must appear frequently in the data. This means that within all or almost all cases, there are indicators pointing to that concept.
- 3) The explanation that evolves by relating the categories is logical and consistent. There is no forcing of data.
- 4) The name or phrase used to describe the central category should be so sufficiently abstract that it can be used to do research in other substantive areas, leading to the development of a more general theory.
- 5) As the concept is refined analytically through integration with other concepts, the theory grows in depth and explanatory power.
- 6) The concept is able to explain variation as well as the main point made by the data; that is, when conditions vary, the explanation still holds, although the way in which a phenomenon is expressed might look somewhat different. One also should be able to explain contradictory or alternative cases in terms of that central idea.

A central category was identified and condensed into SHE students' WBL use experience as "a channel of ambivalent self-image assurance" to conceptualise the essence of the research findings.

9.2 A Theory Storyline

As described previously, in Grounded Theory Research, the data must continuously be examined, information compared, hypotheses set up and emerging concepts analysed by investigating who, when, where, how and what were the results. This is similar to constructing a storyline in literature.

For example, typical questions might be what major categories explain the consequences of the core category? What central phenomenon is a major category for SHE students? How does the phenomenon develop, and what variables and effects exist in the environment from the participant's perspectives?

A theory storyline of the studied phenomenon was generated, that is, based on the phenomenon of using WBL by students reflects an ambivalent process of assuring self-image. It is a complex process of learning and knowledge sharing.

As mentioned before, many participants have tried to use WBL and a few of them have thought about giving it up. The primary reasons to stop using WBL include:

- 1) Short time to use WBL for memory, repository, dealing with personal problems and maintaining relationships.
- 2) Being uncomfortable with being searchable through WBL, as well as anxiety about affecting people (themselves, other students, family or who they noted on WBL).

These elements do not only simply reflect a WBL user's decision of using WBL or not, but imply the WBL user's ambivalent experience of knowing if he/she is truly comfortable with opening individual thoughts and information to the public standing on his/her needs.

In general, they often start using WBL through other students' recommendations or searching online.

Some of them have mentioned that everyone uses WBL, which manifests that there is a trend of using WBL as a channel of connecting an individual with a group of people.

For most of them, it is an easy way of keeping in touch with friends or other students. Its main purpose is to maintain interpersonal connections. Also, some participants wanted to present their opinions and develop their abilities, such as writing, expressing themselves or using their own experiences to influence others.

Through using WBL, they take a controlled action at their own pace. They can share interests, experiences and stories with people. They feel that people may be interested in reading these things, and they feel they are contributing something to society and the world at large, reaching people who have similar interests or in similar situations.

Using WBL makes it possible to build online connections and distribute information. Therefore, WBL users assume the roles that they prefer to play.

Some of WBL users, they do not have experience in maintaining WBL. Basically, they just use WBL for acquiring information. Some of them read friends' messages to maintain relationships. It is clear that WBL users are information sources for them. Taking WBL users as a whole, the information that they read includes hobby-related information (e.g. game, cooking, gossip); people's lives (e.g. largely friends, people who inspire them; people who are mind-liked or have had similar experiences); relevant knowledge and skills

(e.g. IT, professional experience) and social issues (e.g. countries, politics, and society). The information to a broad extent benefits to them, through self-therapy or interpersonal and intellectual development.

It can be seen that in a micro environment, SHE students realise that WBL provides a space that they can use for individual purposes. Most of them find that it is a personal place for venting moods, opinions and feelings. They are able to publish what they want with few limitations.

One benefit of WBL pertains to the students' mental health. SHE students, who are largely traditionally aged 18 to 22, are adults in a legal sense, but not as mature as mature students yet. Many of them, especially female students, do not want to talk about personal problems with parents or friends in real life, nor do they want to talk to a psychiatrist face-to-face. This is, because they do not want to trouble people, feel embarrassed or, because feel their certain understandings or thoughts may affect their real lives and other people's perceptions of them. They find a place where they are able to have a private talk with "close friends" or "trusted people".

A more important point is that they feel self-liberation. Sometimes they receive comments from other students, which helps them realise that there are students who are similar to them having difficulties in similar situations. This makes them feel like someone understands them or has common opinions to theirs. They feel that these students will listen and care of them. Furthermore, they feel that they are not the only person who is in a certain situation. WBL consequently becomes a way of sorting out personal problems.

In addition, because most of the SHE students use WBL for non-academic purposes, they do not link WBL into their studies, rather they use it as a method of getting away from work. It is a way of relaxing and reducing pressure. Through sorting out their problems on WBL, users start to meet students, make friends, expand online relationships and regularly reflect on themselves. WBL becomes a habit. In this process, they assure themselves and gain help from either self-expression or other people's suggestions. Self-therapy hence emerges as a psychological approach that benefits SHE students.

Also, in a micro environment, SHE students realise that WBL is a tool that they can use to keep in touch with students. They can inform students what is going on in their lives as well as reduce feelings of isolation, because of geographic distance. Some of them use WBL as a group of students to maintain their existent relationships, some of them use

WBL as a community within the public to share information or interests and some of them use WBL as members of the public to raise social issues or contribute to social discussions. It thus provides the possibility to meet new students who are like-minded and have similar interests and views, further bringing about an expansion of social connections.

A more significant result is the students gradually feeling that they belong to a big social community and that they are adding value to that community. This helps them to build confidence in interpersonal relationships and develop interpersonal skills, because they feel that their contributions are being affirmed in the interactions through WBL.

Meanwhile, for most WBL users, apart from the interpersonal connection and self-therapy they realise that WBL is a place where they can practise writing, improve a second language, and learn new technologies. To maintain WBL, the students need to type down their thoughts regularly, search and publish new information and try new technologies on WBL. At the same time, students can place things on WBL and get given feedback, which is freely reviewed. Students may receive encouragement, suggestions or get into arguments sometimes they encounter experts, authority figures or role models. As these interventions and variables occur, they begin to think about why they use WBL and how they can use it for their own benefit. As a result, after a year or more of WBL use, it seems easy to express themselves logically and clearly. They have the opportunity to develop technical skills that would be difficult to learn elsewhere, particularly in focused subjects, such as Dentistry English literature, Mathematics and so on.

In addition, as WBL has archived entries, the users can read back and see their own changes. This helps them to learn about themselves and other students; allowing them to build confidence in their own abilities. They obtain an accumulation of interest-relevant, subject-relevant and technique-relevant knowledge.

Some WBL users have specific purposes of reading by using the service. They read it for entertainment as well as developing their interests or professional knowledge. They do not usually use WBL for self-therapy. Undoubtedly, the reading experience becomes a part of knowledge construction and a way of learning. Intellectual skills therefore emerge as a major benefit of using WBL.

In a macro environment, it must be stressed that the attributes of WBL, such as interaction possibility and individualisation, as well convenient accessibility and operability, are inevitable effects to support its usage in both micro and macro environments from the

participants' perspectives. Most WBL users who have more than one year's experience are likely to continue to use WBL. For them, it is a way of assuring themselves. They can get the assuring feelings from other means, such as community, forum, teamwork, etc. However, it shows that WBL provides them with an easy possibility of seeing "who they are", "what they are good at" and a combination of personalisation and having their "true-self" affirmed in social connections. This is a useful inspiration in their personal development.

All in all, using WBL can be a short term approach to sorting out personal problems or can function as a repository. Also, it can be a long term habit that interferes with a WBL user's life. It provides a way of keeping information, maintaining and expanding connections, but it also facilitates a style of thinking and reflecting on a person on a daily basis.

Using WBL is not only an action on the internet and in a virtual world, but it also allows students to find a way of gradually seeing the "multiple" and "flexible" self.

Revisiting the data, some students said they "get into a habit" (e.g. Participant "S1F"), "have a lot of freedom and independence with it" (e.g. Participant "N1M"r), or that they became "quite obsessed" (e.g. Participant "L1F").

Other statements include "(I) make time for it [using WBL]" (e.g. Participant "D2F"), "In fact, I quit using WBL, but I came back... I just like pressing the 'publish' button, I just want to keep doing it again and again" (e.g. Participant "T4M"l), and "it is very easy to get sucked in(to) a lot of it" (e.g. Participant "D1F"). This seems to reflect their self-complacency when using WBL.

Some students used detrimental words like "egotistical", "stupid" (e.g. Participant "J1M"), "narcissism" (e.g. Participant "K1M"), "addictive" (e.g. Participant "A6M") to describe the enjoyment of using WBL, while other students said, "I would like to check WBL every day", "especially, during the night, I would like to think about what I should write down for today..." (e.g. Participant "W1M"), "I think it's worthy", "you can reflect on your own thoughts" (e.g. Participant "K1F"), "It's more helpful for me personally; it's a connection to home for me, which is more helpful for my mental health to have a connection to home." (e.g. Participant "B2F"), and "I think it just keeps your mind active and gets your thinking [clearly]." (e.g. Participant "B1F"), which reflects self-censorship in it being valuable to them.

All these examples do not refer to using WBL being, as an action, seductive, but rather imply that the process of using WBL to satisfy the discovery of “true-self” is seductive. Therefore, in general, it denotes that the student is on his/her way towards learning, changing, and being him/herself, which has been proposed by Carl Rogers since 1969 (Rogers, 1969).

9.3 Contribution to knowledge

This research is intended to be a contribution to the ongoing effort to understand students’ views on using online information and improving SHE by investigating the WBL phenomenon. There are many shades of grey between learning and knowledge sharing on an individual level. This study sheds light on the relationships to interpret the use and usefulness of WBL in facilitating learning and knowledge sharing.

The discussion now focuses on the contributions towards five aspects: (1) studies into motivations for using WBL, (2) students’ conceptions of learning, (3) the most relevant Learning Theories to emerge from this exploratory study, (4) knowledge sharing in using WBL, and (5) narcissism theory as an emerging area in explaining the research topic.

9.3.1 Motivations for using WBL

The body of literature dedicated to investigating why students use WBL is expanding. From the results of these studies, students can attempt to better understand humans, learning from Behaviourist, Cognitivist and Constructivist perspectives.

From published studies, the motives for using technology include:

- A good career move (Sauers, 2006).
- Convenience (Kaye, 2005).
- Self-representation and leaving traces (Efimova, 2004).
- To achieve personal fulfilment (Kaye, 2005).
- To capture, articulate and organise ideas through writing (Efimova, 2004. Nardi, 2004b).
- To form and connect communities (Ali-Hasan and Adamic, 2007. Graham, 2002. Kaye, 2005. Nardi, 2004b).
- To document one’s life (Koh, 2005. Nardi, 2004b).
- To enrich and maintain existing offline relationships (Ali-Hasan and Adamic, 2007).

- To entertain others (Koh, 2005); To express feelings and thoughts (Koh, 2005.Nardi, 2004b), To feel heard (Turgeon, 2004).
- To find experts and cross-disciplinary connections (Efimova, 2004).
- To get to know yourself and others (Turgeon, 2004).
- To influence others to take action (Koh, 2005).
- To learn web publishing (Graham, 2002).
- To minimise spam (Graham, 2002).
- To provide commentary and opinions (Koh, 2005. Nardi, 2004b).
- To provide, share and collect information (Koh, 2005.Turgeon, 2004).
- To release emotions (Koh, 2005).

In addition, the motivations for using WBL can be found in a few studies and include:

- Information seeking and media checking (Kaye, 2005).
- Political or social surveillance (Kaye, 2005).
- To explore how ideas unfold and connect over time (Kajder and Bull, 2003).
- To access to information unavailable through traditional media sources (Turgeon, 2004).

Although the literature is rich with explanations of the motivations for using WBL, this research study is distinctive in its goal to understand the SHE student WBL users' experiences and perspectives. It investigates what they use WBL for and how they use the services provided. It also examines their motivation to use WBL, how they use it for learning and what they learned.

The research found the nature of using WBL lies in that it is a process of ambivalent self-image assurance. It is reflected by the benefits to WBL users in three aspects:

- 1) A means of self-therapy.
- 2) A way of developing interpersonal skills.
- 3) An approach to fostering intellectual abilities.

A model (Figure 8.1) has been shown in order to explain the use and usefulness of WBL in facilitating learning and knowledge sharing.

In the theoretical model, it shows that SHE students use WBL when driven by intrinsic incentives and extrinsic incentives. They started, continued or stopped using WBL due to

these incentives. With these in mind, it is clear that they have four distinct orientations of usage. According to each orientation, it showed that the students apply different strategies for achieving their purpose in using WBL.

On one hand, it found that students use WBL due to 6 effects.

Firstly, the user has a desire to be visible. This is mostly, because they want to vocalise personal feelings, thoughts, ideas and views about certain issues. They feel that it is an appropriate way to have their own voice come across online, with WBL acting as a platform to satisfy their needs.

In a sense, the way of visualising personal ideas and thoughts denotes the first-step of sharing knowledge, especially converting tacit knowledge to explicit knowledge.

Secondly, it cannot be ignored that most WBL users enjoy writing. They either find that WBL helps them clarify and organise their thoughts. To them, the enjoyment of expression leads them to maintaining a WBL.

At the same time, not only do WBL users' personal preferences play a crucial role, but 4 key elements also affect the use of these sites.

As analysed, WBL has been developing rapidly. It is easy to learn, because of the low technological requirements for the user. It is free online and easily accessible. It is regarded as a social communication medium, a publishing tool or personal diary. Most SHE students use WBL, because of social trends. Their typical ideas are: "Almost everyone has WBL, why wouldn't I?" and "All my friends have WBL, so I'd better get in on it". It reflects that they need a feeling of belonging. As Child (2004: 188) has pointed out, "they need the feeling of belonging. To some extent the feeling of belonging adds to our safety needs".

Thus, this finding manifests that using WBL is a method of creating and maintaining a social connection.

Another group of SHE students use WBL, because of the liberating feeling that comes from talking about what they want without social restrictions. Under a mask of anonymity, they feel that they can raise issues, touch on taboo issues, have different voices and hope to contribute to the social evolution.

Also, some WBL users are not anonymous. They feel that the WBL is theirs and they are entitled to their views; they are not doing something bad, but not following the mainstream

media's voice. In a sense, WBL is a reflection of the user's insights, a reflection of their online identity, and this further increases the user's fulfilment.

At the same time, it also helps information diffusion. Besides the above elements, a group of WBL users participate, because of unwanted events; for example, they need a private space to keep a diary, or they are away and need to inform many students about their experiences.

At this time, WBL has become useful for SHE students, because they are already accustomed to using computers and IT, it is easy for them to try using WBL services and to adapt to them.

Linking back to the literature, the findings again confirm that SHE students have used WBL as (1) a communication tool to keep in touch with other students or people, to inform other students or people what happened about them, to reduce the feeling of isolation caused by geographic distance and to maintain their social relationships; (2) a personal controlled space to record personal life, (3) a place for self-expression and releasing emotions, (4) a tool for practising writing.

On the other hand, it also found that SHE students may lessen WBL use for two major reasons.

Firstly, they are anxious about becoming visible. Psychologically, they dislike being noticed by others. They do not want to present their insights to others. They, to some degree, are concerned about themselves; they are careful about presenting personal views and hope to add value. This might reflect that they are not confident about their knowledge. In a sense, this "anxiety of being visible" may be a barrier for exchanging ideas and sharing knowledge.

Secondly, students have heard bad cases about influencing other students, people or WBL users by writing things which are not accepted by others (e.g. the students, the employer, friends, or common consensus), because they do not want to lose the advantages of openness on WBL, they begin to write less sensitive topics, and start protecting themselves, as well as students or people who are related to them.

Moreover, in this study, it is suggested that WBL users are interested in (1) maintaining and expansion of relationships (2) relaxation (3) acquiring interest-relevant information (4) searching for likeminded people, whereas WBL readers read by using WBL for (1)

acquiring interest-relevant information and ideas, (2) acquiring information about friends, (3) relaxation. It reflects that WBL users read by using the sites for a wider purpose. They not only get the benefits of using WBL sites as information sources to broaden views and accumulate knowledge, but they also meet other students, build online identities and even develop critical thinking.

Up to this point, we have that using WBL can help SHE students' professional development, such as IT skills, communication skills, information retrieval skills and information collection and judgement skills etc.

In addition, an interesting finding is about gender elements in WBL use. It displays that male WBL users are likely to hold an attitude of "this is my opinion; let us discuss"; whereas female WBL users are likely to use WBL in a sense of "this is my feeling; let it go".

Female users are likely to use WBL for "self-liberating" and "self-therapy", and they are inclined to select readers and share different information with different students, whereas male WBL users are likely to use the service for "opinions discussion".

Female users are inclined to look into those personal-diary-style WBL entries, while male users are inclined to be more interested in present social topics and big issues. Again, it implies that female and male WBL users are sharing different knowledge, and only when the information gives rise to their interests will they engage in the sharing.

However, apart from the findings discussed above, there is not enough evidence to confirm the findings suggested in the literature, such as (1) using WBL for a good career move, (2) WBL users hoping it will make them better people (3) using WBL to find experts and cross-disciplinary connections, and (4) to minimise spam.

Hsu and Lin (2008) tested egotistic motives and altruism motives for blogging and concluded that "People participating in blogs were motivated intrinsically to contribute knowledge to others, because they enjoy helping others". If we put their statement into the personal use oriented contextual condition in this study, it is not applicable. This is, because WBL users who use it for themselves showed a low interest in sharing information openly and widely. However, the statement is applicable to those who use WBL with a community of interest orientation or a social use orientation.

9.3.2 Conceptions of learning

As discussed in Chapter 2, Säljö (1979) and Marton et al. (1993) identified six concepts of learning. More recently, Felix (2007), in his research into technology and instruction effectiveness, suggested four types of students' learning from an educator's viewpoint, which confirms that learning involves (1) developing understanding, (2) cultivating deeper thought and creating, (3) exploring and (4) connecting with previous experiences. In this study, five types of learning have been identified by the participants.

At first, it showed that the students identified learning as acquiring information and awareness. Secondly, the students felt gaining skills is learning. Comparing this with the literature, it can be seen that the two points are congruent with Säljö's (1979) findings that learning is an acquiring of facts, skills, and methods that can be retained and used as necessary.

Thirdly, some students felt that changing their own styles and insights was learning. This point supports the statement from Marton et al. (1993) that learning is increasing one's knowledge in order to change as a person.

Also, learning has been viewed as understanding and exploring with deeper interests and thoughts, which again confirms the findings in the existent literature (e.g. Felix, 2007; Marton *et al.*, 1993; Säljö, 1979). Miura and Yamashita (2007: 1457) talked about Pennebaker and Beall's 1986 experiment results and pointed out, similarly to previous psychological, that "Writing about our personal experience can help us to understand ourselves more deeply and mitigate major problems or conflicts".

Lastly, creation and imagination have been identified as learning by the participant. The sense of creation is similar to Felix's (2007: 217) statement of "creating meaning and new ideas from the subject", and Säljö (1979) declared that learning brings about and increase in knowledge. Without doubt, it reflects that learning in a way leads to changing.

Senge's (1998) suggested that knowledge sharing is distinct from information sharing, because it creates new ideas and causes learning. Here, the data supports the view that if people regard learning as creating new ideas and abilities, then knowledge sharing is the same as learning in this sense. More importantly, for WBL users they put forward that not only creation, but also imagination is learning. Imagination is not stressed in Learning Theories by educators, but had been noted by Albert Einstein in 1929 (Taylor, 2002).

“Imagination is more important than knowledge... Knowledge is limited. Imagination encircles the world... For knowledge is limited to all we now know and understand, while imagination embraces the entire world, and all there ever will be to know and understand.”
- Albert Einstein (1879 - 1955)

In another respect, this reflects that learning is beyond knowledge sharing. It is not only about creating new knowledge and abilities, but also means the learner needs to use his/her imagination in learning, and that the imaginative ability is a part of intellectual ability.

9.3.3 Learning theories

The representations of the data provides a set of propositions for understanding the Learning and sharing behaviours of the SHE students, indicating that (1) experiential learning happens while using WBL; (2) Carl Rogers’ (1969) humanistic psychology approach to learning has occurred; (3) the social dimension of communication is important, but not essential in facilitating self-organised learning.

It is clear that learning through using WBL has been defined as informal and is seen as informal from the participants’ points of view.

According to Moon’s (2004) description of the connotations of experiential learning in Chapter 2, the data suggested that using WBL had considerable effect on the users’ experiences. The process of reading others thoughts and opinions, having the opportunity to comment themselves, and being able to archive and retrieve all that information, affected their own experiences. They often reflected on what they thought and felt, and what they realised about themselves. Their ideas became more comprehensive and mature. Also, because WBL is seen to be personal, they voluntarily maintain and use it according to their own needs. It is not presented that WBL users have an intention to learn, but rather an intention to entertain, show off, enjoy and express themselves. Nonetheless, as analysed previously, it turns out that WBL users eventually develop interpersonal skills and intellectual abilities in the sense of a reflective use orientation from using WBL. In a way, learning does not come about as a conscious aim (to learn), but is a by-product of the experience.

The findings also reflected that SHE students are learning through writing, reading and reflecting, which largely supports Carl Rogers’ (1969) humanistic approach to learning (see section 2.4). With reference to Rogers’ 10 principles of facilitating learning, the data

showed that when the matter is relevant to the student's own purposes (e.g. improving writing skills, seeking interests-relevant information), experiential learning takes place (that is, it has significance and meaning for the learner).

Rogers (1969) posited that when others evaluate a student's thoughts and comments, it facilitates the student's independence, creativity and self-reliance. With online feedback from responsible WBL users, the student can learn and assimilate a great deal of information. There is hardly any doubt that WBL users have noted that using an online service has few limits and that they can feel the freedom of owning a personal virtual space, experience change within themselves, and learn more about themselves and the world.

The fact that online criticism is often indirect and its assimilation is controlled by the student, supports Rogers' (1969, 1994) theory that when external threats to the self are low, the individual can learn from experience.

Further, by investigating WBL users' perceptions, the research uncovered that less experiential learning occurs with WBL users when they have been involved in more actions, such as selecting, designing, judging, collecting, expressing and communicating. This further indicates Rogers' (1969: 162) statement that "much significant learning is acquired through doing". In the long run, it reveals that when a WBL user feels the benefit to him/her and is self-directed use it, learning will involve the whole person and promote active informal learning and lifelong learning. This point again supports Rogers' (1969) position.

Furthermore, the findings in this study suggest that social communication is important to students using WBL, but does not appear to be essential for a student to learn.

Also, the data reveals a dichotomy between the use of WBL to share information on a community basis, and the use of it for their own purposes. In the latter situation, the users are likely to find ways to resolve their own problems, such as self-liberating by venting. They may share their experiences with others, seek advice and exchange views, but ultimately this interaction is not necessary for learning. It may serve as a form of self-therapy. In particular, some WBL users, they do not often leave comments for other users.

It did not show that they learn through interacting with others, but rather through reading in WBL with a will to acquire a piece of interest-relevant information and relax, and this

could happen while reading other media as well. As Jonassen and Grabowski (1993) said, learning requires (1) a student's will or motive to learn, (2) a student's ability to learn and (3) a social and academic environment that fosters them to learn.

As far as Saudi universities are concerned, this study presents no clear emergent evidence to match the four steps of Kolb's learning cycle. However, it may be useful to reiterate the limitations of the scope of this study: it concentrates on the users' own definitions and does not observe their postings on WBL.

9.3.4 Knowledge sharing of practice

Linking to the discussion in Chapter 2 and Chapter 8, "Knowledge Sharing" is a term being used in the literature; however, students do not often use it in practice, instead saying they "share information", "exchange ideas", "learn perspectives" or "share experiences".

In this study, "experience", "insights", "feelings", "ideas" and "thoughts" as synonyms for different forms of knowledge are largely interchangeable when using WBL. The findings support the notion that knowledge is personal, valuable and useful for the individual, and is gradually constructive.

When viewing WBL as a tool for helping self-therapy, the findings reveal that WBL can function as personal diary of sorts, one that includes personal matters, feelings, issues, emotions, and experiences. It implies that certain information that has been codified by WBL user is more sharable than others, such as hobbies and views of social issues, because a WBL user is using it for their own reasons and making themselves comfortable. In this respect, professional skills, writing techniques and subject knowledge are harder to share during the WBL process. Some of the concepts and relationships that emerged from the data during this study support the findings of other researchers. For example, King et al. (1998) proposed that internet-assisted therapy is one of the tools available for family therapy. Castelnuovo et al. (2003) stressed a concept of e-therapy as a new modality of helping people resolve life and relationship issues.

In investigating WBL as a tool for interpersonal skills development, the data shows that WBL users largely present personal experiences, interests, events, views of interest-relevant topics, stories and news on the WBL. It may be useful to reiterate the limitations of the scope of this study: it concentrates on the users' own definitions and does not observe their postings on WBL.

Students use WBL not only for themselves, but also for readers, to inform other students and attract their attention. WBL helps students get to know each other better. Knowledge sharing happens through the interactions, communications and discussions about views, opinions and experience as Felix (2007: 216) stated,

“The internet by its very nature gives students a vehicle for sharing their ideas with one another, a contemporary way to gain additional knowledge or understanding that resonates with students being raised in the digital age”.

In addition, in using WBL as a tool for intellectual development, the findings suggested that WBL users possess self-organised learning styles. To an extent, the students make an effort to share subject knowledge, interest-relevant knowledge and deeper thoughts. Often they do this for self-benefit and to accumulate personal knowledge, rather than for sharing. Moreover, WBL users regard the WBL as an information source in terms of their own needs. They therefore encounter issues of privacy exposure and judging information online. Some studies have investigated this aspect. For example, Razavi and Lverson (2006) reported that the current stage in the information life cycle, the nature of trust between the owner and the receiver of information and group dynamics are three key factors affecting privacy preferences. Contrary to that study, findings in this work suggest that the relationship between students on the internet affects the degree of privacy disclosure and the extent of judgement of credibility of information online. The concerns for privacy disclosure and the judgement of credibility of information affect each other. In different contexts, the students have different levels of judgement and concerns for privacy disclosure, and therefore they put up different information. It reflects that what students learn is influenced by different levels of knowledge shared.

9.3.5 Narcissism use of WBL

As discussed in Chapter two, an increasing number of publications are focussing on Narcissism Theory. In Cognitive Psychology and Social Psychology, narcissism has been studied in terms of its motivations and its relationship with self-esteem and ego (Bosson, 2008). However, in Educational Psychology, it has been largely overlooked.

More relevant to the present investigation, the findings show that “narcissism” has been defined by WBL users. WBL users realised that they may “be addicted to using WBL”, “use WBL too often”, or “enjoy having their own private space”, but they do not think it is a problem, because they feel the satisfaction of “being themselves”.

WBL Users also stated that WBL puts too much personal information in the public area, which reflects the narcissistic trait of WBL users. In another sense, they accept that this is a personal choice and WBL is a personal space for users. Therefore, it appears to be a “moderate narcissism”, which does not indicate a diagnostic meaning. Alternatively, it may be stated that narcissistic students have a positive view about themselves, but do not see themselves as being extremely important. As many of them echoed, they are simply being themselves and are using WBL for mental therapy.

In the literature, Guadagno (2008) reported that people who are show a high degree of openness to new experiences and high in neuroticism are likely to be using WBL.

In this study, the data suggests that people who are “moderate narcissistic”, “like being online” and show “openness” are likely to be using WBL.

Also, female and male WBL users have different orientations for using the services. Dvorak (2002) listed 4 reasons for using WBL from a non-user’s view: (1) ego gratification, (2) anti-depersonalisation, (3) elimination of frustration and (4) a need to share and to publish.

WBL users from this study also outlined 4 reasons of using WBL, citing (1) egoism, (2) informing people and maintaining relationships, (3) a need to speak out and self-express and (4) a need to share and diffuse information as their findings.

They do not elaborate “anti-depersonalisation”, but positively regard using WBL as a normal way of building connections. This implies that WBL users are not largely viewed as narcissists. The “moderate narcissistic” is an acceptable and realisable trait in the WBL user him/herself. Meanwhile, Barak (1999) mentioned that the online-group discussion provides a great opportunity to satisfy people’s voyeuristic needs by “lurking”. By investigating those WBL users, this suggestion was not found in this study. Some WBL users lurk, but as analysed before, they do not spend too much time on WBL, and what is implied is they are “seeking” up-to-date interest-relevant information.

These findings enhance our understanding of who WBL users are and what makes them use WBL. Participant “B1F” commented:

“I think it just keeps your mind active and gets your thinking [clear]. So I think it’s healthy for the mind to be writing and thinking about things on a daily basis and sharing your thoughts with others”.

Using WBL is an approach to mentally therapy; in a sense, it implies the “love of self”, like the idea of narcissism (e.g. Bosson *et al.*, 2008), but at the same time, it is realised and in moderation with WBL users or certain drives (e.g. extrinsic incentives).

All the descriptions do not mean using WBL as an action is seductive, but imply that the process of using WBL to satisfy the discovery of “true-self”, the solution of personal problems and the way of seeing of “self” is seductive.

9.4 Implications of the theory for practice

This study generated 18 implications or insights for the understanding of “what” the inner motivations for using WBL may be, “how” WBL is, and “why” it is used. This may thus contribute to decades of studies on WBL and sharing knowledge on the web.

Firstly, SHE students who study in less-IT-relevant subjects (e.g. Chemistry, Structural Engineering, Mathematics, Arabic Language...etc.) can use WBL as a tool to improve IT skills.

WBL service providers are continuing to develop tools that require minimum effort to learn and use, and WBL is compatible with many other technologies. It can help students learn by themselves in a fun, curious and exploratory manner.

Secondly, a corollary of the first, is that the writing-based subjects (e.g. English Literature, Philosophy, Journalism, Law, and Politics) can use WBL as a tool to help students improve their writing. As current SHE students often use computers and the internet, it is possible for them to have an online space and practise writing regularly, because WBL can be opened widely to users, using it may encourage students to critically think about the writing that they do. Also, WBL is not just for formal writing. In this sense, it is useful for students in forming a thinking habit through regular writing (e.g. express themselves clearly and logically, using a rich vocabulary).

Thirdly, WBL can be used as a tool to reduce distance and build connections. This is feasible for students who travel. It encourages the student to record his/her experiences,

feelings and views, and also encourages WBL users to comment on and share their experiences, bring in discussions and keep a personal diary.

Fourthly, students who are involved in a team can use WBL as a tool to publish information, arrange events, collect ideas, manage resources and track the progress of their teamwork. As SHE students have alternative ways of working in a group, such as phones, MSN Messenger, Facebook or face-to-face talking, there are difficulties in putting WBL into practice. The data in this study especially suggests that students who use WBL as a community (e.g. English Language, subject) or have similar interests (e.g. music band, sport, cooking) can easily link to each other's messages, ideas and thoughts.

Another unexpected aspect of these findings is that WBL is useful for mental therapy. It shows that students need a private and self-moderated space for self-liberation, talking about concerns, worries and problems. This is especially true for female students, who are likely to use WBL with different strategies in mind. They talk to "trusted" students through WBL, they feel that students are listening, they read other student's messages, ideas, thoughts and feelings, and they provide understanding to those who write personal matters. WBL in this sense is not directly for facilitating learning, but helps students resolve problems and achieve mental health.

Also, Hsu and Lin (2008) have stressed the importance of enjoyment, and this study also suggests that students' self-organised learning requires low external threats and high internal enjoyment. However, this point is not suggested to help students learn or gain knowledge, but to help students obtain a wider views and a positive attitude to learning. According to Field (2006: 55), "If the new adult learning is about struggle, then, it is often focused on a struggle with oneself". It also manifests that when the learner feels relaxation, enjoyment and satisfaction, they learn with minimum confusion.

The findings from the research convey, clearly, that using WBL reflects humanity's very natural behaviour – self-expression. This expression is an extension of being one's self, seeking a meaning of the self, constructing an understanding of life and effective communication with one's true self. Communication enables true-self-disclosure in public, because of its relatively anonymous nature. It fosters the person to open up to their experience, to meet new people outside of one's social network, and it further leads to the forming of new relationships.

Rogers (1969) believed that being able to express one's true self is positive, and so to form new meaningful relationships and expand one's sphere of friends is also a beneficial thing. Educators should encourage this openness to challenge, change perspectives and seek an understanding of life.

Last, but not least, as discussed before, using WBL to facilitate formal and informal learning has barriers. Although as Patterson (1973: 17) suggested, "a real revolution in education would consist of a change in goals and in content", traditional theories continue to encounter new contexts and new technologies. If educational institutions want to employ WBL, they need to provide good quality, accurate learning sources for students, but they also need to ensure these platforms are flexible, open, learner-controlled and interest-driven.

The findings particularly suggest that the educator needs to clarify the WBL's purpose to students when they decide to use WBL in learning (e.g. for long term writing practice, team work, or support students a learning environment in a wider sense).

9.5 The Practitioners' Technological Perspective

Despite the fact that the results generally indicate that the participants have clear concepts regarding the effective integration of WBL, they have other promising aspects. For instance, the students' levels of WBL familiarity, expertise, awareness and self-efficacy are highly promising. Therefore, in the main the results indicate the readiness and willingness of WBL practitioners who are university students to integrate WBL effectively into their study and their lives.

9.5.1 WBL Expertise & Familiarity

Students in the current study show high levels of familiarity with WBL in their daily lives and everyday activities, especially at home. They have frequent access to computers at home as well as many other types of technology, and they also all work on computers for more than three hours on a daily basis. Furthermore, at home, their higher levels of computer use are associated with higher levels of digital technology use. These results reflect the expanding consumption of technology in KSA (Al-Towjry, 2005; Bank Audisal, 2008; Communications and Information Technology Commission, 2011; GITEX Saudi Arabia, 2010; Hartley & Al-Muhaideb, 2007; Internet World Stats, 2010; Joseph & Lunt, 2006; Krieger, 2007; MCIT, 2011; Nelson, 2010; Onsmann, 2011; Ramady, 2010; Sutton,

2007; Zeen, 2007). This pattern mirrors the rapid global increase in the use of technology as a global power (Bongo, 2005; Fong, 2009; Nasab & Aghaei, 2009; Poorfaraj, 2011).

Access at home was associated with higher levels of computer use at home among students, especially e-mail, social networking, video sharing and online games. Students appeared more familiar with other digital technology forms, for example mobile phones and gaming technologies. These findings are consistent with the assumptions of many researchers that the more modern generation of learners are especially familiar with WBL in their daily lives (Enochsson & Rizza, 2009; Gao, 2010; Prensky, 2001a, 2001b; Robertson, 2007; Rogers, 2007; Valentine, 2002).

As might be expected in terms of the students' WBL expertise and qualifications, some students do not have qualifications or professional experience of using technology or computers. This may be attributed to the fact that some students are unemployed and may be facing financial difficulties, thereby making their access to commercial training problematic. Despite the logic of this interpretation that was reported by most students, who may have more financial resources to support their professional training, these students also seem to be more curious about learning about technology. In other words, most students may have an intense desire to attend commercial training, especially involving technology. Nonetheless, WBL seems to be a part of the current age group's nature as a digital generation living in a digital world. Interestingly, this situation may also support Prensky's (2001a, 2001b) assumption that digital immigrants (students) usually attempt to cope with digital technology and its implications, despite their attitudes towards it.

9.6 Tentative Conceptualisations of the Effective Integration of WBL

The results generally pointed to the fact that the participants have a clear concept of the effective integration of WBL into the curriculum. In this study, there were no differences between gender in terms of their perceptions, which seemed to focus on the use of WBL in education in a more general sense.

Although the interviewed students evidently had a wider understanding of this concept in which they emphasised the importance of effectively using and implementing WBL during their preparation, most students studying at the university lack this wider understanding. Likewise, the interviewed students also showed tentative and/or moderated concepts that were largely based on the general use of WBL in learning activities.

Understanding the way in which WBL practitioners conceptualise the effective integration of digital technologies is critical for their effective integration into the curriculum (Chai, 2009; Chitiyo, 2010; Dawson, 2006; Dede, 2011; Dockstader, 1999; Gale, 2007; Judson, 2006; Mumtaz, 2000; Pianfetti, 2005; Roberts, 2004; Sang, 2010; Smolin & Lawless, 2007; Technology in Schools, 2003; Teo, 2008; Willis & Raines, 2001).

However, establishing a clear concept of the effective integration of WBL seems to be a globally problematic issue that is not solely limited to this study context of KSA; the current theoretical approaches have acknowledged the global difficulty in establishing an academically clear concept of the effective integration of WBL, both in education generally and into student education in particular (Pianfetti, 2005). It can be argued that this difficulty is due to the notion that the effective integration of technology is a challenging, complex and multi-dimensional issue (Gale, 2007; Nkonge & Gueldenzoph, 2006; Polly, 2010; Smolin & Lawless, 2007).

Most existing approaches towards establishing a satisfactory and understandable definition/concept of the effective integration of WBL into education and the curriculum focus on the effectiveness of innovation and sophistication in implementing and using technology as their standpoints (for example Dawson, 2006; Dede, 2011; Dockstader, 1999; Gale, 2007; Smolin & Lawless, 2007; Technology in Schools, 2003).

Applying this understanding to the current study's findings with regard to student concepts of the effective integration of WBL, it is clear that their concepts were essentially centred around expanding and enhancing the use of WBL, especially for students who stressed the importance of using WBL in the right way to ensure it is effective. However, some participants appeared to lack sophistication and complexity in their understanding and comprehension of this concept compared to Smolin and Lawless' (2007) and Gale's (2007) multi-complex definitions. Some participants also lacked understanding of other related concepts articulated by Dockstader (1999) such as efficiency, incorporation, learning enhancement, support, application, coordination and purposeful use of WBL. Moreover, other concepts such as the incorporation of technology into the daily routine, practice, work, research, communication and management were identified in the responses (Technology in Schools, 2003), and furthermore throughout the interviews some participants failed to identify that WBL should be a normal part of the everyday classroom's pedagogical practices (Dawson, 2006). Finally, for some participants the

effective use of WBL did not necessarily suggest new meanings for learning and/or changes in their nature as has been identified in Dede's (2011) research.

Establishing a concept of the effective integration of WBL into education and curriculum is a globally problematic issue. A number of studies have been conducted to investigate perceptions and conceptualisations of practitioners with regard to technology and its effective use (for example Al-Haizan, 2008; Chitiyo, 2010; Pianfetti, 2005; Willis & Raines, 2001). However, many of them have indicated that perceptions among WBL practitioners tend to be at unsatisfactory levels, requiring improvements. For instance, Willis and Raines (2001) found that teachers' concepts of using WBL in the classroom had improved after more exposure to various educational technologies.

After Pianfetti (2005) tested his framework, he found that there were no significant changes in the teachers' moderated perceptions of the value of integrating WBL in education in general. In another study, Chitiyo (2010) found that most of the teacher education programmes in Zimbabwe lacked wider concepts of the effective integration of WBL; they retained technology as merely a traditional audio-visual tool or aid (Chitiyo, 2010).

Similarly, but grounded in the Saudi context, Al-Haizan (2008) studied the extent to which e-Learning tools are implemented in supporting pedagogy among instructors in four leading Saudi universities, finding that the perceived concept of e-Learning is still ambiguous among academic staff (Al-Haizan, 2008).

9.7 High levels of WBL awareness

Regardless of the difficulties generally faced by most of the participants in providing elaborative explanations the effective integration of WBL as a concept, higher levels of awareness regarding its importance and usefulness have been documented. Most participants demonstrated that WBL is important and useful in the facilitation and advancement of education, which can be considered an extremely promising result and is consistent with the global trends regarding the impact of WBL as a global power (Bongo, 2005; Fong, 2009; Nasab & Aghaei, 2009; Poorfaraj, 2011).

Further, this result is justifiable in that Saudi national policies have positioned WBL as a critical element in its future developments and transformation strategies.

A great deal of existing literature emphasises that perceived awareness of WBL's importance and usefulness contributes to its effective integration (Gregor et al., 2005; Hall, 1975; Lee, 2007; Lockyer & Patterson, 2007; Nkonge & Gueldenzoph, 2006; Robertson, 2007; Sime & Priestley, 2005; Smith & Kelley, 2007; Yuen & Ma, 2002).

The findings associated with the current study suggest that most participants have high levels of perceived WBL awareness of its importance and usefulness. According to Hall (1975), their levels of perceived awareness can be classified between Aware and Proficient; being aware refers to the fact that WBL users have limited knowledge and require more skills, training and support (Hall, 1975), whilst being proficient means that WBL users have the necessary skills, but their skills need to be expanded.

As these terms suggest, in the current study the levels of awareness among WBL practitioners is somewhere in the middle. They were generally more advanced than non-users who have absolutely no knowledge regarding WBL and were less knowledgeable than advanced users who are experts in the use of WBL and have the ability to transfer this knowledge to others.

It seems that the effective use of WBL is a priority in Saudi universities. This also reflects the high levels of WBL awareness in KSA. Accordingly, administrations have initiated many ongoing WBL-related developments and plans in which Saudi universities have tried to translate this theoretical position into real practice. Efforts include the provision of hardware, software, training and professional support. However, this vision has only partly been translated into practice. There is a gap between theory and practice in Saudi universities. The participants have reported many challenges that may slow the translation of their vision into practice on the ground, for example a lack of financial resources.

Nevertheless, the consideration of the effective integration of WBL as a priority is a promising result. In this regard, a great deal of literature emphasises that this positive vision or theory should be the first stage in ensuring the effective integration of WBL into education (Anderson & Weert, 2002; Culp, 2005; Fabry & Higgs, 1997; Lessen & Sorensen, 2006; Robertson, 2007).

Like the universities, the students showed a satisfactory level of awareness in the current study. This finding is better than that found by Abu-Arrad and Fosaiel (2006) in another Saudi-based study; while they found that some lacked a technological awareness of computers and technology's importance and usefulness, the current study showed an

increase in the level of perceived awareness among students. Perhaps this can be attributed to the significant expansion of WBL and its use in Saudi lifestyle in general (AlTowjry, 2005; Bank Audisal, 2008; Communications and Information Technology Commission, 2011; GITEX Saudi Arabia, 2010; Hartley & Al-Muhaideb, 2007; Internet World Stats, 2010; Joseph & Lunt, 2006; Krieger, 2007; MCIT, 2011; Nelson, 2010; Onsmann, 2011; Ramady, 2010; Sutton, 2007; Zeen, 2007). Abu-Arrad and Fosaiei (2006) found that students have positive attitudes towards using computers, especially in terms of academic and research areas.

In this regard, the current study has revealed more elaborative findings. The students strongly acknowledged many other potential benefits in relation to the importance and the usefulness of WBL and its effective integration, including the facilitation of effective information delivery, the encouragement of fast and easy two-way communication, and lastly the enhancement of students' learning by making it easier, more stable and permanent.

In addition, the current research is in line with many previous studies. For example, the importance and usefulness of the effective integration of WBL have been perceived by students as a feature of modernisation and as a catalyst that could change the nature of education (Sime & Priestley, 2005). In particular, due to technology's importance and usefulness, most students showed that the effective integration of WBL would satisfy their needs and learning preferences as a digital generation. Some students confirmed that technology can be used meaningfully and effectively in a way that it acts as a language they prefer, desire and understand. Lockyer and Patterson (2007) reported similar findings in which students perceived WBL in a similar manner to the Internet as a useful and valuable tool that can be effectively used in their future classrooms to enhance pedagogy and create meaningful learning.

There is an acceptable level of WBL awareness among most of the participants in the current study. This can be considered as a promising result as this awareness may work as a foundation for increasing their involvement with WBL in the process of the effective integration of WBL into education.

9.8 High levels of Perceived General Self-Efficacy

It was found that students have high levels of self-efficacy with no difference in terms of gender. It can be said that all groups, theoretically, are highly motivated and trust their abilities to integrate WBL effectively into their approaches, including research and/or learning activities.

However, although there was no relationship between students' self-efficacy levels and computer qualifications (training), the interviews highlighted that training might contribute to the enhancement of their self-efficacy levels. On the contrary, they prefer professional training, because it has a limited impact on their self-efficacy levels; this is supported by the results showing that computer qualifications have no relationship with their levels of perceived self-efficacy.

Alternatively, some students reported that self-motivation and familiarity with technology might enhance their technology expertise and accordingly stimulate higher levels of perceived self-efficacy. The role of self-motivation and technology familiarity may further justify these results, indicating that those students with higher levels of self-efficacy are more likely to have higher levels of WBL awareness, have more access to computers at university, have combined access to computers both at home and university and use computers more often at home. In other words, the overall results indicate that familiarity with WBL can be crucial for the enhancement of students' levels of motivation, confidence and self-efficacy. This however is not always the case; the interviewed students with moderate or lower self-efficacy levels expressed the need for more professional training to boost their confidence, motivation and the extent to which they trust their abilities to integrate WBL effectively into their learning activities.

The literature on the role of self-efficacy maintains its importance in the promotion of the effective integration of WBL. Explicitly, higher levels of self-efficacy may contribute to the effective integration of digital technologies into education and the curriculum (e.g. Bandura & Wood, 1989; Bong & Skaalvik, 2003; Brosnan & Thorpe, 2006; Chao, 2003; Gosselin, 2009; Gong, 2004; Judson, 2006; Lucas, 2006; Maninger & Anderson, 2007; Sang, 2010; Sumner & Niederman, 2003; Vannatta, 2007; Webb, 2006). Not only does self-efficacy influence the effective integration of WBL, it may also influence the learning and academic performance of students as well as the general environment of the educational institution (Jungert & Rosander, 2010; Lancaster & Bain, 2007). The latter

notion may be supported by results indicating that students with higher levels of self-efficacy tend to be more positive regarding the use of WBL.

Generally, the promising results regarding the participants' levels of self-efficacy and WBL awareness reflect the transformation and development of technology in KSA as well as the sizeable consumption of technology in comparison with other countries in the Gulf region (Al-Towjry, 2005; Bank Audisal, 2008; GITEX Saudi Arabia, 2010; Hartley & Al-Muhaideb, 2007; Internet World Stats, 2010; Joseph & Lunt, 2006; Krieger, 2007; Nelson, 2010; Onsman, 2011; Ramady, 2010; Sutton, 2007; Zeen, 2007).

Some students had previous experience with computers and WBL during their high school years. For these students, the results of their exposure to WBL are similar to those identified in the literature, for example, many researchers such as Maninger and Anderson (2007), Liang and Tsai (2008), and Sam (2005) have asserted that students with higher self-efficacy levels usually demonstrate more progress and ease in their use of WBL. Self-efficacy was found to be at the centre of student practices in the current study, especially computer use at home, which is anticipated to affect their use of digital technologies at home as well as their computer use at university.

Further, it seems important to understand the factors affecting self-efficacy, explicitly in order to enhance and boost self-efficacy and eventually promote effectiveness in using WBL in education.

As students in the current study suggested professional training has a limited impact on their higher levels of self-efficacy, this may contradict a number of previous studies. For instance, Abu-Jaber and Qutami (1998) found that student self-efficacy was improved through proper training with technology, which led to increased computer experience. In addition, the limited impact of training on students' self-efficacy levels supports the findings from previous studies. For example, Angeli and Valanides (2004) reported that using an online interactive website (Filamentality) in scaffolding for some aspects of the integration of WBL was not statistically significant in affecting the level of confidence reported by students.

Bearing in mind that students can be considered as a digital generation (Prensky, 2001a, 2001b; Robertson, 2007; Rogers, 2007; Valentine, 2002), it can be said that the role and importance of professional training in the enhancement of their confidence and self-

efficacy has decreased in return for the significant increase in their familiarity with digital technologies in everyday activities.

However, it can also be argued that increasing the students' involvement with computer training and practices can positively influence their perceived self-efficacy, especially for those with moderate or lower levels of motivation and self-efficacy (Milbrath & Kinzie, 2000).

Overall the students demonstrated higher levels of perceived self-efficacy, which can be considered as a promising result. Most students showed a high level of trust in their ability to integrate WBL into their education and appeared highly motivated and willing to accept an increased use of WBL for their studies.

9.9 Challenges and Obstacles

This section discusses the challenges and obstacles in the current study that affect the effective integration of WBL in Saudi undergraduate students. It also provides a reflection on the global literature with regard to similar challenges reported in other contexts, both western and eastern based.

Although there were positive signs to suggest the readiness and willingness of Saudi society to integrate WBL into daily practices, including teaching and learning, three main issues were identified that were associated with the substandard integration of WBL in Saudi education. These issues, which can be considered as challenges and/or obstacles, are as follows:

- 1) The domination of cultural-religious conservatism.
- 2) The prevailing traditionalism.
- 3) The wide adoption of centralisation.

These three main issues are strongly related in the context of KSA (see Figure 9.2).

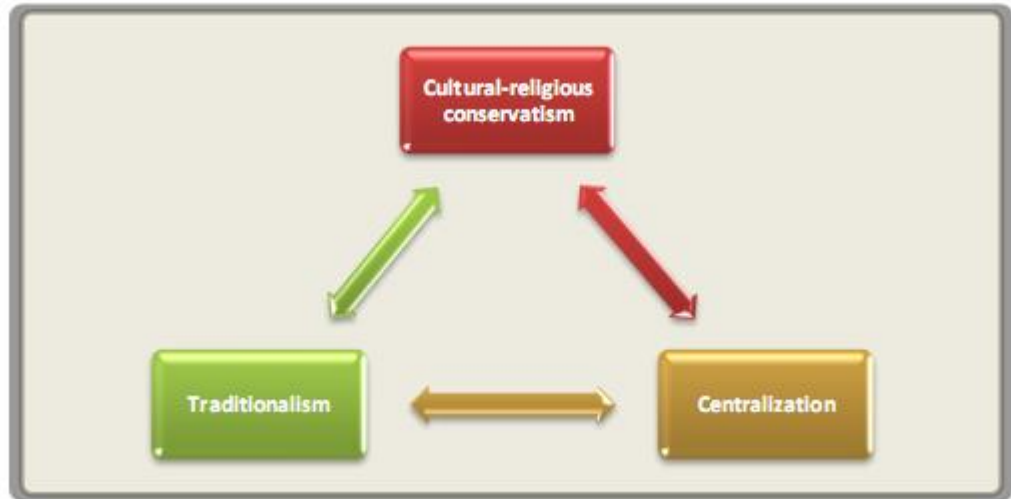


Figure 9.2 - The inter relationships between conservatism, traditionalism and centralisation

Along with conservatism, centralised systems and traditional practices help explain the obstacles for the effective integration of WBL.

The effective integration of WBL is accepted as a challenging issue throughout the world. However, challenges and obstacles may differ in different contexts. This can be attributed to the type of obstacles and the way that different contexts respond to such challenges. As the issue of challenges has been discussed comprehensively before, the aim here is to provide more insight relevant to the results found in the current study. The challenges and obstacles for the effective integration of WBL in the current study can be classified into two categories:

- 1) Major or direct challenges: three main challenges were identified, which are conservatism, traditionalism and centralisation.
- 2) Secondary or indirect challenges: these challenges are considered to be consequences of the major challenges. They include the lack of a clear concept of the effective integration of WBL; the lack of accessibility to WBL resources and facilities; and the lack of training and support as well as the lack of communication, especially with students who are considered passive in the learning context. Other obstacles were associated with the education design including the heaviness of the curriculum, which is also theoretically dominated, and the wide adoption of traditional educational models such as teacher-centred education.

Reflecting on the global perspective in relation to the issue of challenges and obstacles, the findings from the study support those evident in the existing literature.

For WBL users, Robinson's (2007) classification of the kinds of barriers associated with effective integration of WBL is useful. According to Robinson (2007), barriers are primary, secondary and university.

Primary barriers include a lack of access, a lack of time dedicated for planning, and a lack of support. Secondary and university barriers include beliefs about teaching, computers and classroom practices as well as an unwillingness to change.

To some extent, the current study has found two similar kinds of barriers; however, the current study focused more on the foundations (direct challenges) that may underpin the existing indirect challenges including the obstacles mentioned above.

Robinson's (2007) classifications also signified beliefs about learning and computers as well as classroom practices as secondary and university barriers. In contrast, the current study found that practitioners' beliefs, attitudes and views can be more important than physical barriers such as the lack of access to hardware or software. Conservatism, traditionalism and centralisation are the results of the beliefs of the practitioners and educators. They are also indicators of the ideology of the community's set of fundamentals and principles.

Kaganoff (1998) suggested another classification, which focuses on two major concerns related to technology. The first and the most significant concern is the front-end costs of technology including the cost of hardware, software, and professional support. The secondary concern is the traditional model of education, which is not yet ready to accommodate new technologies.

Like Robinson's (2007) assumptions, Kaganoff (1998) primarily placed physical barriers, such as the cost of hardware and software, over beliefs that may result in larger problems in relation to the effective integration of WBL. For example, the study found that Saudi education is overloaded and this may create fewer opportunities for the effective integration of WBL. The Saudi curriculum overload cannot be dismissed from Saudi cultural-religious conservatism, centralisation as well as traditionalism.

Furthermore, the primary barriers specified by both Robinson (2007) and Kaganoff (1998) can be overcome by establishing appropriate and sufficient financial resources. Essentially,

it is a matter of balancing value against cost. Here, the recommendations of Robertson (2007) in terms of the value and cost of the two parts of information technology - information and technology - can be useful.

In relation to the value of information, the required time and effort, for example in terms of cost, should be carefully considered. In addition, to add value effectiveness to WBL, issues related to cost such as hardware, software and training are unavoidable. Conversely, the recommendations can be practical in terms of secondary or indirect challenges in the study, such as the financial difficulties associated with the high cost of WBL as well as training and support. Hence, minimising the major obstacles in the study context of Saudi Arabia requires time and long-term planning.

For the indirect or secondary obstacles, the current study contains some similarities and differences compared with findings from other previous studies.

Generally, this study is consistent with the findings of many previous studies, for example with the affordability and accessibility of WBL and related resources and facilities (for example Al-Asmari, 2008; Al-Jarf, 2006; BinTaleb, 2005; Duhaney, 2001; Goktas, 2009; Keiper, 2000; Kleiner, 2007; NCES, 2007; Zeen, 2007).

Another similarity is the lack of professional training and/or support in technology (e.g. Al-Jarf, 2006; Duhaney, 2001; Johnston & Cooley, 2001; Pierson & McNeil, 2000; Zeen, 2007).

Further, with respect to curriculum structure, courses, guidelines and effectiveness in general, many other studies indicated that plans or models for effective integration of WBL were absent (e.g. Al-Asmari, 2008; Chao, 2003; Goktas, 2009; Moursund & Bielefeldt, 1999; Pierson & McNeil, 2000; Zhao & Bryant, 2006).

9.10 WBL as a Global Power Vs Domination Of Cultural-Religious Conservatism

The effective integration of WBL for students is primarily influenced by two major powers. With the global expansion of the technology industry and the focus on its effective use, especially in education, different contexts may respond differently to this global power and/or pressure (Bongo, 2005; Fong, 2009; Nasab & Aghaei, 2009; Poorfaraj, 2011).

Grounded in the context of KSA, the current findings show that the influence of WBL on top level Saudi policies including those formulating education is evident. WBL has been

introduced in Saudi national policies as a power that must be taken advantage of in terms of the advancement and development of the country. The main goal of this is to establish a robust response to the challenges of globalisation and modernisation. It is desirable in light of the current global competition to make the most of WBL and its rapid developments in building knowledge-based societies as well as strong and competitive digital economies (Bongo, 2005; Fong, 2009; Nasab & Aghaei, 2009; Poorfaraj, 2011).

However, in the current study context, the role of WBL may be minimised in reality due to the strong tendency towards cultural-religious conservatism. Considering WBL as a global power, conservative and traditional contexts such as those in KSA may bear witness to a legitimate resistance to the adoption of certain new global trends, such as the integration of WBL on a wide scale (Al-Asmari, 2008; Burkhart & Goodman, 1998; Krieger, 2007; Onsman, 2011; Ramady, 2010; Saleh, 1987; Ziadah, 2007a). As a case in point, Lim, Hung, Wong and Hu (2004) reported that traditional institutions, including students, might resist the effective integration of WBL due to a lack of understanding of the positive social and cultural implications of online learning environments and tools.

In addition to the fact that WBL can be a powerful tool for cultural exchange, it can also facilitate incompatible cultural-religious values. In the context of KSA, there is a belief that the widespread use of WBL, especially the Internet, could threaten the principles of the dominant culture. The interviewees demonstrated great concern with regard to the inappropriate use of WBL and the effect it may have on local cultural and religious values. As a result, the students demanded new strategies of censorship to reduce the potentially inappropriate use of WBL.

According to Al-Asmari (2008, p. 250), restrictions and new censorship strategies can be justified by so-called cultural sheltering. Usually, authorities in conservative contexts such as in KSA take proactive measures to protect the local culture by reducing and sometimes blocking interaction with foreign cultures (Al-Asmari, 2008, p. 250). It is also believed that exposure to foreign cultures may reduce the value of the native culture (Al-Asmari, 2008). Furthermore, as Saudis are usually committed to their social and religious values and principles (Burkhart & Goodman, 1998; Krieger, 2007), they tend to reject new ideologies that may cause confusion or that clash with these values and principles.

The notion of cultural sheltering or in other words filtering western-based knowledge can also be found in other similar or relatively similar contexts. Even if it is not obvious, it is

present in many other contexts; for example, Abuhmaid (2010) revealed that the national Jordanian project, entitled the Education Reform for the Knowledge Economy (ERfKE), was proceeding very slowly as it was in conflict with the dominant culture of the local educational system. In Turkey, which is another similar context, E.Çakirogoelu and J.Çakirogoelu (2003) argue that:

We believe that there are many things that we can learn from the international literature on the field of education. However, we also believe that there needs to be a filter of critical perspectives for any knowledge that is being used in other cultures. (p. 262)

Both national and curriculum policy documents reviewed in the study promote a clear Islamic orientation. Saudi education, including student preparation, is strongly oriented by religion with a great deal of local focus and less emphasis on issues relating to globalisation (Al-Issa, 2009, 2010; Al-Mane, 2004; Prokop, 2003). Therefore, it usually takes time for change to occur in conservative societies such as KSA. This thinking is clearly evident in some student's responses, which identified time as an important factor that play a vital role in the process of change in KSA. This result is in line with Burkhart and Goodman's (1998) conclusions about the Saudi context with respect to the adoption of technology; they accept that change in KSA happens relatively slowly as it follows a top-down scheme with a strong tendency towards cultural-religious conservatism. This finding generally supports the argument that change can be a slow and complicated process in KSA due to religious and cultural fundamentals, which could be more important than the proposed development (Burkhart & Goodman, 1998). Bearing this in mind, the time factor can be particularly crucial to the gradual control and acceptance of change (Burkhart & Goodman, 1998).

In KSA, criticising the educational agency may be viewed as equivalent to criticising the Saudi cultural-religious fundamentals. Saudis usually have unlimited respect for authority and leadership, and their respect implies being obedient and disciplined in a centralised manner. This is deeply rooted in their beliefs as Muslims following the commandments of the Holy Quran.

Interestingly, in the current study, students who were positive in their view regarding the use of WBL for education were also positive in their views in terms of the current leadership practices towards the effective integration of WBL. Additionally, according to the interview results students were more positive in their views regarding WBL being used

for education despite their voice having a limited impact, especially in terms of curriculum development. It seems that they appreciate the system/agency as a whole, due to their high appreciation of its cultural-religious fundamentals. However, this might explain the reason why most students who have positive views, especially in terms of leadership, are further motivated to use WBL and digital technologies at the university.

Respect for authority is common in conservative societies (Palfreyman & Smith, 2003). This can be seen not only in Islamic societies such as KSA, but also among Asian nations such as China, Vietnam and Japan. Asian conservative contexts are mostly mono-cultural, community-focused and largely conditioned by collectivism and conformity of authority (Palfreyman & Smith, 2003). Therefore, it is commonplace that Asian learners, including Saudi students, tend to be less autonomous from a western point of view (Palfreyman & Smith, 2003).

However, due to globalisation and the wide expansion of digital technologies, some positive signs towards a globalised education can be found within Saudi national policies as well as the students' responses. This may support the fact that digital technologies have created an unavoidable global pressure (Bongo, 2005; Fong, 2009; Nasab & Aghaei, 2009; Poorfaraj, 2011). Thus, it can be argued that the Saudi outlook and viewpoint with regard to other cultures, especially western-based ones, is shifting from sheltering (Al-Asmari, 2008) towards more openness and cultural selectivity. The move towards more openness and cultural selectivity can be supported by Onsman's (2011) suggestion regarding the role of conservatism in the process of change in KSA; Onsman (2011) argues that Saudi cultural-religious norms are subject to a significant impact that could be permanent due to the pressure of "international competitiveness" (p. 1).

From another perspective, the following question could be asked: what is the origin of Saudi cultural-religious conservatism? In addition, how can culture and religion, as different concepts, be combined to formulate Saudi conservatism? Although the answers to these questions appear irrelevant to the current study's aim and scope, the answers may elaborate on an understanding of the Saudi context. They may also provide insights into and reasons behind the clashes with many proposed developments, such as the widespread adoption of digital technologies and WBL. To answer the previous questions, it can be said that Islam and culture in KSA are inseparable; in fact, they mean the same thing in the Saudi context.

This can be attributed to two main reasons: first, KSA is a non-colonial or postcolonial state; and secondly, the Saudi social fabric is largely homogeneous in terms of ethnic origins. The vast majority of the Saudi population are Muslim Arabs with ethnic origins dating back to the ancient tribes that lived in the Arabian Peninsula. Consequently, they share the same background, ethnicity, language, habits, customs and cultural traditions with minimal influence from the outside world, especially the west.

Islam has a very strong position in strengthening Saudi culture and shapes most of the cultural norms and practices. In essence, Saudi values, in terms of culture and religion, are mutually and perpetually related. In Islam, there is an overwhelming emphasis on the importance of community unity, which may reduce the influence of outside factors and strengthen Islamic culture. This viewpoint supports the current study's findings with regard to Islamic fundamentalism, especially in the preparation of Saudi students.

In summary, despite the fact that KSA is a religious, mono-cultural, conservative and highly policy-driven context the expansion of the use of WBL is promising in the near future, especially in university students. WBL and technology now present a global power, which must be taken advantage of to build stronger systems, economies and education. Further, despite the strong Saudi tendency towards conservatism that can sometimes be out of place, positive signs towards cultural selectivity have been observed as opposed to cultural sheltering.

9.11 The Impact of Traditionalism on Students' WBL

The results associated with WBL design show that most participants generally appreciated the current WBL format due to its cultural-religious fundamentals. Conversely, traditionalism is unfortunately widely prevailing and still practiced as the obvious model of education. Taking into careful consideration the fact that KSA is highly policy-driven and is culturally and religiously conservative from both insider (Al-Asmari, 2008; Saleh, 1987) and outsider (Burkhart & Goodman, 1998; Onsmann, 2011) perspectives, strong attitudes towards preserving the traditional cultural-religious fundamentals of WBL have been found in the current study. This can be clearly seen in all Saudi national policies and reflects significant concerns from some students who believe that the religious and cultural fundamentals of the curriculum cannot be changed.

Most of the participants in the study had great concerns regarding the domination of traditionalism over WBL and pedagogy. In terms of pedagogy, some students were

frustrated about this domination, while others also commonly tended to adopt more traditional pedagogical approaches. This result strongly supports the assumption that student preparation in the Arab world, including KSA, is still dependent upon the old vision of instruction through applying traditional methodologies of teaching and learning (Al-Asmari, 2008; Al-Otaibi, 2007; *Developing the Arabic Teacher's Preparation Approaches*, 1999; Zeen, 2007).

Consequently, pre-service teachers in particular revealed that they will teach the same way as they were taught. However, these finding conflicts with the current global and theoretical approaches that stress the need for innovative pedagogy, meaningful learning, a globalised curriculum and technology-based pedagogical practices (Leach & Moon, 2008; Robertson, 2007; Zeen, 2007).

Further, this finding also reflects the transmission of cultural values between generations. In other words, it was noted that teachers usually tend to teach the same way as they were taught themselves (Goldman, 1991; Opfer & Pedder, 2011; Pellegrino, 2007; Shelley et al., 2004).

Nonetheless, the literature also acknowledges that teacher preparation has not significantly changed for a long time, especially in relation to WBL and technology, and this seems likely to continue well into the future (Bagwell, 2008; Capper, 2007; Enochsson & Rizza, 2009; Katyal, 2010; Navarro & Natalicio, 1999; Peeraer & Van Petegem, 2011; Polly, 2010; Reimer, 2005; Song, 2010; Vannatta, 2007; Willumsen, 1998).

This view was based on the assumption that current practices in higher education, with respect to both content and teaching methods, have not kept pace with the trends in technology, both in developed and developing countries. (Bagwell, 2008; Navarro & Natalicio, 1999; Reimer, 2005; Vannatta, 2007; Willumsen, 1998) and developing countries, such as KSA (Al-Asmari, 2008; *Developing the Arabic Teachers' Preparation Approaches*, 1999 ; Zeen, 2007). This means that the domination of traditionalism is a common global problem. However, in the context of KSA, it seems to be more critical. This can simply be attributed to the fact that the Saudi context is highly policy-driven and culturally too conservative to easily accept and/or adopt changes in both curricular contents and teaching methodologies.

In addition, the student interviews show that they believe the reasons behind the domination of traditionalism can be seen in the WBL-free goals of the curriculum and the personal attributes of several students, for example age and WBL expertise.

Concerning the WBL and curriculum design, particularly with its WBL-free goals and objectives, the analyses of the findings were overwhelmingly supportive. No explicit reference was found in terms of the effective integration of WBL into the curriculum, which also reflects the gap between the national policies that placed the effective implementation of WBL as an important demand and the curriculum policies that seem to focus solely on the process of WBL learning.

The students suggested that age can be an important factor; they believe that younger students are more capable, confident and have more trust in their technological abilities to use WBL effectively. It is likely that younger students are more familiar, enthusiastic and motivated to use WBL effectively in their pedagogical approaches.

According to Prensky (2001a, 2001b), this kind of generational conflict is understandable, particularly between the digital natives who are the younger generation of students and the digital immigrants referring to their colleagues as the older generation. The digital generation is usually familiar with technology as part of their daily routine, while digital immigrants struggle to cope with the influx of technology (Prensky, 2001a, 2001b). For the same reason, the wide adoption of traditional approaches to teaching and learning seems to hinder meaningful learning and progress for the students as a digital generation living in a digital world.

Here, it can be noticed that there is an indication of another kind of generational conflict, specifically between the digital natives who are students and their educators, who might be regarded as being digital immigrants in a general sense (Prensky, 2001a, 2001b).

Conservatism is combined with an overloaded WBL and curriculum. A standardised multi-module curriculum was constructed to preserve Saudi religious-cultural fundamentals such as Islam, the Arabic language and the solidarity of the community. Such fundamentals are highly sensitive to change and have been strongly supported by nationwide educational and curriculum policies. While some students have demonstrated a strong position in which the multidisciplinary curriculum must be maintained, other students explicitly revealed their frustration with this situation. The heaviness of the curriculum has resulted in them lacking

the time and opportunity to participate effectively in both curricular and non-curricular activities, including the use of and general training in WBL.

Here, it can be said that the Saudi education curriculum is traditional, standardised and theoretically dominated rather than responsive to global trends. This finding concurs with many previous Saudi-based studies in this regard (Al-Aqeel, 2005; Al-Issa, 2009, 2010; Al-Miman, 2003; Al-Otaibi, 2007; Bingimlas, 2010; Krieger, 2007; Oyaid, 2009).

For instance, Al-Miman (2003) found that Saudi education essentially focuses on quantity over quality. The focus is on cultural-religious preparation over global trends such as the effective use of WBL (Al-Issa, 2009, 2010). This has been further confirmed by the reality that Saudi education is generally still dependent upon the traditional model of teacher-centred education (Al-Aqeel, 2005; Al-Otaibi, 2007; Bingimlas, 2010; Krieger, 2007; Oyaid, 2009). Specifically, the current findings affirm Al-Otaibi's (2007) assumptions that Saudi education is heavily traditional and lacks effective access to global trends, including WBL. Most importantly, Saudi education is offered in isolation from the requirements of the social and organisational bodies of society such as schools and universities (Al-Otaibi, 2007).

Some students have also shared great concerns with regard to out-dated WBL and curriculum content, especially the educational technology preparation as it is generally inadequate and does not meet expectations. This finding reflects previous evidence from the interviews that showed a clear gap between the national and WBL and curriculum policies. Precisely, Saudi national policies have acknowledged the role of WBL in the process of modernisation and the advancement of the country, including the education sector. Conversely, curriculum policies, structure and guidelines lack this vision, especially in relation to WBL preparation. In this case, very little support was found in curriculum policies regarding the effective integration of WBL in practical terms.

Interestingly, students with higher levels of WBL awareness were found to be positive in their views regarding the curriculum design. While their levels of WBL awareness as well as their views of the current curriculum design were separately investigated by different sections in the interviews, their responses to questions in one section were not mediated by those in the other section.

However, a possible interpretation of this positive relationship is that some students with higher levels of WBL awareness in terms of its importance and usefulness perhaps imagine the way they can use WBL effectively in their learning approaches in light of the current curriculum design, which is largely appreciated based on its cultural-religious fundamentals.

While the curriculum is more standardised and traditional, there seems to be little opportunity for the effective integration of WBL. This conflicts with the findings of the literature in this regard. In terms of WBL, the literature has stressed the effectiveness, efficiency, productivity and competency of the curriculum design; WBL should be an integral part of all facets of the student curriculum to meet their needs, preferences and learning styles, including the challenges of digital societies (Abdal-Haqq, 1999; Altun, 2007; Anderson & Glenn, 2003; Baylor & Ritchie, 2002; Chao, 2003; ISTE, 2007; Keiper, 2000; Mesut, 2000; Pianfetti, 2005; Roblyer & Edwards, 2003; Rogers, 2007; Shelley, 2004; Shoffner, 2001; Smith & Kelley, 2007; Smolin & Lawless, 2007; Teo, 2008; Townsend, 2007; Wetzel, 1999; Willis & Raines, 2001).

As this seems not to be promising in the context of Saudi students' preparation, it also presents a global concern. For example, Goktas et al. (2008) found that although the majority of the participants in their study perceived technology-related courses as effective, they felt that they largely needed to be updated.

In contrast, the participants in the current study, especially certain students, reported that technology-related courses were ineffective due to their out-dated content. Conversely, the findings from the study agree with the conclusion of Goktas (2008) that technology preparation courses should be evaluated, redesigned and updated to ensure their effectiveness and eligibility for more practice.

Another major concern that appears in the current study and falls under the domination of traditionalism is the learner's passive image. Evidence from the current study shows that the image of some students, unfortunately, is far from positive. They perceived themselves as being merely receivers or recipients; for instance, some interviewees revealed that they are only receivers and instead positioned instructors in the centre of their approaches.

A case in point is what many students have shown with regard to their inactivated role in the curriculum development and their lack of communication with teachers except through

their learning. This result supports the fact that this problem is rooted in the education system in KSA, because Saudi students are considered only as receivers (Al-Aqeel, 2005; Al-Gamedi, 2005a; Al-Otaibi, 2007; Bingimlas, 2010; Oyaid, 2009). In light of the globalised world, this results in overtly traditional learners who always copy their traditional learning styles (Al-Aqeel, 2005; Al-Otaibi, 2007).

Nevertheless, this major finding cuts against the global trend towards expanding learner-centred education that fundamentally stresses the importance of considering learners as effective, positive and the core element of any educational model.

For example, the literature in this regard advocates the need to robustly steer learners into the right areas of knowledge, skills and competence (Robertson, 2007). It seems impossible to do so without positively considering the nature, choices, preferences, needs and learning styles of the current learners as a digital generation who are arguably extremely different, especially in terms of thinking and information processing (Prensky, 2001a, 2001b).

In terms of computer use, SHE professionals have exceeded an average of more than three hours per working day for educational purposes, such as research and e-mail uses. Further, there is a lack of purposeful use of other types of WBL at the university. Only data projectors tend to be regularly used by students.

In relation to this, SHE practitioners were found to be more active in terms of both computers and other WBL used at the university. Moreover, SHE practitioners who had positive views regarding the curriculum design were expected to use more WBL at the university. Furthermore, SHE who were more familiar with computers and used more WBL at home used more computers and other digital technologies at the university. In other words, it seems that the familiarity among SHE with technology, especially at home, has a positive impact on their use of WBL at the university and motivates them to be more effective users.

From another perspective, it can be said that some high levels of WBL awareness and self-efficacy have not yet been translated into practice. Perhaps this is due to their general satisfaction with the traditional pedagogical approaches that are adopted heavily.

The current findings regarding the SHE students' motivation to use WBL at the university emphasise the role of familiarity with technology, especially at home, as a major

motivation. Nkonge and Gueldenzoph (2006) reached similar conclusions. However, as no evidence was found to support the possible nexus between professional training and technology-based pedagogical practices, this goes against some previous findings. For instance, Georgina and Hosford (2009) found that there is a significant relationship between technological literacy and technology-based pedagogical practices. This can also be complemented by the findings of Peeraer and Petegem (2011), who determined that digital technology skills and computer confidence are associated with students' use of technology in their learning.

In contrast, some SHE students' technology-based learning activities were few in number, frustrating, and educationally unsatisfactory according to the results obtained from the follow-up interviews. They had less access to computers and technology at the university. Their access points were mainly the university's food facilities such as coffee shops and restaurants. Some of them used personal laptops. This is largely consistent with the positive relationship between both computer access and use at the university. Additionally, the same can be said with regard to the positive correlation between computers and other digital technologies used at the university.

Interestingly, the SHE students' higher levels of computer use at home have been positively correlated with their higher levels of computer use at the university. Similarly, this also indicates that their familiarity with technology in their daily lifestyles and activities may have contributed to their more regular use of WBL at the university. Consequently, their technology-based learning practices at the university, with both computers and other digital technologies, were high. Only a few of them reported during the interviews that their technology-based activities were based on their instructors' demands and they did not exceed the traditional uses of WBL such as searching the Internet and sending a few e-mails. While they were found to have promising levels of technology familiarity, awareness and self-efficacy, they were less motivated by the traditional and centralised system that worked against their willingness to use WBL effectively in their learning activities. Only a few of them were not self-motivated to use technology in their learning activities.

Hence, it can be argued that their learning practices are also traditional and can be considered as a result of their instructors' traditional practices. This may reduce the opportunity for the effective integration of WBL.

However, these results conflict with the majority of research in this regard. Higher education students, especially today, usually prefer technology-based learning approaches such as online courses that may provide them with more opportunities in terms of communication, collaboration and flexibility over traditional face-to-face courses (Barnard, Paton & Rose, 2007).

The literature suggests that technology-based pedagogical practices should be authentically motivated, sustained, supervised, directed and embedded within the curriculum activities (Bahr, 2004; Barnett, 2006; Brush, 2003; Culp, 2005; Fabry & Higgs, 1997; Masalela, 2009; Mesut, 2000; Moursund & Bielefeldt, 1999; Pellegrino, 2007; Vannatta, 2007) in order to promote effective and meaningful learning and changed behaviours in the future (Robertson, 2007). However, similar findings have been found in many previous studies. In the US context for example, Moursund and Bielefeldt (1999) found that most higher education students lack field experience with technology and professional supervision on technology practices.

Regarding the SHE students' limited technological practices, Nkonge and Gueldenzoph (2006) revealed generally similar findings. In the context of US higher education, their report showed a clear gap existed between the instructors' theory and real practice. They found that some instructors were unable to successfully manage online environments (WebCT) such as learners' activities, discussions and even file sharing. Likewise, Masalela (2009) found that the technology-based pedagogical practices of instructors such as the use of WebCT were extraordinarily limited in Turkish higher education. Most of the instructors in the latter study failed to master the technological tools for pedagogical gains such as group management, online discussion, information sharing, collaboration and communication.

Recently, Peeraer and Petegem (2011) found that the use of digital technologies by instructors in the context of Vietnamese education remains limited and is only used in place of the traditional teaching approaches. Therefore, it is necessary to provide instructors with more technical guidance and instructional design support to increase their familiarisation with technology and the associated knowledge necessary to execute meaningful pedagogies with technology (Georgina & Hosford, 2009; Masalela, 2009).

Chapter 10. Conclusion

The aim of this chapter is to revisit the whole study. This thesis presents a formal analysis of the usage and usefulness of WBL for facilitating the learning and knowledge sharing of SHE students.

The research focused on five main aspects; adopting a qualitative approach for the research; the core category and theory of the studied phenomenon; theories relevant to the studied area; and the implications of the research study.

10.1 The Emergent Research Questions

This research was conducted from October 2010 to January 2014 and aimed to explore the nature of using the WBL phenomenon and its potential usage and usefulness in facilitating personal learning and knowledge sharing. The hope was to develop a theory to interpret the studied phenomenon. Through using the qualitative approach, the research programme investigated 47 SHE students' perceptions and subjective experiences of using WBL.

Looking back at the whole study, the research process was defined consisting of eight steps, "Directing, Launching, Sensing, Exploring, Reflecting, Evaluating, Polishing, and Condensing" and classified research questions were developed over the study process as Starting Questions, Essential Questions and Emergent Questions.

The Thesis opened with an explanation of the background of the research, a boundary for the literature to be reviewed (including studies into the development of WBL and their use in SHE), Learning Theories as well as knowledge and knowledge sharing theories. The Literature Review identified gaps in research, including how (1) it lacked in-depth studies into the WBL phenomenon from a sharing knowledge perspective and on an individual level, and (2) there was a need of further investigation of students' learning and knowledge sharing experience in using WBL, especially tacit knowledge sharing.

Based on these gaps, research questions were formulated which focused on exploring the WBL users' motivations and learning experiences. During the data collection and analysis process, it became clear that students separated WBL from learning in the classroom and their subjects of study entirely, and discovered that they mostly used it to enhance their social lives. Due to this insight, the nature of the research evolved, as more exploratory

questions were developed to cover students' conceptions of learning and sharing and their views on WBL use.

By using the comparison method, new ideas were developed for sampling to discover variations (that is, new ideas for directing inquiries). Questions included, "What are the effects of using WBL as information sources?" When it was evident that most participants regarded WBL as a channel for gaining information, the enquiry changed again; "What are the participant's strategies for achieving benefits by using WBL?"

The research looked into the motivations for using WBL and it was determined that many SHE students used it, because of intrinsic incentives (e.g. the desire of being visible, writing habits) and extrinsic incentives (e.g. following social trends, preventing unwanted readers, breaking away from social taboos, reducing geographic distance); whereas they may also lessen using it, because of extrinsic incentives (e.g. worrying about affecting others). Some WBL users do not use it mainly, because of both intrinsic incentives (e.g. anxiety of being visible) and extrinsic incentives (e.g. effects on people); whereas they keep using WBL, because of either retaining a relationship or acquiring information that is not provided by the mainstream media or normal websites.

4 orientations of using WBL have emerged through the study: for the self; for a community of interest; for social use; or for reflective purposes.

For self-use, some WBL users do not expect comments as much as those who use the sites for a community of interest. The WBL to them is a personal space for self-expression, emotional release and venting out feelings and opinions. In terms of community of interest use, the WBL user has a willingness to share and to exchange ideas and interests. For social purposes, WBL users tend to use it for entertainment, social connection and communication.

For reflective purposes, they are likely to reflect on self-development and they address the importance of receiving comments from readers. WBL users have similar WBL use orientations. They use WBL for themselves in a broad sense, but they also seek out information that deals with personal issues from which they are able to borrow ideas to help work through their own concerns; seek out wide interest-relevant information for developing their own interests; want to build social networks, keep connections with friends, or simply enhance awareness and develop their own abilities. WBL users usually

leave comments on friends' WBL or other students that impressed them particularly. To them, leaving comments should add value to discussions online.

It was found that those WBL users with a self-use orientation feel it is worth seeing their own changes and thought development. This is more valuable for themselves than anyone else. To these users, presenting personal ideas and feelings regularly is healthy. However, it seems that most WBL users (especially male) do not read personal diary style entries and view self-use users behaviour as egotistical.

Based on other orientations, it is clear that certain WBL users have more perceptions and experience. They feel that they have improved IT, writing, communication and content management skills and that they have shared useful information (e.g. personal lessons, experiences, information sources) with others.

More importantly they felt that they had learnt about themselves. They mostly stressed that they had broadened their views and understood more diverse perspectives. Another interesting finding is that female WBL users are likely to use WBL for self-expression, seeking for listeners and reflecting their feelings, whereas male WBL users are likely to openly discuss and exchange views.

The cases reported in this research showed that SHE students' learning needs are related to their WBL use orientations. In relation to self and social use orientations, the users have a will to relax, a personalised space and a willingness to reveal personal concerns.

To the participants, WBL is not for learning, but to maintain good mental health and life. In relation to community of interest and reflective use orientations, the users have a desire to develop their capabilities (e.g. writing better, expressing their thoughts better and improving professional knowledge in some areas) and their learning needs to reflect their desire. In consequence, this finding reveals that when the WBL users do not use the services with a desire for self-development, but rather to sort out personal problems, WBL becomes a remedy rather than an approach to learning. However, in the long run, if users keep using WBL and reflect on it later, they may realise their development. In this respect, it helps the user learn about him/herself and adds to his/her development and wellbeing.

Most WBL users emphasised that WBL sites are information resources. This called the researcher's attention to the quality of these sites and the information they contain. It was found that thirteen aspects are intertwined on this point. As the major element, the WBL

users affect the credibility judgement of the information resources as well as the degree of the users' concerns and management of privacy disclosure. The other two elements, the judgement of credibility and the concerns of privacy disclosure, act on each other. Through generating a strategic framework of using WBL as information resources, it displays insights such as how the more leisure oriented WBL is and the more alienated WBL users are, the more private information is likely to be exposed. It further implies that when students use WBL as information resources in SHE, the educator needs to clarify that it is for academic discussion, sharing subject knowledge or for peer connection and communication. Educators also need to provide different levels of moderation.

The study also suggests that students have an image of WBL as a social tool, whereas education has its own systems, with its own criteria of quality, credibility, and accuracy. Therefore, through using WBL, SHE students have no barriers in terms of formal learning, for instance, formal academic writing and presenting personal work to the public. Meanwhile, students are very different; hence the usage strategies should be concerned about these differences.

The study found three key usages of WBL in SHE: an online experiential learning environment to assist self-therapy; to improve interpersonal skills; or to encourage students to develop intellectual abilities.

The findings reveal that through experiencing, feeling, presenting and thinking, students use WBL to assure an image of themselves. This is an ambivalent process of starting awareness of knowing and being one's "true self". The experience may further promote the student's responsibility for his/her own learning.

10.2 The Research Methodology

The Methodology was an important element in this project, because this study aimed to explore, understand and make sense of using WBL in facilitating learning and knowledge sharing, and the Methodology was required to interpret the social realities. The Methodology does not aim to verify existing theories or investigate hypotheses by using quantitative data, but aims to discover, conceptualise and explore the meaning by using words. Thus, the research was mooted on an inductive and qualitative approach to increase the probability of discovering unanticipated elements and further analysing the impacts, challenges and implications of new technologies in SHE.

Meanwhile, the emergent phenomenological concepts interpret this study, because the qualitative approach fulfils the purpose of the study and the research problem. As Hutchinson (1988) describes, the qualitative approach has its philosophical foundation in the work of George Herbert Mead and American pragmatism, while its sociological roots are in the work of Herbert Blumer and symbolic interactionism. It also “probably represents the most influential general strategy for conducting qualitative data analysis” (Bryman, 2004: 408).

The features of the qualitative approach are of benefit to the study and the researcher. As a methodology, it seeks to focus on issues of importance in people’s lives. Therefore it is appropriate for social research specifically focused on human interaction and is better suited to researchers who aim to explore new territory (Denscombe, 2003). Such a form of study requires researchers to have an open-mind and be totally honest in their use of data. It therefore develops the sensitivity necessary to interact continually with integrity with the data collection and its analysis, to thereby objectively judge theoretical saturation; and also nurtures creativity and theoretical capability (Glaser, 1992).

A qualitative approach has qualitative tradition, and builds on compared concepts and informs how similar data may be grouped and conceptually labelled (i.e., relates to theoretical sampling, constant comparison, theoretical sensitivity, coding). Concepts then are categorised, organised and also linked by developed relationships, dimensions and conditions (i.e., involves constant comparison, coding, theoretical sensitivity) (Scott, 2004).

Furthermore, the research study elaborated the research process in detail, describing how the sampling process was designed, how data was gathered (for instance, through recruitment and interviewing), using concurrent data analysis as developed by Strauss and Corbin (1998). In more detail, it explained the three steps in terms of analysis: open, axial and selective coding. By using ATLAS.ti to manage and index data, it finally created 259 codes and 28 memo codes. The researcher further refined these codes at a conceptual and abstract level before presenting the relationships between them by creating a series of tentative models. A few tentative models are mentioned in Chapter 3.

Qualitative approach is not without limits. The thesis clarified the notion of establishing trustworthiness in an empirical study, instead of emphasising “validity” and “reliability”. To maximally guarantee the reliability of the research, following the criteria for conducting

the qualitative approach, it discussed the techniques and methods in detail, such as, using an audit trail, member checking, peer debriefing, triangulation and reflexivity. The research study took the position that a researcher, taking into consideration prior knowledge, abilities, personal sensitivities in the data analysis, brought an element of subjectivity, that is, affected the results of the research.

10.3 Theory and WBL in KSA

In this research, a theory related to WBL use and its usefulness for facilitating SHE students' learning and knowledge sharing is discussed. The phrase "a channel of ambivalent self-image assurance" eventually emerged as a core category of the theory in terms of four key aspects.

Firstly, the study found a basic trajectory of using WBL according to the user's motivations for utilising it, including the stages: Starting, Groping, Attempting, Norming and Reforming.

Due to online news or friends, the student becomes aware of WBL services. He/she usually questions why students post their personal matters online, why there are students who read and respond them, and they question whether it is a good idea to publish personal information to others or not. However, they are naturally curious about new and different things. Some students feel WBL is a good tool to keep in touch with students; some have the attitude that makes them want to try it immediately; some keep observing WBL before they decide to use it; and others feel that it is not good to make their identity so visible online. These feelings lead them either to start trying WBL or decide not to use it to excess. By using WBL, students find that they meet likeminded students, that students keep visiting WBL sites, that other users link their ideas, or that students leave comments to agree, encourage, share experiences or provide different perspectives. This kind of enjoyable or surprising feeling from interactions and comments leads them to keep using the sites. Over time, they do not question why students use WBL, but rather consider how to use WBL for their own purposes. Some students start thinking about how to write more interesting and useful information for students, or how to attract more students to read their ideas. Some students become concerned about what to post and how to express their emotions, feelings and opinions appropriately without offending others. They experience self-censorship, making decisions to balance personal information and information that is acceptable to other students, judging online information and dealing with online relationships. They start forming their own styles of using WBL (e.g. practising writing,

developing communication skills, organising thoughts and building social relationships). At the same time, some students worry about the effects on others (e.g. themselves, family, or students they write about), because WBL leaves a trace on other users. They either decide to change their way of using WBL, publish less sensitive themes, adopt a pseudonym to write what they like on WBL, restricting the WBL readers to a particular group, or simply think about giving up using WBL altogether. Some students may just have a generally unpleasant experience while using WBL. For example, students may criticise them for misrepresenting information, disagree with their opinions or post spam. Nonetheless, many users have stated that WBL provides a personal space for them to control, manage and publish information, a platform to connect with students and develop new relationships, a means of communication, and a way of freely saying what they want to say, which also promotes their mental wellbeing. They will keep using WBL as long as it does not affect their life negatively.

Secondly, from such a trajectory of using WBL, it is apparent that using WBL is not a purely pleasant or carefree experience, but rather an ambivalent process. Younger generations view IT and the internet as an access tool for their own purposes, such as to network and socialise, to gain and spread information, or to engage in self-expression and break away from social taboos.

As discussed previously, several WBL users questioned using the WBL phenomenon at the beginning, but when they started to use it they gradually felt the benefits in terms of their own purposes (e.g. for self-therapy, for interpersonal relationships, or for developing certain skills).

On the one hand, they kept using WBL, because of a satisfying feeling that, for example, students cared about them, because of a few words of comfort posted to them; students may like their writing style and appreciate helpful information; an admired person or a professional in an interest-related area might link to their ideas or leave messages. They have questioned why they use WBL, but have also explored better ways of using online tools for their own benefit, such as to discuss socially sensitive topics, to prevent unwanted students from intruding on their privacy, and to have a space for self-liberation.

On the other hand, students also experienced feelings of curiosity and uncertain and dubious feelings when using WBL. They were curious about new ideas and differences, such as different beliefs, understandings, expressions and opinions that are offered on

WBL. Through WBL they had to compare their own ideas with others, build trust, and evaluate the comments students left during discussions. Meanwhile, they sought a balance between their own desire to speak out on matters (e.g. their experience, concerns, emotions, opinions) on the web and how to express things without worrying about being misunderstood by others or if something they wrote would affect their employment in the future. They wondered whether it is suitable to post personal information on WBL, as students normally think that WBL sites are for amusement. They might feel uncomfortable allowing strangers to read their personal reflections, but still have the intention of writing down them on WBL.

In some situations (e.g. involving WBL wars, published sensitive topics), people have even regretted publishing personal information to other students and have questioned how other students would look upon them. To some extent, these feelings made them doubt themselves, including their feelings, beliefs and views; question what they should write and why they wrote it; and doubt whether the satisfying feelings they had at other times using WBL were true and good. They may have to change their ways of using the sites or think about giving up WBL altogether.

Furthermore, the experience of dealing with curiosity, uncertainty and doubt itself became a learning experience of self-evaluation, self-censorship, self-discovery and self-regulation. This experience may not be easily recognised by some users because, to a large extent, WBL users view WBL as a space for self-expression, emotional release or liberation, while other users see it as mere amusement and nonsense. However, it is an important part of the experience of WBL use and an aspect of its usefulness.

As discussed previously, this process of dealing with these ambiguities helps students to clarify their thoughts, understand themselves and others, and allows them to be open to their feelings and experiences. It not only helps the students to experience “adjustment”, but helps them experience their full human potential (Kirschenbaum, 2004). As Rogers (1994) claimed in his notion of experiential learning, learning through experience helps students develop psychological health, wellness, creativity and self-actualisation.

Last, but not least, participants regard using WBL as a discovery process of one’s true self. During the trajectory of using WBL, some students often think about stopping using WBL, because they feel that “I do not need it any more. I do not need a space for venting out so-called secret or personal emotions. I grow up, can control myself and handle my emotions

well now”, or “I strongly feel that it is not wise to leave a trace online, because it may affect my future”. They follow their true feelings and want to be themselves whether there is a trend for students using WBL or not. Some students keep using WBL, because the satisfying or enjoyable feeling confirms their ideas about themselves and their potential, such as “I am good at writing”, “I will develop IT skills as students like WBL design and style”, “I will collect more interesting information and put it on WBL, because students feel the information is fun and they may leave positive comments”. To an extent, such confirmation helps students to become more assured of their own abilities, skills and potentials, and it further helps them to be open to change, to build confidence, to develop skills and to confirm their identity (e.g. whom they feel they are).

For the purposes of this research study, this aspect was named “self-image assurance”. “Self-image” is similar to the term “true self” in the studies of virtual learning (e.g. Bargh, 2002; Döring, 2002; Turkle, 1999). It reflects the experience of using WBL as a process of realising growth and change as well as a process of becoming one’s “true self”.

Also, “narcissism” in the psychological sense of the term emerged from the data. From several WBL users’ perspectives, using WBL included an element of showing off personal skills and abilities (e.g. great web design, collection of interest-related information, presentation of travel experiences).

From other WBL users’ perspectives, using WBL was regarded as a means to engage in self-therapy, helped to benefit mental health, including satisfaction with the self through interactions with others (e.g. through being reassured of their opinions from reading others’ comments, wanting to know others’ opinions, etc.), as well as through their own expression (e.g. reading their own writings, venting their emotions, etc.).

WBL users did not feel that they were showing off in one way communication, but rather that this entailed sharing and exchanging their feelings and knowledge. The sense of “showing off” or the “narcissistic” feeling actually becomes important in knowledge sharing and learning because, at a micro level, it helps students to be open to their true experience and feelings of change and growth.

On a macro level, it is beneficial to students to be open to different subjective perspectives and to share personal experiences, views and tacit knowledge (e.g. encouraging students to express feelings and experiences).

Overall, the experience of using WBL is a channelling of self-image assurance. It is an ambivalent experience and a process of seeking assurance over feelings of one's "true self". During the process, students become more open to their individual feelings, emotions and ideas. They deal with their personal issues, maintain social connections, develop interest-relevant skills and acquire a broader knowledge. They become knowledgeable about themselves.

Using WBL therefore becomes a way for WBL users to form their identity, discover themselves, and build confidence and self-development.

This study reflects using WBL as social software that, to a large extent, benefits the user as a whole person, especially in terms of self-therapy and the development of interpersonal skills and intellectual capability.

10.4 The Relevant Findings in the Literature

The researcher presented the literature related to this study while concentrating on three primary aspects: studies into WBL and usage in SHE; Learning Theories (particularly on informal learning); knowledge theories and knowledge sharing studies. It shows that the soaring popularity of WBL has been recently attracting attention in academia. An increasing body of literature has been investigating WBL usage, examining its being a tool for interactivity, communication, facilitating learning, fostering reflection or creating a learning environment.

By presenting a theoretical model of WBL usage in facilitating learning and knowledge sharing (Figure 8.1), this study sought to shed light on what makes SHE students use WBL, how they use WBL and what the nature of using WBL is. It particularly suggested three consequences of using WBL: self-therapy; interpersonal skills development and intellectual ability development.

The study found four attributes to using WBL on a functional level: convenient accessibility; flexible operability; standardised structure and personalised communication styles.

It supports claims in the literature that WBL sites have distinguishing characteristics, such as personal editorship, flexible hyperlinks, the capability of adding comments, which enables students to capture, organise and share viewpoints easily (i.e., Lamshed, 2002; Man, 2004; Nardi, 2004a).

The data largely showed that students use WBL without any profit motivating them; they moderate WBL freely and are voluntarily writing and selecting information for the sites. The increasing use of WBL is not only, because of the functionalities involved, but, because the users feel the advantages of using WBL.

As summarised before in the discussion, WBL provides potential opportunities for students that meet their specific needs. A certain amount of students regard WBL as simply being amusement, self-expression and egoism. However, these phenomena are related to the purposes of WBL (e.g. for self-use, for a community of interest, for social use, and for reflective use) and their strategies for fulfilling these purposes.

When students use WBL for themselves, it was found that the services have been used as a memory store, a self-liberating place and a space for presenting an online identity. The findings revealed the potential of WBL use for helping self-therapy (that is, it leads to students' improved psychological well-being). The researchers also found that it is difficult for some WBL users to use WBL in this respect as they do not expose their personal identity and thoughts through WBL. This finding has not been clearly published in the literature.

When students use WBL for building a community of interest, the findings suggested that it was often related to WBL user's desire to develop personal interests or maintain relationships. There is a possibility of forming a WBL user-centred community as WBL users keep using it and providing information; for example, writing personal matters to inform friends, publishing interested topics to exchange ideas, share experiences and discuss things with others. This requires WBL users' efforts to use WBL, and readers' comments to encourage WBL users to write more. In a sense, the findings confirmed those in the existing literature (e.g. Huffaker, 2005; Schroeder, 2003; Suzuki, 2004) that WBL can be used to encourage interaction and support between peers.

When students use WBL for social purposes, the findings showed that they regard WBL as a form of relaxation, gaining up-to-date information or keeping up social connections. Again, this reflects WBL users' advantages in terms of spreading information quickly, getting personal voices across and discussing social issues from a non-specialist point of view. To an extent, as presented in the literature (e.g. Ferdig and Trammell, 2004; Mortensen and Walker, 2002; Oravec, 2002), WBL provides students with a wide opportunity to broaden their views and learn about the world. They therefore help students

to improve their ability to express themselves and to develop information judgement skills, communication skills, etc.

When students use WBL for reflective purposes, the study provides evidence that they are also using WBL to improve their own professional abilities (e.g. online business, advanced IT skills, writing skills, expertise in a subject). It also provides evidence that students become censors of themselves. In a sense, it shows that students have developed self-organised learning styles and are using WBL as a tool to manage and accumulate personal knowledge. This point supports the findings in the literature that using WBL helps students in critical thinking, problem discovery, reducing misunderstandings and learning how to learn (e.g. Fiedler, 2003; Fiedler, 2004; Oravec, 2003b; Tosh and Werdmuller, 2004).

The study also discusses concepts of learning which confirm and add new insights to existing Learning Theories. Relating to conceptions of learning proposed by Säljö (1979), Marton (1993) and Felix (2007), here participants have defined five types of learning, which repeatedly showed that acquiring information, enhancing awareness, developing skills, understanding things deeply, changing views and gaining insights are all forms of learning.

Specifically, the findings suggest that creativity and imagination in using WBL are vital in helping students improve intellectual abilities.

Some literature in the information science area reveals the relationships amongst learning, tacit knowledge sharing and WBL. This study arguably provides an answer to bridge this gap.

First, Carl Rogers' (1969, 1994) humanistic learning ideas, such as openness to change, self-criticism, self-actualisation and self-evaluation emerged in the findings. Rogers' contribution was in humanistic education, which emphasises points such as high-level health and well-being, the learner's interests, education as a life-long process, respect for an individual's subjective experience, the human motivation towards self-realisation and self-empowerment (Underhill, 1989). He stressed that experiential learning has to be self-initiated and that the will to engage in this comes from the inside.

In relation to WBL use, the participants reported that they decided what they wanted to publish on WBL, they had a desire to express personal feelings, interests and experiences, and they also developed their views on the interested topic or the world. They gradually

realised their learning in this experience, which was self-initiated and self-realised. Rogers emphasised that educators need to respect students' subjective experience and that their role should be "not to decide what the student should learn, but to identify and create the crucial ingredients of the psychological climate that helps to free learners to learn and grow" (Underhill, 1989: 251).

This study showed that students do not want to mix WBL with their study, because they can freely decide what they want to learn, write and develop through WBL. It can be seen that, in the nature of informal learning, students used social software for their own purposes (e.g. self-therapy, forming identity, maintaining social connections) and moderated their development rather than through interactions with educators.

Rogers (1994) also held the belief that learning involves the whole person and experiential learning entails helping people towards realising their own individual and unique potential for becoming what he called a "fully functioning person". "His view is that there is, in the person, an ability to actualise the self, which, if freed, will result in the person solving his or her own problems" (Zimring, 1994: 1).

In this study, participants reported that they gradually realised their development, because WBL leaves a trace of their growth and changes (e.g. writing skills, ways of communicating, and the broadening of views, became more mature). They could read by using WBL entries and reflect on their past and experiences. This finding confirms Rogers' opinion that students have the ability to conduct self-evaluation based on their individual learning objectives.

Secondly, types of narcissism emerged in this study which support the views of, for example, Sturman (2000), who identified three narcissistic styles: power-related (e.g. interpersonal influence, being recognised and shaping one's surroundings); affiliation-related (e.g. having listeners who care, having trusted friends whom one does not want to lose); and achievement related (e.g. showing one's own work, achieving personal fulfilment).

In this study, some WBL users felt that they contributed to discussions on social issues by providing real-time, up-to-date and original information, and contributed to the change through information diffusion. There is a sense in which gaining power motivates them to keep using WBL. Some WBL users read information on these sites in order to know about friends' lives, and WBL can be used to keep in touch with students. Furthermore, they had

the feeling that students understood and listened to their expressions, or they came to know WBL users, because they kept using WBL over a long period. In this sense, gaining affiliation motivates them to use WBL. Also, some users kept using the sites in order to practise writing, develop IT interests, or contribute to an interest-related discussion. They had a desire to improve certain abilities. To some extent, this indicates that they were pursuing a type of achievement.

In addition, it was found that students shared different types of knowledge according to types of WBL use. For self-therapy use, personal experiences, stories, feelings and thoughts are largely shared. For interpersonal skills development, interests-related information and opinions are largely shared. For intellectual ability improvement, professional knowledge, subject-related and personal reflective information are largely shared.

Linked to the findings that female WBL users are likely to share and read information characterised as high in self-expression and personal emotion on WBL, and male WBL users are likely to share and accept topics relating to social issues with less personal expression, it is clear that females and males share different types of tacit knowledge. That is, different types of tacit knowledge could be transferred according to different WBL user orientations by different genders.

In the literature, tacit knowledge as an appreciable knowledge type has been found difficult to transfer, because it is “sticky” (e.g. Szulanski, 2000) or ambiguous (e.g. Polanyi, 1958), but could be transferred with effort (e.g. by using storytelling and concept maps). This study supports this suggestion, and moreover, it sheds light on what types of tacit knowledge could be shared and how tacit knowledge was shared in relation to WBL use. In particular, the study suggests that WBL users are likely to feel the advantages of using WBL in the long term (e.g. more than one year), but not in the very short term (e.g. a couple of months).

10.5 Implications for Further Study

The research findings add to the corpus of knowledge on the role of using WBL in creating a sense of self-organised learning and encouraging experiential learning. Still, other elements of the theory (like different approaches to use WBL by different genders) may be considered new insights into information sharing behaviours in learning. Even for concepts

that have been studied before, their roles in the particular context had not previously been explored.

Another important distinction between this study and previous investigations is the results are analysed in data gathered from the experiences and opinions of WBL Users rather than drawn from literature. As such, they provide valuable insights into the research study area and help form a substantive theory to further develop into a formal theory.

The main suggestions of this research on using WBL in the SHE setting relate to eight aspects:

- 1) as an inspirational tool to encourage students in less-IT-related disciplines to have more WBL experience,
- 2) as a practice tool to help students who are in writing-based subjects to improve writing skills and express thoughts clearly,
- 3) as a communication tool to reduce distance and build connections,
- 4) as a collaborative tool to organise and manage teamwork,
- 5) as a place for mental therapy,
- 6) as a fun, interesting and creatively supportive learning environment,
- 7) as a space for self-expression and self-disclosure and
- 8) realising WBL barriers in SHE settings, the educator needs to explore which aspect of students' learning they want to facilitate, such as to help students; mental health, to develop their writing and thinking habits, or to build collaborative skills, etc.

This research study did not aim to test or prove a prior hypothesis. Nevertheless, it is appropriate to inquire whether the established theory offers any basis for better comprehending the observed phenomenon and to aid the formulation of future questions and hypotheses and for further testing.

It is hoped that the research will be of benefit to learners, educators and educational organisations for better using learning technologies and further promoting active informal learning and lifelong learning. It has identified some questions for further investigation in the following areas:

(1) as suggested by Glaser and Strauss (1967: 34), “substantive theory in turn helps generate new formal theories and to reformulate previously established ones”, and the current theory can be either further developed by adopting qualitative research or verified through quantitative study. Further studies should also be conducted to (2) further investigate learning and thinking styles in relation to gender-related elements, and (3) to generalise the findings about self-therapy and the development of interpersonal skills and intellectual abilities by investigating different types of social software use, Also, (4) how tacit knowledge is personal and is useful for the individual could also be covered more in subsequent works, as could why it is difficult to converse for some students while it is easy for others. Investigating (5) academic use oriented WBL and comparing new findings with the model of the theory in this study; and (6) to implement interdisciplinary perspectives and thereby test the substantive theory is also something that could be covered after this study.

10.6 Summary

In conclusion, this study is intended to be useful in adding to our understanding of the ways in which tacit knowledge can be made explicit, communicated and shared within the context of SHE students’ learning while using WBL.

The research adopts a qualitative methodology approach entailing in-depth interviews with SHE students concerning their experience of both creating their own and reading and contributing to the WBL of others, and their perceptions of the uses and usefulness of WBL in general.

Data analysis is inductive, and by analysing the transcripts of interviews and memos, a theoretical model is formulated to understand WBL’s role in the area of human information processing. It is hoped that the research study will offer some useful insights and that it will offer a suitable basis for future research into this increasingly important area of study.

This thesis illustrated therefore a qualitative study in depth. By revisiting prior discussions and analyses within the field of study and drawing from the research findings of this Thesis, this final section reflected on the purpose of the research, the research questions, the methodology adopted for the research study, key findings drawn from the theory, contributions to the knowledge, limitations in the design, implications and potential further research to conclude the study in total.

Appendix 1: Glossary of Terms

The researcher has used several terms that benefit from explanation in this empirical study. Meanwhile, in this study, learning refers to studying, in the classroom or scheduled, and a subliminal process depending on the individual desire as well as the environment.

“WBL readers” refers to students who have a WBL course that updates them on a regular basis. They have at less than six months’ WBL experience. The data show that every WBL learner has WBL experience.

“WBL users” refers to students (1) who use WBL regularly, (2) who use WBL widely, and regularly or occasionally, (3) who maintain WBL and (4) who have had a WBL course. It is apparent that both WBL learners and WBL readers are WBL users.

“Digital generation” is a term derived from the idea of “net generation” in the book *Educating the Net Generation* edited by Oblinger and Oblinger (2005a). In the literature, “net generation” (Tapscott, 1998), “digital natives” (Prensky, 2001a, 2001b), and “Y generation” similarly stand for people who were born from 1980 through 1994 (McCrinkle, 2006) and “are able to intuitively use a variety of IT devices and navigate the Internet”, “weave together images, text, and sound in a natural way”, “multitask”, “[move] quickly from one activity to another”, “prefer to learn by doing rather than by being told what to do”, “learn by exploring for themselves or with their peers”, and have “openness to diversity, differences, and sharing” (Oblinger and Oblinger, 2005b: 2.5-2.7). However, Kennedy et al. (2006) pointed out that very little empirical research has actually investigated SHE students’ experience with technology. Another criticism of much of the literature on the “net generation” is that before educational reform can be designed and implemented, the nature of the new generation of students and the implications for education must be understood (Bennett *et al.*, 2008).

Throughout the thesis, the term “digital generation” is used to describe the younger generations who are the main users of new digital technologies (e.g. computers, mobile phones, the Internet, virtual games, iPods) rather than making those assumptions about the generation’s attributes directly. SHE students are young and largely apply new network tools; to a great extent, they are important members of the digital generation.

Web Based Learning: Also known as WBL, this refers to the use of electronic or digital technologies such as computers, CD-ROM, intranets, and the internet to deliver educational content, that is, web-based instructions. In this study, online learning involves “the separation of teacher and learner during at least a majority of each instructional process” (Palloff & Pratt, 1999, p. 5).

Higher Education: Also known as tertiary education, this term refers to education after year 12 school and includes institutions that provide training (certificates and diplomas) and education (bachelor, masters, and doctoral degrees).

This study focuses on SHE students and investigates those who are WBL users or WBL readers, as well as their WBL users’ experiences.

Appendix 2: Ethics Issues Audit Form

THE UNIVERSITY *of York*

Education Ethics Committee

Ethical Issues Audit Form

This questionnaire should be completed for each research study that you carry out as part of your degree. You should discuss it fully with your supervisor, who should also sign the completed form.

You must not collect your data until you have had this form signed by your supervisor (and possibly others - your supervisor will guide you).

Surname / family name:	Aboalhaj
First name / given name	Abdulrahman
Programme:	PhD in Education
Supervisor (of this research study):	Dr. John Issitt
The Effectiveness of Using Web Based Learning by Undergraduate Students in the Kingdom of Saudi Arabia	
Where the research will be conducted: Saudi Arabia	
Methods that will be used to collect data: Qualitative, quantitative and experimental methods.	

Supervisors, please read *Ethical Approval Procedures: Students*. Note: If the study involves children, vulnerable subjects, sensitive topics, or an intervention into normal educational practice, this form must also be approved by the programme leader (or UG / PG director if the supervisor is also the Programme Leader); for Research Students, by the TAG member.

It may also require review by the full Ethics Committee (see below).

First approval: By the supervisor of the research study (after reviewing the form):

Please one of the following options.

<input checked="" type="checkbox"/>	I believe that this study, as planned, meets normal ethical standards
<input type="checkbox"/>	I am unsure if this study, as planned, meets normal ethical standards
<input type="checkbox"/>	I believe that this study, as planned, does not meet normal ethical standards and requires some modification.

Signed (Supervisor):

Date:

Supervisor, if the study involves children, vulnerable subjects, sensitive topics, or an intervention into normal educational practice (see *Ethical Approval Procedures: Students*), please pass for second approval to the Programme Leader (or UG / PG director if the supervisor is also the Programme Leader); for Research Students, pass to the TAG member.

If the study has none of the above characteristics, please now pass to the Programme Administrator.

Second approval: by the Programme Leader or UG/PG director (for Research Students, the TAG member):

Please one of the following options.

<input type="checkbox"/>	I believe that this study, as planned, meets normal ethical standards
<input type="checkbox"/>	I am unsure if this study, as planned, meets normal ethical standards
<input type="checkbox"/>	I believe that this study, as planned, does not meet normal ethical standards and requires some modification.

Signed (Programme Leader or UG/PG director or TAG member):

Date:

Please now pass to the Programme Administrator, unless approval is required by the full Ethics Committee - see below.

Approval required by the Full Education Ethics Committee?

Note to Programme Leader, UG/PG director, or TAG member: If the study involves a) deception, or b) an intervention and procedures could cause concerns, or c) if the topic is sensitive or potentially distressing, review by the full Education Ethics Committee is

required. Please pass to the Chair of the Education Ethics Committee via the Research Administrator.

FOR COMPLETION BY THE STUDENT

Data sources

- 1 If your research involves collecting secondary data only, *please go to SECTION 2.*
- 2 If your research involves collecting data from people (e.g. by observing, testing, or teaching them, or from interviews or questionnaires), *please go to SECTION 1.*

SECTION 1: For studies involving people

- 3 Is the amount of time you are asking research subjects to give reasonable? YES / NO
- 4 Is any disruption to their normal routines at an acceptable level? YES / NO
- 5 Are any of the questions to be asked, or areas to be probed, likely to cause anxiety or distress to research subjects? YES / NO

- 6 Are all the data collection methods used necessary? YES / NO
- 7 Are the data collection methods appropriate to the context and participants? YES /NO
- 8 Will the research involve deception? YES /NO
- 9 Will the research involve sensitive or potentially distressing topics? (The latter might include abuse, bereavement, bullying, drugs, ethnicity, gender, personal relationships, political views, religion, sex, violence. If there is lack of certainty about whether a topic is sensitive, advice should be sought from the Ethics Committee.) YES/NO
- 10 Does your research involve collecting data from vulnerable groups? YES/NO
 If YES, what steps will you take to ensure that the methods and procedures are appropriate, not burdensome, and are sensitive to ethical considerations?

- 11 Are the research subjects under 16 years of age? YES/ NO. If NO, go to *question 12*.

If YES, do you intend to ensure that another adult is present during all interactions with children? YES/NO

If NO, please explain, for example:

i) This would seriously compromise the validity of the research because [*provide reason*]

ii) I have/will have a full Criminal Records Bureau check) YES/NO

iii) Other reasons:

Payment to participants

- 12 If research participants are to receive reimbursement of expenses, or any other incentives or benefits for taking part in your research, please give details, indicating what or how much money they will receive and, briefly, the basis on which this was decided
-

The participants will not receive reimbursement of expenses or any other incentives or benefits for taking part in my research.

If your study involves an INTERVENTION i.e. a change to normal practice made for the purposes of the research, go to question 13 (this does not include 'laboratory style' studies i.e. where ALL participation is voluntary):

If your study does not involve an intervention, go to question 20.

- 13 Is the extent of the change within the range of changes that teachers (or equivalent) would normally be able to make within their own discretion? YES/NO
- 14 Will the change be fully discussed with those directly involved (teachers, senior school managers, pupils, parents – as appropriate)? YES/NO
- 15 Are you confident that *all* treatments (including comparison groups in multiple intervention studies) will potentially provide some educational benefit that is compatible with current educational aims in that particular context? (Note: This is *not* asking you to justify a non-active control i.e. continued normal practice)
YES/NO

Please **briefly** describe this / these benefit(s).

-
- 16 If you intend to have two or more groups, are you offering the control / comparison group an opportunity to have the experimental / innovative treatment at some later point (this can include making the materials available to the school or learners)? YES/NO.

If 'NO', please explain:

- 17 If you intend to have two or more groups of participants receiving different treatment, do the informed consent forms give this information? YES/NO
- 18 If you are randomly assigning participants to different treatments, have you considered the ethical implications of this? YES/NO

- 19 If you are randomly assigning participants to different treatments (including non-active controls), will the institution and participants (or parents where participants are under 16) be informed of this in advance of agreeing to participate? YES/NO

If NO, please explain:

General protocol for working in educational institutions

- 20 Do you intend to conduct yourself, and advise your team to conduct themselves, in a professional manner as a representative of the University of York, respectful of the rules, demands and systems within the institution you are visiting? **YES** / NO
- 21 If you intend to carry out research with children under 16, have you read and understood the Education Ethics Committee's *Guidance on Working with Children Under 16*? YES / NO

Informed consent

- 22 Have you prepared Informed Consent Form(s) which participants in the study will be asked to sign, and which are appropriate for different kinds of participants? **YES**/NO

If YES, please attach the informed consent form(s).

If NO, please explain:

23 Does this Informed Consent Form:

- a) Inform participants in advance about what their involvement in the research study will entail? YES /NO

- b) Inform participants of the purpose of the research? YES /NO

- c) Inform participants of what will happen to the data they provide (how this will be stored, who will have access to it, how individuals' identities will be protected during this process)? YES /NO

- d) If there is a possibility that you may wish to use some of the data publicly (e.g. at research conferences or online), have you given participants the opportunity to decline such use of data? YES /NO

- e) In studies involving interviews or focus groups, inform participants that they will be given an opportunity to comment on your written record of the event?
YES /NO

If NO, have you included this on your consent form? YES/NO

If NO, please explain why not:

- 24 Who will be asked to sign an Informed Consent Form? Please **tick all** that apply:

<i>Category</i>	<i>Tick if 'yes'</i>
Adult research subjects	✓
Research subjects under 16	
Teachers	
Parents	
Head/Senior leadership team member	
Other (please explain)	

- 25 In studies involving an **intervention** with under 16s, will you seek informed consent from parents? YES / NO

If NO, please explain:

If YES, please delete to indicate whether this is 'opt-in' or 'opt-out'

If 'opt-out', please explain why 'opt-in' is not being offered:

SECTION 2

Data Storage, Analysis, Management and Protection

- 26 I have read and understood the Education Ethics Committee's *Guidance on Data Storage and Protection* **YES** /NO
- 27 I will keep any data appropriately secure (e.g. in a locked cabinet), maintaining confidentiality and anonymity (e.g. identifiers will be encoded and the code available to as few people as possible) where possible **YES** /NO
- 28 If your data can be traced to identifiable participants, who will be able to access your data?

- No one will access except the researcher

Reporting your research

- 29 In any reports that you write about your research, will you ensure that the identity of any individual research subject, or the institution which they attend or work for, cannot be deduced by a reader? YES/NO

If the answer to this is 'NO', please explain:

Conflict of interests

- 30 If the Principal Investigator or any other key investigators or collaborators have any direct personal involvement in the organisation sponsoring or funding the research that may give rise to a possible conflict of interest, please give details.

- No, there are no conflicts of interests.

Potential ethical problems as your research progresses

- 31 If you see any potential problems arising during the course of the research, please give details here and describe how you plan to deal with them.

- No, there are no Potential ethical problems as your research progresses.

Signed:

Date: 18 / 06 / 2013

Please now give this form to your supervisor to complete the section on the first page.

NOTE ON IMPLEMENTING THE PROCEDURES APPROVED HERE:

If your plans change as you carry out the research study, you should discuss any changes you make with your supervisor. If the changes are significant, your supervisor may advise you to complete a new 'Ethical issues audit' form.

For Taught Masters students, on submitting your Masters Dissertation to the programme administrator, you will be asked to sign to indicate that your research did not deviate significantly from the procedures you have outlined above.

For Research Students (MA by Research, MPhil, PhD), once your data collection is over, you must write an email to your supervisor to confirm that your research did not deviate significantly from the procedures you have outlined above.

Appendix3 : Participant Information Sheet

Participant Information Sheet

Date;

Re: Participant Information Sheet

Dear Colleague,

This is an invitation to participate in an academic study conducted as part of my project activity as a member of the university community. It is seen as a step in my own action research to continue my PhD in education at University of York in the UK.

The purpose of the research is to investigate:

The effectiveness of Using Web Based Learning with Undergraduate Student in Saudi Arabia.

The data which is collected will not be used for any other purpose or released to any individual or organization. No one will know about the data except the researchers. Your identity will be kept secret. You will be given an opportunity to comment on your written record of the event. I may wish to use some of the data publicly (e.g. at research conferences or online). If you are concerned about any aspect of the study, you are free not to take part. If you are not happy regarding the way this research has been conducted, you can contact me on: **00447960371441**

Thank you for taking the time to read this information. I look forward to hearing from you.

Yours faithfully,

Abdulrahman Aboalhaj

University of York

Department of Education

aaa552@york.ac.uk

Informed Consent

Informed Consent

University of York, Department of Education

Consent Form for Participants Taking Part in Student Research Project

**The effectiveness of Using Web Based Learning with Undergraduate Student in
Saudi Arabia.**

Abdulrahman Aboalhaj

University of York

Department of Educational

Participant (Volunteer)

Please read this and if you are happy to proceed, sign below.

The researcher has given me my own copy of the information sheet which I have read and understood. The information sheet explains the nature and what I would be asked to do as a participant. I understand that the research is for a student project (PhD degree) and that the confidentiality of the information I provide will be safeguarded unless subject to any legal requirement. I provide to use some of the data publicly (e.g. at research conferences or online). He has discussed the contents of the information sheet with me and gives me the opportunity to ask questions about it.

I agree to take part as a participant in this research and I understand that I am free to withdraw at any time without giving any reason, and without detriment to myself.

Signed:

Date:

Family Name:

Other

name:

Researcher:

I, the researcher, confirm that I have discussed with the participant the contents of the information sheet.

Signed:

Date:

Abdulrahman Aboalhaj

Department of Education

aaa552@york.ac.uk or 00447960371441

Appendix 4: Interview Process

Practical Guide

The practical guide is unfolded below:

- Contact with a participant, arrange an interview according to their convenience;
- Book an interview room on the campus where it is quiet with little distraction;
- Confirm the interview time and location;
- Send an email the day before to the participant to remind him/her of the interview, highlighting the time and location (with an electronic location guide map, in case the participant does not know the interview location);
- Check the interview package (labelled documentation materials):
 - A copy of the interview guide (Appendix)
 - Two copies of the consent form (one for the interviewee; one for the interviewer) (Appendix)
 - A copy of the informant sheet (Appendix)
 - A copy of the interview questions (for the interviewer)
 - A copy of alternative-questions list to prompt responses (this is useful for new/inexperienced researchers)
- Be familiar with and check the interview equipment:
 - Prepare two good-quality recorders (either tape recorder or digital recorder). One may have an internal microphone and another an external microphone that can be worn on the participant's clothes (this depends on the researcher's research condition);
 - If using batteries, check them regularly and carry spares;
 - Prepare two good-quality blank 90-minute cassette tapes per interview and take along extra cassette tapes if using the tape recorder; -Test recording system and cassette tapes;
- Bring notebook and good-quality pens;
- Prepare a bottle of water for the respondent, because they may become thirsty from talking;
- Carry your authority card or letter with you at all times and produce it when necessary;
- Arrive early at the interview site to set up equipment;

- Record the interview time and place before the interview.
- Set the recorder on a stable surface and close to the interviewee;
- Briefly describe the purpose and format of the interview, and address terms of confidentiality (as outlined in the consent form); and tell them how they can get in touch with you later;
- Ask the participant if he/she has any question; if not, then ask them to sign the consent forms;
- Ask the participant's agreement to start recording;
- Turn on the tape recorder and verify that it is working;
- During the interview, occasionally verify the tape recorder is working;
- Speak slowly and clearly, using a matter-of-fact tone of voice;
- Approach every participant "positively", pleasantly, with a smile and the confident expectation of obtaining his/her full cooperation;
- Show an interest in the answers given by the participant;
- Ask all the necessary questions, make sure that each answer is adequate and make sure you have understood each answer sufficiently before the end of the interview;
- Ask one question at a time;
- Do not give directive information about the meaning of the question;
- If any answer is not clear or any words are not understood, ask the participant to repeat or request further explanation;
- Clarify any factual errors expressed by participants during the interview;
- Repeat the question if a tape change is necessary;
- Be sensitive to the interviewees, be aware of their needs and rights, and maintain proper ethical and moral practices;
- Make brief written notes;
- At the end of the interview, give the participant an opportunity to provide comments about the interview or ask questions, and note their ideas about any points that the interviewer did not cover;
- Thank the participant and make him/her feel the interview was mutually beneficial;
- Turn off the tape recorder and remind the participant about how to get in touch with you later if they want to.
- Reimburse the participant in accordance with study procedures.

Sequencing the interview

After an interview, the researcher should do the following:

- Check the beginning, middle and end of the tape to make sure it recorded properly; if not, expand your notes immediately;
- Label tapes (serial number and time), or save and label the digital file in your computer if using a digital recorder;
- Keep tapes and recorder in good and safe conditions;
- Type the interview information into the database;
- Expand the notes; if possible, write down within 24 hours as much as you can remember, with brief, but detailed ideas;
- Check if there are any statements you have failed to highlight;
- Make any necessary changes;
- Double-check that you have completed all forms and materials, and that they are labelled with the archival number;
- Assemble all materials of the interview into one pack;
- Transcribe the interview within 24 hours, if possible.

The interviews in this study lasted from 30 minutes to one hour. According to Gorman and Clayton (2005: 137-138), it is important to transcribe an interview the same day, while it is fresh in your mind. The researcher adhered to this suggestion.

“If at all possible – and then simply listen to the tape recording of the interview. This will give you the opportunity to correct any mistaken impressions, enable you to transcribe any short, highly pertinent observations, and not preclude later transcription – or partial transcription – if required”.

Appendix 5: Pilot Phase Semi-Structured Interview

Questions

- Collect basic information:

Name	Gender	Age	Education background	WBL experiences	Email

- Do you have Web Based Learning experiences? How long have you using WBL?

[divide students into two groups according to their WBL experiences because the longer use of WBL time, the more experiences, and more valuable data could come out]

1- Beginner

2- Long experiences

1. Questions for people who have WBL experiences:

1.1 When did you become aware of using WBL? [try to find how students start to know WBL]

1.2 What would you say a "WBL" is? [try to find how student's view of WBL]

1.3 Why do you want to use WBL? [try to find the aim of having WBL; WBL types; if there are any reasons for sharing knowledge]

1.3.1 What makes you keep using WBL? [try to find why students keep using WBL]

1.4 What is your WBL used for? [try to find the type or uses of student's WBL]

1.5 Do you read any particular resource by using WBL ? Why?
[try to find whether students obtain useful information from WBL; do they learn something from WBL; the reasons that students browse WBL]

1.6 Will you leave comments on other student messages or articles? Why / why not?
[try to find how student's attitudes to exchange their ideas with other students]

1.7 For WBL, do you think it's important to get comments from others? Why or why not?
[try to find if students like to exchange their ideas using comments]

1.8 What do you feel are the advantages and disadvantages of using WBL through your WBL experiences?
[try to find how student's feeling of using WBL]

1.9 Do you think WBL could help people in their learning? [try to find how student's opinions of using WBL help learning/ helpful or not?/ what is learning for them?]

1.10 Will you keep on writing on WBL? Why or why not? [try to find how important of using WBL for students and why]

Further questions if there are no relevant information comes out:

1.11 Do you think WBL is an easy way to help you express your feelings or show your ideas? [try to find how student's ideas about using WBL transfer their tacit knowledge]

1.12 Do you think WBL offers useful information for people? [try to find what student's ideas about WBL and the significance for sharing information]

1.13 Are there any impressive stories/things about WBL? (why?) [try to find if students have specific reasons for using WBL; some valuable factors of WBL]

2. Questions for people who short time experiences of using WBL:

2.1 In your opinion, what is WBL? [try to find how student know WBL and how do they view WBL]

2.2 Do you read any particular information by using WBL? Why? [try to find if students could get some information via WBL; if it is a potential way of obtaining information]

2.3 Are you aware of different kinds of WBL? Which kinds of WBL do you like or dislike? Why or why not? [try to find what student's preferences of WBL are and further know their interests of WBL]

2.4 Do you leave some comments when you read other student's messages? Why or why not? [try to find if students like to exchange their ideas using comments]

2.5 In the future, will you try to use WBL more? Why or why not? [try to find how student's feeling of using WBL; advantages and disadvantages]

2.6 Which kind of WBL would it be? Why? [try to find the aim and uses of WBL]

Further questions if no relevant information emerges:

2.7 Do you think you learn something by using WBL? [try to find if students use WBL as a way of get information]

2.8 Do you think WBL could be an e-learning tool in the future? [try to find how student's opinions of using WBL help learning]

After Interview

Thanks for your time and assistance. The information is very helpful. If you have any problem about this interview or are interested in the findings, please feel free to contact me. The contact information is on the consent form. Thanks a lot.

Abdulrahman Aboalhaj

University of York

Department of Education

aaa552@york.ac.uk

[00447960371441](tel:00447960371441)

Appendix 6: Main Phase Semi-Structured Interview Questions

Questions

- Collect basic information:

Name	
Gender	
Age	
Education Background	
WBL experience	
Email	

- Do you use WBL?

- How many time do you use WBL per (day, week, month)?

- How long have you used WBL?

- Do you read other student's message and comments?

[divide

students into two groups according to their WBL experiences because the longer using WBL time, the more experiences, and more valuable data could come out]

1. WBL: long experiences (more than one year)

2. WBL: beginner (less than one year)

1. Questions for people who have long experiences:

1.1 Could you tell me which kind of WBL do you use?

[know

the WBL kind]

1.2 Could you tell me what WBL is used for?

[try to find

the purpose of using WBL]

1.3 Could you give some examples of what you have written on WBL?

1.4 Please tell me about how you became aware of using WBL? (When, Who, How)

[try to find how students start to know WBL]

1.5 How did you feel about WBL when you first time know it?

1.6 Initially, why did you want to use WBL?

[try to find the

aim of using WBL; WBL types; if there are any reasons for sharing knowledge]

1.7 If you have problem because of technical problems of WBL services, how would you feel then?

1.8 What makes you keep using WBL? [try to find

why students keep using, what motivated them?]

1.9 Do you go back to read your messages on WBL or comments? Why/ Why not?

1.10 Besides maintaining do that, do you read any other students messages or comments?

[try to find whether students learn something from others]

1.11 How often do use WBL?

1.12 Could you give examples, which kind of WBL do you use?

1.13 Why do you use these WBL?

[try to

find the reasons that students browse WBL]

1.14 When you read other student's message ,will you leave comments for them? Why / why not?

[try to find how

student's attitudes to exchange their ideas with other students]

1.15 For using WBL, do you think it's important to get comments from others? Why or why not?

[try to find if students like to exchange their ideas using comments]

1.16 How do you feel if people leave comments on your messages or articles?

1.17 When you read other student's messages or articles, do you compare your own messages with other students?

1.18 How do you feel about the advantages of using WBL through your WBL experience?

[try to find how student's feeling of using WBL]

1.19 Are there any disadvantages of using WBL, in your opinion?

1.20 Have you learned anything by using WBL? What did you learn?

1.21 Are these learned things helpful for your subject or study here?

1.22 What would you say using WBL is?

[try to

find how people's view of using WBL]

Further questions if there are no very relevant information comes out:

1.23 Do you think it is easy to write down your feelings or ideas by using WBL? [try to find

how student's ideas about using WBL transfer their tacit knowledge]

1.24 Do you think using WBL offers useful information for people?

[try to find

what student's ideas about using WBL and the significance for sharing information]

1.25 Do you think the information on WBL is credible?

1.26 Do you think WBL could help people's learning?

[try to

find how student's opinions of using WBL help learning/ helpful or not?/ what is learning for them?]

1.27 Do you think using WBL could be used in education?

1.28 What is your favourite way to learn outside of classroom?

1.29 Are there any impressive things about using WBL? (what's it?)
students have specific reasons for using WBL; some valuable factors of WBL]

[try to find if

1.30 Will you carry on WBL? Why or why not?
find how important of WBL for students and why]

[try to

1.31 The last question, please could you provide any other information you prefer to add and your impressions of the interview?

After Interview

Thanks for your time and assistance. The information is very helpful. If you have any problem about this interview or are interested in the findings, please feel free to contact me. The contact information is on the consent form. Thanks a lot.

Abdulrahman Aboalhaj

University of York

Department of Education

aaa552@york.ac.uk

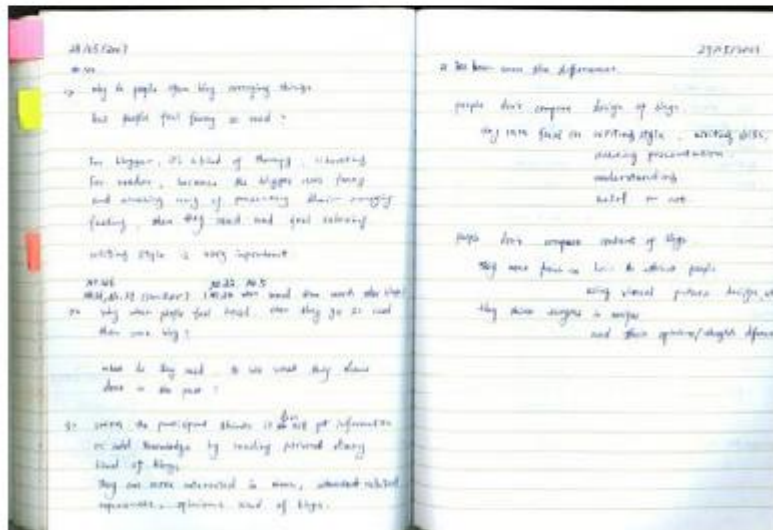
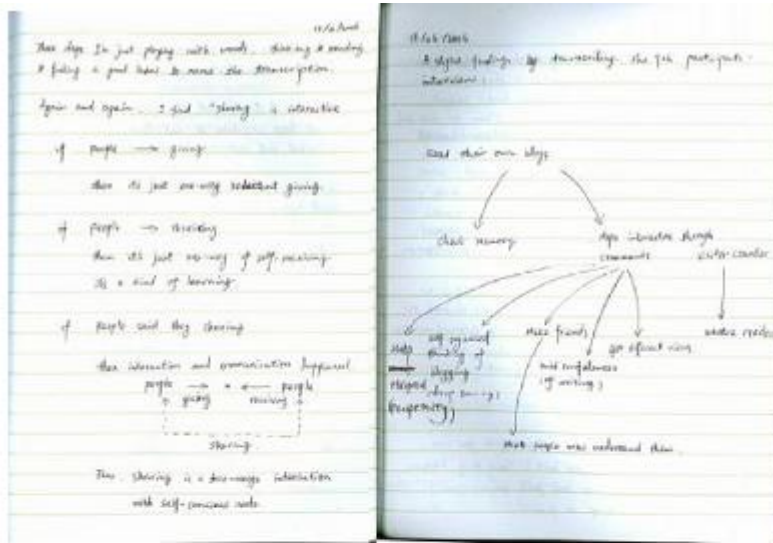
[00447960371441](tel:00447960371441)

Appendix 7: Additional flexible interview questions (over Main phase)

Additional flexible questions that might ask in an interview:

1. Did you remove any entries after reading back on WBL?
2. Do you often remember that you have messages or comments on WBL?
3. How many hours do you spend on writing on WBL?
4. How many hours do you spend on reading other student's messages or comments?
5. How many words are normally on write on WBL?
6. Are there any lecturers or teachers who mentioned resources on WBL in class?
7. Do you talk about WBL with other students or friends offline?
8. Did you find out some useful WBL resources for your own study?
9. Did you put pictures or music on WBL?
10. Did WBL anything that is related to your study, e.g., coursework, lectures, textbooks?
11. Did you join in any online community through WBL?
12. Do you use your real name on WBL?
13. Did you mention student's real name when you write about them?
14. Do you put any personal information on WBL?
15. Do you put any private information on WBL?
16. Which language do you use on WBL?
17. Do you know who are your readers? Do you want to know?
18. Did you have any negative experience of using WBL?

Appendix 8: An example of memo (the research personal diary)



Appendix 9: The paper is published in the University of Michigan in the United States.

Copyright © 2014 Michigan State University
All rights reserved. No part of this book may be reproduced or transmitted in any form or by any means, electronic or mechanical, including photocopying, recording, or by any information storage and retrieval system, without written permission from the publisher.

BrownWalker Press
Boca Raton, Florida
USA • 2014

ISBN-10: 1-62734-519-1
ISBN-13: 978-1-62734-519-4

www.brownwalker.com

Papers



Effectiveness of using web-based instruction in universities in Saudi Arabia

Abdulhaji Abdulrahman
University of York

Abstract

The study is clearly concerned with focusing on the benefits of using Web-Based Instruction (studying through an asynchronous classroom and asynchronous teaching method) and blended learning (studying through an asynchronous virtual classroom in addition to traditional learning) as compared to traditional learning (attending classroom lectures) in their effects on students' perception and achievements characteristic the courses at some universities in Saudi Arabia. However, the researcher in the end had to find out whether there is a significant difference between three methods of teaching.

In this research, two experimental groups with a control group were involved. The three groups were randomly chosen and consisted of 48 and 55 participants respectively and a control group involving 50 participants.

The study shows that there is a statistically significant difference between the three teaching methods in terms of students' achievements, favouring WB, while no statistical differences exist between blended learning and traditional learning in terms of students' achievements. This study also shows that there is a statistically significant difference between the two experimental groups on the one hand and the control group on the other hand, favouring the former, while no statistically significant difference exist between blended learning and WB in terms of students' perception.

Introduction

Modern technologies have been important to different sectors of the state and different parts such as the economy, social life, education, entertainment, etc. In Saudi Arabia education, technologies play an important part in the acquisition of information and the enhancement of achievements alike have a duty to cope with the current technological advancements in order to respond to the needs of their relevant societies.

Other sectors have been influenced by the core of the government systems and higher education should take the initiative and lead those sectors (Arab Bureau of Education for the Gulf States, 2013). Some studies confirmed that higher education in the Arab countries is below the international standard (Sabit, 1996; Al-Omer et al., 1999; Al-Muayyeh, 2002). Al-Babushi and Al-Aziri (2005) believe that the higher education in Saudi Arabia is yet to reach the required standard of electronic education. Al-Shadyen (2004) confirmed that Saudi universities should follow the example of the advanced countries where higher education has made the maximum use of technology to develop their education systems. Al-Sunbul (2004) believes that modern technology is becoming increasingly important to improve the higher education systems in Saudi Arabia.

Technology can be defined as "any practical art using scientific knowledge" (Sewter, 1958, p. 5) via machines. Technology seeks knowledge to improve the human condition (Turner, 1997). Technology in learning is associated with two definitions: (1) the physical concept of science and (2) the behavioural concept of science (Sewter, 1958).

Appendix 10: Researcher CV

Work experiences /

- Lecture in Qassim University, Education department.
- The President of Saudi Students Society in Manchester as volunteer work.
- Researcher Assent at the Institute for Effective Education, The University of York. The United Kingdom.
- The HeadTeacher of Saudi School in Manchester 2011 as volunteer work.
- The HeadTeacher of Saudi School in Manchester 2012 as volunteer work.
- The HeadTeacher of Saudi School in Manchester 2013 as volunteer work.
- The HeadTeacher of Saudi School in Manchester 2014 as volunteer work.

Education /

- Bachelor in Education, Qassim University, Saudi Arabia
- Master degree MA in Education, Strathclyde University. The United Kingdom.
- Master degree MS in Research methods in Education, University of Manchester. The United Kingdom.
- Diploma in Educational Leadership, The Manchester Trinity College , Manchester, The United Kingdome.
- Training course in Unique Employee Skills, Quality Side Ltd- Manchester, The United Kingdom.
- Training course in Teamwork and Leadership Development, Quality Side Ltd- Manchester, The United Kingdom.
- Training course in Negotiation and Influencing Skills, Quality Side Ltd- Manchester, The United Kingdom.
- Training course in Chang Management, The Nowgen Center Manchester, The United Kingdome.
- Training course in Leadership Skills, The Nowgen Center Manchester, The United Kingdome.
- Training course in Skills and Practice in Education, The Manchester Trinity College, Manchester, The United Kingdome.
- Training course in Teacher's Personal Development, The Manchester Trinity College , Manchester, The United Kingdome.

- Training course in Developing and Organizing Teaching, The Manchester Trinity College , Manchester, The United Kingdom.
- Training course in Educational Themes and Concepts, The Manchester Trinity College , Manchester, The United Kingdom.

Conferences

- Attended The Higher Education Academy Conference 2012, The University of Manchester. The United Kingdom.
- Attended The Institute for Effective Education Conference 2012, The University of York. The United Kingdom.
- Present Post at The Institute for Effective Education Conference 2013, The University of York. The United Kingdom.
- Attended the Cooperative Learning Conference 2013, Manchester Metropolitan University. The United Kingdom.
- Present Post at The Learning and Teaching Conference 2013, The University of York. The United Kingdom.
- Present Poster at The Higher Education Academy Conference 2014, The University of Manchester. The United Kingdom.
- Present Post at The Institute for Effective Education Conference 2014, The University of York. The United Kingdom.
- Attended the Future of Higher Education 2014, Salford University. The United Kingdom.
- Present Post at York Talk Conference 2015, The University of York. The United Kingdom.

List of Abbreviations

CITC	Communication and Information Technology Commission
CMC	Computer-Mediated Communication
DSL	Digital Subscriber Line
EDP	Eighth Development Plan
ELT	Experiential Learning Theory
ICT	Information and Communication Technology
IT	Information Technology
KM	Knowledge Management
KSA	Kingdom of Saudi Arabia
MCIT	Ministry of Communications and Information Technology
ME	Ministry of Education
MEP	Ministry of Economy and Planning
NCITP	National Communications and Information Technology Plan
SHE	Saudi Higher Education

References

- Aba-Nama, A. (1995). *Curriculum in social and cultural changes in Saudi Arabia* (1st ed.). Saudi Arabia, Riyadh: Technology Press.
- Abdal-Haqq, I. (1999). Unraveling the professional development school equity agenda. *Peabody Journal of Education*, 74(3 & 4), 145– 160.
- Abd-Al-Jawad, N. (2005). Future forecasting for developing the educational system in Saudi Arabia. In H. Al-Gamedi & N. Abd-Al-Jawad (Eds), *Development of the education system in the Kingdom of Saudi Arabia* (pp. 413– 438). Riyadh, Saudi Arabia: Al-Roshd Library.
- Abd-Al-Jawad, N. (2008). Higher education. In A. Al-Sonbol, M. Metwalli, M. Alkhateeb & N. Abd-Al-Jawad (Eds), *Education system in the Kingdom of Saudi Arabia* (pp. 279– 340). Riyadh, Saudi Arabia: Dar Al-Khrajji for Publishing and Distribution.
- Abuhmaid, A. (2010). Centralization and reform: Information technologies in large-scale education reform. Paper presented at the Third Annual Forum on e-Learning Excellence, Bringing Global Quality to a Local Context. Retrieved from
- Abu-Jaber, M. & Qutami, N. (1998). Students' self-efficacy of computer through the use of cognitive thinking style. *International Journal of Instructional Media*, 25(3), 263.
- Al-Aqeel, A. (2005). *Education policy in the Kingdom of Saudi Arabia*. Riyadh, Saudi Arabia: Al-Roshd Library.
- Al-Asmari, A. (2008). *Integration of target culture into the EFL pre-service teacher training curriculum: A case study of Saudi teachers colleges*. Unpublished PhD thesis, The University of Melbourne, Melbourne, Australia.
- Al-Bakr, F. (2004). *Globalization and education: Challenges facing Saudi Arabian system*. Paper presented at the Globalization and Educational Priorities Conference. Saudi Arabia, Riyadh, King Saud University.
- Al-Gamedi, H. (2005a). In H. Al-Gamedi & N. Abd-Al-Jawad (Eds), *Development of the education system in the Kingdom of Saudi Arabia* (pp. 191– 218). Riyadh, Saudi Arabia: Al-Roshd Library.
- Al-Gamedi, H. (2005b). Higher education. In H. Al-Gamedi & N. Abd-Al-Jawad (Eds), *Development of the education system in the Kingdom of Saudi Arabia* (pp. 221– 249). Riyadh, Saudi Arabia: Al-Roshd Library.
- Al-Garfi, A. (2010). *Teachers' and pupils' perceptions of and responses to cooperative learning methods within the Islamic culture courses in one secondary school in Saudi Arabia*. Unpublished PhD thesis, University of Southampton, Southampton, UK.
<http://eprints.soton.ac.uk/166259/1.hasCoversheetVersion/Thesis.pdf> [Accessed 10 May 2013]
- Al-Haizan, A. A. (2008). *Implementation e-learning in supporting pedagogical practices in Saudi universities*. Unpublished Master thesis, King Saud University, Riyadh, Saudi Arabia.

- Al-Hamed, M. (2007). Higher education. In M. Al-Hamed, M. Ziadah, B. Al-Otaibi & N. Metwalli (Eds), *Education in the Kingdom of Saudi Arabia, present view and future forecast* (pp. 117– 147). Riyadh, Saudi Arabia: Al-Rasheed Library.
- Al-Homaid, A. (2004). Globalization and mechanism of curriculum development. Paper presented at the *Globalization and Educational Priorities*. Saudi Arabia, Riyadh, King Saud University.
- Al-Issa, A. (2009). *Education reform in Saudi Arabia between the absence of political vision and apprehension of religious culture and the inability of educational administration*. Lebanon, Beirut: Dar Al-Saqi.
- Al-Issa, A. (2010). *Higher education in Saudi Arabia: The journey to find identity*. Lebanon, Beirut: Dar Al-Saqi.
- Al-Jarf, R. (2004). Global education for a new age. Paper presented at the *Globalization and Educational Priorities*, Saudi Arabia, Riyadh, King Saud University.
- Al-Jarf, R. (2006). Cross-cultural communication: Saudi, Ukrainian, and Russian students online. *Asian EFL Journal*, 8(2), 7– 32.
- Al-Mane, A. (2004). Global education. Paper presented at the *Globalization and Educational Priorities*, Saudi Arabia, Riyadh, King Saud University.
- Al-Miman, B. (2003). Islamic educational bases between theory and practice in Saudi educational policies. Paper presented at the *Educational Future in Saudi Arabia*, Riyadh, King Saud University.
- Al-Otaibi, B. (2007). Problems of education in the Kingdom of Saudi Arabia. In M. AlHamed, A. Ziadah, B. Al-Otaibi & N. Metwalli (Eds), *Education in the Kingdom of Saudi Arabia, present view and future forecast* (pp. 269– 302). Riyadh, Saudi Arabia: Al-Rasheed Library.
- Al-Saif, M. (2007). *Crime in Saudi Arabian culture between social and Islamic principles* (1st ed.). Riyadh: Al-Obaikan Library.
- Al-Sonbol, A. (2008). Management of educational system. In A. Al-Sonbol, M. Metwalli, M. Alkhateeb & N. Abd-Al-Jawad (Eds), *Education system in the Kingdom of Saudi Arabia* (pp. 93– 124). Riyadh, Saudi Arabia: Dar Al-Khraiiji for Publishing and Distribution.
- Al-Towjry, A. M. (2005). *Reforming higher education in Saudi Arabia: The use of telecommunication technology*. Unpublished Masters thesis in Science in Telecommunications Engineering Technology, Rochester Institute of Technology, New York.
<https://ritdml.rit.edu/bitstream/handle/1850/926/AAltowjryThesis2005.pdf?sequence=8> [Accessed 24 May 2013]
- Altun, T. (2007). Information and communications technology (ICT) in initial teacher education: What can Turkey learn from range of international perspectives? *Journal of Turkish Science Education*, 4(2), 45– 60.
- Anderson, J. & Glenn, A. (2003). *Building capacity of teachers/facilitators in technology pedagogy integration for improved teaching and learning: Final report*. Bangkok, Thailand: UNESCO, Asia and Pacific Regional Bureau for Education.
http://www.unescobkk.org/fileadmin/user_upload/ict/e-books/ICTBuidling_Capacity/BuildingCapacity.pdf [Accessed 20 July 2013]

- Anderson, J. & Weert, T. (2002). *Information and communication technology in education: A curriculum for schools and programme of teacher development*. France: Division of Higher Education.
- Angeli, C. & Valanides, N. (2004). The effect of electronic scaffolding for technology integration on perceived task effort and confidence of primary student teachers. *Journal of Research on Technology in Education*, 37(1), 29– 43.
- Åkerlind, G.S. & Trevitt, A.C. (1999). "Enhancing self-directed learning through educational technology: when students resist the change". *Innovations in Education and Teaching International* 36 (2), 96-105.
- Al-Hawamdeh, S. (2002). "Knowledge management: re-thinking information management and facing the challenge of managing tacit knowledge". *Information Research*, 8 (1), 143-161.
- Al-Hawamdeh, S. (2003). *Knowledge Management: Cultivating Knowledge Professionals*. Oxford: Chandos Publishing.
- Ali-Hasan, N.F. & Adamic, L.A. (2007). "Expressing Social Relationships on the Blog through Links and Comments". In : *Proceedings of the International Conference on Weblogs and Social Media*. 26-28 March 2007, Boulder, Colorado, USA
- Allan, G. (2003). "A critique of using grounded theory as a research method". *Electronic Journal of Business Research Methods* , 2 (1).
- Ally, M. (2004). "Foundations of educational theory for online learning". In : Anderson, T. & Elloumi, F. (eds.), *Theory and Practice of Online Learning*, pp. 3-31. Athabasca, Alberta: Athabasca University.
- Andersen, S.M. (2001). "When self-enhancement knows no bounds: are past relationships with significant others at the heart of narcissism?" *Psychological Inquiry*, 12 (4), 197-202.
- Anderson, T. (2004). "Toward a theory of online learning". In : Anderson, T. & Elloumi, F. (eds.), *Theory and Practice of Online Learning*, pp. 33-60. Athabasca, Alberta: Athabasca University.
- Anderson, T. (Ed.) (2008). *Towards a theory of online learning*. (2nd ed.) Edmonton, AB: AU Press, Athabasca University.
- Anfara, V.A., Jr. (2002). "Qualitative analysis on stage: making the research process more public". *Educational Researcher*, 31 (7), 28-38.
- Arshad, F., Kelleher, G. & Ward, P. (1995). *Creating Interactive Learning Environments: Delivering Effective Computer-Based Advice*. Immediate publishing.
- Bagwell, B. J. (2008). *Conceptualizing and teaching new literacies: A multiple-case study of teachers' perspectives of information and communication technology*. Unpublished PhD thesis, Walden University, Minnesota.
- Bahr, D. L., Shaha, S. H., Farnsworth, B. J., Lewis, V. K. & Benson, L. F. (2004). Preparing tomorrow's teachers to use technology: Attitudinal impacts of technology-supported field experience on pre-service teacher candidates. *Journal of Instructional Psychology*, 31(2), 88– 97.
- Balnaves, M. & Caputi, P. (2001). *Introduction to Quantitative Research Methods: an Investigative Approach*. London: Sage.

- Bandura, A. & Wood, R. (1989). Effect of perceived controllability and performance standards on self-regulation of complex decision making. *Journal of Personality & Social Psychology*, 56(3), 407– 415.
- Bandura, A. (1997). *Self-efficacy: The exercise of control*. New York: W.H. Freeman.
- Bandura, A. (1977). *Social Learning Theory*. London: Prentice-Hall.
- Bank Audisal. (2008). Saudi economic report: Saudi Arabia on a new steady growth path. http://www.menafn.com/updates/research_center/Saudi_Arabia/Economic/audi0508.pdf [Accessed 10 May 2013]
- Barak, A. (1999). "Psychological applications on the Internet: a discipline on the threshold of a new millennium". *Applied & Preventive Psychology*, 8, 231-245.
- Bargh, J.A. (2002). "Can you see the real me? Activation and expression of the 'true self' on the Internet". *Journal of Social Issues*, 58 (1), 33-48.
- Barnett, R. (2007). *A Will to Learn: Being A Student in An Age of Uncertainty*. Maidenhead: Open University Press.
- Bartlett, D. & Payne, S. (1997). "Grounded theory - Its basis, rationale and procedures". In : McKenzie, G. et al. (eds.), *Understanding Social Research: Perspectives on Methodology and Practice*, pp. 173-195. London: The Falmer Press.
- Barnard, L., Paton, V. O., & Rose, K. (2007). Perceptions of online course communications and collaboration. *Online Journal of Distance Learning Administration*, 10(4). <http://www.westga.edu/~distance/ojdla/winter104/barnard104.html> [Accessed 15 March 2013]
- Barnett, M. (2006). Using a web-based professional development system to support preservice teachers in examining authentic classroom practice. *Journal of Technology and Teacher Education*, 14(4), 701– 729.
- Basit, T.N. (2003). "Manual or electronic? The role of coding in qualitative data analysis". *Educational Research*, 45 (2), 143-154.
- Baumard, P. (1999). *Tacit Knowledge in Organizations*. London: Sage.
- Baumeister, R.F. (2000). "Self-esteem, narcissism, and aggression: does violence result from low self-esteem or from threatened egotism?" *Current Directions in Psychological Science*, 9 (1), 26-29.
- Baylor, A. L. & Ritchie, D. (2002). What factors facilitate teacher skill, teacher morale, and perceived student learning in technology-using classrooms? *Computers & Education*, 39(4), 395– 414. doi: 10.1016/s0360-1315(02)00075-1
- Bennett, S. (2008). "The 'digital natives' debate: A critical review of the evidence". *British Journal of Educational Technology* 39.(5), 775-786, In Press. <http://www3.interscience.wiley.com/cgi-bin/fulltext/120173667/PDFSTART> [Accessed 15 June 2013]
- Bennett,S & Lockyer,L (2006) "Becoming an Online Teacher: Adapting to a Changed Environment for Teaching and Learning in Higher Education" Routledge group.
- Berg, B.L. (2001). *Qualitative Research Methods for the Social Sciences*. 4th ed., London: Allyn and Bacon.

- Bergman, M. M. (2010). On concepts and paradigms in mixed methods research. *Journal of Mixed Methods Research*, 4(3), 171– 175.
- Bingimlas, K. A. (2010). Evaluating the quality of science teachers' practices in ICT supported learning and teaching environments in Saudi primary schools. Unpublished PhD thesis, RMIT University, Melbourne, Australia.
- Bin-Taleb, A. A. (2005). The laptop initiative: Faculty and preservice teachers' perspectives on teaching practices and the learning environment. Unpublished PhD thesis, The University of Texas, Austin.
- Bellinger, G. (1997). Data, Information, Knowledge, and Wisdom . <http://www.systems-thinking.org/dikw/dikw.htm> [Accessed 13 April 2013].
- Blackey, H. (2006). Personal Learning Environments: Blogs, Wikis, Pods and Vods: The Future for Blending Learning? http://blendedlearning.glam.ac.uk/file_download/42 [Accessed 15 March 2012].
- Blaxter, L. (2001). *How to Research*. 2nd ed., Buckingham: Open University Press.
- Bliss, J. & Säljö, R. (1999). "The human-technological dialectic". In: Bliss, J. (eds.), *Learning Sites: Social and Technological Resources For Learning*, pp. 1-11. Oxford: Pergamon.
- Boeije, H. (2002). "A purposeful approach to the constant comparative method in the analysis of qualitative interviews". *Quality and Quantity*, 36 (4), 391-409.
- Bong, M. & Skaalvik, E. M. (2003). Academic self-concept and self-efficacy: How different are they really? *Educational Psychology Review*, 15(1), 1– 40.
- Bongo, P. (2005). The impact of ICT on economic growth. *Development and Comp Systems*. <http://ideas.repec.org/p/wpa/wuwpdc/0501008.html> [Accessed 10 May 2013]
- Bosson, J.K. (2008). "Untangling the links between narcissism and self-esteem: A theoretical and empirical review". *Social and Personality Psychology Compass*, 2 (3), 1415–1439.
- Bolles, R.C. (1979). *Learning Theory*. 2nd ed., New York: Holt, Rinehart and Winston.
- Brenner, M. (1985). "Survey interviewing". In: Brenner, M. et al. (eds.), *The Research Interview: Uses and Approaches*, pp. 9-36. London: Academic Press.
- Brew, A. (1993). "Unlearning through experience". In : Boud, D. et al. (eds.), *Using Experience for Learning*, pp. 87-98. Buckingham: The society for research into higher education & Open University press.
- Brosnan, M. J. & Thorpe, S. J. (2006). An evaluation of two clinically-derived treatments for technophobia. *Computers in Human Behavior*, 22(6), 1080– 1095. doi: 10.1016/j.chb.2006.02.001
- Brush, T., Glazewski, K., Rutowski, K., Berg, K., Stromfors, C., Hernandez Van-Nest, M. (2003). Integrating technology in a field-based teacher training program: The PT3@ASU project. *Educational Technology, Research and Development*, 51(1), 57– 72.
- Bryman, A. (2004). *Social Research Methods*. 2nd ed., Oxford: Oxford University Press.
- Bryman, A. & Burgess, R.G. (1994a). "Developments in qualitative data analysis: an introduction". In: Bryman, A. & Burgess, R.G. (eds.), *Analyzing Qualitative Data*, pp. 117. London: Routledge.

- Bryman, A. & Burgess, R.G. (1994b). "Reflections on qualitative data analysis". In : Bryman, A. & Burgess, R.G. (eds.), *Analyzing Qualitative Data*, pp. 216-226. London: Routledge.
- Burkhart, G. & Goodman, S. (1998). The Internet gains acceptance in the Persian Gulf. *Communications of the ACM*, 41(3), 19– 24.
- Burkhart, G. & Goodman, S. (1998). The Internet gains acceptance in the Persian Gulf. *Communications of the ACM*, 41(3), 19– 24.
- Burton-Jones, A. (1999). *Knowledge Capitalism: Business, Work and Learning in The New Economy*. Oxford: Oxford University Press.
- Çakirogoelü, E. & Çakirogoelü, J. (2003). Reflections on teacher education in Turkey. *European Journal of Teacher Education*, 26(2), 253– 264.
- Capper, P., Fitzgerald, L. M., Weldon, W. & Wilson, K. (2007). "Technology' and the coming transformation of schools, teachers and teacher education. In J. F. Moir & A. Scott (Eds), *Shaping the future: Critical essays on teacher education* (pp. 173– 196). Rotterdam, the Netherlands: Sense Publishers.
- Campbell, W.K. (2001). "Is narcissism really so bad?" *Psychological Inquiry*, 12 (4), 214-216.
- Campbell, W.K. & Foster, J.D. (2007). "The narcissistic self: background, an extended agency model, and ongoing controversies". In: Sedikides, C. & Spencer, S.J. (eds.), *Frontiers in Social Psychology: The Self*. Philadelphia, PA: Psychology Press.
- Casteinuovo, G. (2003). "From psychotherapy to e-therapy: the integration of traditional techniques and new communication tools in clinical settings". *Cyberpsychology & Behavior*, 6 (4), 375-382.
- Central Department of Statistics & Information. (2012, 10 October). Population statistics, <http://www.cdsi.gov.sa/> [Accessed 23 May 2012]
- Chai, C. S., Hong, H.-Y. & Teo, T. (2009). Singaporean and Taiwanese pre-service teachers' beliefs and their attitude towards ICT use: A comparative study. *The Asia-Pacific Education Researcher*, 18(1), 117– 128.
- Chao, W. (2003). Self-efficacy toward educational technology: The application in Taiwan teacher education. *Journal of Educational Media & Library Sciences*, 40(4), 409– 415.
- Chitiyo, R. (2010). The conceptualization of instructional technology by teacher educators in Zimbabwe. *Education and Information Technologies*, 15(2), 109– 124.
- Child, D. (2004). *Psychology and The Teacher*. 7th ed., London: Continuum.
- Claxton, G. (1984). *Live and Learn: An Introduction to The Psychology of Growth and Change in Everyday Life*. Milton Keynes: Open University Press.
- Communication and Information Technology Commission. (2010). Saudi Arabian home computing initiative (SaHCI). Saudi Arabia, Riyadh: Communication and Information Technology Commission. <http://www.citc.gov.sa/English/Pages/default.aspx> [Accessed 10 June 2012]
- Communication and Information Technology Commission. (2011). Internet in Saudi Arabia. Retrieved 10 July 2013, http://www.internet.gov.sa/learn-the-web/guides/internet-in-saudi-arabia/view?set_language=en [Accessed 10 May 2012]

- Compeau, D. R. & Higgins, C. A. (1995). Computer self-efficacy: Development of a measure and initial test. *MIS Quarterly*, 19(2), 189– 211.
- Conner, M.L. (2004). Informal learning . Ageless Learner. <http://agelesslearner.com/intros/informal.html> [Accessed 15 March 2013].
- Corbin, J.M. & Strauss, A. (1990). "Grounded theory research: procedures, canons, and evaluative criteria". *Qualitative Sociology*, 13 (1), 3-21.
- Cotton, J. (1995). *The Theory of Learners: An Introduction*. London: Kogan Page.
- Coyne, I.T. (1997). "Sampling in qualitative research. Purposeful and theoretical sampling; merging or clear boundaries?" *Journal of Advanced Nursing*, 26 (3), 623-630.
- Craig, E.M. (2007). "Changing paradigms: managed learning environments and Web 2.0". *Campus-Wide Information Systems*, 24 (3), 152-161.
- Creswell, J.W. (1998). *Qualitative Inquiry and Research Design: Choosing Among Five Traditions*. London: Sage.
- Creswell, J. W. & Miller, D. L. (2000). Determining validity in qualitative inquiry. *Theory into Practice*, 39(3), 124– 130.
- Culp, K. M., Honey, M. & Mandinach, E. (2005). A retrospective on twenty years of education technology policy. *Educational Computing Research*, 32(3), 279– 307.
- Cross, J. (2004). *A History of eLearning The Future of eLearning*. Jay Cross, Berkeley, California. <http://www.internetttime.com/Learning/articles/OTH.doc> [Accessed 15 March 2013].
- Cryer, P. (2000). *The Research Student's Guide to Success*. 2nd ed., Buckingham [England]: Open University Press.
- Cunningham, D.J. (1992). "Beyond educational psychology: steps toward an educational semiotic". *Educational Psychology Review*, 4 (2), 165-194.
- Curran, K. (2007). "Taking the information to the public through Library 2.0". *Library Hi Tech*, 25 (2), 288 - 297.
- Dawson, K. (2006). Teacher inquiry: A vehicle to merge prospective teachers' experience and reflection during curriculum-based, technology-enhanced field experiences. *Journal of Research on Technology in Education*, 38(3), 265– 292.
- Dennen, V.P. (2006). Blogademe: How a group of academics formed and normed an online community of practice. <http://www.formatex.org/micte2006/Downloadablefiles/oral/Blogademe.pdf> [Accessed 15 August 2012].
- Dede, C. (2011). Reconceptualizing technology integration to meet the necessity of transformation. *Journal of Curriculum and Instruction*, 5(1), 4– 16.
- Denscombe, M. (2003). *The Good Research Guide for Small-scale Social Research Projects*. Maidenhead: Open University Press.

- Denzin, N.K. & Lincoln, Y.S. (2005). "Introduction: the discipline and practice of qualitative research". In : Denzin, N.K. & Lincoln, Y.S. (eds.), *The SAGE Handbook of Qualitative Research*, pp. 1-32. Thousand Oaks (Calif.): Sage.
- Denscombe, M. (2003). *The Good Research Guide for Small-scale Social Research Projects*. Maidenhead: Open University Press.
- Developing Arabic Teachers' Preparation Approaches. (1999, May 26 – 27). The final report. Paper presented at the Developing Arabic Teachers' Preparation Approaches Conference, The Arabic World University, Cairo.
- Devedži , V.B. (2003). "Key issues in next-generation web-based education". *IEEE Transactions on Systems, Man, and Cybernetics- Part C: Applications and Reviews*, 33 (3), 339-349.
- Disterer, G. (2003). "Fostering Knowledge Sharing: Why and How?" In: dos Reis, A.P. & Isaias, P. (eds.), *Proceedings of the IADIS International Conference e-Society 2003.3-6 June 2003, Lisbon, Portugal*. pp. 219-226. IADIS Press.
- Dockstader, J. (1999). Teachers of the 21st century know the what, why, and how of technology integration. *T.H.E Journal (Technological Horizons in Education)*, 26(6), 73– 74.
- Doring, N. (2002). "Personal home pages on the web: a review of research". *Journal of Computer-Mediated Communication* , 7 (3). <http://jcmc.indiana.edu/vol7/issue3/doering.html> [Accessed 27 August 2012].
- Douglas, D. (2003). "Inductive theory generation: a grounded approach to business inquiry". *Electronic Journal of Business Research Methods [Online]*, 2 (1), 47-54.
- Downes, S. (2004). "E-learning 2.0". *ACM: E-learn Magazine*. <http://www.elearnmag.org/subpage.cfm?section=articles&article=29-1> [Accessed 25 May 2013].
- Driscoll. (2000). *Psychology of learning for instruction*. Boston, MA: Allyn & Bacon.
- Duhaney, D. C. (2001). Teacher education: Preparing teachers to integrate technology. *International Journal of Instructional Media*, 28(1), 23– 30.
- Du, H.S. & Wagner, C. (2005). "Learning with Weblogs: An Empirical Investigation". In : *Proceedings of the 38th Hawaii International Conference on Systems Sciences*. 3-6 January 2005, Big Island, Hawaii, USA. IEEE Computer Society.
- Dvorak, J.C. (2002). "The Blog Phenomenon ". *PC Magazine*, 5 February. <http://www.pcmag.com/article2/0,1895,81500,00.asp> [Accessed 15 August 2005].
- Eaves, Y.D. (2001). "A synthesis technique for grounded theory data analysis". *Methodological Issues in Nursing Research*, 35 (5), 654-563.
- Efimova, L. (2004). *Discovering The Iceberg of Knowledge Work: A Weblog Case*. http://www2.warwick.ac.uk/fac/soc/wbs/conf/olkc/archive/oklc5/papers/i-2_efimova.pdf [Accessed 20 May 2013].
- Einstein, A. (1936). Physics and reality. *Journal of the Franklin Institute*, 221(3), 349– 382. doi: 10.1016/s0016-0032(36)91047-5
- Elliot, A.J. & Thrash, T.M. (2001). "Narcissism and motivation". *Psychological Inquiry*, 12 (4), 216-219.

- Enochsson, A.-B. & Rizza, C. (2009). ICT in initial teacher training: Research review. OECD Education Working Papers, No. 38. doi: 10.1787/220502872611
- Engström, T.E.J. (2003). "Sharing knowledge through mentoring". *Performance Improvement*, 42 (8), 36-42.
- Entwistle, N.J. (1988). *Styles of Learning and Teaching: An Integrated Outline of Educational Psychology for Students, Teachers and Lecturers*. London: Fulton.
- Eraut, M. (2000). "Non-formal learning, implicit learning and tacit knowledge in professional work". In : Coffield, F. (ed.), *The Necessity of Informal Learning*, pp. 12-31. Bristol: The Policy Press.
- Eysenck, M.W. & Piper, D.W. (1987). "A word is worth a thousand pictures". In: Richardson, J.T.E. et al. (eds.), *Student Learning: Research in Education and Cognitive Psychology*, pp. 208-220. Milton Keynes: Society for Research into Higher Education & Open University Press.
- Fabry, D. L. & Higgs, J. R. (1997). Barriers to the effective use of technology in education: Current status. *Journal of Educational Computing Research*, 17(4), 385– 395.
- Felix, J.P. (2007). *Edublogging: Instruction for the Digital Age Learner*. EdD, University of California San Diego; CalState University San Marcos; San Diego State University.
- Fernández, W.D. (2004). *The Grounded Theory Method and Case Study Data in IS Research: Issues and Design*. Information Systems Foundations. Canberra: Australian National University, pp. 43-59. http://epress.anu.edu.au/info_systems/part-ch05.pdf [Accessed 25 July 2013].
- Fiedler, S. & Sharma, P. (2005). "Navigating personal information repositories with weblog authoring and concept mapping". *Lecture Notes in Computer Science*, 3426, 302-325.
- Filstead, W.J. (1979). "Qualitative methods: a needed perspective in evaluation research". In : Cook, T.D. & Reichardt, C.S. (eds.), *Qualitative and Quantitative Methods in Evaluation Research*, pp. 33-48. London
- Fink, A. (1998). *Conducting Research Literature Reviews: From Paper to The Internet*. London.
- Flick, U. (2006). *An Introduction to Qualitative Research*. 3rd ed., London.
- Fong, M. W. L. (2009). Digital divide: The case of developing countries. *Issues in Informing Science and Information Technology*, 6, 471– 478.
- Frappaolo, C. (2002). *Knowledge Management*. Oxford: Capstone Publishing.
- Fyrenius, A. (2007). "Student approaches to achieving understanding - approaches to learning revisited". *Studies in Higher Education*, 32 (2), 149-165.
- Gagné, R.M. (1985). *The Conditions of Learning and Theory of Instruction*. 4th ed., London: Holt, Rinehart and Winston.
- Gaskell, A, Mills, R. (2009) "Using Mobile Technology for Learner Support in Open Schooling", Commonwealth of Learning.
- Gale, K. (2007). Teacher education in the university: Working with policy, practice and Deleuze. *Teaching in Higher Education*, 12(4), 471– 483.

- Galpin, V., Sanders, I., Turner, H. & Venter, B. (2003). Computer self-efficacy, gender, and educational background in South Africa. *IEEE Technology and Society*, 22(3), 43– 48.
- Gao, P., Wong, A., Choy, D. & Wu, J. (2010). Developing leadership potential for technology integration: Perspectives of three beginning teachers. *Australasian Journal of Educational Technology*, 26(5), 643– 658.
- Garrison, D.R. & Anderson, T. (2003). *E-learning in The 21st Century: A Framework for Research and Practice*. London: Taylor & Francis.
- Georgina, D. A. & Hosford, C. C. (2009). Higher education faculty perceptions on technology integration and training. *Teaching and Teacher Education*, 25(5), 690– 696.
- Gerholm, T. (1990). "On Tacit Knowledge in Academia". *European Journal of Education*, 25 (3), 263-271.
- Gibbs, G.R. & Taylor, C. (2005). *How and What to Code*. Online QDA, School of Human & Health Sciences, University of Huddersfield.
- GITEX Saudi Arabia. (2010). Join key ICT professionals at GITEX KSA 2010, and access a host of lucrative investment opportunities in the booming Saudi market. http://www.recexpo.com/exhibition_overview.php?id=157 [Accessed 23 April 2013].
- Glaser, B.G. & Strauss, A.L. (1967). *The Discovery of Grounded Theory: Strategies for Qualitative Research*. New York: Sociology Press.
- Glaser, B.G. (1992). *Basics of Grounded Theory Analysis: emergence vs forcing*. California: Sociology Press.
- Glaser, B.G. (1998). *Doing Grounded Theory: Issues and Discussions*. California: Sociology Press.
- Godin, S. (2007). Web4 . http://sethgodin.typepad.com/seths_blog/2007/01/web4.html [Accessed 15 April 2012].
- Goktas, Y., Yildirim, S. & Yildirim, Z. (2009). Main barriers and possible enablers of ICTs integration into pre-service teacher education programs. *Educational Technology & Society*, 12(1), 193– 204.
- Goktas, Y., Yildirim, Z. & Yildirim, S. (2008). A review of ICT related courses in preservice teacher education programs. *Asia Pacific Education Review*, 9(2), 168– 179. doi: 10.1007/bf03026497
- Goldman, E., Barron, L. & Witherspoon, M. L. (1991). Hypermedia cases in teacher education: A context for understanding research on the teaching and learning of mathematics. *Action in Teacher Education*, 13(1), 28– 36.
- Golafshani, N. (2003). "Understanding reliability and validity in qualitative research". *The Qualitative Report*, 8 (4), 597-607.
- Gong, M., Xu, Y. & Yu, Y. (2004). An enhanced technology acceptance model for webbased learning. *Journal of Information Systems Education*, 15(4), 365– 374.
- Goren, E.R. (1995). "Review essay: narcissism and the interpersonal self". *Psychoanalytic Psychology*, 12 (2), 329-342.

- Gorman, G.E. & Clayton, P. (2005). *Qualitative Research for The Information Professional: A Practical Handbook*. London: facet.
- Gosselin, K. P. (2009). Development and psychometric exploration of the online teaching self-efficacy inventory. Unpublished PhD thesis, Texas Tech University, Texas.
http://etd.lib.ttu.edu/theses/available/etd-02252009-203448/unrestricted/Gosselin_Kevin_Diss.pdf [Accessed 25 May 2012].
- Goulding, C. (2002). *Grounded Theory: A Practical Guide for Management, Business and Market Researchers*. London.
- Gourlay, S. (2002). "Tacit Knowledge, Tacit Knowing or Behaving?" In : Proceedings of the Third European Conference on Organizational Knowledge, Learning, and Capabilities. 5-6 April 2002, Athens, Greece. Athens
<http://myweb.tiscali.co.uk/sngourlay/PDFs/Gourlay%202002%20tacit%20knowledge.pdf> [Accessed 11 December 2011].
- Graham, B.L. (2002). "Why I weblog: a rumination on where the hell I'm going with this website". In: Rodzvilla, J., From the Editors of Perseus Publishing (ed.), *We've Got Blog: How Weblogs are Changing Our Culture*, pp. 34-40. Cambridge, MA: Perseus Publishing.
- Graves, C. (1973). "Tacit Knowledge". *The Journal of Philosophy*, 70 (11), 318330.
- Gregor, S. D., Fernández, W. D., Holtham, D., Martin, M. A., Stern, S. E. & Vitale, M. R. (2005). *Achieving value from ICT: Key management strategies*. Canberra: Department of Communications, Information Technology and the Arts, Commonwealth of Australia 2005.
<http://www.dcita.gov.au> [Accessed 20 March 2013].
- Guadagno, R.E. (2008). "Who blogs? Personality predictors of blogging". *Computers in Human Behavior*, 24 (5), 1993-2004.
- Hakverdi, M., Gücüüm, B. & Korkmaz, H. (2007). Factors influencing pre-service science teachers' perception of computer self-efficacy. *Asia-Pacific Forum on Science Learning and Teaching*, 8(1),
http://www.ied.edu.hk/apfslt/v8_issue1/hakverdi/index.htm#abstract [Accessed 15 April 2012].
- Harasim, L. (1999). A framework for online learning: The virtual-u. *Computer*, 44-49
- Hall, G. E., Loucks, S. F., Rutherford, W. L. & Newlove, B. W. (1975). Levels of use of the innovation: A framework for analyzing innovation adoption. *Journal of Teacher Education*, 26(1), 52– 56.
- Haldin-Herrgard, T. (2000). "Difficulties in Diffusion of Tacit Knowledge in Organizations". *Journal of Intellectual Capital*, 1 (4), 357-365.
- Hamdan, I. (2004). Globalizing language or globalism language. Paper presented at the Globalization and Educational Priorities, Saudi Arabia, Riyadh, King Saud University.
- Harwood, I. (2002). *Developing scenarios for Post-Merger and Acquisition Integration: A Grounded Theory of Risk Bartering*. PhD, University of Southampton.
- Hartley, R. & Al-Muhaideb, S. (2007). User oriented techniques to support interaction and decision making with large educational databases. *Computer & Education*, 48, 268– 284. doi: 10.1016/j.compedu.2005.01.005

- Haughey, M. (2002). "Building an online community: just add water". In : Rodzvilla, J., From the Editors of Perseus Publishing (ed.), *We've Got Blog: How Weblogs are Changing Our Culture*, pp. 201-208. Cambridge, MA: Perseus Publishing.
- Heath, H. & Cowley, S. (2004). "Developing a grounded theory approach: a comparison of Glaser and Strauss". *International Journal of Nursing Studies*, 41 (2), 141-150.
- Hedesstrom, T. & Whitley, E.A. (2000). *What is Meant by Tacit Knowledge? : Towards A Better Understanding of The Shape of Actions*. London: Department of Information Systems, London School of Economics and Political Science. <http://www.lse.ac.uk/management/documents/isig-wp/ISIG-WP-87.PDF> [Accessed 12 August 2012].
- Heinström, J. (2003). "Five personality dimensions and their influence on information behaviour". *Information Research*, V 9 (1). <http://www.informationr.net/ir/9-1/paper165.html> [Accessed 10 July 2013].
- Hildreth, P.M. & Kimble, C. (2002). "The duality of knowledge". *Information Research* , 8 (1). <http://informationr.net/ir/8-1/paper142.html> [Accessed 22 May 2013].
- Hoepfl, M.C. (1997). "Choosing qualitative research: a primer for technology education researchers". *Journal of Technology Education* , 9 (1). <http://scholar.lib.vt.edu/ejournals/JTE/v9n1/hoepfl.html> [Accessed 12 February 2012].
- Holstein, J.A. & Gubrium, J.F. (2004). "The active interview". In: Silverman, D. (ed.), *Qualitative Research: Theory, Method and Practice*, pp. 140-161. London.
- Hsu, C.-L. & Lin, J.C.-C. (2008). "Acceptance of blog usage: the roles of technology acceptance, social influence and knowledge sharing motivation". *Information & Management*. V 45 (1), 65-74.
- Housego, S. and Freeman, M. (2000). Case studies: Integrating the use of web based learning systems into student learning. *Australian Journal of Educational Technology*, 16(3), 258-282.
- Huffaker, D. (2005). "The educated blogger: using weblogs to promote literacy in the classroom". *First Monday*, V 9 (6). <http://firstmonday.org/ojs/index.php/fm/article/view/1156/1076> [Accessed 11 October 2012].
- Ingleton, C. (2000). "Emotion in Learning: A Neglected Dynamic". In: *The University ADELAIDE*. <https://digital.library.adelaide.edu.au/dspace/handle/2440/60221> [Accessed 15 April 2012].
- International Society for Technology in Education. (2007). National educational technology standards projects. <http://www.iste.org/AM/Template.cfm?Section=NETS>. [Accessed 12 March 2013].
- Internet World Stats. (2010). Saudi Arabia: Internet usage and marketing report. <http://www.internetworldstats.com/me/sa.htm>. [Accessed 27 May 2012].
- Jackson, N. (2004). "Exploring The Concept of Metalearning". In: *Innovations in Education and Teaching International*, V41,(4), 391-403.
- Jarvis, P. (2005). "Towards a philosophy of human learning: an existentialist perspective". In: Jarvis, P. & Parker, S. (eds.), *Human Learning: An Holistic Approach*, pp. 1-15. London.
- Jarvis, P. (2003). *The Theory & Practice of Learning*. London: Kogan Page.

- Johnson, R.B. & Christensen, L.B. (2004). *Educational Research: Quantitative, Qualitative and Mixed Approaches*. 2nd ed., Boston: Pearson Education Inc.
- Johnson, R.B. & Onwuegbuzie, A.J. (2004). "Mixed methods research: a research paradigm whose time has come". *Educational Researcher*, V.33 (7), 14-26.
- Jonassen, D.H. (1998) "Computers as mindtools for engaging learners in critical thinking". *TechTrends*, V. 43 (2), 24-32.
- Jonassen, D.H. & Grabowski, B.L. (1993). *Handbook of Individual Differences, Learning, and Instruction*. Hove; Hillsdale, N.J.: Lawrence Erlbaum Associates.
- Johnston, M. & Cooley, N. (2001). *Supporting new models of teaching and learning through technology*. Arlington, Va.: Educational Research Service.
- Joseph, P. M. & Lunt, B. M. (2006). IT in the Middle East: An overview. Paper presented at the Proceedings of the 7th Conference on Information Technology Education, Minneapolis, Minnesota, USA. <http://dl.acm.org/citation.cfm?id=1168821>. [Accessed 15 March 2013].
- Jones, A. & Issroff, K. (2005). "Learning technologies: affective and social issues in computer supported collaborative learning". *Computers & Education*. V.44, 395-408.
- Judson, E. (2006). How teachers integrate technology and their beliefs about learning: Is there a connection? *Journal of Technology and Teacher Education*, 14(3), 581– 597.
- Jungert, T. & Rosander, M. (2010). Self-efficacy and strategies to influence the study environment. *Teaching in Higher Education*, 15(6), 647– 659.
- Kaganoff, T. (1998). Collaboration, technology, and outsourcing initiatives in higher education: A literature review (p. 39). A report prepared by RAND for The Foundation for Independent Higher Education, RAND, Santa Monica, CA.
- Katyal, K. (2010). Educating teachers in Hong Kong for leadership in the age of the internet: a re-conceptualisation. *Asia-Pacific Journal of Teacher Education*, 38(4), 273– 284. doi: 10.1080/1359866x.2010.515938.
- Kajder, S. & Bull, G. (2003). "Scaffolding for struggling students. Reading and writing with blogs". *Learning & Leading with Technology*, 31 (2), 32-35.
- Kay, R. H. (2006). Evaluating strategies used to incorporate technology into preservice education: A review of the literature. *Journal of Research on Technology in Education*, 38(4), 383– 408.
- Kayes, D.C. (2002). "Experiential learning and its critics: preserving the role of experience in management learning and education". *Academy of Management Learning and Education*, 13 (2), 137-149.
- Keiper, T., Harwood, A. & Larson, B. (2000). Pre service teachers' perception of infusing computer technology into social studies instruction. *Theory and Research in Social Education*, 28(4), 566– 579.
- Kelly, L. (2000). "Understanding Conceptions of Learning". In: Proceedings of the CERG Conference 2000. 20-22 January 2000, Sydney, Australia . CERG. <http://trove.nla.gov.au/work/153117880?q&versionId=166872237> [Accessed 17 May 2012].
- King, S.A. (1998). "Using the Internet to assist family therapy". *British Journal of Guidance & Counselling*, 26 (1), 43-52.

- Kirschenbaum, H. (2004). "Carl Rogers's life and work: an assessment on the 100th anniversary of his birth". *Journal of Counseling & Development*, 82 (1), 116-124.
- Kirk, J. & Miller, M.L. (1986). *Reliability and Validity in Qualitative Research*. London: Sage.
- Kitchener, R.F. (1986). "Piaget's theory of knowledge: genetic epistemology and scientific reason". In: Smith, L. (eds.), *Piaget Vygotsky and Beyond: Future Issues for Developmental Psychology and Education*, pp. 81-102. London: Routledge Taylor & Francis Group.
- Kluge, J. (2001). *Knowledge Unplugged: The McKinsey and Company Global Survey on Knowledge Management*. Basingstoke: Palgrave.
- Koh, A. (2005). *Ethics in Blogging Scheduled for release August 10, 2005*. Singapore Internet Research Centre. <http://unpan1.un.org/intradoc/groups/public/documents/apcity/unpan026247.pdf>. [Accessed 26 May 2013].
- Kolb, A.Y. & Kolb, D.A. (2005). "Learning styles and learning spaces: enhancing experiential learning in higher education". *Academy of Management Learning & Education*, 4 (2), 193-212.
- Kolb, D.A. (1984). *Experiential Learning: Experience As The Source of Learning and Development*. London: Prentice-Hall.
- Kolb, D.A. (2001). "Experiential learning theory: previous research and new directions". In : Sternberg, R.J. & Zhang, L.F. (eds.), *Perspectives on Thinking, Learning, and Cognitive Styles*, pp. 227-248. Mahwah, NJ: Lawrence Erlbaum.
- Kraut, R. (2001). "Internet paradox revisited". *Journal of Social Issues*, 58 (1), 568-576.
- Krieger, Z. (2007). Saudi Arabia puts its billions behind western-style higher education. *Chronicle of Higher Education*, 54(3), 1– 6.
- Kumar, R. (1999). *Research Methodology: A Step-by-step Guide for Beginners*. London.
- Lancaster, J. & Bain, A. (2007). The design of inclusive education courses and the selfefficacy of preservice teacher education students. *International Journal of Disability, Development and Education*, 54(2), 245– 256.
- Leach, J. & Moon, B. (2008). *The power of pedagogy*. London: SAGE. Lee, C. B., Teo, T., Chai, C. S., Choy, D., Tan, A. & Seah, J. (2007, 2– 5 December). Closing the gap: Pre-service teachers' perceptions of an ICT based, student centred learning curriculum. Paper presented at the ICT: Providing Choices for Learners and Learning Conference. Proceedings ascilite, Singapore. <http://www.ascilite.org.au/conferences/singapore07/procs/lee-cb.pdf>. [Accessed 26 May 2013].
- Lamshed, R. (2002). *Blogs: Personal e-Learning Spaces*. Binary Blue. (Binary Blue Project Report).
- Larkin, M. (2002). *Features of A Good Qualitative Project*. Leicester: De Montfort University. http://www.psy.dmu.ac.uk/michael/qual_good_project.htm [Accessed 10 March 2012].
- Law, M. (1998). *Guidelines for critical review of qualitative studies*. McMaster University Occupational Therapy Evidence-Based Practice Research Group. <http://www.usc.edu/hsc/ebnet/res/Guidelines.pdf> [Accessed 24 April 2013].

- Lazzaro, N. (2004). Why We Play Games: Four Keys to More Emotion Without Story. XEODesign, Inc. http://www.xeodesign.com/xeodesign_whyweplaygames.pdf [Accessed 10 May 2013].
- Lee, C. B., Teo, T., Chai, C. S., Choy, D., Tan, A. & Seah, J. (2007, 2– 5 December). Closing the gap: Pre-service teachers' perceptions of an ICT based, student centred learning curriculum. Paper presented at the ICT: Providing Choices for Learners and Learning Conference. Proceedings ascilite, Singapore. <http://www.ascilite.org.au/conferences/singapore07/procs/lee-cb.pdf>. [Accessed 20 April 2012].
- Leedy, P.D. & Ormrod, J.E. (2005). Practical Research: Planning and Design. 8th ed., Upper Saddle River, N.J.: Pearson Merrill Prentice-Hall.
- Lehmann, H. (2001). A Grounded Theory of International Information Systems. PhD, University of Auckland.
- Leplege, A. (2007). "Person-centredness: conceptual and historical perspectives". *Disability & Rehabilitation*, 29 (20), 1555-1565.
- Lessen, E. & Sorensen, C. (2006). Integrating technology in schools, colleges, and departments of education: a primer for deans. *Change*, 38(2), 44– 46.
- Lewis, J. & Ritchie, J. (2003). "Generalising from qualitative research". In : Ritchie, J. & Lewis, J. (eds.), *Qualitative Research Practice: A Guide for Social Science Students and Researchers*, pp. 263-286. London: Sage.
- Lewis, D. & Goodison, R. (2004) "Enhancing Learning with Information and Communication Technology (ICT) in Higher Education", Research Report RR533, Education and Skills, University of Wolverhampton .
- Li, M. & Gao, F. (2003). "Why Nonaka Highlights Tacit Knowledge: A Critical Review". *Journal of Knowledge Management*, 7 (4), 6-14
- Liang, J-C. & Tsai, C-C. (2008). Internet self-efficacy and preferences toward constructivist internet-based learning environments: A study of pre-school teachers in Taiwan. *Educational Technology & Society*, 11(1), 226– 237.
- Lietz, C.A. (2006). "Establishing trustworthiness in qualitative research in social work: implications from a study regarding spirituality". *Qualitative Social Work* , 5 (4), 441-458.
- Lim, C. P., Hung, D., Wong, P., & Hu, C. (2004). The pedagogical design of ICT integration in online learning: a case study.(Information and Communication Technologies). *International Journal of Instructional Media*, 31(1), 37– 47.
- Lin, Y.-M. (2005). Understanding students' technology appropriation and learning perceptions in online learning environments. Unpublished PhD thesis, University of Missouri, Colombia.
- Lincoln, Y.S. & Guba, E.G. (1985). *Naturalistic Inquiry*. Beverly Hills, Calif.; London: Sage.
- Livingstone, D.W. (2001). Adults' Informal Learning: Definitions, Findings, Gaps and Future Research. Centre for the Study of Education and Work, OISE/UT. (NALL Working Paper #21-2001).
- Liu, C.H. & Matthews, R. (2005). "Vygotsky's philosophy: constructivism and its criticism examined". *International Education Journal*, 6 (3), 386-399.

- Lockyer, L. & Patterson, J. (2007). Technology use, technology views: Anticipating ICT use for beginning physical and health education teachers. *Issues in Informing Science and Information Technology*, 4, 261– 267.
- Maninger, R. M. & Anderson, S. E. (2007). Beyond skills: Evaluating the impact of educational technology instruction. In K. Kumpulainen (Ed.), *Educational technology: Opportunities and challenges*. Finland: OULU University Press, OULU.
- Man, S.W. (2004). "Strategies for Educational Blogs". In : Proceedings of the Educational Research Association Annual Conference, Innovation & Enterprise: Education for the New Economy. 24-26 November 2004, Singapore. Educational Research Association of Singapore. http://www.edublog.net/files/papers/strategies_for_educational_blogs.pdf [Accessed 10 October 2013].
- Mann, S.J. (2005). "Alienation in the learning environment: a failure of community?" *Studies in Higher Education* , 30 (1), 43-55
- Masalela, R. K. (2009). Potential benefits and complexities of blended learning in higher education: The case of the University of Botswana. *Turkish Online Journal of Distance Education-TOJDE*, 10(1). http://tojde.anadolu.edu.tr/tojde33/articles/article_2.htm.
- Marchand, D.A. (1998). "Competing with intellectual capital". In : von Krogh, G. et al. (eds.), *Knowing in Firms: Understanding, Managing and Measuring Knowledge*, pp. 253-268. London..
- Marton, F. (1993). "Conceptions of learning". *International Journal of Educational Research*, 19 (3), 277-300.
- Marton, F. & Booth, S. (eds.) (1996). *The Learner's Experience of Learning*. Oxford: Blackwell.
- Martz, W.B. & Shepherd, M.M. (2003). "Testing for the transfer of tacit knowledge: making a case for implicit learning". *Decision Sciences Journal of Innovative Education*, 1 (1), 41-56.
- Marshall, C. & Rossman, G.B. (1999). *Designing Qualitative Research*. 3rd ed., London.
- Marsick, V.J. & Watkins, K.E. (2001). "Informal and incidental learning". In : Merriam, S.B. (ed.), *The New Update on Adult Learning Theory: New Directions for Adult and Continuing Education*, Vol. 89, pp. 25-34. Jossey-Bass: John Wiley & Sons.
- Masani, P.R. (2001). "Three modern enemies of science: materialism, existentialism, constructivism". *Kybernetes*, 30 (3), 278-294.
- Mason, J. (2002). *Qualitative Researching*. 2nd ed., London.
- Maxwell, J.A. (1996). *Qualitative Research Design: An Interactive Approach*. London.
- McCrinkle, M. (2006). *New Generations at Work: Attracting, Recruiting, Retraining & Training Generation Y*. Australia: McCrinkle Research.
- McKenna, K.Y.A. (2002). "Relationship formation on the Internet: what's the big attraction?" *Journal of Social Issues*, 58 (1), 9-31.
- McGhee, G. (2007). "Grounded theory research: literature reviewing and reflexivity". *Journal of Advanced Nursing* [Online], 60 (3), 334–342.
- McLoughlin, C. & Oliver, R. (1998). "Maximising the language and learning link in computer learning environments". *British Journal of Educational Technology* , 29 (2), 125-136.

- McGivney, V. (1999). *Informal Learning in The Community: A Trigger for Change and Development*. Leicester: National Institute of Adult Continuing Education.
- McNeill, P. & Chapman, S. (2005). *Research Methods*. London: Routledge Tylor & Francis Group.
- Meyer, H.D. (2003). "Between theory and experience: the dia-logical nature of managerial knowledge - implications for the preparation of education leaders". *Journal of Educational Administration*, 41 (5), 455-470
- Mesut, D. (2000). *Examination of technology integration in to an elementary teacher education program: One university experience*. Unpublished PhD thesis, Ohio University, Ohio.
- Metwalli, M. (2008a). Educational policy in the Kingdom of Saudi Arabia. In A. AlSonbol, M. Metwalli, M. Alkhateeb & N. Abd-Al-Jawad (Eds), *Education system in the Kingdom of Saudi Arabia* (pp. 59– 92). Riyadh, Saudi Arabia: Dar Al-Khrajji for Publishing and Distribution.
- Metwalli, M. (2008b). Teacher preparation. In A. Al-Sonbol, M. Metwalli, M. Alkhateeb & N. Abd-Al-Jawad (Eds), *Education system in the Kingdom of Saudi Arabia* (pp. 237– 276). Riyadh, Saudi Arabia: Dar Al-Khrajji for Publishing and Distribution.
- Miettinen, R. (2000). "The concept of experiential learning and John Dewey's theory of reflective thought and action". *International Journal of Lifelong Education*, 19 (1), 54-72.
- Milbrath, Y. L. & Kinzie, M. B. (2000). Computer technology training for prospective teachers: Computer attitudes and perceived self-efficacy. *Journal of Technology and Teacher Education*, 8(4), 373– 396.
- Miles, M. B. & Huberman, A. M. (1994). Data management and analysis methods. In N. K. Denzin & Y. S. Lincoln (Eds), *Handbook of qualitative research* (pp. 428– 444). Thousand Oaks, CA.
- Miller, P. (2005). "Web 2.0: Building the New Library". *Ariadne*, October (45). <http://www.ariadne.ac.uk/issue45/miller/> [Accessed 12 January 2014].
- Miller, D. J. & Moran, T. (2006). Positive self-worth is not enough: Some implications of a two-dimensional model of self-esteem for primary teaching. *SAGE Publications*, 9(1), 7– 16.
- Mills, J. (2006). "The development of constructivist grounded theory". *International Journal of Qualitative Methods*, 5 (1). http://www.ualberta.ca/~iiqm/backissues/5_1/PDF/MILLS.PDF [Accessed 7 May 2013].
- Milne, J.M. (2004). *Weblogs and The Technology Lifecycle: Context, Geek-chic and Personal Community*. PhD, University of South Florida.
- Ministry of Communications and Information Technology. (2007). *The national communications and information technology plan: The vision towards the information society*. Saudi Arabia, Riyadh: Ministry of Communications and Information Technology. <http://www.mcit.gov.sa/arabic/NICTP/Policy/>. [Accessed 25 May 2013].
- Ministry of Communications and Information Technology. (2011). *ICT indicators in K.S.A.* <http://www.mcit.gov.sa/english/Development/SectorIndices/> [Accessed 25 May 2013].
- Ministry of Economy and Planning. (2010). *Millennium development goals*. Saudi Arabia, Riyadh: Ministry of Economy and Planning. <http://www.mep.gov.sa/index.jsp;jsessionid=58A2D2BAD5F2A9A7DF1B69C0005ABF68.alfa?event=ArticleView&Article.ObjectID=52>. [Accessed 12 March 2013].

- Ministry of Education. (1980). Educational policy in the Saudi Arabian Kingdom (3rd ed.). Saudi Arabia, Riyadh: Ministry of Education.
- Ministry of Education. (2005). The executive summary of the Ministry of Education Ten Year Plan 1425-1435 H (2004– 2014) (2nd ed.). Saudi Arabia, Riyadh: Ministry of Education.
- Ministry of Education. (2008). Report on identity and development. Saudi Arabia, Riyadh: Ministry of Education, Agency of Education.
- Ministry of Foreign Affairs. (2006). About kingdom.
<http://www.mofa.gov.sa/SITES/MOFAEN/ABOUTKINGDOM/Pages/KingdomGeography46466.aspx>. [Accessed 25 June 20013].
- Ministry of Higher Education. (2009). The custodian of the two holy mosques approves a number of decisions taken by the Council of Higher Education.
<http://www.mohe.gov.sa/ar/news/Pages/News35.aspx>. [Accessed 25 June 20013].
- Ministry of Petroleum and Mineral Resources. (2009). History of oil and gas.
http://www.mopm.gov.sa/mopm/detail.do?content=history_oil_and_gas.
 [Accessed 12 Jun 20012].
- Miura, A. & Yamashita, K. (2007). "Psychological and social influences on blog writing: an online survey of blog authors in Japan". *Journal of Computer-Mediated Communication*, 12 (4), 1452–1471
- Mosenson, A. B. & Johnson, J. M. (2008). Instructional strategies and resources: Exploring the use of technology. *Journal of Family and Consumer Sciences Education*, 26(3), 17– 35.
- Moursund, D. & Bielefeldt, T. (1999). Will new teachers be prepared to teach in a digital age? A national survey on information technology in teacher education. Milken Exchange on Education Technology (Milken Family Foundation).
<http://asucoeofoundationsandtechnology.pbworks.com/f/Will%2520teachers%2520be%2520prepared%2520to%2520teach%2520in%2520the%2520digital%2520age.pdf>. . [Accessed 11 March 20013].
- Mumtaz, S. (2000). Factors affecting teachers' use of information and communications technology: A review of the literature. *Journal of Information Technology for Teacher Education*, 9(3), 319–341.
- Muhr, T. (1997). ATLAS.ti The Knowledge Workbench: Visual Qualitative Data Analysis Management Model Building: Short User's Manual. Berlin: Scientific Software Development.
- Moon, J.A. (2004). *A Handbook of Reflective and Experiential Learning: Theory and Practice*. London: RoutledgeFalmer.
- Morse, J.M. (2002). "Verification strategies for establishing reliability and validity in qualitative research". *International Journal of Qualitative Methods*, 1 (2).
http://www.ualberta.ca/~iiqm/backissues/1_2Final/html/morse.html [Accessed 6 May 2014].
- Morse, J.M. & Richards, L. (2002). *ReadMe First: For A User's Guide To Qualitative Methods*. London.
- Morf, C.C. & Rhodewalt, F. (2001). "Unraveling the paradoxes of narcissism: a dynamic selfregulatory processing model". *Psychological Inquiry*, 12 (4), 177-196.

- Nasab, E. H. & Aghaei, M. (2009). The effect of ICT on economic growth: Further evidence. *International Bulletin of Business Administration*, 5, 46– 56.
- Nardi, B.A. (2004a). "Blogging as Social Activity, or, Would You Let 900 Million People Read Your Diary?" In : Proceedings of the ACM Conference on Computer Supported Cooperative Work 2004. 6-10 November 2004, Chicago, Illinois, ACM. <http://home.comcast.net/%7Ediane.schiano/CSCW04.Blog.pdf> [Accessed 15 December 2013].
- Nardi, B.A. (2004b). "Why we blog". *Communications of the ACM [Online]*, 47 (12), 4146.
- Navarro, M. S. & Natalicio, D. S. (1999). Closing the achievement gap in El Paso: A collaboration for K-16 renewal. *Phi Delta Kappan*, 80(8), 597– 601.
- Nelson, A. R. (2010). Education as a global commodity. *Nature*, 464(7293), 1277– 1280.
- Newman, J.C. (2002). "The differential effects of face-to-face and computer interview modes". *American Journal of Public Health [Online]*, 92 (2), 294-297.
- Nkonge, B. & Gueldenzoph, L. E. (2006). Best practices in online education: Implications for policy and practice. *Business Education Digest*, 15(XV), 42– 53.
- Northcote, M. (2009). Educational beliefs of higher education teachers and students: Implications for teacher education. *Australian Journal of Teacher Education*, 34(3), 69– 81.
- Nonaka, I. (1994). "A dynamic theory of organizational knowledge creation". *Organization Science*, 5 (1), 14-37.
- Nonaka, I. (1997). "Organizational Knowledge Creation". In :SAGE Journal. <http://oss.sagepub.com/content/27/8/1179.short> [Accessed 24 May 2013].
- Nonaka, I. & Takeuchi, H. (1995). *The Knowledge-Creating Company: How Japanese Companies Create the Dynamics of Innovation*. Oxford: Oxford University Press.
- Norris, D.M. (2003a). *Transforming e-Knowledge: A Revolution in The Sharing of Knowledge*. Michigan: Society for College and University Planning.
- Norris, D.M. (2003b). "A revolution in knowledge sharing". *Educause Review*, 14-26.
- Notturmo, M.A. (ed.) (1994). *Knowledge and the Body-mind Problem: in Defence of Interaction by Karl R. Popper*. London: Routledge.
- Oblinger, D.G. & Oblinger, J.L. (eds.) (2005a). *Educating The Net Generation*. Educause.
- Oblinger, D.G. & Oblinger, J.L. (2005b). "Is it age or IT: first steps toward understanding the net generation". In : Oblinger, D.G. & Oblinger, J.L. (eds.), *Educating The Net Generation*, pp. 2.1-2.20. Educause.
- Onsman, A. (2011). It is better to light a candle than to ban the darkness: Government led academic development in Saudi Arabian universities. *Higher Education*, 1– 14. doi: 10.1007/s10734-010-9402-y
- Opfer, V. D. & Pedder, D. (2011). Conceptualizing teacher professional learning. *Review of Educational Research*, 81(3), 376– 407. doi: 10.3102/0034654311413609

- O'Reilly, T. (2005b). What is Web 2.0 Design Patterns and Business Models for the Next Generation of Software [Online]. O'Reilly Media, Inc.
<http://www.oreillynet.com/pub/a/oreilly/tim/news/2005/09/30/what-is-web-20.html> [Accessed 22 September 2013].
- Ojala, M. (2005). "Blogging: for knowledge sharing, management and dissemination". *Business Information Review* 2005, 22 (4), 269-276.
- Oxford Dictionaries. (2011). Concept (Online Dictionary).
http://oxforddictionaries.com/definition/concept#m_en_gb0169720 [Accessed 12 March 2012].
- Oyaid, A. (2009). Education policy in Saudi Arabia and its relation to secondary school teachers' ICT use, perceptions, and views of the future of ICT in education. Unpublished PhD thesis, University of Exeter, Exeter, England.
<http://hdl.handle.net/10036/69537>. [Accessed 10 May 2012].
- Palfreyman, D. & Smith, R. C. (2003). *Learner autonomy across cultures: Language education perspectives*. New York: Palgrave MacMillan.
- Padgett, D. (1998). *Qualitative Methods in Social Work Research: Challenges and Rewards*. Thousand Oaks, CA.
- Pandit, N.R. (1996). "The creation of theory: a recent application of the grounded theory method". *The Qualitative Report*, 2 (4). <http://www.nova.edu/ssss/QR/QR2-4/pandit.html> [Accessed 11 August 2013].
- Patterson, C.H. (1973). *Humanistic education*. London: Prentice-Hall.
- Patton, M.Q. (2002). *Qualitative Research & Evaluation Methods*. 3rd ed., London.
- Patton, M. Q. (1990). *Qualitative evaluation and research methods*. Newbury Park, CA: Sage Publications.
- Peeraer, J. & Van Petegem, P. (2011). ICT in teacher education in an emerging developing country: Vietnam's baseline situation at the start of =The Year of ICT. *Computers & Education*, 56(4), 974–982.
- Prensky, M. (2001a). "Digital natives, digital immigrants part 1". *On the Horizon*, 9 (5), 1-6.
- Prensky, M. (2001b). "Digital natives, digital immigrants part 2: do they really think differently?" *On the Horizon*, 9 (6), 1-6.
- Perkins, D. (2006). "Constructivism and troublesome knowledge". In : Meyer, J.H.F. & Land, R. (eds.), *Overcoming Barriers To Student Understanding: Threshold Concepts and Troublesome Knowledge*, pp. 33-47. Abingdon, Oxon: Routledge.
- Pellegrino, J. W., Goldman, S. R., Bertenthal, M. & Lawless, K. (2007). Teacher education and technology: Initial results from the "What Works and Why" Project. *Yearbook of the National Society for the Study of Education*, 106(2), 52– 86. doi: 10.1111/j.1744-7984.2007.00115.x
- Phillips, D.C. & Soltis, J.F. (1998). *Perspectives on Learning*. New York: Teachers College Press.
- Pianfetti, E. (2005, 22 June). An integrated framework used to increase preservice teacher NETS-T ability. The Free Library.
<http://www.thefreelibrary.com/An%20integrated%20framework%20used%20to%20increase%20preservice%20teacher%20NETS-T...-a0132711918>

- Piaget, J. (1980). "The psychogenesis of knowledge and its epistemological significance". In: Piattelli-Palmarini, M. (ed.), *Language and Learning: The Debate Between Jean Piaget and Noam*, pp. 23-34. London and Henley: Routledge & Kegan Paul.
- Pickard, A.J. (2007). *Research Methods in Information*. London: Facet.
- Pierson, M. E. & McNeil, S. (2000). Preservice technology integration through collaborative action communities. *Contemporary Issues in Technology and Teacher Education*, 1(1).
<http://www.citejournal.org/vol1/iss1/currentpractice/article1.htm> [Accessed 10 May 2013]
- Prensky, M. (2001a). "Digital natives, digital immigrants part 1". *On the Horizon*, 9 (5), 1-6.
- Prensky, M. (2001b). "Digital natives, digital immigrants part 2: do they really think differently?" *On the Horizon*, 9 (6), 1-6.
- Pojman, L.P. (1999). *The Theory of Knowledge: Classical and Contemporary Readings*. 2nd ed. Belmont: Wadsworth.
- Polly, D., Mims, C., Shepherd, C. E. & Inan, F. (2010). Evidence of impact: Transforming teacher education with preparing tomorrow's teachers to teach with technology (PT3) grants. *Teaching and Teacher Education*, 26(4), 863– 870.
- Polanyi, M. (1958). *Personal Knowledge: Towards A Post-critical Philosophy*. London: Routledge.
- Poorfaraj, A., Samimi, A. J. & Keshavarz, H. (2011). Knowledge and economic growth: Evidence from some developing countries. *Journal of Education and Vocational Research*, 1(1), 21– 25.
- Prensky, M. (2001a). Digital natives, digital immigrants. *On the Horizon*, 9(5), 1– 6.
<http://www.marcprensky.com/writing/Prensky%20-%20Digital%20Natives,%20Digital%20Immigrants%20-%20Part1.pdf> [Accessed 23 May 2012]
- Prensky, M. (2001b). Digital natives, digital immigrants, Part II: Do they really think differently? *On the Horizon*, 9(6), 1– 9.
<http://www.marcprensky.com/writing/Prensky%20-%20Digital%20Natives,%20Digital%20Immigrants%20-%20Part2.pdf> [Accessed 12 June 2012]
- Prokop, M. (2003). Saudi Arabia: The politics of education. *International Affairs (Royal Institute of International Affairs 1944-)*, 79(1), 77– 89.
- Punch, K.F. (1998). *Introduction to Social Research: Quantitative and Qualitative Approaches*. London: Sage.
- Ramady, M. A. (2010). *The Saudi Arabian economy: Policies, achievements, and challenges*. New York: Springer.
- Raelin, J.A. (1997). "A model of work-based learning". *Organization Science*, 8 (6), 563-578.
- Ras, E. (2005). "Using weblogs for knowledge sharing and learning in information spaces". *Journal of Universal Computer Science*, 11 (3), 394-409.
- Razavi, M.N. & Iverson, L. (2006). "A Grounded Theory of Information Sharing Behaviour In A Personal Learning Space". In: Association for Computing Machinery (ed.), *Proceedings of the 2006 20th Anniversary Conference on Computer Supported Cooperative Work*. 48 November, 2006, Banff, Alberta, Canada. pp. 459-468. ACM.

- Reichardt, C.S. & Cook, T.D. (1979). "Beyond qualitative versus quantitative methods". In: Cook, T.D. & Reichardt, C.S. (eds.), *Qualitative and Quantitative Methods in Evaluation Research*, pp. 7-32. London.
- Renzl, B. (2002). "Facilitating Knowledge Sharing through Inter-action Research". In : *Proceedings of the Third European Conference on Organizational knowledge, Learning, and Capabilities*. 5-6 April 2002, Athens, Greece. ALBA.
http://apollon1.alba.edu.gr/OKLC2002/Proceedings/pdf_files/ID376.pdf [Accessed 10 May 2013]
- Resnick, L.B. (1989). "Introduction". In: Resnick, L.B. (ed.), *Knowing, Learning, and Instruction: Essays in Honor of Robert Glaser*. Hillsdale, N.J.: Lawrence Erlbaum Associates.
- Reimer, K. L. (2005). Integrating technology into the curriculum. In M. O. Thirunarayanan & A. Perez-Prado (Eds), *Integrating technology in higher education*. New York: University Press of America, Inc.
- Richards, J. (2007). "Web 3.0 and beyond: the next 20 years of the internet".Times Online.
http://accessindia.org.in/pipermail/accessindia_accessindia.org.in/2007-October/010958.html
 [Accessed 22 March 2011].
- Roberts, T. L. (2004). Responsive instructional design in technology-supported teacher education: Case studies from the PDP. Unpublished Masters thesis, Simon Fraser University, Canada.
<http://proquest.umi.com/pqdweb?did=974405681&Fmt=7&clientId=20828&RQT=309&VName=PQD> [Accessed 15 May 2012].
- Robertson, M., Fluck, A. & Webb, I. (2007). *Seven steps to success with ICTs: Whole school approaches to sustainable change* (1st ed.). Camberwell: ACER Press.
- Robinson, L. K. (2007). Diffusion of educational technology and education reform: Examining perceptual barriers to technology integration. In L.Tomei (Ed.), *Integrating information & communications technologies into the classroom*. Melbourne: Information Science Publishing.
- Roblyer, M. D. & Edwards, J. (2003). *Integrating educational technology into teaching* (3rd ed.). Upper Saddle River, NJ: Prentice-Hall.
- Rogers, C.R. (1951). *Client-Centered Therapy*. Boston: Houghton-Mifflin.
- Rogers, C.R. (1967). *On Becoming A Person: A Therapist's View of Psychotherapy*. London: Constable.
- Rogers, C.R. (1969). *Freedom to Learn*. Columbus, Ohio: Charles E. Merrill.
- Rogers, C.R. (1995). "What understanding and acceptance mean to me". *Journal of Humanistic Psychology* [Online], 35 (4), 7-22.
- Rogers, C.R. & Freiberg, H.J. (1994). *Freedom to Learn*. 3rd ed., Oxford: Merrill; Maxwell Macmillan.
- Rogers, E. M. (1995). *Diffusion of innovation* (4th ed.). New York: Free Press.
- Rogers, C.R. & Freiberg, H.J. (1994). *Freedom to Learn*. 3rd ed., Oxford: Merrill; Maxwell Macmillan.
- Rogers, C.R. & Skinner, B.F. (1962). "Some issues concerning the control of human behaviour ". *Pastoral Psychology*, 13 (8), 12-40.

- Rogers, R. K. (2007). Computer anxiety and innovativeness as predictors of technology integration. Unpublished EdD, Texas Tech University, Texas.
- Rowley, J. (2001). "Knowledge management in pursuit of learning: the learning with knowledge cycle". *Journal of Information Science*, 27 (4), 227-237.
- Saleh, M. (1987). Counselling and guidance in the Kingdom of Saudi Arabia. *International Journal for the Advancement of Counselling*, 10, 277– 286.
- Sallis, E.J. & Jones, G. (2002). *Knowledge Management in Education: Enhancing Learning & Education*. London.
- Sam, H. K., Othman, A. E. A. & Nordin, Z. S. (2005). Computer self-efficacy, computer anxiety, and attitudes toward the internet: A study among undergraduates in Unimas. *Educational Technology & Society*, 8(4), 205– 219.
- Sang, G., Valcke, M., Braak, J. V. & Tondeur, J. (2010). Student teachers' thinking processes and ICT integration: Predictors of prospective teaching behaviors with educational technology. *Computers & Education*, 54(1), 103– 112.
- Saljo, R. (1979). *Learning in The Learner's Perspective I. Some Common-sense Conceptions*. No.76. Sweden: University of Gothenburg.
- Sallis, E.J. & Jones, G. (2002). *Knowledge Management in Education: Enhancing Learning & Education*. London: Kogan Page.
- Salmon, P. (1989). "Personal stances in learning". In : Weil, S.W. & McGill, I. (eds.), *Making Sense of Experiential Learning: Diversity in Theory and Practice*, pp. 230-241. Milton Keynes: The Society for Research into Higher Education & Open University Press.
- Sandelowski, M. (1992). "Using qualitative and quantitative methods: the transition to parenthood of infertile couples". In: Gilgun, J.F. et al. (eds.), *Qualitative Methods in Family Research*, pp. 301-323. Newbury Park, CA: Sage.
- Sauers, M.P. (2006). *Blogging and RSS: A Librarian's Guide*. Medford, New Jersey: Information Today.
- Schatzman, L. & Strauss, A.L. (1973). *Field Research: Strategies for a Natural Sociology*. Englewood Cliffs: Prentice-Hall.
- Schroeder, R. (2003). "One path to the blog: an odyssey in tracking and sharing technology with the online higher education community". *eLearn Magazine*, 2003 (6), 3.
<http://portal.acm.org/citation.cfm?doid=863928.863934> [Accessed 15 May 2012].
- Scott, K.W. (2004). "Relating categories in grounded theory analysis: using a conditional relationship guide and reflective coding matrix". *The Qualitative Report*, 9 (1), 113-126.
- Sedikides, C. (2004). "Are normal narcissists psychologically healthy? self-esteem matters". *Journal of Personality and Social Psychology*, 87 (3), 400-416.
- Seidel, J. & Kelle, U. (1995). "Different function of coding in the analysis of textual data". In : Kelle, U. et al. (eds.), *Computer-aided Qualitative Data Analysis: Theory, Methods and Practice*, pp. 52-61. London.
- Seidman, I. (1998). *Interviewing as Qualitative Research: A guide for Researchers in Education and Social Sciences*. 2nd ed., London: Teachers College Press.

- Senge, P.M. (1998). "Sharing knowledge". *Executive Excellence*, 15 (6), 11-12.
- Sharpe, R. & Benfield, G. (2005). "The students experience of e-learning in higher education: a review of the literature". *Brookes eJournal of Learning and Teaching* , 1 (3), 110.
- Sharratt, M. & Usoro, A. (2005). "Understanding knowledge-sharing in online communities of practice". *Electronic Journal of Knowledge Management*, 3 (1), 187-196.
- Shelley, M., Thrane, L., Shulman, S., Lang, E., Beisser, S., Larson, T. & Mutiti, J. (2004). Digital citizenship: Parameters of the digital divide. *Social Science Computer Review*, 22(2), 256– 269.
- Shih, C.C. & Gamon, H. (2001). "Web-based learning: relationships among student motivation, attitude, learning styles, and achievement". *Journal of Agricultural Education*, 42 (4), 12-20.
- Shin, N. (2006). "Online learner's 'flow' experience: an empirical study". *British Journal of Educational Technology*, 37 (5), 705-720.
- Shoffner, M. B., Dias, L. B. & Thomas, C. D. (2001). A model for collaborative relationships between instructional technology and teacher education programs. *Contemporary Issues in Technology and Teacher Education* [Online serial], 1(3).
<http://www.citejournal.org/vol1/iss3/currentissues/general/article1.htm> [Accessed 4 March 2012].
- Silverman, D. (2001). *Interpreting Qualitative Data: Methods for Analyzing Talk, Text and Interaction*. 2nd ed., London.
- Silverman, D. (2004). "Who cares about 'experience'? Missing issues in qualitative research". In : Silverman, D. (ed.), *Qualitative Research: Theory, Method and Practice*, pp. 342-367. London.
- Silverman, D. (2006). *Interpreting Qualitative Data: Methods for Analyzing Talk, Text and Interaction*. 3rd ed., London.
- Simpson, I.S. (1990). *How to Interpret Statistical Data: A Guide for Librarians and Information Scientists*. London: Library Association.
- Sime, D. & Priestley, M. (2005). Student teachers' first reflections on information and communications technology and classroom learning: Implications for initial teacher education. *Journal of Computer Assisted Learning*, 21(2), 130– 142. doi: 10.1111/j.1365-2729.2005.00120.x
- Smith, J. & Spurling, A. (2001). *Understanding Motivation for Lifelong Learning*. 4th ed., London: Campaign for Learning.
- Smith, D. W. & Kelley, P. (2007). A survey of assistive technology and teacher preparation programs for individuals with visual impairments. *Journal of Visual Impairment & Blindness*, 101(7), 429– 433.
- Smolin, L. & Lawless, K. (2007). Technologies in schools: Stimulating a dialogue. In L. Smolin, K. Lawless & N. C. Burbules (Eds), *Information and communication technologies: Considerations of current practice for teachers and teacher education* (Vol. 2). Massachusetts: Blackwell Publishing Malden.
- Snape, D. & Spencer, L. (2003). "The foundations of qualitative research". In : Ritchie, J. & Lewis, J. (eds.), *Qualitative Research Practice: A Guide for Social Science Students and Researchers*, pp. 1-23. London: Sage.

- Stenmark, D. (1999). "Using Intranet Agents to Capture Tacit Knowledge". In : Proceedings of WebNet 99 - World Conference on the WWW and Internet. 24-30 October 1999, Honolulu, Hawaii, USA. AACE.
http://www.editlib.org/index.cfm?fuseaction=Reader.ViewAbstract&paper_id=7374&from=NEW DL [Accessed 10 March 2012].
- Stenmark, D. (2000). "Turning Tacit Knowledge Tangible". In: Proceedings of the 33rd Annual Hawaii International Conference on System Sciences. 4-7 January 2000, Maui, Hawaii, USA [Online]. IEEE Computer Society. http://search2.computer.org/advanced/Advanced_Result.jsp [Accessed 12 June 2013].
- Strauss, A. & Corbin, J. (1990). *Basics of Qualitative Research: Grounded Theory Procedures and Techniques*. California.
- Strauss, A. & Corbin, J. (1998). *Basics of Qualitative Research: Techniques and Procedures for Developing Grounded Theory*. 2nd ed., Thousand Oaks.
- Sturman, T.S. (2000). "The motivational foundations and behavioral expressions of three narcissistic styles". *Social Behavior and Personality: an international journal*, 28 (4), 393-408.
- Somekh, D., Whitty, G. & Coveney, R. (1997). IT and the politics of institutional change. In
- Song, H. (2010). Sleeping giant: Chinese teacher education system. Past, present and future (II). *On the Horizon*, 18(2), 110– 123.
- Sumner, M. & Niederman, F. (2003). The impact of gender differences on job satisfaction, job turnover, and career experiences of information systems professionals. *The Journal of Computer Information Systems*, 44(2), 29– 39.
- Sutton, M. (2007). Security spending tops \$250 million says IDC. <http://www.itp.net/news/504125> [Accessed 12 March 2013].
- Suzuki, R. (2004). "Diaries as introspective research tools: from Ashton-Warner to blogs". *Teaching English as a Second or Foreign Language*, 8 (1).
- Svozil, K. (2003). *The Dangerous Misconceptions of Sir Karl Raimund Popper*. Cornell University. http://arxiv.org/PS_cache/physics/pdf/0207/0207115v3.pdf [Accessed 4 May 2013].
- Szulanski, G. (2000). "The Process of Knowledge Transfer: a Diachronic Analysis of Stickiness". *Organisation Behaviour and Human Decision Processes*, 82 (1), 9-27.
- Tang, J.H. & Yang, H.L. (2006). "Emergent user roles and perceived requirements in a social-oriented community". *Library Review*, 55 (8), 508-519.
- Taylor, C. (1997). Organising IT resources in educational institutions. In D. Somekh & N. Davis (Eds), *Using information technology effectively in teaching and learning: Studies in pre-service and in-service teacher education* (pp. 228– 237). London: Routledge.
- Taylor, K. (2002). "Is imagination more important than knowledge? Einstein". *the THES* , 8 November. <http://www.timeshighereducation.co.uk/story.asp?sectioncode=26&storycode=172613> [Accessed 11 January 2014].
- Thomas, D.R. (2006). "A general inductive approach for analyzing qualitative evaluation data". *American Journal of Evaluation*, 27 (2), 237-246.
- Thorne, S. (2000). "Data analysis in qualitative research". *Evidence-Based Nursing* , 3 (3), 68-70.

Technology in Schools. (2003). Chapter 7: Suggestions, tools, and guideline for assessing technology in elementary and secondary education.

http://nces.ed.gov/pubs2003/tech_schools/chapter7.asp [Accessed 11 March 2013].

Teo, T., Lee, C. B. & Chai, C. S. (2008). Understanding pre-service teachers' computer attitudes: Applying and extending the technology acceptance model. *Journal of Computer Assisted Learning*, 24(2), 128– 143.

Trochim, W.M.K. (2005). *Qualitative Approaches*. William M.K. Trochim, Research Methods Knowledge Base. <http://www.socialresearchmethods.net/kb/qualapp.htm> [Accessed 10 May 2011].

Trzesniewski, K.H. (2008). "Do today's young people really think they are so extraordinary? An examination of secular trends in narcissism and self-enhancement". *Psychological Science*, 19 (2), 181-188.

Tsoukas, H. (2002). "Do We Really Understand Tacit Knowledge?" In : *Proceedings of the Knowledge Economy and Society Seminar*. 14 June 2002, London, UK. LSE Department of Information Systems.

<http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.18.8864&rep=rep1&type=pdf> [Accessed 13 October 2013].

Townsend, T., Bates, R., Davis, T. & Moely, B. (2007). Preparing pre-service teachers and meeting the diversity challenge through structured service-learning and field experiences in urban schools. In *Handbook of teacher education* (pp. 283– 300). The Netherlands: Springer

Turgeon, M.C. (2004). 10 Reasons Why Blogging is Good for You. Blog: Vu d'ici - Seen from here. <http://insideandoutside.me/2004/11/24/10-reasons-to-blog/> [Accessed 12 May 2012].

Turkle, S. (1997). *Life On The Screen: Identity in The Age of The Internet*. London.

Turkle, S. (1999). "Looking Toward Cyberspace: Beyond Grounded Sociology Cyberspace and Identity". *Contemporary Sociology*, 28 (6), 643-648.

Underhill, A. (1989). "Process in humanistic education". *ELT Journal*, 34 (4), 250-260.

Vasconcelos, A.C. (2007). "The use of grounded theory and of arenas/social worlds theory in discourse studies: a case study on the discursive adaptation of information systems". *The Electronic Journal of Business Research Methods*, 5 (2), 125-136.

Valentine, G., Holloway, S. & Bingham, N. (2002). The digital generation?: Children, ICT and the everyday nature of social exclusion. *Editorial Board of Antipode*, 34, 296– 315.

Vannatta, R. (2007). *The intrepid explorer: A model of effective technology use for all educators*. In K. Kumpulainen (Ed.), *Educational technology: Opportunities and challenges*. Finland: OULU University Press.

Vesiluoma, S. (2005). "Mining Knowledge Sharing Patterns". In : *Proceedings of the 28th Information Systems Research Seminar in Scandinavia*. 6-9 August 2005, Kristiansand, Norway . the IRIS.

Wabuyele, L. C. (2003). *Understanding teachers' and administrators' perceptions and experiences towards computer use in Kenyan classrooms: A case study of two schools*. Unpublished PhD thesis, Ohio University, Ohio.

<http://proquest.umi.com/pqdweb?did=766010831&Fmt=7&clientId=20828&RQT=309&VName=PQD> [Accessed 23 June 2012].

- Wang, L., Ertmer, P. A. & Newby, T. J. (2004). Increasing preservice teachers' self- efficacy beliefs for technology integration. *Journal of Research on Technology in Education*, 36(2), 213–250.
- Warburton, W.I. (2005). "What Are Grounded Theories Made Of?" In : Faculty of Law. Arts and Social Sciences (ed.), *Proceedings of the 2005 University of Southampton LASS Faculty Post-graduate Research Conference.6-7 June 2005, Southampton, UK.* pp. 110. University of Southampton.
[http://eprints.soton.ac.uk/16340/02/What_are_ground_theories_made_of_\(paper\).htm](http://eprints.soton.ac.uk/16340/02/What_are_ground_theories_made_of_(paper).htm) [Accessed 9 April 2011].
- Warschauer, M. (1997). "Computer-mediated collaborative learning: theory and practice". *The Modern Language Journal*, 81 (4), 470-481.
- Walliman, N. (2005). *Your Research Project: a Step-by-step Guide for the First-time Researcher.*2nd ed., London.
- Waters, D. (2008). Web 2.0 for all?. dot. life: A blog about technology from BBC News.
http://www.bbc.co.uk/blogs/technology/2008/01/web_20_for_all.html [Accessed 25 January 2013].
- Webb, M.W. (2003). *A Definitive Critique of Experiential Learning Theory.* PhD, Case Western Reserve University.
- Webb, S. (2006, 30 September). Shifting perceptions: Connecting female students to technology. Paper presented at the Proceedings of the Transforming Information & Learning Conference (TILC 2006), School of Computer and Information Science, Edith Cowan University.
- Wetzel, K. (1999). Models for achieving computer competencies in preservice education. *Journal of Computing in Teacher Education*, 9(4), 4– 6.
- Weigel, V.B. (2002). *Deep Learning For A Digital Age: Technology's Untapped Potential To Enrich Higher Education.* San Francisco: Jossey-Bass.
- Welbourne, M. (2001). *Knowledge.* Chesham: Acumen Publishing Limited.
- Wenger, E. (1998). *Communities of Practice: Learning, Meaning, and Identity.* New York: Cambridge Press.
- Wickett, R.E.Y. (2005). "The spiritual and human learning". In: Jarvis, P. & Parker, S. (eds.), *Human Learning: An Holistic Approach*, pp. 157-167. London: Routledge.
- Williams, M. (2001). *Problems of Knowledge: a Critical Introduction to Epistemology.* Oxford: Oxford University Press.
- Willis, E. & Raines, P. (2001). Technology and the changing face of teacher preparation. *Contemporary Issues in Technology and Teacher Education*, 1(3), 412– 420.
- Willumsen, J. (1998). New managerialism in teacher education – professionalisation or reprofessionalisation? On the latest developments in teacher education in Denmark. *TNTEE Publications Volume*, 1(2), 61– 69.
- Wozzley, A.D. (1949). *Theory of Knowledge: An Introduction.* London: Hutchinson.

- Yang, F. (2004). Learning by Inter-reflection: The Design of A Conversational Learning Environment . PhD Progress Report.
http://postgrad.eee.bham.ac.uk/fdy217/Works%5c9monthReport_FDY.pdf [Accessed 24 January 2014].
- Yi, M. Y. & Hwang, Y. (2003). Predicting the use of web-based information system: Selfefficacy, enjoyment, learning goal orientation and the technology acceptance model. *International Journal of Human-Computer Studies*, 59(4), 431– 449.
- Young, K.S. (1997). "What Makes the Internet Addictive: Potential Explanations for Pathological Internet Use". In: Proceedings of the 105th Annual Conference of the American Psychological Association. 15 August 1997, Chicago, IL. the APA.
http://www.icsao.org/fileadmin/Divers_papiers/KYoung-internetaddiction4.pdf [Accessed 22 October 2013].
- Yuen, A. H. K. & Ma, W. W. K. (2002). Gender differences in teacher computer acceptance. *Journal of Technology and Teacher Education*, 10(3), 365– 382.
- Zeen, M. M. (2007). *Competencies in e-learning (1st ed.)*. Saudi Arabia, Jeddah: Scientific Kauarizm Publications.
- Zhang, L.F. & Sternberg, R.J. (2005). "The role of individual differences in approaches to learning". In: Jarvis, P. & Parker, S. (eds.), *Human Learning: An Holistic Approach*, pp. 66-86. London: Routledge.
- Zhao, Y. & Bryant, F. L. (2006). Can teacher technology integration training alone lead to high levels of technology integration? A qualitative look at teachers' technology integration after state mandated technology training. *Electronic Journal for the Integration of Technology in Education*, 5, 53– 62.
- Ziadah, M. (2007). Forecasting the future of education in Saudi Arabia. In M. Al-Hamed, M. Ziadah, B. Al-Otaibi & N. Metwalli (Eds), *Education in the Kingdom of Saudi Arabia, present view and future forecast* (pp. 351– 383). Riyadh, Saudi Arabia: AlRasheed Library.
- Zimring, F. (1994). "Carl Rogers". *Prospects: the quarterly review of comparative education*, XXIV (3/4), 411-422