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E-Learning In Higher Education: The Gender Perspective

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E-LEARNING IN HIGHER EDUCATION: THE GENDER PERSPECTIVE

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A thesis submitted for the degree of Doctor of Business Administration

(Higher Education Management)

University of Bath

School of Management

May 2015

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ABSTRACT

There are three inextricably intertwined facets to this study: higher education, eLearning and gender. Literature abounds on these three areas as separate subjects and jointly in combinations of higher education and gender, as well as higher education and eLearning. But the three are not combined; there is a dearth of literature on the attainment of higher education through eLearning from the perspective of gender. This paper provides an understanding of why do adult working men and women select, or do not select eLearning for the pursuit of higher education, with a focus on the English-speaking Caribbean reality. It explores the pursuit of higher education from the gender perspective and exposes the extent to which the gender identity that moulds society has governed the pursuit of technology-enabled higher education, namely higher education through eLearning.

Triangulated data from focus groups, one-on-one interviews and a computer administered survey corroborated by statistics from a reputable regional institution of higher learning, presented an unambiguous perspective on the use of eLearning for higher education purposes that is domiciled in gender identity. The paper highlights the critical value of eLearning to females based on how it compliments their numerous societal roles. It exposes how, drawing on the gender identity of males, the choice to avoid eLearning is formulated.

A critical revelation of this study is that the design of eLearning for higher education requires attention by programme designers and developers to the relevance, not only of the eLearning platforms and features, but to the content of the higher education programmes being disseminated through ICT. It has emerged that particularly the younger male learners (35 years and under) have high technological literacy and need programmes that will challenge their abilities.

This study adds to the literature on higher education by bringing attention to the choice of eLearning by gender. It contributes to the contemporizing of on-line platforms for eLearning purposes as well as the higher education programme

content to meet market demands. It draws attention to the attainment of higher education by working adults and helps to provide a stage for the creation of balance proportionate to the population between the genders in the approach to, and attainment of, higher education through eLearning.

Key words: ELearning, higher education, online, face-to-face, gender, quality, relevance

ABBREVIATIONS

ALIGSB	Arthur Lock Jack Graduate School of Business
CHSB-UWI	The Cave Hill School of Business-UWI
DBA	Doctor of Business Administration
CARICOM	Caribbean Community
EM	Emergency medicine
F2F	Face-to-face
FDI	Foreign direct investment
FG	Focus group
HE	Higher education
HEI	Higher education institutions
ICT	Information Communication Technology
II	Individual interview
IT	Information Technology
LMS	Learning management systems
LOR	Learning object repository
MSBM	Mona School of Business and Management
OC	The Open Campus-UWI
OECS	Organisation of Eastern Caribbean States
PEOU	Perceived ease of use
PU	Perceived usefulness
SES	Social economic status
SQ	Survey questionnaire
TAM	Technology acceptance model
UWI	University of the West Indies

CHAPTER ONE - INTRODUCTION

1.1 WHY THIS STUDY

The status quo of higher education as an elitist pursuit, having been rapidly eroded over the last century owing to political and social changes world-wide (Cowley, 1955, pp. 27-31 Chen and Stulberg, 2007, p. 8), has been further undermined by the emergence of new delivery modalities. These new modalities have widened the education distribution options and have put the providers of higher education in a pulsating state of competition for students and catapulting them into the connected economy (Garrison and Kanuka, 2004, pp. 95-105). Ready or not, higher education providers have to position themselves to capture a share of the market regardless of where that market exists if they are to survive. This dissertation addresses the turbulence that is hovering over the higher education environment as a result of the dramatic changes that have been experienced in the last two decades particularly in relation to eLearning (Chu, 20210, pp. 255-264; Watty, K. 2006). The study looks at how the demand for higher education has taken a gendered texture and examines why that is so. It looks at how the advances made by technology in the dissemination of information have fashioned an invaluable tool for the provision of higher education and its influence of choice by gender. It explores the values, challenges and possibilities presented by the knowledge economy which is influenced by the engagement that technology embodies.

Concomitant with the demand for higher education is the awareness of options; universities and other institutions of higher learning are under pressure to meet that demand and secure a share of the market. Further, the environment is

economically stretched from the perspective of the students and from the perspective of the universities. Ways have to be found to get higher education to those who want it and those who want it have to find ways to get to it. With the introduction of information communications technology to the learning arena, universities have invested vast sums of money to harness ICT for the delivery of education through the modality of eLearning. If higher education is the goal, it is important to understand why it is significant to working adults. That makes it important to understand how working adults attain higher education and what choices they make to get to it, and why those choices.

For higher education institutions to better serve the student population they must provide a satisfactory product in terms of delivery, end product and post-graduation utility. To understand how to do this better in the era of ICT, there is need to understand and address the differences in students attitudes towards computers and eLearning based on gender (Ong and Lai, 2006, pp. 816-829). My study is about the use by adult students of eLearning for the attainment of higher education from a gender perspective. With higher education as its undergirding, the thesis takes a close look at the differences in reason for choice made by adult men and women to use eLearning and how higher education institutions (HEI) are meeting those needs - or not.

Issues of gender, ICT, generations and socio-economics converge in this study to help to unravel the answer to the research question:

How is the choice of eLearning in higher education institutions affected by gender?

The remaining sub-sections of this chapter give an overview of the study.

1.2 THEORETICAL UNDERPINNINGS

Efforts to research eLearning in the attainment of higher education from a gender perspective both in the Caribbean and the international arena pointed to a dearth of research on gender disparity in the use of information communication technology (ICT) for higher education (HE) through eLearning. ICT has been used in this paper to encompass information communication technology as it relates to computer application to access cyberspace and information systems (IS) that facilitate the technology for information communication for higher education purposes. Extant literature speaks to the gendered approach to ICT (Hodgkinson, 2000, pp. 121-122; Straub et al, 1997, pp. 4-5) and to the use of ICT for other pursuits such as teleworking in Jamaica and Trinidad and Tobago (Dunn, 2009). The early literature recognises the dearth of documented information on ICT in developing countries (Gillard, Howcroft, Mitev & Richardson, 2008; Dunn, 2009; Starke-Meyerring, 2004; Walsham and Sahay, 2006, pp.-24). Nascent work on ICT in developing countries is related to policy issues such as that by Dimelis and Papaioannou, (2011 pp. 40-53) on economics and ICT. They studied forty-two developed and developing states. They examined whether ICT has an impact on reducing country-level inefficiencies. Notably, their work was based on data reaching back to the 1990's and only two developing countries had significance in the study, namely India and Argentina. Work by Dedrick, Kraemer and Shih (2013, pp. 97-122) addresses policy issues on IT and productivity. They do not speak to IT as an educational tool directly, but highlight the value of IT to productivity through education – “In developing countries, the relationship is moderated by education levels, foreign investment and cost of telecommunications services.” These cited works are not on ICT usage in higher education per se. They bring awareness to the use of technology and more importantly, the dire need for effective policies on technology in developing countries. The foundational aspect of ICT is technology.

In looking at the ICT situation, this research examines technology through computer technology and internet technology, recognizing that other forms of technology have penetrated the environment. Mamba and Isabirye (2015, p. 144) in discussing their study on ICT for development, state “It is not disputed that mobile phone technology plays a role in development. However, the empirical study reveals that the focus on PCs is preferred because of their ability to be used as educational tools, as well as other functions that a mobile phone cannot perform such as typing and editing”. Given the dizzying changes that take place in the mobile technology arena, Mamba and Isabirye’s statement could generate tremendous debate but will not here as it is not the focus of this paper. While it is conceivable that there is more literature to be had, I have not found any that speaks directly to the use of ICT for higher education by gender to which I can refer.

The literature on computer technology (Panteli et. al, 2001) locates the IT discipline in the domain of the male. With little specific literature to draw on and following the opinion of Ong and Lai (2004, p. 825) that education research on computer technology and information systems research can probably be extrapolated to eLearning, this study sought to extrapolate findings on IT and computer technology to eLearning for HE. This effort was intended to understand if there is a gender imbalance in selecting eLearning for higher education through answering the research question.

The history of higher education in the English-speaking Caribbean has been coloured by the political currency of the day and the attendant socio-economic conditions. This has received much attention by researchers (Beckles et al, 2002; Carrington, 2001; Copley, 2000; Dunn, 2009) to name a few. Research on issues of gender relations and gender disparity in society is amply documented in the literature (Barriteau, 2001; Black-Chen, 2013; Morley, 2005). The emerging eLearning models in the Region have also seen documentation in the literature (Boisselle, 2014). However, there is no literature that addresses the phenomenon of choice of eLearning for higher education by gender in the English-speaking Caribbean.

1.3 METHODOLOGY

The epistemological considerations on how research should be conducted include the view that for all research, a scientific approach in which a hypothesis is formulated and then tested using precise measurement techniques is the way (Bryman, 2012, p. 6). Conversely, there is the acceptance that there is no clear typology of blueprints for qualitative research, meaning, one does not have to start with a research design before the collection of data (Yin, 2011, pp. 76-77). Additionally, leading off the research with fieldwork or with questions is the choice of the researcher according to Yin (ibid). The discussion on research methodologies and design (Bryman, 2012, p. 6) also reveals awareness that from an ontological perspective research considers the nature of social phenomena whereby it must be determined whether there is inertness beyond our influence or whether we have influence based on social interaction. I have taken the view that the subject of this study is influenced by social interaction and is interpretive in nature, thereby lending itself to qualitative data collection (Neuman, 2003, pp. 75-80).

Yin (2011, p. 133) states, "If a study only uses structured interviews, the study is most likely to be a survey or a poll, not a qualitative study". This approach may yield answers to the '*what*' and the '*why*' a phenomenon exists. Bryman (2012 pp. 619-624) points out, research frequently involves the study of meanings in the form of attitude scales, that is, a structured interview that engages a Likert scaling technique could produce answers to what and why. However, the quantitative approach may lack the incisiveness to interrogate the subtleties residing behind the answers to these questions because it collects data in a strictly structured way; it does not benefit from body language, intonation and feelings that may emanate from a qualitative interview where questions were not structured. Consequently, I as the researcher made the decision that a quantitative or structured approach in its pure

form would be deficient in obtaining the nuances of the genders in their approach to and engagement of technology for educational purposes.

1.4 CONTRIBUTIONS DERIVED FROM THE RESEARCH

This work contributes to the body of knowledge on adult higher education, particularly through the use of eLearning by gender. It serves to fill a gap in the literature in this specialised area and to catalyse more work in the area aimed at improving the state of the art. It has particular relevance to sustainable national and regional development in the English-speaking Caribbean. Researchers in education have been busy over the last three decades, apparently addressing the lack of educational research as referenced by Stuppes (1974, pp. 3-10). There is literature that addresses higher education in relation to developmental needs and adult learning (Connor, 1999, pp. 92-93; Teichler, 2005, p. 2; Naidoo, 2011, pp. 40-44; Jules, 2008, p. 205; Beckles et al, 2002, p. 63; Copley, 2000, pp. 1-21). A new entrant to the educational arena, eLearning, has had some attention by researchers. Literature exists that discusses eLearning in the Caribbean and other developing nations as well as the developed world (Hyman, 2012, p. 22; Martin, 2012, pp. 26-28). Much of this literature is related to the quality of eLearning (Nawaz & Khan 2012, pp. 38-44; Kanuka and Rourke, 2006, pp. 922-926). Also, there is an abundance of literature on issues of gender (Barriteau, 2001, pp. 29-44; Morley, 2005, pp. 209-221; Jacobs, 1996, pp. 153-185; Hoffman and Hurst, 1990, pp. 197-208). However, I have found no literature on the gender perspective on eLearning in higher education. This work will draw awareness to the paucity of scholarly work in the area of higher education through eLearning from a gender perspective and will seek to develop a theory pertinent to the contemporary issues facing the use of ICT in higher education.

1.5 ORGANISATION OF THE RESEARCH

This thesis contains six (6) chapters organised sequentially that serve to take the reader through a seamless experience. The chapters are titled: 1. Introduction; 2. Literature Review; 3. Methodology; 4. Results; 5. Discussion; and 6. Conclusion.

1.5.1 Introduction

This chapter introduces the research giving the reader an overview of the quest for the research and the contents of the entire paper with insights into each of the remaining five chapters.

1.5.2 Literature Review

This chapter addresses the literature researched on the topic and draws reference to gaps in the literature and the opportunities for further research in the area.

1.5.3 Methodology

Chapter Three presents the methodology of the paper including the research design. It helps the reader to understand the structure of the paper and the connectivity between chapters and sections of chapters. The epistemological and ontological underpinnings of the paper are presented in this chapter.

1.5.4 Results

This chapter presents the findings of the research that is segmented data collected through focus groups, interviews and surveys. The data are presented in the context of the collection methodology and highlights the interpretation through the use of themes.

1.5.5 Discussion

In Chapter 6, the researcher presents a discourse based on the analysis of the findings and relevant to pertinent literature. The discussion chapter displays the researcher's interpretation of the findings and their applicability to related theory.

1.5.6 Conclusion.

This chapter concludes the thesis with a comprehensive round-up of the various chapters. It suggests contributions made by the research to the scholarly body of work in the area and identifies areas for possible further research. This chapter also looks at areas for immediate change in the eLearning for higher education environment in general, and makes suggestions for the institution used in the case study. The limitations to the research are discussed in this chapter and the researcher's reflection on the journey is presented.

In chapter two, I present a review of relevant literature.

CHAPTER TWO – A REVIEW OF THE LITERATURE

2.1 INTRODUCTION

The contents of this chapter are governed by the opinions of established researchers including Bryman (2012, 4-9) who, in discussing the literature review, states “The existing literature represents an important element in all research. When we have alighted upon a topic or issue that interests us, we must read further to determine a number of things”. What is contained in this chapter acknowledges as well the opinion of Blaikie (2010, pp. 17-18) that the major function of a literature review “is to link the proposed research to the current state of relevant knowledge. Many areas of literature may need to be examined, for example, to provide the background and justification for the research, and to select theory, research strategies and methods”. Also undergirding the contents of this chapter is the work of Yin (2011, pp. 61-62) on the importance of the literature review who opines “If a new study is claimed to be entirely unique, a good literature review also can demonstrate a researcher’s mastery over the literature as well as presenting the argument for the lacuna. Thus, conducting some type of literature review seems to be desirable”.

Influenced by the opinions of the above-stated celebrated writers, this chapter reviews scholarly literature on Electronic Learning, Gender and Higher Education as individual ontologies and collectively as a contributor to development. It seeks to identify contributing factors that lead to the choice by gender of eLearning as opposed to face-to-face learning, for higher education purposes. The literature looks at the evolution of learning, examining the move from traditional to digital education. It addresses the choices people have for learning, and to a limited extent, comparing the international perspective with that of the English-speaking Caribbean. The chapter will look at the emerging developments in eLearning,

examining the changing nature of the tools and the way technology drives trends in learning. The literature review transcends disciplines as the use of eLearning in different fields such as medicine engineering and commerce is examined in order to appreciate how the tool fits into the learning environment. The stage is set for this study by first looking at higher education and its evolution in general and in particular in the English-speaking Caribbean. The sections thereafter will look at learning modalities, for example, in-person learning or face-to-face (F2F), distance learning, namely, non-digital and electronic learning (eLearning). It will look at the growth and morphology of learning by distance study. The central investigation is on the intrinsic and extrinsic factors catalysing eLearning by gender in answer of the question:

How is the choice of eLearning in higher education institutions affected by gender?

The question has two main component parts, namely: eLearning; and gender, both of which have attracted extensive research as separate topics but not as a collective. The study resides in higher education, which makes the inter-relationship between the two main components, eLearning and gender, inextricable from higher education. The morphological nature of technology creates a moving target in this study. Technology is the vehicle through which modern distance learning is delivered and it not only plays an integral role in this process, but also serves as the main conduit. Some literature (Moore et al, 2008; Adam and Richardson, 2001; Panteli and Pen, 2008) suggest there is a gender divide in technology, contending that technology is skewed to masculinity. Other literature (Torenli, 2006, p. 439) suggests there is a technological divide in gender, arguing that both genders have access to ICT but one gender, (female) makes 'light' use of the technology. Extant literature on ICT as an educational tool is based on research conducted mainly in the United Kingdom (UK) and Europe. Narrative on the developing regions, particularly the Caribbean, is limited. ELearning in the context of this study is about the attainment of higher education and it is in that precise context that there is a paucity of literature.

To arrive at an understanding of why people seek to pursue eLearning, it is important to understand higher education in the context of a developing region as well as to be alert to the practices in developed parts of the world. There is no one answer to the purpose for attaining higher education. Literature suggests that there is a division in the labour market between men and women because the development process of nations (Gillard, Howcroft, Mitev and Richardson 2008, pp. 262-279) affects women and men differently. Consequently, trying to understand the reason or pursuing higher education could take myriad paths influenced by the socioeconomic environment in which the answer is pursued. In the upper social echelons, the answer may reveal a penchant for philosophy and the acquiring of knowledge for knowledge itself (Sewell and Shah, 1967, p. 1). On the other hand, the middle-class and lower socioeconomic respondents are more likely to cite economic enfranchisement (Howe, 2000, p. xii).

The next section addresses literature on higher education through the prism of human rights. Relations to gender, socio-economic status, national development, and internationalisation emerge as fundamentals in the fabric of higher education.

2.2 HIGHER EDUCATION (HE)

2.2.1 HE as a public good and a national right

Higher Education is a public good provided to individuals through both public and private institutions. The quality of the intellectual capability of a country's human capital has a direct correlation to that country's development. Society needs citizens who have been exposed to the best new knowledge and who have obtained the highest skills in order to make the contribution necessary for national development in the public and private sectors. Critical to this premise is the expectation that education is equitably distributed to the citizens of a country, regardless of race, colour, creed or gender. "As such, education is essential to individuals' development as it is to the development of their families, of the local and national communities to which they belong, and to the world at large" (UN System Task Team, 2015, p.3).

Higher Education is considered the rudder of national development, and as such, provides some countries with a dilemma. Too few higher education graduates means a lack of development and the need to import intellectual capital; too many HE graduates mean excess supply over demand. This may be considered misplacing of higher education development funds because graduates are either engaged in work different from - and sometimes below - what they were educated for (Connor, 1999, p. 92) or become prime targets for the globalisation market. Higher education is therefore a major factor in the hegemony between nations in the context of globalisation where developed nations attract knowledgeable human resources from developing and lesser developed countries (LDCs). For developing countries and LDCs, higher education is a multi-faceted and indispensable link that must be on the national agenda. Khan, Hasan & Clement (2012 p. 69) in discussing the ICT in developing countries and the attendant barriers, with emphasis on Bangladesh, opine that “effective implementation of ICT in education is not merely a vision. Rather it needs a proper plan, policies, execution and monitoring...” On one hand, weak or substandard higher education will result in diminished growth within a country perpetrating the cycle of poverty and under-development. On the other hand, strong and high-quality higher education could lead to two challenges for a country:

- 1) In the first instance, surfeit of graduates in the employment market. This would result in frustrated graduates and would appear to be a misdirection of higher education investment monies when the graduate labour market ebbs and flows as economies fluctuate with a concomitant vacillation between supply and demand. Graduates in 1987/88 were in short supply in the United Kingdom (UK), particularly in the field of information technology (IT). At that time, graduate unemployment was low. The British Government policy was focused on the value of the market economy and the need to hold its own in international competitiveness and therefore saw higher education as the key. It engaged an expansion strategy in higher education that was overwhelmingly successful, but debatably, short-sighted

from an economic perspective. By the recession of 1990, graduate unemployment had reached alarming proportions (Connor. 1999, pp. 92-93). The short-sightedness of that strategy, if indeed there was short-sightedness, was in the type of programmes offered at higher education relative to market needs.

2) In the second instance, in developing countries, HE results in a struggle to keep graduates at home for development against the pull of the transnational corporations (TNC) with their deep pockets and the attraction of the bright lights of developed countries. This is the reality of globalisation. Globalisation has and will continue to determine the nature of higher education and HE has fed and will continue to feed globalisation.

There is inter-dependence between globalisation and higher education that cannot be ignored by developed countries, developing countries and LDCs alike. According to Cox (2005, p. xi), "The international dimension of HE responds to the challenges of globalisation. The interdependence of today's economies and societies profoundly affects higher education, and higher education in turn shapes globalisation – through teaching, research and other services"

These challenges: shortfall of suitable graduates, surfeit of graduates and loss of intellectual capital point to the importance of the triple helix of innovation in a country's strategy in education planning, specifically, higher education. That is to say that the traditional independent roles of the institutions of higher education, institutions of industry and commerce and the institution of government, need to be more closely intertwined and inter-dependent with a pro-active higher education strategy at the core of the knowledge-based economy. The need may well be for education for local development and the exportation of intellectual capital in a strategic and organised manner. Recognizing knowledge to be the creator of wealth for nations, a country must assess its needs, assess its human capital and design higher education strategies accordingly. Nations must be cognizant of an undisputed need for educated professional staff as well as educated managerial staff

and well-educated support staff. This is a positive interpretation of Lauder and Brown's (2011, p. 488) 'Digital Taylorism'.

Digital Taylorism is where innovative ideas are transformed into routines that are executed by a set level of educated worker. This concept dictates that not all people should be made competent in the same discipline or at the same level of a discipline. Medicine for instance, has several levels of health-care professional in a terminal sense providing support to each other. This is a common-sense concept that requires no explanation and is applicable in societies that have a balanced socio-economic structure. However, for developing countries, it borders on the dictates of the post-World War II era where colonial powers saw it fit to provide education in the colonies to the natives up to a level that would serve the needs of the colonial powers, such as low level administrators and teachers. Miller (1994, p. 125) speaking in the context of race development in Jamaica, states, "Primary school teaching and teacher education shifted from being male dominated to being female dominated as a result of the intention of those holding central positions in the society to restrict black men to occupations related to agricultural and industrial labour; to stifle the possible emergence of militant black educated men who could possibly overthrow the power structure; to loosen the hold of the church on the education system; and to limit the upward social mobility of black men in the society". Education as an oppressive tool is no longer the issue, but the legacy of disparity between the sexes subsists. This signals the need for a balance in strategic higher education planning at a national level and securing the continuity of the provision of higher education as a national imperative as well as a utilitarian good.

This suggested macro-economic strategy in the preceding paragraph is not intended to eliminate the availability of choice to the individual to select where on the spectrum of higher education she/he wishes to be located. Rather, it is saying that interconnectedness is the corner-stone of development. That is, the development of the individual via rounded and pertinent education and the development of the society, via social services and facilities are inextricably linked. It recognises the value of diversity in a society and the importance of relevance in education systems

to the needs of the society through the needs of the individual or the other way around. Engagement of Digital Taylorism in this way suggests the provision of reservoirs of all levels of educated/trained human resources, with the individual having the right to choose to be the creator of innovative ideas or the administrator of ideas created by others. The UN System Task Team (ibid) in addressing Millennium Development Goals (MDG) states “Higher levels of more relevant learning outcomes are thus both a condition for, as well as a result of, progress in other social sectors.” It further states “Promoting respect for diversity within a human rights-based approach can facilitate intercultural dialogue, help prevent conflict and protect the rights of marginalized groups, thus creating optimal conditions for achieving development goals”.

Whether the focus is on retaining graduates at home or releasing them to the TNCs, higher education is paramount for development. The labour market local and transnational, continues to seek HE graduates (Isopahkala-Bouret, 2014, pp. 15) thereby creating an on-going need for higher education. HE’s longevity is also assured by the ever-changing push for diversification of business products, designs and processes which generate the creation of new fields of work and careers. For example, the growth and evolution of computer technology that creates specialists. Higher education is no longer a privilege.

Human Right No. 26 of the United Nations Universal Declaration of Human Rights mandates the right to free primary education. EFA Global Monitoring Report (2002 p. 3) posits, “If all people have a right to education, and if its impact upon people’s capabilities is intrinsically part of our notion of development, it follows that the provision of a basic level of education for all people must be made universal”. With Human Right No. 26 enshrined in the constitution of many countries, primary and secondary education is the norm. HE is the next level in the education process, and in some countries, it is provided fully or in part by the state. Higher education was a major player in the stimulation of growth and levelling the playing field of opportunity in the West in the 1960s and 1970s despite the realization, according to Teichler (2005, p. 2) that HE could be leading the West to saturation of qualified

graduates. It should be noted that the race to acquire higher education in the 1960s under the assumption that better graduates would lead to personal economic wealth and the graduates would serve a market economy (Teichler, 1999, p. 70), did not slow down when those expectations were not realised or when the world economy moved from boom to gloom. Instead, employers continue to demand HE graduates and the fact that there may be 200 graduate applicants for a single position in recession years has not changed the quest for higher education by the masses.

In a world where growth and development rely on qualified graduates, saturation should not be a concern. Rather, there is need for national strategic discourse on the mechanisms for deploying qualified graduates given the recognition that as already stated, a knowledge society augurs well for the advancement of a nation and improvement of the standard of living. Dias, (1992, p. 126) states “Some observations show that the fast developing countries in the region like South Korea, Malaysia and Thailand, whose past investment in higher education was quite high, are now enjoying the positive results of their policies with skilled and qualified researchers now employed in university teaching or occupying key positions in the productive sectors”.

The knowledge society depends on civil society for growth through economic and political dictates. Changes in the world social order have opened the door to higher education for many who, just 50 years ago had no opportunities. In the English-speaking Caribbean, as in Central, East and West Africa, a selected few were afforded the opportunity to go to higher education institutions in the UK and the USA. This did little for the former colonies as the masses were not catered for in such HE institutions and the orientation of those who went abroad was arguably, not in keeping with national development in their places of origin. Naidoo (2011, pp. 40- 44) speaks of national development prior to 1980 in developing countries which did not include higher education. This she said was a perspective supported by the World Bank and other international organisations because it was felt that investment in higher education was unproductive given the low rates of social and

economic return. See also Morley (2005, p. 211). The World Bank's view now is that HE is the motor that drives the engine of development in developing countries (Naidoo Ibid).

The existence of Human Right No. 26 since 1948, not only put an end to the era of education being the preserve of the WASP¹ male, it brought education to women and other minorities in developed countries. As Caribbean countries attained independence, access to education became a political imperative (Jules, 2008, p. 205). Education in the 1960s in the Caribbean was the ticket to a train out of poverty. The train is now on the HE track, which is a mixed blessing for the Caribbean. Higher education has contributed to national development for all of the English-speaking Caribbean countries and has at the same time presented those countries with the dilemma referred to earlier, that is, the loss of intellectuals to developed countries through trans-national corporations and voluntary migration. This is not a Caribbean phenomenon alone. Dias (ibid) in discussing Asia and the Pacific presents that the brain-drain is a concern to small states in that region. "When students go to Australia or New Zealand, they have a tendency not to return to their countries of origin – their loss is especially critical to small communities in need of indigenous expertise and trained personnel". Debatably, this may be construed as a lack of foresight or a lack of wherewithal on the part of governments of the Caribbean (and other mentioned regions). Either way, they have not built into their higher education strategies the cultivation of a mind-set that views education as a necessary tool for intellectual growth, aimed at fostering a nation of intellectually capable citizens rather than HE narrowly directed at specific education. This is not to say that pursuit of disciplines is to be minimised, but rather, that there is greater appreciation for a workforce that is highly educated across the board while maintaining the quality and rigour of 'fit for purpose' education as appropriate. It also speaks to the deficiencies in higher education programmes to inculcate the value in learners that education is a virtue in and of

¹ White Anglo Saxon Protestant

itself, and to turn out rounded individuals who are able to bring superior intellectual strength to the workplace and an appreciation for national development.

Added to the TNCs, the double-edged sword of academic scholarships causes the Caribbean to find itself on a treadmill of educating its citizens at primary and secondary level, only to have to compete with international markets for their intellectual capital at HE level. The Caribbean is not unique in this regard – Africa has experienced the same dilemma. Although there are high numbers of diploma holders of all levels in Africa, they are unemployed. This, according to Dias (ibid) has caused them to seek employment elsewhere. This has exacerbated the brain drain dilemma while “simultaneously, one witnesses the large scale employment of expatriate specialists in various sectors”.

Academic scholarships enable Caribbean citizens to take up good quality education places in developed countries - that is one cut of the double-edged sword; the other cut is that not all of these scholarship recipients return to the Caribbean to serve and contribute to development. The same situation applies to Asia and the Pacific area as already mentioned. Change has been slow. Ten years after Dias, Beckles et al (2002, P. 63) reported that every year hundreds of students receive academic scholarships in the United States, citing that in one year alone, two hundred Jamaicans received academic scholarships tenable at United States of America (USA) colleges and universities. Is this another instance of a lack of foresight and/or wherewithal by regional governments? Perhaps it is. Higher Education deserves a higher seat on the national agenda of developing countries and their budgets as part of a through-put vision from primary school to employment that receives governmental support and societal commitment. Even in 1876 when the concept of the scholarships for a selected few of the brightest minds in the colonies to study abroad was conceived and implemented (Cobley, 2000, pp. 1-21) the vision was flawed and short-sighted. It was not designed to build local intellectual capital with a local focus. Therefore, it is inconceivable that in the 2000s, Caribbean governments have not devised ways to use their scholars (whom they developed from primary level) at home. The shackles of the colonial legacy have not been

removed. The Caribbean tax-payer funds education from primary to secondary and should benefit from that investment at HE and beyond. This may happen if they are given higher education in general as a rite of passage, reserving specializations for areas that have a demand; such areas would be funded by the national education plan or the individual with a specific interest. It may also happen if Caribbean countries could find ways to bring high quality higher education to the masses more cost-effectively through collaboration and collective leveraging of their strengths and resources.

The option to discontinue or even reduce higher education in the Caribbean does not exist since the Region must ensure that it is adequately covered by intellectual capital through a continuous flow of high-level graduates. With GDP ranging from \$1,228 in Haiti to \$31,629 in the Bahamas between 2005 and 2012 according to the World Bank², the Caribbean must find ways to get higher education to its citizens through cost-effective means while maintaining the level of quality it is renowned for and on which its economies that are mainly service industries, rely. Is this a call for massification of higher education? In the remaining chapters of this sub-section, massification of higher education will be examined as either a positive or a negative for the Region and the world and its effectiveness in bringing HE to the populace.

In 1885 American cleric, John Heyl Vincent pronounced “the day is coming when the work done by correspondence will be greater in amount than that done in the classrooms of our academics and colleges (quoted in Bonk, 2009, p. 92). The intense interactivity incorporated into the pedagogy of an eLearning course/programme reduces the perception of remoteness of distance-learning courses that existed in the pre-Internet era. The interactivity is through discussion fora where learners and faculty exchange ideas and share knowledge, interactive quizzes, creation and maintenance of learning journals, live chats, as well as peer exchanges in wikis and blogs. The rapid evolution of technology makes the access/retrieval of material as well as the re-running of visual material or the re-reading of text material more and

² ["GDP per capita, Purchasing Power Parity \(current international \\$\)", World Development Indicators database](#)

more effortless. Less effort, more access, more speed and vast knowledge sharing are elements in demand by the modern learning populations.

These elements are not just a function of the 'restlessness' of the younger generation; all persons seeking higher education or doing business on the internet have the same demands for speed, quality and ease.

This is not a signal that the bricks-and-mortar establishments will be demolished; instead, the complementarity of a symbiotic relationship of the two modalities augurs well for learners and for providers of HE alike. Three markets exist in the new education arena. First, the market for eLearning is the one for people with less ability to commit to synchronous activities in a set physical location; second, the market for face-to-face learning is for those whose life-styles afford them the time to be physically present in a class-room; and the third is for those who wish the experience of face-to-face contact but not for an entire course or programme, so they prefer the hybridized format of blended learning. These markets give the providers of higher education options for diversification. The demand is vast. It is a demand by students (supported by parents) who are in school and by adults in the earn-and-learn phase of their lives. The latter category, more than the former, is unable to commit to full-time learning either at home or abroad. This is the category that make up the "sea of changed expectations" referred to by Newman, Couturier and Scurry (2004, pp. 7-8) as they discuss the higher level of skill and knowledge needed in society to foster civic involvement. Newman et al (ibid) drew attention to the need for HEIs that address societal problems while providing good quality education. Economic challenges faced by this category of learner point to the need for lower costs of higher education and easier access that facilitates the continuity of their revenue generation activities. Reduced costs means wider numbers, it means mass enrolment in programmes to make them feasible. This points to what has become known as the massification of higher education.

Massification of HE- is it a fast- paced intellectual development mechanism to meet the ever expanding need by business, government and society for high level

graduates or a diploma mill strategy that will dupe business, government and society by presenting graduates with sub-standard education and ability? Developing countries must guard against the latter which would be counter-developmental (Naidoo. 2011, p. 50). This is also the opinion of Hosein, Chen and Singh (2004, p. 8). Referring to the protection of tertiary level education (TLE) through a regulatory framework in the context of globalisation, they state “An important part of the debate about the globalisation of TLE concerns the permission of a certain degree of consumer protection to the domestic student population from “diploma mills” of questionable repute. With increased traffic and varied modes of delivery, a regulatory framework for cross border investment in the TLE sector is required. This may entail a broader approach to issues involved in licensing, regulating and monitoring foreign providers of TLE to preserve and uphold the public interest.” Eleven years ago, Beckles et al (ibid) pointed to the upsurge in demand for access to quality higher education in the Caribbean and the need for a change in policy direction that sees the University of the West Indies re-inventing itself to meet the need. At the same time, the Renwick Report (1992, p. 7) recommended the inclusion of distance education (DE) as an integral part of the UWI education strategy rather than as a ‘tack-on’ to the system. These pronouncements are underpinned by the feeling that the education system in the Caribbean has not shifted much from its original state in pre-colonial times. That is the ‘sage-on-stage’ approach to teaching and the concomitant strict entry requirements that ignore credit for life experiences, giving higher recognition to traditional qualification such as ‘O’ and ‘A’ level, CSEC and CAPE³. That stance has fostered a culture of stigmatization for ‘mature matriculants’ who do not have the afore-mentioned qualifications. This must not be misconstrued to be suggesting that the expectation of excellence in educational performance by secondary school-leavers must be reduced. Rather, it is saying that in addition to that level of high achievement expectation by those for whom the state expends funding, the Caribbean must be cognizant of its realities and recognise those who for one reason

³ CSEC and CAPE are the Caribbean equivalents of GCE ‘O’ and ‘A’ level qualifications

or another did not pursue the orthodox route of education accomplishment. These are the people who left school without school-leaving qualifications, entered the world of work and have been successful and now want/need to solidify their life-learning with academic teachings. These calls chime with that of Jules (ibid). According to Jules, who, as observed in 2008 that the evolution of the education system in the Anglophone Caribbean has not moved too far from its original state, pointing to the fact that only countries in the Caribbean with radical nationalist regimes sought to depart from the post-colonial system of education (also see Naidoo, 2011, p. 48).

It is clear from these opinions that the constant demand for higher education cannot be met through archaic and uneconomic delivery mechanisms. Higher education must get to the masses speedily, efficiently, effectively, and at a quality and relevance that will create and maintain twenty-first century HE graduates as pertinent assets to local and international HE graduate markets. Higher education has to be constant and it has to be relevant, it has to be affordable and in the context of the Caribbean, has to have geographical coverage. Massification of higher education, if strategically perceived, is not a negative, but rather a term that implies that the higher education needs are being met in relevant ways, that is, the type, the timing, delivery mechanism and the quality of HE. There is extensive literature on the quality aspect of higher education which covers myriad features within the realm of HE, such as quality of academic staff, the administrative staff, assistants, buildings, classrooms, laboratories, technical apparatus and machines used in education (Zineldin et al, 2011, p. 234) Also see Kalayci, Watty and Hayirserer (2012); Bergseth, Petocz and Dahlgren (2014). The mention of the quality of higher education in delivery and content invokes the importance of accountability by providers of higher education.

Burke et al (2005, p. 7) chronicled the changing focus of accountability for higher education in the American landscape. A social compact, largely unwritten, existed pre-1970 in America between American society and higher education providers. It rested primarily on trust that higher education was a societal public good and a

private good for the American student. By the 1970s enrolment started falling victim to the economy. By the 1980s economics was joined by quality as the measure of HE and assessment of student learning became a priority. Today, this approach may arguably apply to all national Higher Education Institutions around the world; and it can therefore be assumed that national development is being catered for by HE through repositories of information and knowledge, research and enhancement of knowledge overseen by quality control mechanisms. Quality in higher education is now viewed through the institution offering it which in turn is classed by the quality rank that institution holds on the league tables. The question in the minds of the consumer of higher education should be “who guards the guards themselves?” because the criteria for ranking varies and the variables are related to the perspectives and objectives of the ranking bodies; cultural, social and economic issues must be considered when looking at the ranks on league tables. Bergseth et al (2014, p. 332) state that rankings have a broad purpose including a possible underlying objective to contribute to quality enhancement by stimulating higher education institutions to compete. They say “thus, the purposes of rankings, as well as ranking methods per se, can vary greatly among the wide range of actors in the ‘ranking market’. Therefore, although assessing quality through ranking should entail intensive research of the ranking criteria, the fact that there are standards by which to identify quality is valuable especially in an environment where cross-border higher education provision is rampant.

Cross-border education provision requires serious consideration given the already stated opinions that HE is the foundation of national development. Getting higher education to the people in a way that meets their circumstances must be an integral part of the national agenda. The adage “you can take a horse to water but you cannot make him drink” is apt here. National development depends largely on the predisposition of the nationals to be developed. Government programmes and financial expenditure will amount for naught if the nationals do not have the ambition for development, or, equally crucial, if the education is not relevant to the learners’ needs and expectations.

Emanating from this sub-section overall is that HE is a national good and a strategic advantage in the global economy – it is no less formidable than the military of a country in the defence of or offensive action for a nation. Higher education is indispensable for development and must reach the masses. While it must be subjected to standards that will bolster national development, it must also be pertinent to the desires of the chosen audience. These goals need not be mutually exclusive. The masses in this regard are made up of working adult male and female. If the ‘horses are to drink when they get to the water’, it is necessary to examine the ‘water’. The ‘water’ in this context is the goal of higher education. It has been established in this section that higher education is a tool for the development of nations. For higher education to be effective, people must want to learn. People seek to learn for varied reasons, most of which may be classified as noble, such as the lure of a better standard of living for self and family, upward social mobility, upward career mobility, competitiveness and self-actualization. These noble motives are sometimes stymied by the effects of socio-economic status. The next sub-section looks at socio-economic status, ICT and gender in the U.K., Europe and the Caribbean.

2.2.2 Socio-economic status, ICT and gender: the U.K, Europe and the Caribbean

Education informs occupation and occupation, as a general rule, informs socio-economic status (SES) through income. Globalisation has created an overt and perpetual state of competition among nations, ranging from the super-powers who seek to have the best weapons of mass destruction to the LDCs seeking to improve their health and education provision. Formerly protected areas of trade, commerce and industry have become open areas with a free-for-all fight in progress. While trade in goods and services has been highly visible tools of competition, education, particularly higher education, is party to a subtle competition that is rooted in the hegemonic struggle between nations. ICT is a vital tool in modern development and an integral part of globalisation. The extent of propositional knowledge of ICT versus the extent of skilled knowledge, (knowing how ICT works versus knowing how to use ICT) is determined by the socio-economic status of the individual and the

nation as a whole based on the access to and provision of the hardware and software tools of ICT. This is the bedrock of the term 'digital divide', which refers to the partition between people who have access to technology, particularly computer technology and the internet. The inference is that the more affluent the society, the wider the diffusion of ICT. If ICT is in use by the population as a whole, it is to be interpreted that women will be using it as well as men. While much of the literature points to discrimination against women in ICT, there is also literature that shows that women, especially in the informal sector are proficient and prolific users of ICT (Dunn, 2009). Hilbert (2011, p. 481) opines that the literature is not giving universal coverage to the issues of technology and socioeconomic status. "Due to the paucity of adequate statistics about the world's poor, technology-related research and respective policy-advice, is often exclusively focusing on the roughly 20% of the world population living in the most industrialized countries, while the remaining 80% of the global population is frequently ignored or inappropriately subsumed under these findings. This is delicate, because living conditions, opportunities and threats differs decisively in developed and developing countries. The vast majority of women live in developing countries and they often suffer even more gender related discrimination than their counterparts do in developed countries. At the same time, if ICT were to hold a promise to empower women, then this promise is much larger in the developing world, given that the lower starting point provides for greater potential gains". Accordingly, the literature is no longer clear-cut as it relates to a digital divide by gender. It is not categorically reflecting inclusiveness or the perpetuation of a status of social exclusion. Rather, it is reflecting the rapid changes taking place in the engagement of ICT, transcending previously held views of strict division by gender. On-going research is needed to establish whether gender determines who seeks and engages in propositional knowledge or in skilled knowledge of ICT and why, in light of the changes in economies around the world coupled with the advancements in technology.

The debate raged on in the UK about the information rich and the information poor seen as the core parties in the digital divide, which in turn, is a significant

contributor to social exclusion. The connection of this social dysfunction to economic activity is fully recognised by the government of the UK as evidenced by its stance on social justice for the information age and a fair information society. (Selwyn, 2002. p. 4) A high priority in the UK is the provision of access to ICT-based opportunities for groups considered as disadvantaged, said groups primarily comprise those on the lower rungs of the socio-economic ladder.

Selwyn (ibid, p. 7) reports that in 2000 the Government of the UK invested millions of Pounds Sterling on a programme styled 'UK Online that encompassed the Department of Education and Employment, the Department of Trade and Industry the Department of Culture, Media and Sport, the Department of the Environment, Transport and Regions. It focused on community based technological accessibility, catalysed by remarks made by the then Prime Minister, Mr. Tony Blair "Universal internet access is vital if we are not only to avoid social divisions over the new economy but to create a knowledge economy of the future which is for everyone. Because it's likely that the internet will be as ubiquitous and as normal as electricity is today. We cannot accept a digital divide for business or for individuals". Just one year after Prime Minister Blair's SES based, but gender-neutral remarks Panteli, Stack and Ramsey (2001. p. 13) show that the problem was not just SES, but about sex also. Richardson (2009, p. 3) subsequently identified socio-economic changes in the UK to the extent that most households are ICT enabled, by way of usable devices. However, having computers and smart phones in themselves must not be perceived as the empowerment of all in whose presence these devices reside. The hardware may be present because it is either provided by the state (school teachers get computers) or is made available through easy credit terms. What is done with the technology is that which perpetuates or narrows the digital divide. Playing games, shopping and chatting do not constitute advanced usage of technology. These activities apply to both male and female. These activities demonstrate that the individuals are au fait with handling the hardware and pre-programmed software. Current literature is showing that the quest in the former Prime Minister's speech to avoid social divisions does not appear to have been adequately addressed. There is

wider ICT access manifested in women being employed in ICT jobs but the divide now resides in the differences in pay for the same ICT job between genders (Belgorodskiy et al, 2012, pp. 106-119), thereby aggravating the very SES divide addressed in the speech.

The digital divide in some countries in Europe is exacerbated by inequalities in other spheres of the social constructs. The social divide that refers to the gap between the information rich and the information poor (usually mainly females) along with other disparities are evident in Turkey, a country with significant ICT resources and exemplary practices but with a social landscape that is littered with inequalities. These include a high level of unemployment, unequal income distribution, low level of education, among others, Torenli (2006, p. 437). These, along with inadequate political direction with regard to ICT access, as well as a high cost for internet connectivity takes ICT out of the reach of the masses thereby keeping buoyant a democratic divide which relates to separation of users of the Internet for public life and non-users for that purpose. Gender issues are a large contributor to the digital divide in Turkey because they play a large role in the socio-economic makeup of the country. Additionally, of the affluent minority, use of ICT by women is limited to frivolous or 'light' use such as sending e-mail messages, chatting, games and listening to music. 'Heavy' use, that is, banking, financial trading, and higher education within that socio-economic sector is by men. Poverty/low level education is a two-way street on which ICT usage does not travel. In 2014, Turkey is projected to be a part of the MINT countries whose economic development in 30 years therefrom will be in the lead. The biggest growth area will need to be in the development of women in technology.

Recognizing the importance of ICT to globalisation and in global competitiveness and the double-edged power it holds, English-speaking Caribbean countries have stepped up efforts at increasing ICT integration into business, government and society. The 2003 Georgetown Declaration saw the release of the CARICOM⁴

⁴ Caribbean Community

connectivity strategy towards a significant enhancement of the enabling environment for ICT across the region. (Gaible, 2009, p. 7). Part of this strategy has been the increased investment in ICT in education and changes to the curricula for primary, secondary and tertiary schools to incorporate ICT. However, a challenge remains in that according to Gaible, (ibid, p. 3), “while student performance has improved, the skills gained do not match up with skills required by the workplace”. This speaks to the rapid changes taking place in technology but which are not aligned with the pace of change in ICT needs such as in tourism that is a major economic contributor and highly ICT dependent industry.

Tourism is the number one player in the economies of most of the English-speaking Caribbean region, followed by financial services. The loss of preferential treatment for agricultural produce (particularly sugar and bananas) has been devastating to Caribbean economies. Social and economic challenges internationally and locally have increased the Region’s dependence on tourism and financial services for the generation of foreign exchange. Events such as the catastrophic terrorism of 2001 in the USA, the impact that wars in the Middle East have on oil prices, the results of Ponzi schemes in the USA and the Caribbean and the decimating changes in weather patterns. The tourism industry is highly competitive as the Region is pitted against other similar geographical areas with sun, sea, sand, peace and friendly people as their main attraction and in some cases, with the advantage of lower costs. This has diluted the volume and quality of tourists to the Caribbean with the logical result of a reduction on the Region’s foreign exchange earnings. Similarly, with the heavy dependence on ICT for off-shore financial services, the Caribbean has found itself in steep competition with the rest of the world, particularly regions where the labour costs are lower. Likewise, the reduction and in some cases the withdrawal of off-shore financial services has seen the Caribbean in a reduced and precarious foreign exchange earning position.

Changes in these areas of revenue generation, particularly foreign exchange, have placed pressure on the socio-economic status of the countries of the Region that is not keeping abreast with the phenomenal changes in ICT. Consequently, another

dynamic in the technology scenario is the generational divide. Those in authority to make change in organisations are not technologically enfranchised; those who are technologically enfranchised are not in a position to make changes in organisations. Further, globalisation has introduced a significant element of managerialism in higher education. Globalisation has also contributed to the re-defining of the social construction of higher education. Both of these features play a role in the access to higher education and by extension, national and regional development. The next two sub-sections look at managerialism in HE to open a vista on how national development is affected by this off-shoot of globalisation. The social construct of higher education in the 21st century for adult females and males is also looked at.

2.2.3 Managerialism in higher education

Speaking on managerialism in higher education, Lynch (2015, p. 195) opines “Focusing on measurable outputs has the ultimate impact of defining human relationships in the university in transactional terms, as the means to an end – the end being high performance and productivity that can be coded and marketed.” She points to how marketization of HE and managerialism which is a natural consequence if marketization is to be contained, foster the transformation from student/education to customer/service, with the attendant focus on the provision of service. While this type of modernization has desirable effects such as the power of choice for the learner and the need for quality and delivery ethics, it also contribute to making higher education an economic good mired in competition and susceptible to the vagaries of globalisation, see Boisselle, (2014, p. 2). This does not always bode well for developing and lesser developed countries, the English-speaking Caribbean being a case in point (see Beckles et al 2002). Literature indicates that this is not a problem for the English-speaking Caribbean only. According to Martinez et al (2015), the yard-stick for accreditation in the Colombian Caribbean Region is the Saber Pro Examination results. However, her research indicates that the students who take the Saber Pro Examination and are successful were the ones who were not likely to drop-out of school in the first place. This suggests that while

HEIs are boosting their rankings by good examination results, the at-risk section of the higher education population experiences neglect.

Lynch (ibid) opines that the afore-mentioned marketization and managerialism contribute to the reduction of “first order social and moral values to second-order principles; trust, integrity, care and solidarity are subordinated to regulation, control and competition. When managerialist practices achieve hegemonic control, they parasitise and weaken those very values on which the university organisation depends. While few would question the value of efficiency, in terms of maximising the use of available resources, the difficulty with managerialism is that it does not just prioritise efficiency, it suppresses other organisational values so that they become incidental. The net effect of the devaluation of moral purposes is that public services, such as education, are no longer defined as capacity building public goods.” These opinions highlight the awareness that the social construction of higher education is being re-defined.

2.2.4 Higher education in transition and social segregation

Change is constant in the higher education. This is because changes in society place demands on individuals who seek to meet those demands through the education they avail themselves. University rankings contribute to job placement (McDonough, 1994, p. 433). Consequently, potential learners seek to gain admittance into the best-ranked institutions because qualification from these institutions stands them in better stead in the job market. That the ranking, as presented in the previous sub-section is debatably in need of adjustment, is immaterial to one section of the stake-holders of higher education. That is post-secondary school students and their sponsoring parents/guardians, as well as working adult women and men who are making the choice to seek higher education for myriad reasons, not the least of which is better employment.

The demand of the market and the element of competition that have entered the field of HE, create an environment of change for HEI's in order for them to maintain sustainability. Literature suggests that a range of social and cultural issues affect

the choice of HEI (Shiner and Noden, 2014, pp.1-22) with elitism based on family background forming an integral part of choice, selection and access. Rankings address the need for elitism. Gender disparity still forms part of the social construct in pursuit of higher education (Salmi and Bassett, 2014, p. 368). This aspect of social segregation in higher education is being addressed by the provision of HE through digital means which is a change in the delivery mode of higher education.

The literature purports that the stereotypical discrimination against women has caused them to accept that computer technology is a man's discipline and they should avoid entering. It also states that socialization the world over conforms to the Masculine/Feminine dimensions of culture. Consequently, societies have been conditioned to accept that women do not belong in the field of computer technology because computer technology is a predominantly male discipline. Panteli and Pen, (2016, P. 46) discuss literature that suggests that women need to be taken out of their comfort zone and made to function in what is universally perceived as a male dominated discipline. Like Panteli and Pen, I disagree with this approach. It, in my opinion, adds another layer of discrimination on the female. Similar views are expressed by Panteli, Stack & Ramsay (2001). If women want to be involved in technology, then the onus to level the playing field is being placed on them. The concept of stepping out of the comfort zone is an emotional feat in itself. The social transformation required to accept them in a male domain is another feat of which they play only a small part. The more equitable approach would be for the technology environment to become more all-embracing and gender neutral. The radical feminist view according to Panteli et. al, (2001, p. 5) also advocates that rather than placing women in the same working terms as men, the masculine culture must be replaced by the feminine culture in order for there to be equality in work environments. Others have suggested that technology itself must be changed, not just the image (Hodgkinson, 2000, p. 122). The image of technology being masculine is a social construct, so ingrained in the psyche of the genders that the presence of a female in a technological environment is reason to stop and listen. A male ICT expert being interviewed in this study became very animated when he

described the obvious technology prowess of a female he had encountered. He said she was, *“so knowledgeable about technology, it was like speaking to a man”*

The very nature of ICT suggests accessibility by diverse groupings and effectively a levelling of the playing field. Literature suggests that the metaphor of equality in the engagement of ICT in business, education and society as a whole is the provision of digital opportunities for all users, (Nawaz, 2012, p. 2). The issue of women stepping out of their comfort zone will be looked at further in section 2.5 when dealing with literature on eLearning and gender.

While the literature revealed that males have higher self-efficacy in the use of computer technology, it also suggests that if women were placed into the computer technology discipline they would achieve equality with men. This intimates a conflict in definition of the gender to which technology belongs. In other words, if it is suggested that should women be ‘inserted’ into the field of IT, they would do as well as men, then there is no physical or psychological difference in the nature of IT that gives one gender an advantage because of the makeup of the sexes.

The marginalization of women in the ICT arena in the UK is so deep-rooted, debatably as a function of low self-efficacy in women or the masculine culture in society (Hodgkinson 2000, pp. 121- 122), that a community of practice (CoP) was developed to help to shepherd women seeking to resume their career development in the Information Technology (IT) field, (Panteli, 2012 p. 392). The CoP is a special apparatus that helps to shape the identities of its members; it is a network of relationships that helps its members to find their way back into the world of work. One such intervention in the UK is the European Union funded EQUALITEC⁵ programme which helps women to “define, align and adjust their attitudes, aptitudes and aspirations so that they are well equipped to enter the labour force” (Panteli, 2012, p. 394). These attributes may well be appropriate for any gender seeking to enter/return to the world of work, but its significance for women in IT

⁵ Equal Information Technology, Electronics and Communications intervention programme offered under Portia Ltd., funded by the European Commission.

work in the UK, highlights the challenge, perceived or real, to the female in IT there. Moore et al (2008, p. 16) report the case of a female interviewee in the UK who as a result of male bullying at work concluded that IT was not for her and instead sought to retrain to the more 'nurturing' field of horticulture. This demonstrates social conditioning, rather than a mental, physical or technical deficiency. Social conditioning is also reflected in the work of Maurer (2011, pp. 915-930) whose work in Latin America and the Caribbean, suggests there is association between education and later-life cognition which contributes to gender differences. He opines "statistically significant differences in early-life education and later-life cognitive functioning between older men and women for several urban areas in Latin America and the Caribbean, with men having both more years of early-life education and higher levels of later-life cognitive functioning than as I seek to understand how choice is made by working adults to pursue higher education.

The literature in this sub-section points to the gender less likely to use technology for the attainment of higher education as the female because of the hitherto described fear of the technology environment and the consequent lack of computer self-efficacy. Based on Bandura (1978, p. 241), by not expressing computer self-efficacy, women are not expressing their aspirations, rather, they are demonstrating low self-efficacy which says that women either by nature or by nurture have low self-efficacy. It is not the remit of this thesis to investigate whether women the world over have high or low self-efficacy. Instead, I am trying to establish the reason(s) anyone accepts technology as a vehicle for learning. Given that, the data in the research reveals higher enrolment in eLearning programmes by women than by men, the question of why women and why not men permeates the discussion and confounds the aforesaid implications that women's technology self-efficacy is lower than that of men. Computer technology is not a natural feature of human nature such as walking or running, therefore for one to acquire computer self-efficacy, one must be drawn to the computer. This research suggests that the ultimate goal of career enhancement or personal self-development is the impetus for exercising direct personal agency in engaging technology to acquire HE. Direct personal

agency is a mode of Social Cognitive Theory (Bandura et al, 2001, p. 13) where the individual takes personal responsibility for his or her actions and therefore proceeds to attempt whatever challenges he or she perceives in order to achieve a goal. Literature suggests that there is no conclusive position on what causes individuals to set goals because most research has been conducted on assigned goals as opposed to self-set goals (Phillips and Gully 1997, p. 792; Acee et al, 2012, pp. 682-683). An interpretivist approach would suggest that to determine the causes of goal setting would require observation of the individuals and their environment. Other variables may factor into this analysis, such as self-efficacy and its role in helping individuals to approach hurdles and/or targets in order to achieve goals.

Literature is limited on gender and technology for learning purposes in the Caribbean. Black-Chen (2013, pp. 40-54), discusses the high value that women in Jamaica place on their education which she said is different from the values for education held by men. She briefly points to the use of technology by women as a learning tool. Extrapolating from Dunn, (2009, p. 9) who speaks of use of telephony by women in Jamaica for both social and business purposes, it may be deduced that the end goal is one of the drivers for technology use by women. Using the Jamaican experience as representative of the English-speaking Caribbean, it may be deduced that personal agency (Bandura, *ibid*) is an attribute of the Caribbean woman in her own development despite traditional and socially imposed challenges. Hilbert (2011, p. 481) suggests that the literature is inclusive. He says “We do not know if ICTs are a threat or an opportunity for women. “ His reasoning is that there is no proof that women are technophobic given that long-standing gender-related inequalities such as time, money, control, learning opportunities, other commitments, prioritizing others’ needs are the reason for less usage by women and does not indicate ability or lack thereof.

This section (2.2) points to the importance of higher education as a public good and a national right. It highlights that the traditional values that contributed to discrimination between rich and poor and male and female in the attainment of

higher education still prevail. The section also shows that higher education has transformed into an economic good because of the effects of globalisation and internationalism that are unavoidable paths in the progress of nations.

Having established the imperative for countries, developed, developing and lesser developed to make higher education accessible to their populations, the next section will discuss the evolution of education delivery modalities. It will explore the traditional methods of attaining higher education including correspondence studies, and the nascent method of online and distance learning (ODL) focusing on electronic learning (eLearning).

2.3 ELEARNING

The evolution of distance education has been, and continues to be manifested through formats pertinent to contemporary structures of social and technological development. Some of these, such as mail-facilitated correspondence studies and, many university created outreach programmes have receded into the annals of history.

2.3.1 Pre-digital learning

Traditionally, students in higher education pursuits attended classes, listened to lectures, took notes wrote up research papers and sat examinations. They did this as a full-time exercise for the duration of the course of study that lasted from three to seven years depending on the discipline. Initially, those classes were designed for undivided attention of the student. That is to say that they were in residence at the institutions of higher learning, had minimal distractions, and could focus on their studies. This dictated that they had to be physically present in the classroom at the same time as their peers and lecturers. This is an ancient, tried and tested model. The part-time/evening studies emerged to allow students who had to maintain full-time jobs during the course of the day to have access to studies at nights or weekends. That modality also relied on the in-person physical presence of teacher and learner hence it is described as face-to-face learning. That method ceased to be the sole portal for education some decades ago. Bonk (2009, pp. 10-11) states “ The reliance on eyeball-to-eyeball learning, which had been pervasive since Plato’s

Academy two dozen centuries ago, is no longer as prevalent in schools, universities and corporate training institutions, and may not even be preferred by their learners or their instructors.”

Correspondence studies existed for decades in order to meet not only those who could not attend the full- logistical constraints; but also to address a global geographical dispersion of learners and the attendant logistical constraints faced by them in getting to a bricks and mortar establishment. The method used was for text-based material to be sent to students in distant locations through regular mail services; the student addressed the assignments and submitted them, usually through the same mail service.

The Caribbean Region has been served by distance education since the 1970s, mainly through the University of the West Indies’ (UWI) distance learning mechanisms that evolved over the years. The UWI’s distance learning programme was designed to reach citizens of the countries within the Region that did not have a UWI campus, that is, the countries other than Jamaica, the twin island republic of Trinidad and Tobago, and Barbados. Primarily, UWI’s distance learning programme catered for those learners resident in the Eastern Caribbean (OECS⁶) sub-region. Effective as it may have been, there was and continues to be discrimination against HE that is not attained in the traditional format.

Discrimination associated with correspondence studies based on questions about standardization, loss of community and issues of ethics (Carlsson, Fumarco and Rooth 2014, pp. 3-11; Rockenbach and Almagno, 2000, pp. 453-461). This is not dissimilar to the situations where academic programmes and professional programmes are pitted as superior and inferior in the eyes of many employers and scholars (Isopahkala-Bouret, 2014, pp.8-14). Job offers are sometimes based on the difference between those who were able to attend physical classes were perceived as superior to those who obtained their studies by distance learning (Kennedy, 2012, pp. 91-96). The lack of direct supervision, in some cases lack of physical

⁶ Organisation of Eastern Caribbean States

contact with lecturers, the lack of community and the high drop-out rate, attached a sentiment of inferiority to study by distance mechanisms (Kidwell and Kent, 2008 p.2). Nevertheless, many communities the world over relied on this method as there was no other feasible solution to filling their need for higher education. Many communities still do rely on distance learning which has transformed with the aid of technology and commonly referred to as online and distance learning (ODL). Unfortunately, the stigma still obtains. ODL is misperceived as being for adult learners, for the less intelligent, as having inferior quality because it is not subject to quality assurance measures. Ojokheta (2011, pp. 348-349) states "...the distance learning students are exposed to in-depth knowledge and skill acquisition just as the conventional students since they are evaluated with the same techniques and criteria. Hence, it will be wrong for anyone to perceive ODL as not representing true form of learning simply because it is more technology mediated or because the tutor is not physically present with the learners in space and time over a period of time. In essence, the issues of low quality assurance, evaluation not vigorously pursued like that of the conventional programmes, and ODL representing a debased form of learning are invalid and misleading statements and perceptions. So also is the issue that ODL is less rigorous when compared with the conventional programmes. It can even be said that ODL is much more rigorous than conventional programmes if viewed from the angle that distance learning students are expected to combine their academic activities with that of their various responsibilities and competing demands". As Ojokheta (ibid, p. 341) has stated for Nigeria, there is need for a study to examine the common misconceptions about ODL. Similarly, I believe that the HEIs in the Caribbean must develop a sensitization strategy for their lecturers in the first instance and for the regional community at large so that there is better understanding and appreciation of modern distance education.

2.3.2 *ICT's role in HE*

The economic and social environment in the English-speaking Caribbean of the last decade, conditions of which are prevailing, present three scenarios pertinent to higher education. The first scenario is the issue of the financial wherewithal to

pursue higher education in the traditional style, that is, dedicated time at a bricks and mortar establishment, affixed to a chair in a lecture hall listening to a sage(s) for several hours in a day being registered as a full-time student. This entails financial expenditure for travel, accommodation for learners who are not resident in the campus country and suspension of income generation for the individual. The second scenario is the realization that the passport to economic development for the individual (and by extension the nation) is the acquisition of higher education. It is the 'key lever' of sustainable development (UN System Task Team, 2015, p. 3). The third scenario is the reality that the concept of competitiveness has entered the realm of education, particularly higher education, which makes the sustainability of universities subject to market conditions, resulting in higher education institutions (HEIs) adopting a business orientation towards what they deliver and how (Bladerston, 1995, pp. 303-304; Naidoo, 2011 p. 40, Beckles et al 2002, p. 74). What they deliver must be pertinent to the needs of learners and the community that will employ those learners. Of significance in this study, is the pertinence of how they deliver in order to target needs, interests and proclivities of learners wishing to attain higher education. The engagement of technology in the delivery of education is fast becoming an integral feature in the make-up of HEIs. The next section examines the technological artefact – eLearning.

2.3.3 What is eLearning?

According to Nichols (2013, p. 2): eLearning – the use of various technological tools that are either Web-based, Web-distributed or Web-capable. This is an all-encompassing definition that lays bare other definitions because it allows the imagination to explore all possible devices latent or patent that can be used with the Web. Jay Cross (2004, pp. 103-110) describes eLearning as learning that is facilitated by networks. Cross (ibid) draws comparisons of definitions of eLearning between 1997 and 1999 as follows “Before anyone called it eLearning, in late 1997, learning guru Elliott Masie said, “Online learning is the use of network technology to design, deliver, select, administer, and extend learning.” In 1998, I wrote, “eLearning is learning on Internet Time, the convergence of learning and networks.

eLearning is a vision of what corporate training can become. eLearning is to traditional training as eBusiness is to business as usual.” In 1999, Cisco told us, “eLearning is Internet-enabled learning. Components can include content delivery in multiple formats, management of the learning experience, and a networked community of learners, content developers and experts.” The 1999 definition provided by Cisco (quoted in Cross 2004) relates to my exposure to eLearning and it is the definition I am working with for this study. Having said that, I consider that the process should be identified from two angles. First the delivery of knowledge for which I consider *e-Delivery of knowledge* perhaps a more apt description of the process of taking education/knowledge to others; and the receiving of knowledge for which *eLearning* is appropriate since learning is internal to the individual who is demanding knowledge. By his or her social action, learning takes place. Knowledge transfer occurs in a socially constructed learning context (see Brown and Dugid, 199, pp. 40-57).

eLearning is multi-faceted and fluid, thereby making it harder to replace than earlier forms of distance learning such as correspondence or radio broadcasts. That is to say that whereas higher education obtained by correspondence studies or radio broadcasts is no longer referred to except in reference as a precursor to modern distance education methods; the use of digital technology in education, particularly higher education has made so indelible a mark that its replacement is not envisaged.

The dynamism of digital technology and its constant morphing ensures its existence in the HE arena as a permanent feature. Its base, ICT, is an all-powerful modern tool of change. Nawaz (2012, p. 1) opines its powers are beyond any other technology in the past. Cyberspace has facilitated the traditional functions of universities to be distributed to all interested thereby extending the hegemonic tussle with the bricks-and-mortar university. Noam (1995, p. 247) predicted that many of the traditional functions of universities will be superseded by technology. He said universities will see their financial base eroded, their technology replaced and their role in intellectual inquiry reduced. Marginson (2011, p. 5) points out that while

universities continue to source their authority in their traditional role of scholarship, university-created knowledge is now accessed as a one-world library on the World Wide Web (the Web). This opinion, at first glance, may appear to give credence to Noam's (ibid) that technology has made university knowledge open to all, inexpensive and thereby erodes the revenue opportunities of universities along with their mythical status, bringing them to the verge of collapse. However, world economic affairs and the ingenuity of university administrators and leaders have conspired to transform the hegemony into a partnership. For example, situations such as the fuel crisis in the 1970's that saw air fares rising exponentially, then the devastating events in the USA of 11th September 2001 (9/11) that drove a fear of flying into many a prospective student, affected student travel. Those situations along with the collapse of commerce triggered by the bursting of the bubble in the housing market prime rate in the USA that sent economic shock waves around the world, combined to make it imperative that HEIs enhance mechanisms to get HE to the market. Noam's prediction still looms over the higher education arena albeit taking a meandering path.

The university institute has now been availed of an opportunity to provide affordable higher education to the knowledge-hungry global new learners and continuing learners who are disenfranchised by the economic and social disasters afore-mentioned, thereby resuming its position as a prominent player in the knowledge economy through intellectual property. The elements of affordability in this context are access to good quality education without the need to incur air travel costs, without incurring accommodation costs, without foregoing employment opportunities, without absenting oneself from one's domestic role and possibly without confronting one's fears of flying. The hegemony has shifted from between cyberspace and bricks-and-mortar, back to between universities, traditional and new, local and foreign, all armed with a version or variation of cyber-technology as a formidable tool in their arsenals allowing them to operate in dual mode, that is, as face-to-face and online providers of higher education. Cognisance of the vestiges of

elitism and discrimination in HE make it necessary for eLearning to prove its effectiveness.

2.3.4 Effectiveness of eLearning

Hung and Nichani (2000, pp. 140-150) present two models of e Learning. In the first, *Complementing the Individual and Social Perspectives*, they seek to explore the most effective manner of comingling media types, text-book readings, quizzes, tasks, discussions on an online website to deliver knowledge to others. The objective is to have the students socially interact, read material without lectures and discuss issues. In the second model, *Personalization*, they propose a concept that is similar to the e-commerce concept and practice of one-to-one marketing or e-merchandizing. That is the concept where the customers' identified preference for merchandize is captured by the computer of the on-line department stores, and the customer is presented with choices based on what is in the commercial organisation's warehouse. The customer may not have otherwise known about these options. In this model, they use the HEIs database of information as the warehouse that then identifies the learner's preferences. Knowledge delivery is then personalized for the learner. Accepting that individual and collective knowledge construction and understanding are important, Hung and Nichani (ibid) advocate, "...unless the collective understanding is appropriated or internalized by the individuals in the community, there is only a collective identity formed but not an individual identity." "Learning", they say, "should ultimately occur in the learner's head, and not just at the social level."

If learning takes place in the learner's head, then the place to identify its effectiveness is from assessment and analysis of the learner through the manifestation of his/her performance post learning, that is, the learning outcome. Unfortunately, assessment of effectiveness of eLearning is based on its comparability to F2F learning. Noesgaard and Orngreen (2015, pp. 278-290) point out that the "effectiveness of e-learning is largely defined based on how well the e-Learning performed, compared to traditional face-to-face teaching with the same content. Thus, the same definitions of effectiveness are used for both e-Learning

and face-to-face teaching, and e-Learning must outperform face-to-face teaching in order to be considered effective.” Also, see Ojokheta (ibid). The criticality of effectiveness in eLearning becomes a focal point as HEIs continue to compete for students.

2.3.5 Competition among universities

Universities locally, regionally and internationally contest to capture the best scholars and the attendant economic gains within the context of globalisation. A university is neither just a repository of university-created knowledge nor merely a vehicle for the transfer of knowledge. The experience of a university is embodied in a bundle of services and physical attributes, including libraries and laboratories (Weller, 2002, p. 24). The social reality is that ‘there are universities and universities’: employment opportunities are related to university attended. This is within the ambit of the Weberian views competition for credentials as a primary determinant of modern stratification systems (Brown, 2001, pp. 19-34). In the opinion of Isopahkala-Bouret (2014, p. 14), “ According to the credentialing theory, status of university degrees is created through a process of shared cultural understanding among major interest groups. Thus, status differences are based on social perceptions – how employers, trade unions, university staff, parents, and students/graduates view the quality and usefulness of the education provided by different institutions” This same elitism through branding and created largely by rankings and tradition has been transferred to the provision of eLearning which carries with it the attendant diversity of cost structures. Universities are therefore able to offer eLearning in a variety of cost-effective price ranges that create a competitive environment relative to the rank of the institution. Marginson (2011, p. 35), refers to the internet as a formidable engine in building status, citing Massachusetts Institute of Technology’s (MIT) strategy to place courseware online knowing the private positional value of an MIT degree would be enhanced, not diminished. At Stanford University, the student gets a taste of what is offered in a given topic, s/he gets a statement of accomplishment from the professor, not from the institution. No credits are given. MIT’s effort is through its MITx programme

where the student participates in a course and should s/he demonstrate mastery of a given course, s/he may obtain certificate-based credentials at a low cost (Hyman, 2012, p. 22). Harvard University, with its edX initiative is in collaboration with MIT (Martin, 2012, p. 26). This may be considered massification of HE with a win/win outcome. Having access to a free refresher on a topic or a free introduction to a topic of interest is a win for the would-be student who is not in a position to afford the charges associated with attending a course at full cost at MIT, Stanford or Harvard. The win for the institutions in question is that this method transcends traditional marketing practices in that the person(s) who attend a free course may develop a sense of loyalty to the institution, which places that institution top-of-mind should the financial wherewithal present itself, or become the first choice if asked for a recommendation. Beyond these two wins, is the reality that disruptive innovation efforts such as these make for a better informed and intellectually empowered global citizen, bringing aspects of Noam's (ibid) prediction to fruition at a more accelerated pace.

Noam (1995, p. 247) predicted that many of the traditional functions of universities will be superseded by technology. He said universities will see their financial base eroded, their technology replaced and their role in intellectual inquiry reduced.

Diversity in the application of eLearning is also realised in the level of intensity of its use. This runs the gamut from blended learning programmes, i.e. programmes offered with some of their courses on line and some face-to-face, and some via electronic storage media such as CDs and videos, to face-to-face programmes that are supplemented by technology in the form of repository of reading material and audio clips. That range also includes programmes offered fully on line from beginning to end, and more recently, the massive open online course (MOOC) offered by universities ranging in rank from high-end institutions to community colleges.

2.3.6 About the MOOC

The MOOC has brought a new dimension to distance learning and it is unclear as of yet, whether it will contribute to the long-standing debate that distance education is shallow compared to face-to-face education, or will be praised for creating a better informed universal citizen. 'Massive' and 'open' are pivotal words in the title of this modality. They are the words that give rise to much of the scepticism associated with the concept. Baggaley (2014, p. 163) comments: "the techniques used in massive open online courses (MOOCs) are compared with supersizing in the fast food industry. Similarities include the profit motives, marketing, techniques, criticisms, industry defences, and evolution of the two controversies" He further opines that "continued evidence supporting both sides of the MOOC argument is needed to convince educators that MOOC practices need either improvement or rejection, in order to prevent the uncontrolled spread of junk education".

ALISON (Advanced Learning Interactive Systems Online) which can be considered the precursor to the MOOC is ostensibly an altruistic outfit designed to reach the disadvantaged and less-advantaged learners of the world with a variation of Robin Hood type of wealth redistribution. That is, ALISON facilitates education to learners in the developing countries and LDCs paid for by learners in the developed countries. However, ALISON created in 2007 by philanthropist and entrepreneur Mike Freerick, has financial investors, and financial investors expect financial returns. Behind the altruistic and philanthropic veneer is the potential for eventually decimating revenue generation opportunities for HEIs in developing countries, LDCs and weaker HEIs in developed countries. The ALISON concept is seeking to take education and training out of the realm of the university and place it in the hands of entrepreneurs.

The MOOC followed closely on the heels of ALISON in 2008. Platforms such as Udacity (a product of Stanford University associates along with Google and Microsoft) Coursera (featuring courses from Princeton, Stanford, and University of Michigan) and edX (featuring Harvard, Berkeley, MIT and the University of Texas System), form what some call the Ivy League for the Masses, but is it really? Is this

disruptive innovation in higher education, by design or by evolution going to capsize the business models of HEIs not engaged in the MOOC movement? What started as an altruistic and philanthropic venture is now becoming defined by the economic principles of supply and demand. After testing the waters in 2011, a professor from Stanford set up a for-profit company called Udacity (Martin 2012, p. 26) to deliver what clearly had the potential to be a lucrative venture. Udacity, AT&T and the Georgia Institute of Technology have collaborated to offer an entirely MOOC-based master's degree in computer science costing US\$7,000.00. Compared to the cost of master's degrees in a bricks and mortar programme or in a non-MOOC online programme, this price will undoubtedly attract students who would normally have attended one of the other institutions. Because higher education is now big business, the disruptive innovation presented by the MOOC may be ringing the death knell of higher education studies as presently known and heralding the beginning of cheaper mass education. Such an argument is a valid prospect when it is considered that Stanford (part of the MOOC movement) is recording a drop in its face-to-face course for a subject it delivered via a MOOC (Hyman, *ibid*). What then would be the contemplated volume of devastation to less prominent HEIs? If this is the case, issues of quality and relevance will continue to be high on the agenda of higher education planners resulting in an exacerbation of elitism in higher education with quality of programme being associated with name of institution. Additionally, as with all other endeavours, bigger institutions and developed countries have already had the lead which leaves HEIs in developing and lesser developed countries in catch-up mode with the concomitant loss of market share. Bulfin, Pangrazio and Selwyn (2014, pp. 302-303) make reference to the venture capitalists who have jumped onto the MOOC bandwagon of multinational corporations such as Pearson in supporting the administration of MOOCs. They speak of "major implications of MOOCs with regards to the potentially radical reform of relationships between the individual and the commons, the public and private, non-profit and for-profit interests". They allude to a conspiracy because, despite the numerous media reports, scant attention is paid to the real issue, which

is that the DNA of MOOC holds a revolution that could be devastating for the present higher education market. MOOCs they say are a “complex and messy process”.

Southern New Hampshire University will be the testing and certification center for associate degrees for a Generation Rwanda project. According to Lucas (2014, pp. 33-35) the plan is for a 400-person university in Rwanda with MOOCs providing the content and teaching fellows handling discussions. Not all developing and lesser developed countries are like Rwanda, that is, not all of them are rebuilding and are dependent on total external development for their educational systems. Yet, the concept proposed for Rwanda could be modified and applied elsewhere, considering the ‘openness of market’ that drives globalisation. Lucas states “Generation Rwanda and the Minerva Project preview what could become the greatest threat to universities: new ventures consuming content with cost structures that are a fraction of the costs of existing universities.” The final resting place of the MOOC is yet to unfold. Until then, all institutions with the wherewithal should take advantage of the opportunities it provides. In a commentary on the MOOC, Bates (2014, p. 147) said “the massiveness of MOOCs, their accessibility and the wide range of questions they raise make the topic a very fertile area for research, and this is likely to generate new methods of research and analysis in the educational field”.

The variety of mixes in blended learning is vast. The remarkable technological advancements of Information Communication Technology (ICT) make eLearning a highly fluid concept. Interactive technologies bring university-created knowledge literally to the fingertips of the users. Open source technology such as YouTube allow for the creation of countless knowledge-sharing broadcasts to the cyber-world. HEIs are using YouTube to not only spread the knowledge, but more importantly, as a generational bridge in connecting to younger and modern learners. Audio and video devices that provide transnational tutorials, real-time simulations and games to name a few, combine with ever-improving smart devices to make eLearning comfortable, convenient and meaningful to the end-user.

The discourse presented by Conway et al (2003, p. 2) on the effects of Internet technology upon society is of significance in this section. Conway et al (ibid) opine that there are two major contests taking place in cyberspace, namely the contest for political and economic hegemony posing a dilemma for governments universally and the contest for cultural hegemony that poses a tension between globalisation and local identity. I contend that the Internet has also presented fertile ground for hegemony between universities contesting for the local, regional and international students through the offering of formally face-to-face programmes via the Internet. Stanford University and MIT are both in the race to entice students through the offering of open courses to the public, ostensibly free of cost. What the students get is not the full Stanford or MIT course; instead their appetites are whetted by the potential of the course. As indicated earlier in this chapter, this apparently altruistic gesture, in my opinion, based on the evidence presented in this research, has a marketing benefit to the universities: first, it entices the learner to the possibilities of learning at these institutions; and second it helps the institutions to test the waters for future eLearning initiatives. When institutions such as Stanford and MIT that have no shortage of potential students knocking on their doors, enter the cyber arena and offer less intense versions of their courses as attractions, (Hyman, 2012), it signals the relevance of eLearning to the future of higher education. These prestigious universities are not known for distance education. However, clearly they see the benefit of getting in on the eLearning trend. The reputation of these big name universities is grounded in their research successes not their teaching ability. See Harrison and Risler (2015. p. 71).

Has Noam's (ibid) prediction been galvanized? Not clearly. The traditional functions of universities have not been superseded by technology, they have been enhanced by technology. Technology is helping universities to perform their traditional functions in a different way. Research conducted by Van Der Rhee et al (2007, p. 144) posits the preference is for face-to-face modality followed by blended learning as opposed to fully on-line learning. This they indicate applies both to learners with low technology competencies as well as those with advanced abilities.

There is no indication of reduction in the university role for intellectual inquiry despite the presence of the Web as a one-world library described by Marginson (2011).

This sub-section has shown that eLearning as a modality is indispensable in the delivery of higher education. It has the potential for local regional and global development and stiff competition between HE providers globally. The section also demonstrates that ICT is now an irreplaceable feature of HE. The amoeba-like nature of ICT makes it a rapidly moving target yet, capable of being captured and cultivated in order to create value in HE. The review has shown that purely face-to-face learning must be revisited by HEIs if they are to succeed. ICT has facilitated the morphing of face-to-face from purely physical in-person to distant connections through the use of technologies that permit real-time interaction between lecturer and participants in a virtual face-to-face. This research is revealing critical areas that should be of concern to HEIs in developing and lesser developed countries. Employers want qualified staff; they want qualifications from visibly high-ranked institutions. Isopahkala-Bouret (2014, pp. 2-4) speaks of this using the term 'credentialing'. He points out that some employers do not necessarily assess the candidate; they assess the credentials, that is, the superiority of the degree based mainly on the rank of the issuing institution. Isopahkala-Bouret states "A degree from a high prestige university opens up different job and income opportunities compared to the same degree awarded by a 'secondary' institution. It is common to argue that graduates from elite universities are better qualified than graduates from other education institutions because they pay a lot for their education and in return get the best teachers and the best study programs". How long will it be before employers with this misguided (for the most part) definition of quality of personnel through credentialing, start accepting graduates of MOOCs from the elite universities even though they may not have paid as much for their degrees? Where will that leave struggling HEIs in developing and lesser developed countries? A more proactive question is, where will struggling HEIs in the developing and lesser developed countries allow themselves to be left?

The next section of this chapter discusses literature purporting to relate ICT and gender.

2.4 A GENDER PERSPECTIVE

The last section made it clear that higher education is indispensable. It established that HE must reach the masses in order to be of value to a nation; and it identified ICT through the eLearning method as the vehicle to take HE to learners near and far so as to meet the various circumstances that the adult learner is subjected to. In section 2.4, a working definition has been adopted for eLearning which prevails throughout this study. This section looks at literature on technology in relation to higher education and the much discussed gender divide in ICT focusing on the technology component of ICT.

More often than not, any discourse that purports to investigate gender issues, conjures an image of inequality with the female being the victim. The norm in most discourses on gender is that the male gender is catered for by society and the female is marginalized. Literature suggests that the female, who is the care-giver, child-bearer and child-raiser or child-minder, will have a career punctuated by breaks for family matters of different types, has cast her in the dungeon of low human capital thereby limiting her choices in the world of work (Panteli, 2012, p. 392; Belgorodskiy et al, 2012, p. 15). That is to say, she has less training and education, and in some societies efforts towards knowledge development in females are, as part of the discourse of inequality, an unproductive investment. Alarming, as can be seen from the literature, this state of affairs obtains in the 21st century. A report from the UN System Task Team (2012, p. 5) on education and skills for inclusive and sustainable development beyond 2015, states “This inadequate access to higher levels of learning is resulting in a knowledge divide that includes the ‘e-literacy’ gap. The ‘e-literacy’ gap is further pronounced between genders, where girls generally have a lower literacy rate. These trends have significant consequences in today’s technology-driven world, where lack of ICT knowledge limits employment opportunities”.

The previously stated literature that examines the suggestion that women should step out of their zone of comfort socially and personally, and enter a world that was not originally designed for them (Panteli, Stack and Ramsay, 2001; p. 5 Grint and Woolgar, 1995, p. 287) is clearly based on the predication that computer technology is a masculine discipline. But, is it? Could the perception just be based on the social constructs of the last millennium that depicted a masculine image of technology because of its scientific foundation? Or, is it based on the fear exhibited by some women to enter the realm, the said fear having been created and fed by society? Or was it a 1980s phenomenon, the pendulum of which has now shifted to the far left? , Has the construct evolved to one whereby women no longer rely on the GIST and WISE campaigns of the 1980s to champion their cause for entry to the world of computer technology making gender gaps in the knowledge economy narrower than the overall economy? See Walby (2011, p. 1).

Global governmental reports indicate that there are potential benefits for more women in science and technology for both gender equality and the economy in the UK, the European Union and the rest of the world (Walby, 2011, p. 2). Even though it is clear that the masculine and feminine dimensions of culture consistent with the MAS (Masculinity) Dimension of national culture (Hofstede, 1986) govern the perception and reality of inequality among the genders. See Panteli and Pen (2010. p. 46).

The role-based stereotype of women and men emanated from their society-determined natural state. That is, the stereotype of women being tender and caring; and men being assertive and daring (assertive, competitive, uni-focused and determined). This validates the rationalization hypothesis of Hoffman and Hurst (1990, p. 10) that stereotypes originate in an attempt to rationalize the division of labor by attributing to each sex those qualities deemed necessary for performance of the assigned functions. However, the logic of this opinion does not translate to the use of technology as an assigned function for any one gender; not when, as stated by Walby (ibid), economies stand to benefit from women in science and technology just as it does from men. The technology itself should not be the focus of

gender simply because of the gender that gravitates to it. Grint and Woolgar (1995, pp. 295,297) opine that masculinity and femininity of technology is not a function of the technology, but the interpretations of what is masculine and feminine coupled with the intentions of the designer of the technology that drive the socially accepted concept that technology is gendered. Culture is the backbone of social norms.

There is literature that suggests that ICT is gendered. Venkatesh and Morris (2000, p. 18) determined that men are more influenced by Perceived Usefulness (PU) and women are more influenced by Perceived Ease of Use (PEOU) in the acceptance of technology. PU and PEOU are notions from Davis' (1986) Technology Acceptance Model which he developed to assess user acceptance of computer-based information systems.

There are two points to observe in Venkatesh and Morris' study; first, there is no indication of how PU and PEOU are arrived, that is to say, what variables feature into this determination; and second, there is no evidence that either is gendered. What is being revealed is that rather than ICT being gendered, societal culture is gendered and inserts itself into ICT. Based on this finding, I am in agreement with the opinion of Grint and Woolgar(1995, pp. 295-297) Adam and Richardson (2001, pp. 143-144) who do not support the gender concept of ICT. Literature also suggests that the level of self-efficacy of the individual contributes to the setting of goals based on the environment and circumstances, (Bandura, 1978, p. 1). These theories along with the notions of PU and PEOU will be briefly looked at from a qualitative perspective in the next section as I discuss the relationship between ICT, eLearning, and gender.

2.4.1 The ICT tool of eLearning and gender

According to Starke-Meyerring (2004, p. 239) studies of technology rhetoric in higher education remain scarce but Ong and Lai (2004, p. 825) contend, "Education research about usage of computers and IS research about technology acceptance probably can be extrapolated to e-learning, and that this will include frequent findings of variations due to gender". They, Ong and Lai (ibid) found that computer

self-efficacy has a significant positive effect on perceived ease of use for the e-learning system; with women showing higher levels of anxiety and lower levels of computer self-efficacy. This finding also seeks to place technology use into a gender divide. Grint and Woolgar (1995, p. 288) discuss technology being gender neutral saying that rather than being extrapolated from previous technical states, IT is shaped from various antecedent circumstances involved in its development, such as design, manufacture and production. These antecedent elements, which are gender-neutral, erase the gender dimension from technology. Given the financial costs associated with ICT and ICT devices it cannot be ignored that socio-economic dynamics are relevant, more so, perhaps, than PU and PEOU. Additionally, to classify ICT as gendered based on PU and PEOU without attention to the myriad variables, particularly and the dynamism of socialisation in the 21st century that contribute to choice of action by individuals, needs investigation. Variables such as culture, socio-economic background, socialization, learning styles and self-efficacy are absent from the discourse. The economically challenged gender in many developed and developing nations based on traditional values (Tortnili 2006, p. 438) and/or governmental neglect/design (Barriteau 2001, pp. 169-170) and/or trivialization of effort (Gillard, Howcroft, Mitev and Richardson, 2008, pp. 262-279) is the female. In discussing the gender challenges in network engineering training, Gillard et al (ibid) point to a narrative that purports to be inclusive but places a stamp of equity using measures that are not cognisant of the gender differences that abound. They stress that the measure of normality is shaped by values that immediately render the purported concept of equity unbalanced, such as using male values to define measure. Other literature indicates that this approach is not specific to science or ICT. Speaking in a Caribbean political context, Barriteau (1992, p. 26) points to the use of male and main-stream standards of political participation as measures of women's participation in these institutions. The lack of literature on gender and ICT in the Caribbean signals the need for research in this area. It will be noted from the work of Black-Chen (2013, pp. 40-54) in relation to women returning to the classroom, that the term 'technology' is used to describe all things digital, from the computer hardware to the PowerPoint software. The women in

that study considered themselves 'empowered' by the technology and there was no reference to it being easy or difficult to use. It was necessary and it was used. Divisions created by race, SES and gender are active components in the literature on the digital divide. Literature on gender and ICT in the Caribbean is limited. Drawing on

This sub-section has shown that the digital divide is undergirded by many variables, including socioeconomic status and gender. The generation gap is another divide that may appear tangential in this study but should not be overlooked. Black-Chen (ibid) states that the but which if given consideration may help in bridging the gender divide. The next section addresses ICT as engaged by generations.

2.4.2 ICT across the generations

As the nature of ICT and the tools of ICT morph and progress from one stage to another, the definition of the digital divide will evolve to embrace a division of who does what with ICT. Presently, the divide runs deeply between the generations with the 'digital natives' (those born into ICT) and the 'digital immigrants' (those from a previous era who maintain a status of keeping up with the technology and whose comfort and competence vary). See Susa, (2014, p. 94). The following chapters discuss the literature on efforts at governmental policy level aimed at bridging the digital divide that by design would serve to bring knowledge and usage of ICT into the sphere of all generations.

The Government of the UK, initiated a drive in the early 2000s to widen access to ICT with an aim of achieving universal access to the Internet by 2005 (Selwyn 2002, pp. 7-9). This thrust was based on socio-economic rationales as pronounced by the then Prime Minister, Tony Blair (Selwin ibid).

The Caribbean Community (CARICOM) states agreed in 2003 on the development of ICT policies and the development of structural, legal and regulatory frame works aimed at affording the Region's populace enhanced access to technology for developmental purposes (CARICOM Secretariat, 2003).

Before that declaration, in an effort to increase the sustainability of socio-economic development in Barbados, the Government introduced a programme daubed “Edutech” (The Education Sector Enhancement Programme) with the long-term vision of creating a technologically skilled workforce. In this programme there was a focus on teaching and learning through the development of ICT enabled curricula for primary and secondary schools. The education institutions of the Government of Barbados began offering instructor-led eLearning courses in a variety of subjects. The objective of this programme, inter alia, was the provision of technological infrastructure to be used by appropriately trained teachers in the teaching of the country’s primary and secondary school children. Teachers were exposed to technology mastery, technology integration, teaching methodologies, educational leadership and indigenous software development programmes. Additionally, and because it is a national initiative, the Government of Barbados has, as part of this project, offered technology infrastructural enhancement to private schools. The programme, though subject to criticism in some quarters, and reportedly not perfect, has reaped success in that the through-put of children from primary to secondary and on to tertiary has increased (Ministry of Education, Caribbean 360, Survey of ICT and Education in the Caribbean Volume II).

The Government of St Lucia has embarked on similar projects aimed at enhancing the ICT in schools and communities (Commonwealth Education Online, 2014). In 2007 the Government of Grenada commenced an ICT in Education policy (Family Online Safety Institute, 2013) in recognition of the need to increase computer literacy among its students and the population as a whole; similar to what is taking place in Barbados.

The Government of Trinidad and Tobago introduced ICT through two initiatives in 2005: one, titled Fast Forward was set to transform the country into an online society and a knowledge-based economy; the other, titled Vision 2020 is to enable the agricultural sector to be technology-driven and market-led.

Operations such as those identified above for the UK and the English-speaking Caribbean span the generations and serve to level the playing field for the social classes as well as generations, thereby growing a populace that is technology knowledgeable and enabled. Gender was not the determining factor in these initiatives, rather, the driver was the recognition by the governments that getting access to the populace, particularly those who could not get it for themselves would potentially benefit the country in its development.

When students are exposed to technology at school, they take their knowledge (and their homework assignments) to parents who may or may not have had prior exposure, thereby connecting a previous generation to technological advances. Though not a designed strategy by Caribbean governments, the social reality is that the younger generations are assisting the older generations with awareness and use of ICT. “The exponential expansion of media technologies and its capacity for personal, social, and cultural changes has major implications for youth and their families in Trinidad and Tobago. These media technologies have created a world for the youth where parents and other adult caregivers of youth often must learn along with (and sometimes behind) youth. The challenge parents, youth, and other community members must acknowledge is the differential access to use and knowledge of telecommunication capacity”, (Palmer, 2003, pp. 495-505). The extent of the contribution of this social development between generations to the choice of ICT for the pursuit of higher education by adult working females may benefit from further investigation.

2.5 GAPS IN EXISTING LITERATURE

The literature review looked at the work of several theorists and writers whose work form a connection one to the other as it relates to the research topic - **How is the choice of eLearning in higher education institutions affected by gender?** To make sense of this question, literature was reviewed on higher education, use of

technology, gender perspectives and generational dynamics. It can be seen from this review that vast literature exists with regard to the attainment of higher education and its value to the individual, the nation, the region and the world. There was reference to the attainment of higher education by gender and the nuances that emanate from different cultures and geographical domains. Literature on technology is in abundance, ranging from the earliest iterations to modern times and the use of 'apps' to meet the business, social and educational needs of the 21st century. Writers of eLearning literature have been prolific with extensive attention paid to the quality aspect of eLearning (Nawaz & Khan, 2012, pp. 38-44; Kanuka and Rourke, 2006, pp. 992-926; Al-Saif & Anandhavalli, 2013, pp. 4-9).

The literature presented in this section is not exhaustive. Despite the vast amount of literature on issues of gender, issues of ICT and issues of higher education, I have found no literature that identifies a link between the choice of eLearning for higher education and gender. The effect of gender on the choice of eLearning for attaining higher education should be documented through research aimed at developing a theory to address this phenomenon. This theory would serve to inform HEIs in the design and development of eLearning programmes for the attainment of higher education. In discussing the value of theory in educational research, Suppes (1974, pp. 5-6) opines that it should be a primary thrust of theory in educational research to seek mechanisms or processes that answer the question of why a given aspect of education works the way it does. He extends this need to the learning environment of children beginning school through adolescents to high school. Given the findings in this research, I suggest it is needed at the adult education level as well. Attention is drawn here to the effectiveness of adult education. Literature has identified numerous elements that contribute to effectiveness (or lack thereof) of adult education programmes, including motivation of the individual, goal setting, and administrative functions including adequate orientation (Petty and Thomas, 2014, pp. 473-480). This study has also identified managerialism as a contributing factor one way or another. Fragmentation is cited as one of the reasons that adult education in the English-speaking Caribbean is not effective by Carrington, (2001,

pp. 31-36). Carrington opines that there is a lack of clarity in the public mind about the nature of the field of adult education, citing the common perception of adult education as remedial, compensatory and supplementary. A perception he contends that negates the efforts of educators in the Region who have worked 'assiduously over many years to enhance our literacy levels and to modernise the professional and vocational profiles of our societies'. There are social/cultural mores that contribute to the success of adult education. Cognisance of the influence of these mores on the effectiveness of adult education will contribute to the relevance in design of HE programmes. Suppes (ibid) goes on to say that "for educational purposes we need an understanding of biosocial mechanisms of influence as much as in medicine we need an understanding of biochemical mechanisms for the control of disease in a host organism."

Not only is extant literature lacking in the specified area of this research, that is, *"how is the choice of eLearning in higher education institutions affected by gender"*, but also it is not definitive regarding the state-of-the-art of ICT usage between genders. Efforts to arrive at a global response or solution may be perpetually inconclusive in light of the cultural differences that obtain by geographic region as has been demonstrated in the literature reviewed in this chapter overall. See differences in perspective on the gender pay gap in the ICT labour market between the UK and New Zealand (Belgorodskiy et al 2012).

The lacuna in extant literature on the issue of choice by gender for eLearning in the pursuit of higher education has been presented (Yin, 2010, p. 62). Consequently, this research contributes to the literature on the topic of higher education through eLearning by gender and helps to open a door for deeper investigation into how the choice of eLearning is affected by gender.

2.6 CONCLUSION OF LITERATURE REVIEW

This chapter reviewed the literature on higher education (HE), Information Communication Technology (ICT) and Gender in the English-speaking Caribbean, the United Kingdom, and parts of Europe. The inter-relationship of the three areas was discussed in the context of theories on adult learning.

There is discourse in the literature of IT being a masculine discipline that has excluded the female. The grounds for IT being masculine are not clear, neither is it clear whether it is the design of IT that has excluded the other gender or if the female exclusion is a function of socialization? Masculinity and femininity are social constructs of the human species. Gender has been ascribed to social activities based on the gender executing the activity. Also credited in this regard is a human feature, namely, nurturing through being soft on one hand and assertive and hard on the other, not as opposites of each other, but different. Consequently, social activities that may be perceived as nurturing and or soft are feminine and those perceived as assertive and hard are male. STEM⁷ areas of study have been ascribed a masculine gender whereas care-giving activities such as nursing and teaching are feminine. In this framework, ICT, as a science-based discipline has been designated as masculine. The literature has failed to prove that ICT by virtue of what it entails is masculine. Instead, it revealed that the social environment has labelled ICT masculine. It has also shown that the proclivity towards ICT is a function of efficacy regardless of gender and is closely related to circumstances. The latter observation is revealed in the more current literature on the topic.

The literature suggests that computer self-efficacy and the lack thereof is a reason individuals do or do not elect to operate in the IT environment. It has cited that

⁷ Science, Technology, Engineering and Mathematics

Perceived Usefulness (PU) and Perceived Ease of Use (PEOU) as the forte that directs a user towards engagement of IT in execution of functions and tasks. The social constructs of masculinity and femininity have been instrumental in the literature in location of the domicile of IT. The literature opens a question as to whether having self-efficacy generally leads to the recognition of PU and PEOU, and fosters computer self-efficacy? The literature, (Davis et al', 1996; Lederer et al, 2000; Compeau and Higgins, 1995) does not point to gender. If, therefore, there are barriers to women pursuing technology, those barriers do not reside in the technology, but perhaps in the self-efficacy characteristic of the women. Self-efficacy is not a physiological defect. Bandura et al (1996, p. 1207) state that 'efficacy beliefs exert considerable impact on human development and adaptation', they also opine that aspirations and strength of goal commitments, level of motivation and perseverance in the face of difficulties and setbacks inter alia, are influenced by self-efficacy. The reviewed literature examined computer technology use in execution of work functions not related to the purpose of higher education studies. Consequently, does not serve to provide answers to the research question of this study.

The literature revealed that higher education is seen as the passport to development for developed and developing countries alike. It also indicates that while the massification of HE is questioned in some traditional circles, that sentiment is dissipating and massification is being embraced through ICT.

The following chapter presents the methodology and research design.

CHAPTER THREE – METHODOLOGY AND RESEARCH DESIGN

3.1 INTRODUCTION

This chapter presents the epistemological and ontological precepts governing this study. It presents a sub-set of epistemology; the methodology (Babbie, 2007, pp. 3-4; Bryman, 2012, pp. 19-41) that has been engaged in order to identify what exists in the research environment. As explained in Chapter 2, the three areas that constitute the core of this research, *eLearning*, *higher education* and *gender*, do not appear to have been discussed as a whole in the literature reviewed, thereby precluding access to pre-existing knowledge. This research is therefore seeking to build knowledge in the area in order to contribute to the literature. To do so, it must be seen that the knowledge presented is not internal to myself, but is extrapolated from the data drawn on the lived experiences of the research population in their individual and collective social contexts. In describing and explaining the gender perspectives, questions emerged that elicited answers which present comparisons that enrich the value of the findings. The inference from this process will help to create the ontology for the basis of this particular study and upon which further research may be set for the future development of grounded theory in the area (Babbie, 2007, pp. 296-297; Blaikie, 2010, pp. 69-70).

The methodology employed in the creation of this paper facilitated a study of social interaction which lent itself to the interpretive approach (Neuman 2003, pp. 75-80; Ritchie and Lewis, 2009, pp., 6-7). As a qualitative paper, interpretivism was the main approach. This is manifested through the conduct of focus groups and individual interviews that gathered data from individuals explaining their perspectives. This method was bolstered by the availability of nuance that accompanied the responses of the individuals.

From an epistemological point of view, that is the view that requires demonstration of knowing that something is, I determined that a positivist approach would not have been appropriate. According to Neuman (ibid) "A positivist approach implies that a researcher begins with a general cause-effect relationship that he or she logically derives from a possible causal law in general theory. He or she logically links the abstract ideas of the relationship to precise measurements of the social world". Having found no published pre-existing knowledge on this research topic I considered that there were no causal laws for the phenomenon being investigated that I could have used as a point of departure for a positivist approach. Additionally, positivism is considered to reduce people to numbers, abstract laws and/or formulae (Neuman, 2003, p. 71). This is a people-focused research requiring interaction with people not just statistics.

I am employed by The Cave Hill School of Business-The University of the West Indies (CHSB-UWI) in the capacity of programme director responsible for the academic programmes. In that privileged position I have observed the disparity in enrolment in eLearning programmes between men and women with the women being in the lead but could find no literature to explain this phenomenon.

The absence of prior knowledge expressed in literature on this topic presented a 'mixed blessing' to me as a researcher: I found no literature to launch from; and I had the freedom of a tabula rasa on which to write. I got permission from CHSB-UWI to draw samples for my research from the organisation's database of graduates, participants and potential interested persons. It must be stated that not all persons contacted through the database responded.

The nature of the research and my familiarity with the topic made me cognizant of the possibility of my subjective influence on the process. I was cognizant of the perception of emic, that is the capture of meaning from the level of the participant, and etic, that is the reporting of meaning from the level of representation of the stated reality from a different source, as the researcher (Yin, 2011, pp. 11-12). Consequently, I took steps to ensure transparency and neutrality to the extent that

the latter can be obtained in qualitative research. To obviate the challenge suggested here, I executed triangulation of the data collection. That is to say, in addition to the focus groups and individual interviews, I included a Likert scale questionnaire. The objective of the triangulation in the data collection and analysis thereof was to gather data from different angles and construct knowledge that is truly representative of the research population. Yin (p. 9) opines that the convergence emanating from the triangulating of data from different sources will “add to the study’s credibility and trustworthiness”.

The data collection aspect of the methodology included the review of related and relevant literature as well as data from a single institution offering higher education through eLearning, the afore-mentioned, CHSB-UWI. The latter data constituted a case study in the exploration and fact-finding for this topic. The case study feature was necessitated owing to the paucity of specific literature on the research area and the small geographical space within which to conduct field research.

Being cognizant of the pitfalls of using a single case when seeking to present generalizable research, my case study approach is idiographic. That is, I am focusing on a specific element within the selected case to support my research findings (Babbie, 2007, p. 298). I am also cognizant that some authors prefer the term ‘case study’ to be reserved for situations where the case is “the focus of interest in its own right” (Bryman, 2012, pp. 67-69). As will be explained later in this chapter, CHSB-UWI is a part of a bigger institution that is the main higher education provider in the English-speaking Caribbean. Using CHSB-UWI in a traditional case study approach, in my opinion, would have been too inward looking requiring focus on other facets of the operations of the institution. These facets, though based on educational development and may have gender disparities in attendance, are not necessarily academic in nature and do not involve eLearning. Additionally, there would have been no institution with which to compare, leaving me with a single case from which to draw conclusions for the development of knowledge in the area under review. Such a position, based on the literature, is not ideal. Further, using the pure case study method would have required existing theory, and I have found

none upon which to base the analysis of the case (Bryman, *ibid*). CHSB-UWI has been used as a back drop to the extent of collection of pertinent statistical data and drawing on aspects of the eLearning delivery for comparative purposes with the data collected in this study. This, according to Yin (2011, pp.15-18) constitutes qualitative research which he states “does not imply a rigid methodology”. Data acquired through the case study melded with that gathered from the literature and research in consolidating the findings and the creation of new knowledge.

The ontological assumption emanating from this research, that is the type of social reality presented, is gender-based and is Idealist in nature (Blaikie, pp. 92-93). It is within the confines of gender ideology that the choice by males and females to pursue higher education through eLearning is made. The epistemological assumption is formulated based on the findings of the research and is described by Blaikie (*ibid*) as Constructionism. There are elements of basic research and applied research in this study. From the basic research perspective, the study provides for the understanding of the phenomenon of gender choice in the pursuit of higher education through eLearning and will add to the body of knowledge on higher education through the use of technology. The analysis of the findings points to applied research as it forms the basis for the development of solutions to the issues identified in the research.

The elements of the methodology are explained in the remainder of this chapter.

3.2 METHODOLOGY

The creation of the research strategy included focus groups, independent interviews and a computer-administered survey questionnaire. The opinions of Bryman, (2012, p. 6) and Yin (2011, pp.76-77) on the lack of a defined model for qualitative research and that the decision to conduct qualitative research with fieldwork or with questions is the prerogative of the researcher were observed and as stated

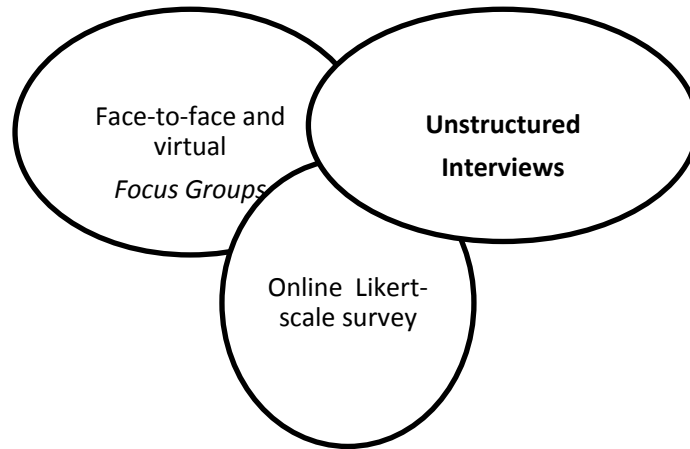
previously, so was the inclusion of a case study. Based on my interviewing experiences within the designated population, it was recognised that unstructured/semi-structured interviews could lead to tangential discussion that would usurp valuable interviewing time. To circumvent that possibility, interviewees and focus group attendees were given an oral preamble of what the target of the interview was, and were encouraged to share liberally their thoughts and experiences towards providing pertinent information. For interviewees who were clearly unfamiliar with the need to stay focused, there were times when the researcher gently steered the discussion back to the topic.

Being reliant on nuance, opinion and fact to gather meaningful data and being mindful of the potential for subjectivity as aforementioned, the triangulation approach was used in order to exploit the value of each method whilst eliminating their liabilities and to assess the reliability of the data gathered (Blaikie, 2010, pp. 219-220; Bryman, 2012, p. 633).

The approach served to lend credibility to the findings given the difference in the dynamics of data collection. The inclusion of an anonymous instrument – the computer administered survey questionnaire – was a valuable asset in eliminating interviewer bias.

The survey questionnaire was pilot-tested and found to be adequate for the purpose. Figure 1 depicts the interconnectivity of the three collection points. Feedback from the focus groups informed the interview questions. The questionnaire was designed based on feedback from the previous two sources.

Figure 1 Interconnectivity of Collection Points



Uplifted from Assignment 4 AAWW

3.2.1 The research population

The research population was drawn through a convenience and random sampling method. The convenience samples were taken from a database of the CHSB-UWI containing persons who had been exposed to eLearning, to face-to-face learning and some who were currently participating in eLearning as well as some who had indicated an interest. With the permission of the organisation, I selected some people from the organisation's database for focus groups and interview purposes. The population included individuals who were randomly selected, external to the database, without the researcher's prior knowledge of their exposure or involvement with eLearning. The make-up included students, lecturers and administrators with various levels of exposure/awareness/dislike of eLearning.

My data collection commenced with the focus groups comprising Ph.D, MBA, M.A, B.Sc. and Diploma qualifications with mixed backgrounds as far as eLearning was concerned. Some had never used the system. They were invited to discuss their perspective on eLearning for higher education, with three questions introduced at various points; first to get the discussion started and then to assist it to stay on target. See Appendix 2 that reflects some of the questions asked in the FG and the responses received.

The discussions in the focus groups assisted in the formulation of the discussion topic and questions for the individual interviews that followed. Two members from the focus groups were invited into the interview section. Names for interview participants were obtained by the researcher asking people in the field to identify possible candidates. Please see Appendix 3, which displays some of the questions and responses from the individual interviews. The participants for the individual interviews were a cross-section of careers and qualifications ranging from Secondary School Certificate to Ph.D. qualification. ELearning users and non-users featured in the interviews, some of whom had attended the focus groups. Three lecturers from community colleges around the Region who were using eLearning as an aid to face-to-face teaching were included. One was known to the researcher as being sceptical about the value of eLearning as a substitute for face-to-face learning. I felt it necessary to get his perspective.

The outcome from the two face-to-face data collection points informed the design of the questionnaire instrument. The aim was make the questions pertinent to the research. Appendices 2, 3 and 4 reveal that the same questions and discussion topics were presented. The findings will show that these yielded commonality in the responses.

This mixed method benefited from the strengths of the methods used because strengths of one served to offset weaknesses of another (Blaikie, 2010, p. 219; Bryman, 2012, p. 633). Bryman (2012, p. 390) opines the use of triangulation to assist with the trustworthiness of data is required for qualitative research. The findings vindicated the approach, aside from a few atypical responses. Details on the data collection are presented in the next section.

3.2.2 Population bias

Getting male participants presented two challenging features. First, because the women outweighed the men in the database from which the selection was made, there were more women available for selection, and second because even when contacted, some men said either they were not available or, agreed to attend but

renege at the last minute, resulting in some of the groups being much smaller than planned.

3.2.3 Data collection

3.2.3.1 Focus groups

There were seven focus groups attended by 49 (forty-nine) individuals with a gender breakdown of 32 (thirty-two) females and 17 (seventeen) males. The focus groups were organised by gender as I wanted to hear the gender perspectives separately. I was then able to review the perspectives by gender and draw analysis. Three groups (two female and one male – FC groups 2, 3 and 4 in Fig. 13) came from an on-line course. These focus groups were conducted via the online class as it was convenient and inexpensive to the researcher to have a cross-section of regional citizens in one space. I considered that the research question would be topical to the live class. In light of the geographical spread of the population and the high air transportation costs of bringing them together, the options would have been to use Barbadian focus groups only. This would not have given adequate coverage of the perspective of the region. The members of this class were a captured audience. Notably, the male virtual focus group drawn from this class was the largest male focus group in the study. Because of the online course platform design, the groups had access to each other's comments but did not make use of that option. They kept to their groups and provided independent perspectives on the query. One of the remaining four groups was virtual and three were face-to-face (F2F).

3.2.3.2 Interviews

Twenty-three individuals contributed to the interview phase of the research. There were fifteen females and eight males. The sentiments expressed by these 23 people, quite independently of each other and unaware of the findings of the focus group sessions, were remarkably similar within the category and to the participants of the focus groups as well.

3.2.3.3 Questionnaire

The design of the questionnaire was completed after the focus groups had been fully conducted and almost all interviews had been completed. It sought to understand the gender perspective towards on-line studies.

The survey questionnaire was executed through Survey Monkey. Using Likert-style questions, the Instrument (see Appendix 1) sought to capture information that would explain respondents' interest in pursuing higher education and their desire to do so using eLearning. A range of questions was presented that would elicit reasons for and against pursuing HE and doing it through eLearning. The instrument also presented open and closed questions and encouraged the submission of additional information.

The questionnaire instrument was designed when 90% of the data had been gathered from focus groups and interviews. The findings from the focus groups and the interviews influenced questions, particularly Question 7 because some interviewees and focus group attendees had questioned the value of pursuing higher education, unrelated to eLearning. The instrument went out to 300 e-mail addresses drawn from current, past and potential participants in online higher education programmes. Appendices 6 and 7 present the demographics of the Survey Respondents.

3.2.4 The component parts of the research question.

The component parts of the research question - How is the choice of eLearning in Higher Education Institutions affected by gender? – are: Higher education; Gender; E-Learning. These components were not broken into distinct questions for data gathering. Instead, participants in the three collection points were invited to discuss their perspective on eLearning for higher education. The gender of the one-to-one interviewees was recorded for the research; the questionnaire instrument invited the respondents to identify their gender and the focus groups were formulated by gender. That strategy served to capture the gender perspective. The other two components, higher education, and eLearning were captured in the responses. All participants were made aware that the purpose of the interaction was to determine the most desired approach to the delivery of higher education for working adults through eLearning.

The Results Chapter exhibits the validity of the triangulation process through the corroboration of comments from the three different sources. It also serves to display how anonymity facilitates free expression. For example, there were a few responses in the survey questionnaire from females that were never expressed in the in-person fora; such as “too expensive” in response to the question of pursuing higher education, and the comment of “short attention span” as a reason for not pursuing further studies. Such comments are not typical of the women researched. The anonymity of the research platform, Survey Monkey was communicated to the respondents as part of the ethics of this data collection. It was also aimed at encouraging candid responses. The following section discusses other ethical issues in this research.

3.2.5 Ethics

Permission to access organisational data and to approach programme participants was obtained from the head of the organisation. Additionally, three of the focus groups were drawn from an existing class. They were assigned the research topic as part of their course work. These participants were informed that their opinions will

be used in this study. I sought and obtained the permission of every interviewee/attendee to record the discussions digitally. Assurances were given that the material would be used for the purposes of the research only. All interviewees willingly identified themselves by name. There were many cases where requests were made for the recorder to be stopped so that an off-the-record comment could be made. Invariably, these related to organisational or national politics. Such comments are not reflected in the study. No names or other forms of identity were used in the study. The data obtained through the case study were not subject to any privacy constraints.

The next section presents details on the data collected from the case study.

3.3 THE CASE STUDY

The case that was used as part of the data collection for this study is CHSB-UWI, one of three business schools of the University of the West Indies (UWI).

UWI was established in 1948 by Royal Charter from the United Kingdom as the University College of the West Indies with one campus in Mona, Jamaica. Today, it has three land campuses at St Augustine in the twin-island Republic of Trinidad and Tobago and at Cave Hill in Barbados. The fourth campus is a virtual one known as the Open Campus, launched in 2008. The UWI publicly celebrates its status of being one of only two regional higher education institutions in the world (<http://www.uwi.edu/history.asp>).

Today, The University of the West Indies is the largest and longest standing higher education provider in the English-speaking Caribbean. UWI offers undergraduate and postgraduate certificate, diploma and degree options in Engineering, Humanities & Education, Law, Medical Sciences, Pure & Applied Sciences, Science and Agriculture, and Social Sciences. As an icon of Caribbean integration and

culture, UWI remains committed to enhancing every aspect of Caribbean development and improving the well-being of the people of the Caribbean

Each land campus has a business school serving their own locale Mona School of Business and Management (MSBM) serves Jamaica; Arthur Lock Jack Graduate School of Business (ALJGSB) serves Trinidad and Tobago; The Cave Hill School of Business (CHSB-UWI) serves Barbados with the responsibility for the Eastern Caribbean, a seven-island grouping, known as the Organisation of Eastern Caribbean States (OECS). CHSB-UWI also services Belize, and Guyana in South America and Tortola in the British Virgin Islands. The geographical space covered by CHSB-UWI appears at Appendix 1.

CHSB-UWI offers academic programmes at undergraduate and graduate levels. Originating as fully face-to-face programmes, these offerings were migrated to eLearning in 2006 and are available as fully online and as blended learning programmes. The blended programmes are 87.5% online and 12.5% face-to-face.

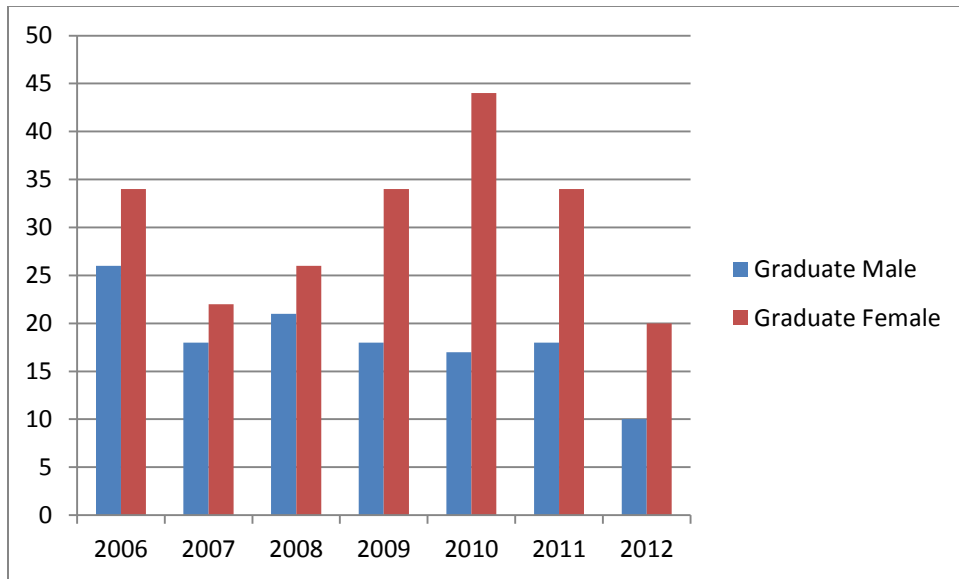
Statistical data from the afore-mentioned agencies of the University of the West Indies serve to demonstrate the gender disparity in the pursuit of higher education in the English-speaking Caribbean.

3.3.1 Statistics from (CHSB-UWI) and other UWI agencies

Following are statistics from the CHSB-UWI, The Open Campus of the UWI, the Arthur Lock Jack Graduate School of Business and the University of the West Indies' main campuses at Mona, Jamaica and St. Augustine, Trinidad and Tobago.

Figure 2 presents the graduate intake at the CHSB-UWI, Barbados for the period 2006 – 2012.

Figure 2 Cave Hill School of Business - Graduate Programmes



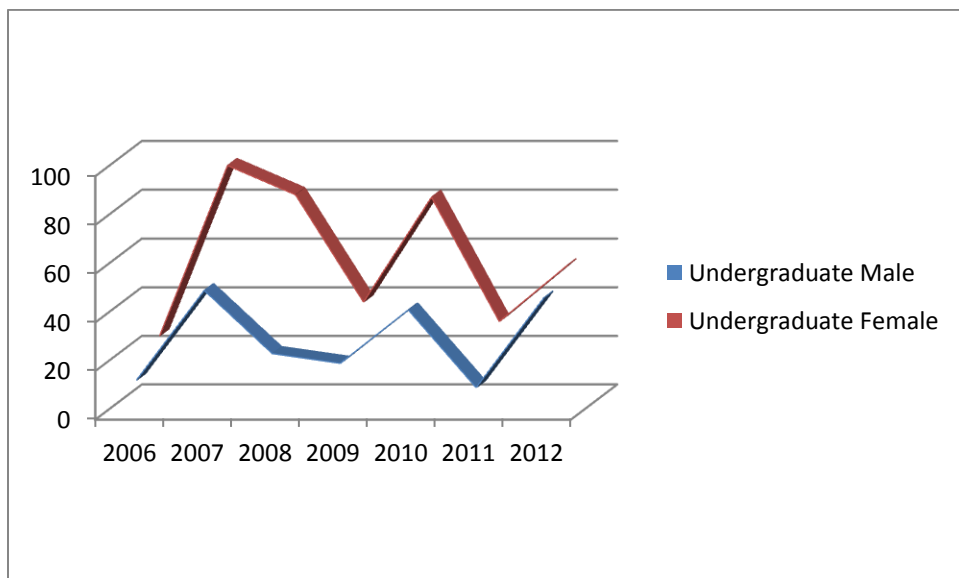
Source: Cave Hill School of Business

(Blended learning)

Figure 2 reveals that between 2006 and 2012, women out-stripped men in the pursuit of graduate studies through eLearning at CHSB-UWI.

Figure 3 presents the under-graduate intake at the CHSB-UWI, Barbados for the period 2006 – 2012.

Figure 3 Cave Hill School of Business - Undergraduate Programmes



Source: Cave Hill School of Business

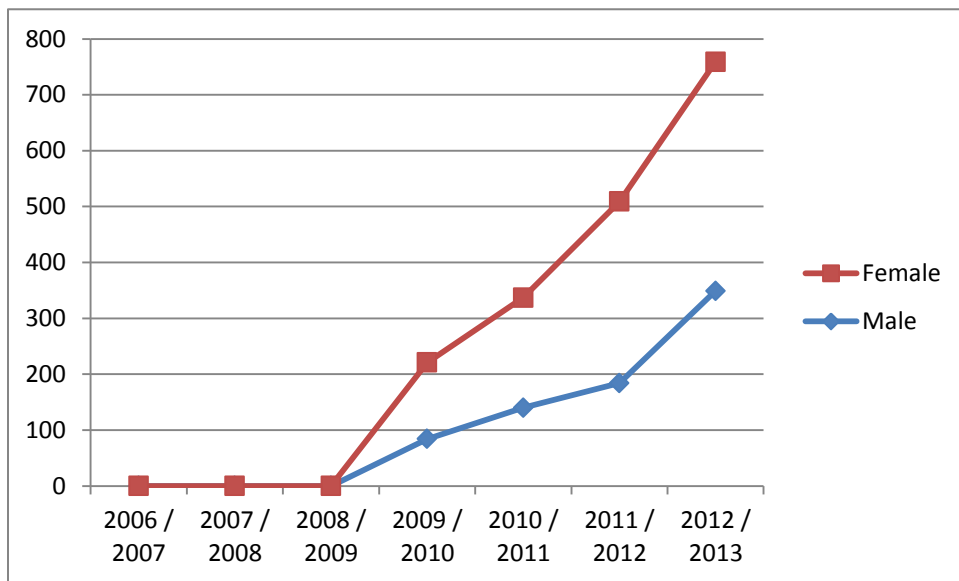
(Fully online)

Figure 3 also reflects women well ahead of men at under-graduate level at CHSB-UWI.

Females were 65% (623) of an intake of 964 participants for the period. Overall, intake declined when the effects of the global economic recession became acute in the Caribbean (2009-2012). However, female intake remained ahead of male.

Figure 4 depicts the graduate intake at another business school of the University of the West Indies (UWI), in Trinidad and Tobago, the Arthur Lock Jack Graduate School of Business. This data refers to face-to-face programmes only for the period 2006-2012..

Figure 4 Arthur Lock Jack Graduate School of Business-Graduate Programmes

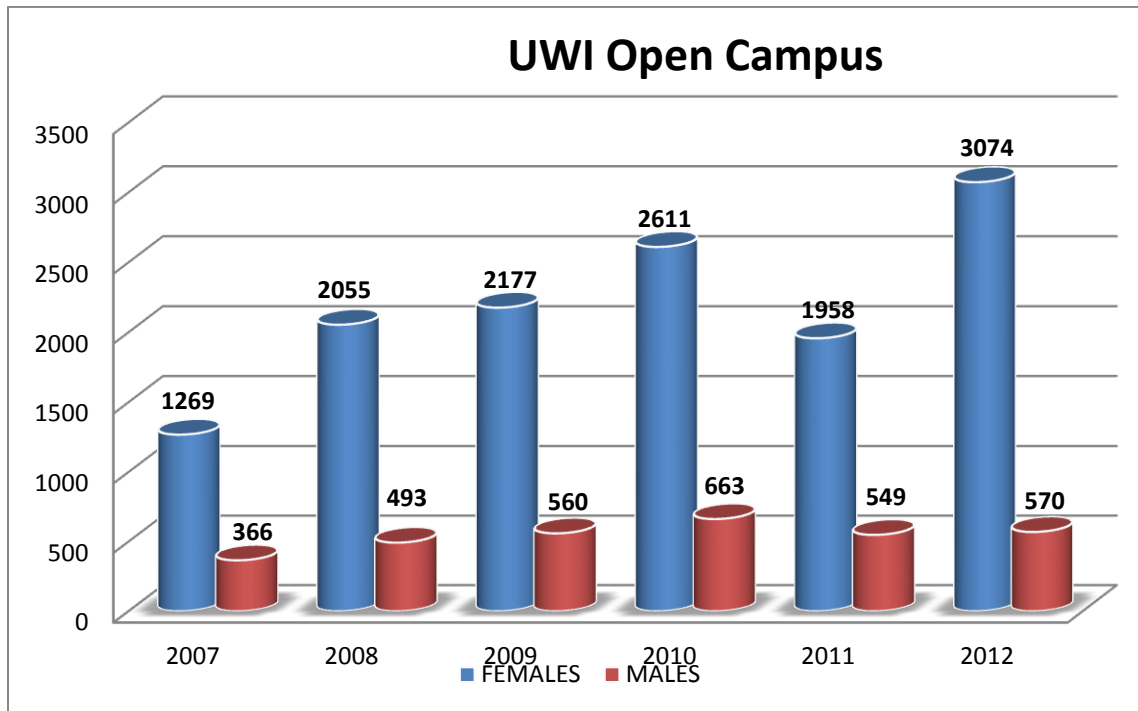


Source: Arthur Lock Jack Graduate School of Business

It will be seen from Figure 4 that the female intake was always in the lead and in 2008 female intake accelerated. It can be seen also that more men are pursuing HE at the Arthur Lock Jack Graduate School of Business – UWI (ALJGSB).

Figure 5 presents student intake at the Open Campus of UWI (virtual) for the period 2006 – 2012.

Figure 5 The Open Campus of UWI

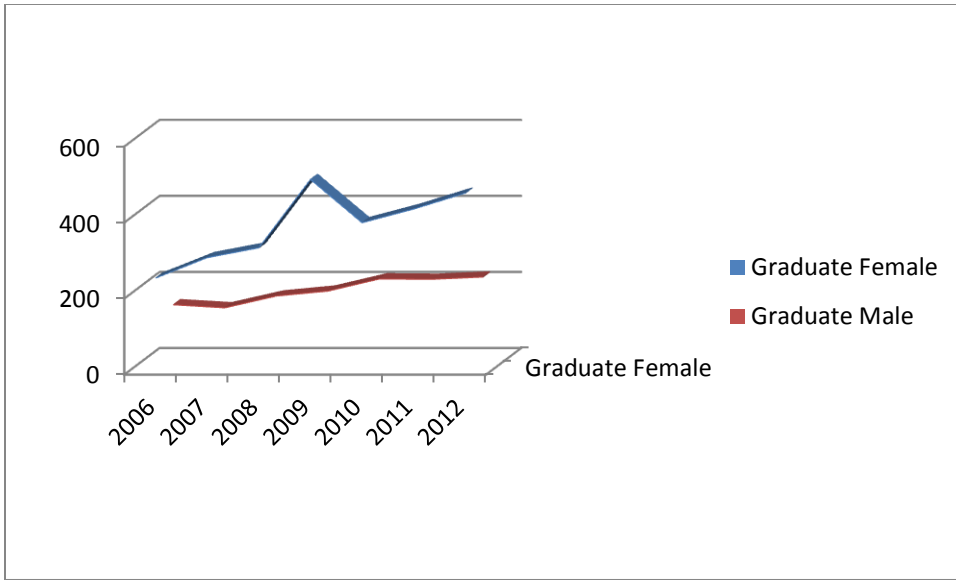


Source: The Open Campus - UWI

The Open Campus (OC) is the UWI's virtual campus. It was officially launched in 2008 and serves the same geographical space that the CHSB-UWI services. The OC offers undergraduate and graduate programmes. Figure 5 depicts the intake at the OC from 2007. Statistics available to this Researcher from the OC were not segmented by programme. However, as can be seen from Figure 5, there is a stark imbalance in favour of females in the overall intake at the OC.

Figure 6 presents the graduate intake at the Cave Hill Campus of the UWI, Barbados – for the period 2006 – 2012.

Figure 6 Cave Hill Campus of UWI: Graduate Programmes

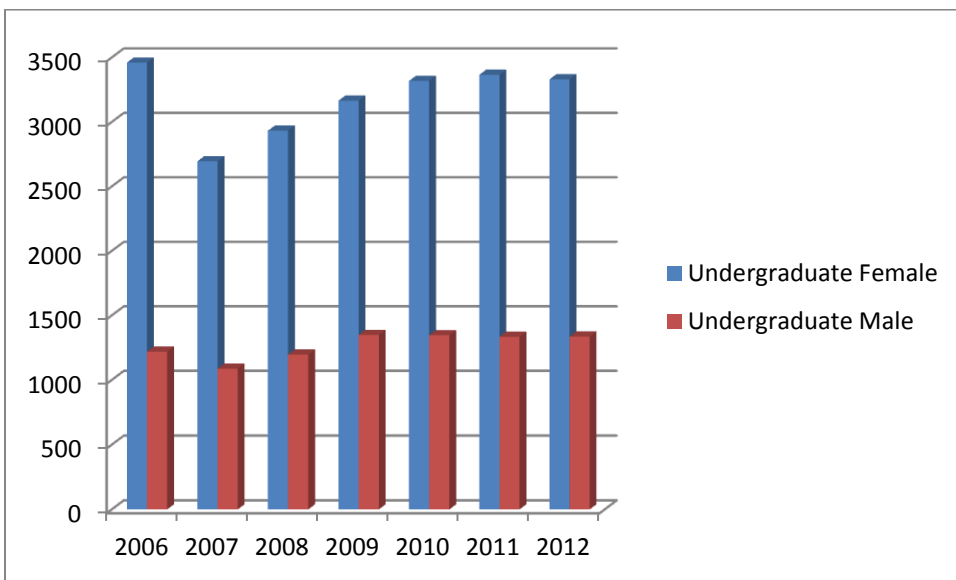


Source: Cave Hill Campus – UWI

Male graduate intake after the 2008 economic crisis stagnated, whereas, female intake resurged soon after the decline in the same period.

Figure 7 presents the undergraduate intake at the Cave Hill Campus of UWI, Barbados, for the period 2006 – 2012.

Figure 7 Cave Hill Campus-UWI : Undergraduate Programmes

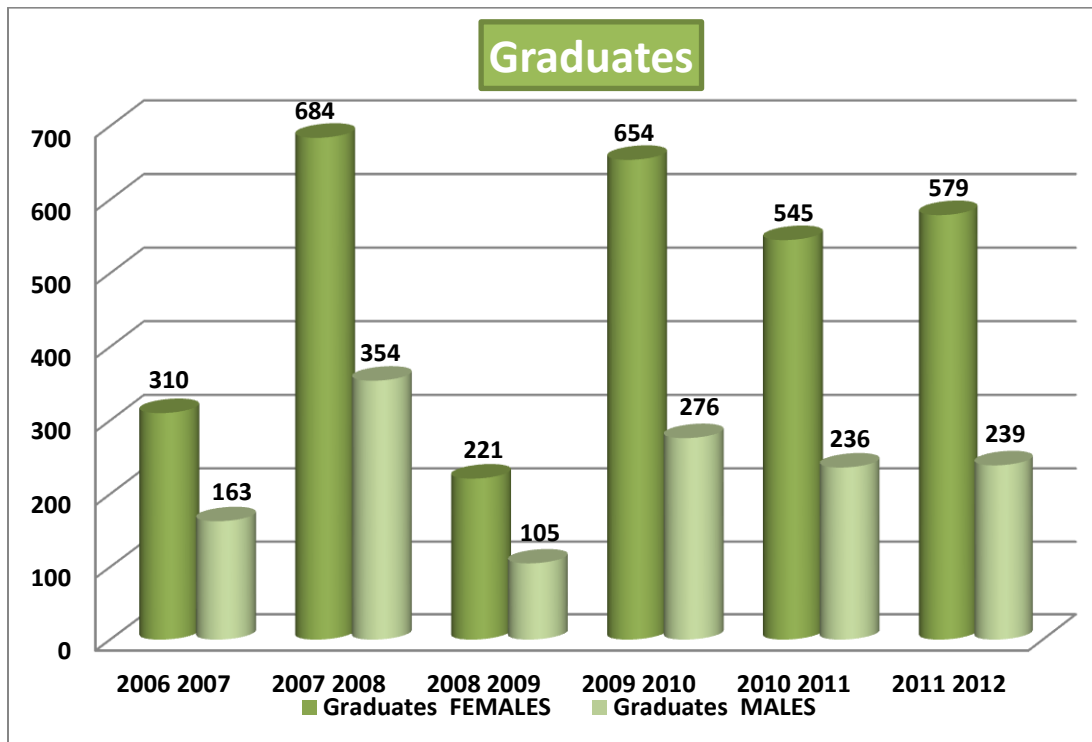


Source: Cave Hill Campus - UWI

Undergraduate F2F male intake at the Cave Hill Campus has been reasonably steady for the period, only marginally dropping in 2008 (the year of the recession commencement) and raising to previous levels soon thereafter. For the period under review, the Barbadian Government was still carrying the economic cost of undergraduate degrees for its citizens. This governmental support, no longer obtains as of 2014.

Figure 8 presents the graduate intake at the Mona Campus of UWI, Jamaica for the period 2006 – 2012.

Figure 8 Mona Campus of UWI : Graduate Enrolment



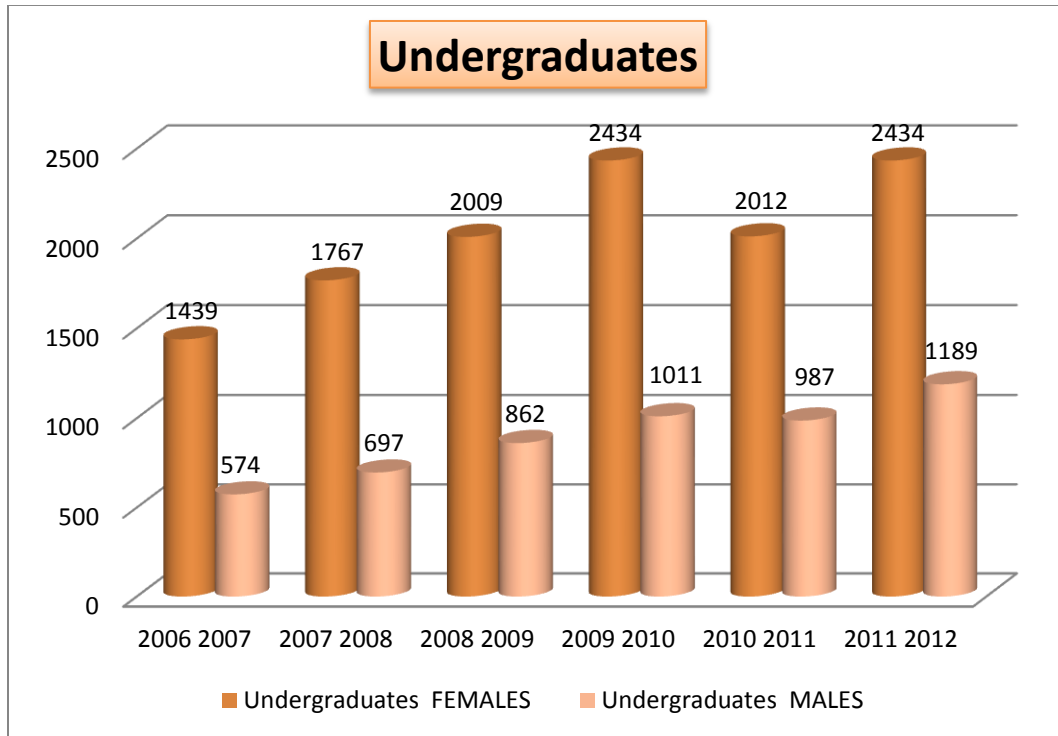
Source: Mona Campus - UWI

Graduate F2F male intake at Mona Campus declined by over 30% around the time that the financial crisis made its initial impact on the region, 2008-2009. Figure 8 shows male intake regained strength the following intake period, but has not

returned to pre-2008 levels. It subsequently dropped marginally. Overall, the female intake outstrips the male for the period under review.

Figure 9 shows the undergraduate intake at Mona Campus of the UWI, Jamaica for the period 2006 – 2012.

Figure 9 Mona Campus of UWI : Undergraduate Enrolment

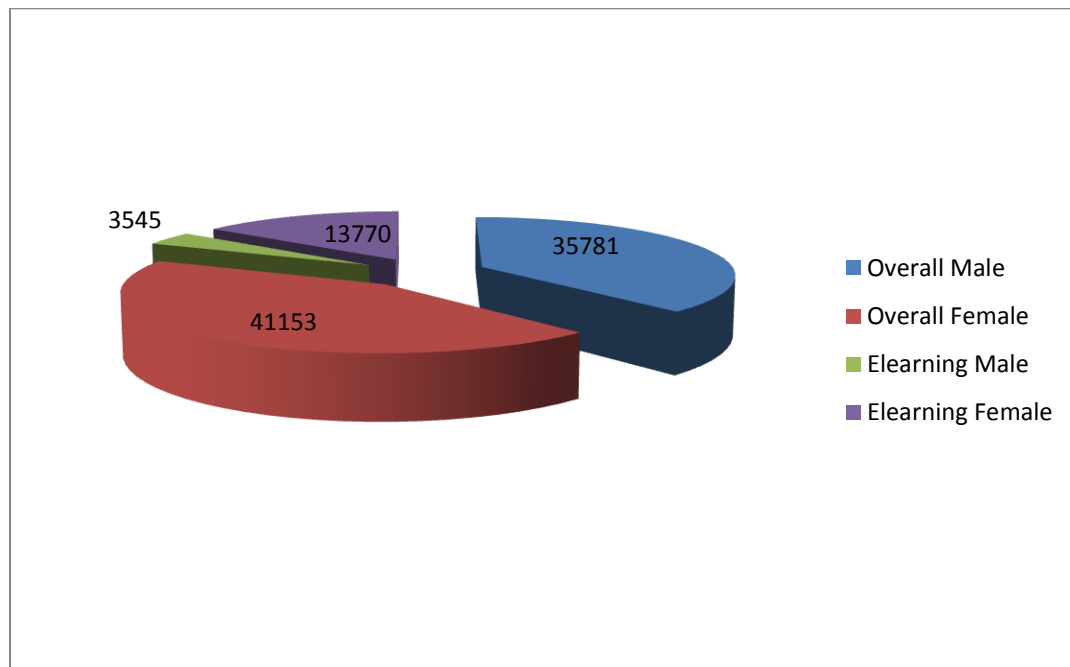


Unlike at the Cave Hill Campus, undergraduate F2F male intake at Mona Campus has increased after the initial impact of the financial crisis in 2008. It should be noted that students at Mona Campus are required to pay the economic cost of their degrees.

Statistics drawn from two of the three face-to-face campuses of the UWI (Cave Hill Campus in Barbados and Mona campus in Jamaica) reflect that more women than men pursue higher education. These statistics also show that men do pursue HE. This contributes to the question of the reason for choice of modality by gender.

Figure 10 presents the breakdown by gender in pursuit of higher education overall and via eLearning for the period 2006 – 2012. This figure displays the total learners from the UWI agencies for the period 2006 to 2012 presented in Figures 2 to 9.

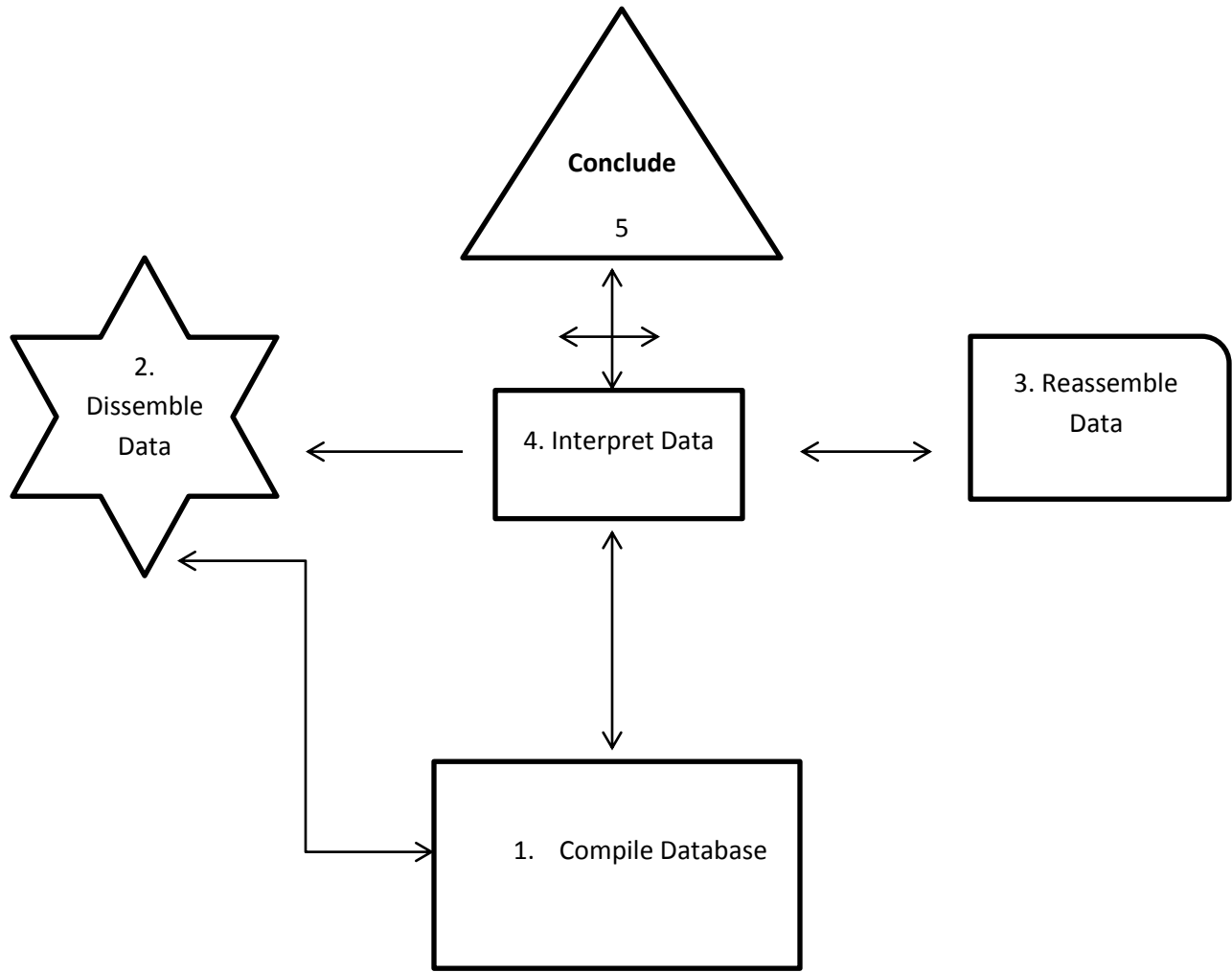
Figure 10 Gender breakdown



There is a 25.74% disparity between males and females pursuing higher education through eLearning. These findings, particularly those drawn from CHSB-UWI and OC, validate the need for this research on choice of eLearning by gender.

Analysis of the data followed Yin's (2011, p. 177) five phases model of analysis and interaction. See Figure 11. As an iterative process, it allowed the researcher to review repeatedly the data to extract meaning.

Figure 11 Yin's Five Phases Model of Analysis and Interaction



Adapted from Yin, 2011, p. 178

3.4 DATA ANALYSIS APPROACH

Using the Yin (2011, p. 177) approach the data were analysed through a five-stage process of compilation, disassembling, reassembling, interpreting and concluding. The process enabled the gathering of similar comments from the collection points to create themes. The comments were coded by colour which served to identify the groupings into themes. The final iteration of this process is shown at Appendix 5. Themes that were pertinent to the research were used for analysis. Other themes emerged that are relative to the area of research but were not within the scope of the study.

The following sub-sections explain what each phase of the analysis addressed and the transition from one phase to the next.

3.3.1 Compiling data

This research benefited from the thoughts, opinions and perspective of 171 individuals. Data were collected from 49 people in seven Focus Groups (FG); 23 people through Individual Interviews (II); and 99 people through a computer-administered Survey Questionnaire (SQ). 300 people were invited to participate in the SQ. Respondents were holders of qualifications ranging from secondary school certificate to doctorate. Exposure to eLearning among the population varied from learners, to tutors to administrators, as well as persons who had never used the modality. In all three segments of the collection process, the questions and discussion topics were the similar, drawn off of the research question, namely: **How is the choice of eLearning in higher education institutions is affected by gender?** In presenting the preamble to the attendees and respondents, the researcher invited them to consider the relevance of knowledge of computer technology, the gendering of ICT and perspectives on higher education. Additionally, computer self-efficacy was posed as a question. In an attempt to stimulate discussion on gender leanings in ICT, the researcher explained Perceived Ease of Use (PEOU) and Perceived Usefulness (PU) as described in the literature as it relates to ICT for eLearning. In that context, the concept of propositional

knowledge and skilled knowledge was also explained to participants as discussions about gender usage of ICT progressed.

The recorded data were manually transcribed by the researcher in verbatim format so as to provide a constant reminder of exactly what was said. This process incorporated an element of reflexivity. That is to say, nonverbal communication through mannerisms and physical reactions to topics were also observed and inserted as part of the record of comments to add context and a hermeneutics (Neuman, 2003, pp. 75,76) For example, facial expressions and dismissing or welcoming hand gestures that added meaning to what was being said (Yin 2011, p.146). In the case of the Focus Group (FG) data, the discussion was synopsisized since there was a high level of cross talk and interjections that would have made unintelligent verbatim transcription. In addition to the synopsis of the FC discussion, specific verbatim statements by some of the participants were included. At the end of the transcription for each individual interview, a summary of the content was made for easy reference. The data presented by the SQ afforded the uplifting of verbatim comments from individual respondents.

The next three sub-sections discuss how the analysis was orchestrated and derived.

3.3.2 Disassembling of data

This database was broken into clusters of similarity using colour codes. Responses that were similar were clustered and colour highlighted. This process consisted of systematically going through the data and assigning a colour to a point then applying that colour throughout the data to all of the points that were similar. At this stage, there was no distinction by gender, age, and country or data collection source. This was done to facilitate the recognition of similarity of comments without bias of source. For ease of reference the colours were grouped in an order that followed the order of collection; first the FG data followed by the II data then the SQ data. This was a time-consuming process. It required constant review to ensure that comments were correctly coded and grouped. It necessitated a

thorough understanding of what was said in order to determine relevance for grouping purposes.

3.3.3 Reassembling of data

The clustered data were reviewed repeatedly by the researcher in order to extract common themes (Yin 2011, pp. 182-185). The colour-coded clusters referred to in 3.3.2 above were used to reassemble the data into a second database of supporting data for recognised themes. As the themes emerged within a set of data, those data were labelled so as to distinguish one theme from another. A set of themes and sub-themes emerged that formed the basis of the interpretation of the data.

3.3.4 Interpreting the data (analysing)

Reflections on non-verbal communication during the data collection process were considered by the researcher to bolster, in the researcher's opinion, the validity of statements made by respondents. In establishing a position in answer to the research question, all of the data collected were reviewed and a number of possible interpretations considered from different angles. The most compelling emergences from the data were selected as the interpretation for this study. The format of the interpretation is a combination of description, explanation and an element of 'call for action' (Yin, 2011, pp. 205-219). Advocacy was not the original intent of this research, but the data presented intimated that change is necessary in the approach to higher education through on-line learning. This reflection in qualitative research is explained by Yin, (ibid); "...the call for action might not have been considered beforehand, and its relevance might only have emerged as a result of a study's findings."

3.3.5 Concluding analysis

This section concludes the researcher's perspective on the findings drawing on the interpretation discussed in sub-section 3.3.4. It addresses overt and covert stereotypes in relation to gender ideologies and looks at the areas that emerged from the findings that speak to the need for additional research with a view to making changes in the growth and sustainability of eLearning as a modality for the attainment of higher education by both genders.

3.4 LIMITATIONS

This research suffered from limitations in the data collection population. Access to the vast on-line community of the CHSB-UWI's sister organization within the University of the West Indies, the Open Campus-UWI was unattainable. This was unfortunate since the OC-UWI, while established after CHSB-UWI as an online provider, has a wider reach and far more extensive database. This limited the scope of the responses to the experience of the CHSB-UWI programmes and a few from other extra-regional programmes. There was a challenge getting male participants, particularly young males. The constant excuse of not being able to find the time led the researcher to conclude that some young men were not comfortable discussing matters related either to eLearning or to higher education, or both. This research suffered from what appears to be an apathetic attitude towards surveys. Literature suggests that apathy to online surveys is not unique to any geographical region or societal culture. Bryman (2012, pp. 674-677) explains that while online surveys have many advantages, not the least of which is low cost, they have many disadvantages, including a low response rate. Consequently, out of an e-mail distribution out of the questionnaire to 300 addresses, 99 responses were received.

CHAPTER FOUR – RESULTS

4.0 INTRODUCTION

The findings presented in this chapter have been derived through the methodology described in chapter three. It reflects statistics drawn from the case study conducted on the CHSB-UWI. It displays the findings from the three other data collection points that formed the triangulation process. This data when compared with the statistics from the case study present a composite picture that addresses the research question: **How is the choice of eLearning in higher education institutions affected by gender?**

Two distinct themes emerged from the data collected through the tripartite method referred to earlier. Each emerged theme formed a prism for mining the data giving me the opportunity to add interpretation to them. Themes complemented by sub-themes are presented along with supporting raw data for validation.

The dominant themes are: One-eLearning is highly useful to women; and Two-Men and women perceive different values for HE. Three sub-themes emanated from Theme One, namely 1.1) flexibility; 1.2) safety; and 1.3) career development. Three sub-themes emanated from Theme Two, namely: 2.1) the nature and content of the online programme is a factor in male participation; 2.2) younger men do not conform to the traditional values of HE and by extension, eLearning; and 2.3) age and circumstances are stronger drivers for the pursuit of HE through eLearning than gender.

Less prominent but worthy of mention is the perception that there is subtle competition between the genders in the learning arena that represents a reversal of the traditional status. In the past, men were perceived as dominant in the learning environment. However, comments such as the following suggest that men no

longer have that position and are shying away: *“Is it [eLearning] too much of a challenge for men; they may not be tech savvy and hiding from having this fact exposed, or they cannot handle the organizational skills and discipline/focus that keeping on top of an online course requires”*. And *“Does male ego play a role in men’s decision-making about higher education? Are they secretly (unconsciously) fearful of failing, and that fear holds them back?”* It was noted by an education provider *“The biggest challenge in the Caribbean is finding men in development courses and activities. The Caribbean man is doing whatever makes him happy he follows his niche. He will not fall into a finite kind of orientation”*. While not an integral part of this paper, these findings should be recognised as warning signs of possible developments, particularly perpetration of a gender divide in education. That in itself is unwholesome for the growth of a people.

In the remainder of this chapter, I look at the data collected from the three data points. This is followed by an analysis of the data through theme identification.

4.1 PRESENTATION OF DATA

4.1.1 Focus Groups

Generally, there was agreement among the members of the focus groups, in some cases, agreeing to disagree on points. One male focus group had a generational mix, which resulted in a heated difference of opinion. One of the younger members accused an older member of being antiquated, misogynistic and chauvinistic in his approach to women and ICT, causing the researcher to interject and refocus the discussion. Table 1 presents the makeup of the focus group attendees detailing background and educational level. The groups are single sex.

Table 1 Focus Group Attendees

Focus Group number	Number of Members	Gender of focus group	Mode	ICT background and Job Title	Level of Education
1	4	Female	V	Computer user- CEO Computer Programmer- Owner Computer User – Project. Manager Computer User – Programme Manager	MBA M.A MBA M.A.
2	13	Female	V	Administrative end-users	Under-graduate
3	10	Male	V	Administrative end-users	Under-graduate
4	12	Female	V	Administrative end-users	Under-graduate
5	3	Female	F2F	Computer user - Senior Project Analyst Computer user- Programme Manager Computer User -Project Manager	M.Sc. M.Sc. MBA
6	3	Male	F2F	Lawyer and Senior Civil Servant Senior Civil Servant Programme Administrator	MBA MBA Ph.D.
7	4	Male	F2F	Programme Administrator Graphic Designer & Entrepreneur Insurance Associate & Entrepreneur Bank Clerk	B.Sc. B.Sc. B.Sc. B.Sc.

4.1.3 Individual Interviews

Interviewees found the topic very interesting and many stated that they had never given thought to the disparity by gender in the use of ICT for educational purposes. However, as the situation was put to them, they reflected on their own experiences and observations and expressed opinions that indicated to the researcher that the realities of ICT and gender ideologies are an accepted way of life. Responses such as *“all spaces are gendered, so why would ICT not be gendered?”*; *“women are disciplined and they attend to detail”*; *“women are the custodians of the granularity of the fabric of society, men are not”*; conveyed to the researcher that while this was not a topic for every-day discussion, there was nothing unusual about it. ‘More convenient to women than to men’ was a constant refrain from interviewees. There was a clear perception by both genders that men regard higher education differently from women. It was an expectation for men to get higher education whereas, women extended themselves to get it. *“Women of a generation went into HE because they*

had a greater sense of the importance of being educated and therefore be independent and have more options. Men do not have the same sense because they did not grow up with the feeling of being limited. They did not need to develop more options. They do not see education as being necessary to provide them with options “. Almost all of the men intimated that online learning holds no intrigue. “The nature of the online programme will determine how many men are attracted to the programme. Programmes geared towards engineering more attractive than a programme geared to ethics or HR. In the back of the psyche of males, is the desire to do a masculine subject area “. Table 2 presents demographics of interviewee respondents.

Table 2 Individual Interview Respondents

Interviewee #	Gender	Age group	Job status	Education Level
1	F	42-49	Executive	Master’s
2	F	50-57	Senior Technological Operative	Master’s
3	F	42-49	Administrative Manager-HR	Master’s
4	F	35-40	Attorney-at-Law	Ph.D.
5	F	57+	Senior Assistant Registrar	Master’s
6	F	57+	CEO	Ph.D.
7	F	34-41	Statistician	Masters
8	M	34-41	Banker	Bachelor’s
9	F	57+	Lecturer online and F2F	Master’s
10	M	34-41	Economist	Master’s
11	F	50-57	Insurance Executive- ICT	Master’s
12	F	42-49	Civil Engineer	Master’s
13	F	57+	Deputy Principal-UWI	Ph.D.
14	F	55	ICT Consultant-EMS Specialist	Master’s
15	M	30-35	Programme Manager/Lecturer	Ph.D.
16	M	30-35	Musician	Secondary Cert.
17	M	40-45	Dean of University Business Faculty	Master’s/Doctoral Candidate
18	F	40-45	Lecturer online and F2F	Ph.D
19	F	50-57	ICT International Relations Marketing	Master’s
20	M	50-57	Journalist	Bachelor’s
21	M	30-35	Electrical Engineer	Master’s
22	M	35-40	Computer Technologist	Bachelor’s
23	F	40-45	Manager – Administration	Undergraduate

4.1.4 The Survey Questionnaire

The survey ran from the beginning of May to the end of July 2014. The largest number of participants came from between the ages of 34 and 49 with 42-49 being the highest followed by 34-41. The qualification level ranged from doctorate to high school certificate. Holders of master's bachelor's and diplomas were the most active. There were more responses from females than males to the questionnaire, which is an anticipated reality, given the nature of the survey. This is similar to the other collection points where the female participation was higher than male. There were a few atypical responses, such as one female reporting "short attention span" in response to a question on pursuing studies on line and another saying "too expensive" to the same question. Females in the face-to-face environments did not express such sentiments – their responses were always positive towards higher education and intimated that obtaining HE was a necessity that no obstacle could prevent. Also, in the face-to-face sessions, women indicated there was no marginalisation for them in ICT, yet as shown in the Results Chapter, in response to Question 10B, that asked females if they felt that men dominated ICT, 62% said yes. My opinion is that these responses may have been facilitated by the anonymity of the questionnaire.

Table 3 Survey Questionnaire Respondents

Gender	Number	Age range	Educational level-Range
Female	74	18-57+	Certificate - Doctorate
Male	25	18-57+	Certificate – Masters

In response to Question 5A – "I would like to study via online learning", there were 85 positive responses. Family convenience, flexibility for job and availability of time were identified as the main reasons for the online selection, with 75% citing convenience to family needs and 66% indicating that it does not affect the needs of the job. Figure 12 and Table 4 reflect the survey findings to this question. Five of the respondents commented; four were women.

Figure 12 Responses to Question 5

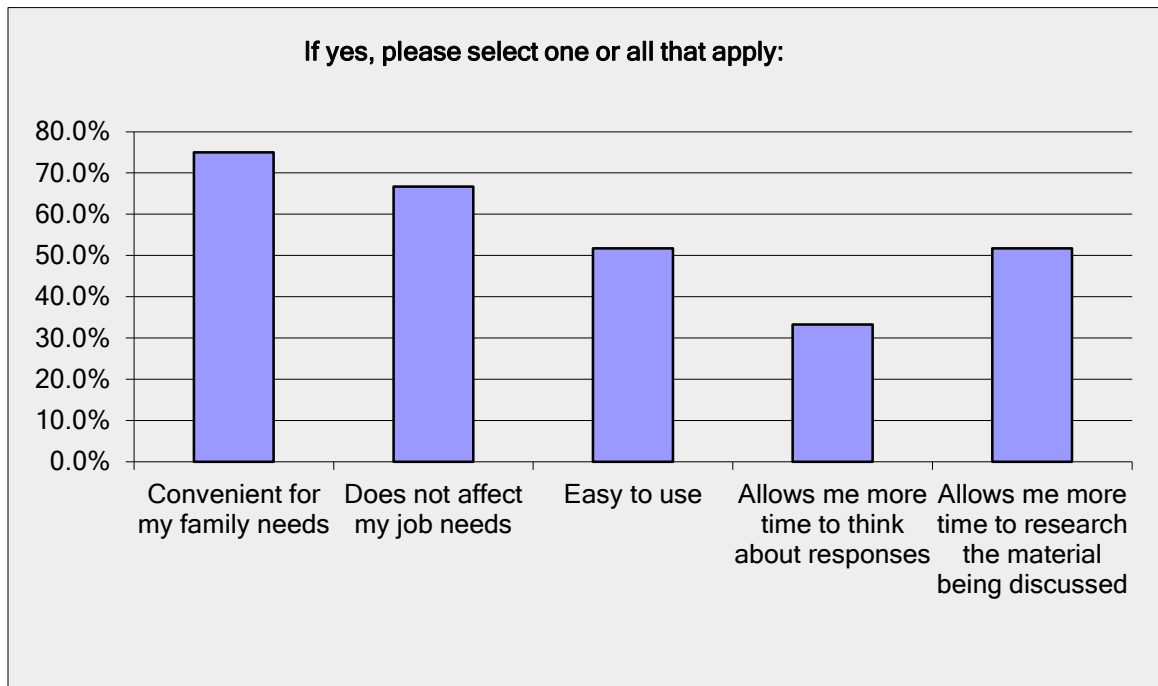


Table 4 Responses to Question 5

If yes, please select one or all that apply:		
Answer Options	Response Percent	Response Count
Convenient for my family needs	75.0%	45
Does not affect my job needs	66.7%	40
Easy to use	51.7%	31
Allows me more time to think about responses	33.3%	20
Allows me more time to research the material being discussed	51.7%	31
Other (please specify)		5
	<i>answered question</i>	60
	<i>skipped question</i>	39

The significance of family constraints in the pursuit of higher education is revealed in the 28.36% response that strongly agreed that *family commitments would be an obstacle to completing a programme of study*. Question 6; please see Appendix 8

Question 10 sought to find out how respondents felt about the opposite gender's use of ICT. 10A asked: *As a male do think that women are well represented in ICT?* 10B asked: *As a female, do you think that men dominate the ICT arena?* The results revealed that 26% of the men felt that women were well represented in ICT and 62% of the women felt that men dominate the ICT arena. Comments include:

- *Yes. This is changing but very slowly. I was a sole female doing IT 20 years ago and little has changed since. Men are seen as technologically superior, whether this stereotype is correct or not. IT is seen as many as hardware oriented which is not necessarily true and subconsciously was seen as requiring the ability to lift heavy objects, a task unsuitable for the "weaker sex". IT is not solely hardware however and many do not realize that there is a distinction.* (Female).
- *Based on what I have observed, women are in there with their male counter parts but perhaps not perceived to be* (Female).
- *Most of the successful ICT persons on highest levels are still mal.* (Female)
- *As a female Project Manager for ICT projects, I am often the only female in the room, even when the project team gets as large as 27 people. When there are other females, they are usually fulfil administrative functions or are the account managers/ sales representatives* (Female).

4.1.5 Purpose for pursuing higher education

All of the focus group attendees were holders of university degrees. Two of the members of Focus Group 6 had obtained their master's degrees through online studies, as did two of the members of Focus Group 1. The other degree holders had studied face-to-face. The two male members indicated that they pursued their master's degrees for work promotion opportunities and chose eLearning because it was convenient. The women in Focus Group 2 were pursuing an under-graduate diploma, as were the men in Focus Group 3. Both men and women indicated they were seeking upward mobility at work. One female in Focus Group 2 indicated that it was very difficult for her to pursue these studies, even on line, but that she felt she must do it in order to succeed. Please see comment at T5.5

One interviewee was a secondary-school certificate holder working in the entertainment field. He was selected for the interview because he had indicated an interest in studying online. However, at the interview his perspective was that he was not interested in the online programmes on offer as his area of focus was music. He added that as he was making money, he did not think he should be bothered with studying further. Please see T9.3. All other interviewees held university degrees.

A community college lecturer who uses eLearning to supplement his teaching indicated that for his personal use, he would not use eLearning as he did not think he had the discipline. He said “ *I did have the option of doing online and I know that online provides flexibility, but I did not feel comfortable being on line environment; I thought I needed something where it would be more directive. I chose a programme with flexibility but being able to also interact face to face with folks on a regular basis. I did not feel disciplined enough for it. I perform better when I have to go to a classroom to document assignments and turn them in. I do not think that online can replace face-to-face.*” This is a male in the 42-49 age group.

4.2 ANALYSIS OF DATA

A direct comparison of enrolment at UWI branches cannot be made from these statistics given that the categories differ. The statistics from the Mona Campus represent all intakes for the period, while the statistics from the Cave Hill Campus represent intake in the Faculty of Social Sciences only. Arthur Lock Jack Graduate School of Business (ALJGSB) provided graduate figures only and the Open Campus (OC) did not differentiate between graduate and undergraduate intakes. The statistics from CHSB-UWI represented graduate and undergraduate intakes separately. This deficiency does not allow for strict comparison of activities at the various campuses and business schools and in the different categories. This in itself is not detrimental to this study. Of critical importance is the comparison of male and females pursuing higher education. The partial statistics available indicate that for

the period under review, 87% more females than males pursued HE. The University of the West Indies' published statistics for the year 2009-2010 academic year report shows an overall enrolment breakdown of 69% female and 31 % male⁸. That in itself may not be considered remarkable, against a background that the United Nations World Population Prospects (2013, pp. 9-13) reports that for the jurisdictions served by the University of the West Indies as represented by these statistics, there are approximately 1.75% more women than men.

With gender disproportion in the population, disproportionate representation by gender in higher education enrolment is no cause for surprise. The question for this study is in relation to the choice to use eLearning for the attainment of higher education by gender based on that segment of the population seeking to be educated at that level.

To address the question of this research, the figures of males and females pursuing HE during the period 2006/7 to 2011/12 were examined. These figures show that based on the numbers drawn from CHSB-UWI and the Open Campus, 17,315 persons chose to pursue HE through eLearning of which number, 13,770 were female with only 3,545 males. Out of the 35,781 males pursuing higher education overall for the period, less than 4,000 chose eLearning. A significant point to note here is that the Mona Campus, Cave Hill Campus (Social Science Faculty) and the ALJGSB for the period under review were offering traditional face-to-face programmes only. However, the virtual provision by the CHSB-UWI and the OC was available to all in the English-speaking Caribbean.

In this chapter, I present and analyse the themes that emerged from the findings.

4.2.1 Theme One

The first theme is that eLearning is highly useful to women.

The research revealed that for a number of reasons, eLearning is considered an indispensable tool for adult working females. The ease of access, particularly the asynchronous method allows females to fulfil multiple roles in their lives. Subtly, the

⁸ <http://www.mona.uwi.edu/opair/statistics/2009-2010/UWI+Statistical+Review+2009-10.pdf>.

findings point to eLearning being a feminine activity because of its usefulness for women and clearly the predominance of women in eLearning environments. This finding is elaborated upon in the following three sub-themes. Data are grouped according to sub-theme and sources are abbreviated as follows: FG=Focus Group; II=Individual Interview; and SQ= Survey Questionnaire.

Verbatim comments from the research population are presented in tables identified by numbers. Each comment has a unique identifier that includes the number of the table and the number of the order that the comment falls, for easy reference. For example, the first table, Table 1=T1. Followed by the chronological order of the comment=T1.3 for the third comment.

4.2.1.1 Sub-theme I- Flexibility

The research revealed that many women were either primary or secondary bread-winners which made it imperative for them to retain full-time employment –while seeking to improve their educational status. A female FG attendee said *“Right now, as I am pursuing this online program, it really puts a lot of pressure on me, at having to multi-task in studying and taking care of the family. Domestic duties must be done and children have to be assisted with school assignments. This I know most women, inclusive of many of my other female cohorts have to battle with. However, having to achieve this goal for success amidst these challenging circumstances, demands increased performance which will then result in success.”* Please also refer to Point T5.10 in Table 5. There was a matter-of-fact sentiment expressed that women have no affinity for or attraction to ICT, beyond the convenience of it. These data show that eLearning is favoured by mainly women because it gives them a level of freedom to pursue HE; freedom that they otherwise have to wrestle from the demands of their feminine lives.

The modality is convenient for women with families. This is significantly important for female single parents who are also out-of-the- home employees. Gender ideology tends to rest the responsibility for the care of elderly parents and other extended family on the female. These relatives constitute a part of the female’s

charge and a critical part of her decision-making when selecting the pursuit of higher education. See T5.7 and T5.8 below.

Table 5 ELearning is highly useful to women – Flexibility

Reason	ID#	Evidence (verbatim responses from research participants)	Source
<i>It allows women to multi-task.</i>	T5.1	The Caribbean has a high incidence of single parent households where the parent is female. In order for women to elevate themselves and maintain their households, they may seek to turn to online education.	FG.4 Female
	T5.2	Women tend to pursue online studies as they are more family oriented and the online platform allows them to spend less time away from the household.	FG.1 Female
	T5.3	Women are more family oriented and therefore may not be as flexible as men in relation to time and family responsibilities and managing demanding work schedules.	FG.6 Male
	T5.4	I believe that women have [displayed] flexibility in signing up for online studies. As adult students women have to work and at the same time look after their households.	FG.6 Male
	T5.5	Right now, as I am pursuing this online program, it really puts a lot of pressure on me, at having to multi-task in studying and taking care of the family. Domestic duties must be done and children have to be assisted with school assignments. This I know most women, inclusive of many of my other female cohorts have to battle with. However, having to achieve this goal for success amidst these challenging circumstances demands increased performance which will then result in success. (Female 34-41 age group)	FG.4 Female
	T5.6	A lot of them sign in late at night – after the family has gone to bed. (Male 42-49 age group)	II
	T5.7	Online degree programmes offer women the greatest degree in flexibility in satisfying the need to achieve career aspirations and to look after whatever they defined as their responsibilities.	II

Reason	ID#	Evidence (verbatim responses from research participants)	Source
		(Female – 57+ age group)	
	T5.8	Women can carry as many as six jobs so they have less time to maximize their advancement. Women hold a full time job, want to be good mothers and good wives. Women will naturally explore the easiest opportunities for themselves. Women are challenged for time. They choose the options that are less complex, less time consuming. (Female, 50-57 age group)	II
	T5.9	If you get an online programme you do not have to go to class, even if you have something where you check in and there is a face to face encounter it is not the same thing as being required to sit in the classroom week after week. So there is a built-in flexibility that takes into context the contours of your life. (Female – 50-57 age group)	II
	T5.10	I totally expect more women than men to pursue online learning. When you think of women’s life, the flexibility that is built into online learning means that itbecause women tend to want to continue to do all of the things that they are doing in terms of their family, their job responsibilities, their children, their relationship they want to service that and if you pursue a degree on line you have a certain amount of control of your access to the studying in that sense. (Female 57+ age group)	II
	T5.11	It would seem to me from my understanding of how women operate, online pedagogical strategies and approaches and offerings are just tailor-made for women. They still maintain the job, they still look after the children they still satisfy their husbands’, man’s or woman’s needs whatever their intimate space looks like, and still fulfill their study responsibility. I am not at all surprised why more women turn up on line in terms of studying. (Male, 34-41 age group)	II
	T5.12	Online gives flexibility. Even if you do not have a family in the world of work it is better when you look at the fast paced environment you are in and being able to manage your time to work on line as against having to go to class for set periods. For	II

Reason	ID#	Evidence (verbatim responses from research participants)	Source
		me, I really prefer online. (Female, 34-41 age group)	
	T5.13	They will find it more convenient or interesting to do their programmes on line because of the convenience of being able to hold a full time job to perform at work being able to go home to their families at a given time to ensure that their schedule is still going and they can maintain their family. And also the flexibility of being able to complete their tasks at home and being able to study at a convenient time. (Male, 35-40 age group)	II
	T5.14	I think that women are jugglers a lot more, so I think the flexibility of it appeals to women more. - I think [in] the ability to manage their time and the discipline. Women are focused; they are disciplined and can get on with the job. This makes the online forum something that women gravitate to (Male, 50+ age group)	II
	T5.15	Flexibility in time for classes, assignments and examinations. I can complete when I am available as I work on a shift system. (Female, 42-49 age group)	SQ
	T5.16	Note that although I have chosen the need to work on-line, the classroom setting is the preferred option had time allowed. Love classroom camaraderie and also verbal exchange with the lecturer. (Female)	SQ
	T5.17	Convenient for my family needs. (Female)	SQ

4.2.1.2 Sub-theme II -Safety

An integral part of the constantly stated convenience of eLearning to the female is the aspect of their physical safety. Working adult learners usually attend to educational pursuits after normal working hours, thereby presenting the female with a security risk. Violence against women is ever-present in the conscientiousness of responsible members of civil society. This was conveyed in some of the comments presented. The data reflected that women are better off studying on line from the comfort of their homes than being out at night facing lonely car parks or bus stands. The overt statement is that the flexibility inherent in

eLearning provides the working adult female learner with a safe space in which to pursue her educational development. The comment “*A lot of them sign in late at night – after the family has gone to bed*” suggests that women are at home and not only are they themselves safe, but their family is taken care of and by extension, safe while they study. The implications of seeking to conduct activity outside of the home by a care-giver include economic concerns which were not missed by the research population. Take for example Point T6.3 that speaks to the costs and logistics of babysitting, intimating safety for the children while the mother is studying. The undertone of these comments is that women should be protected from the vagaries of after-hours commuting and encouraged to stay in control of the home. A male interviewee, who is obviously concerned for the womenfolk in his environment, made Point T6.1. ELearning provides them with personal safety while studying. They are protected if they stay indoors and study on line. Notably no males spoke about safety for themselves.

Table 6 ELearning is highly useful to women - Safety

Reason	ID#	Evidence	Source
<i>It provides a safe environment.</i>	T6.1	My concern is safety, for women leaving class at night. Therefore that online use for women is something that can be explored. (Male 50-57 age group)	II
	T6.2	Women tend to be more focused and disciplined; this is what online studies require hence, women gravitate to it. It has a safety element for women seeking to study while working. Attending night classes located at long distances from their places of work/residence pose a security risk. Online solves that problem. (Male 50-57 age group)	II
	T6.3	I would like to avoid the extra hassle and stress of traffic up and down the highway and having to find parking, and extra costs associated with babysitters (Female)	SQ

4.2.1.3 Sub-theme III- Career development

The research having been conducted within the ranks of working women, demonstrated that women were desirous of enhancing their prospects in the

workplace. Yet, ever present in the research was the primacy of place of the needs of the family by women. One Interviewee summed it up this way “*What I would say as it relates to women being on line, is that it makes perfect sense to me because women look for things that would not disrupt what they have accepted as their core set of responsibilities especially when they get past the early years, teenage early 20s and so on. If they are professional, they hold down good jobs and they have some kind of relationship, they will be much more reluctant to disrupt that for the face -to-face classroom for set periods of study*”. This is supported by the point at Point T7.1 and T7.8 in Table 7.

It was revealed that there is no pull factor to ICT usage for women in this research. They have a goal or set of goals to achieve and find ICT through eLearning to be a convenient vehicle for attaining higher education. The women reviewed, perceive eLearning technology to be both useful and easy to use, (Point T7.12) but foremost is the necessity for their goals and their needs to be met simultaneously. One male interviewee pointed out “*We are living in an era of independent women who have rightfully gained their positions. They are using the online education to get ahead*” *Literature* that opines that women are less technologically sophisticated is overridden by the power of the goals of the women in this study. Women’s goals drive them to overcome challenges, real or perceived in the use of computer technology. Point T7.18 demonstrates this reality showing that the value and usefulness of the computer is equally instrumental in women engaging in technology as it is reported as being the case for men by Venkatesh and Morris (2000, p.18). Notably, there was no rancour among the female participants with regard to their ‘lot’ in life, either from the perspective of home-maker/care-giver or as lowly paid employee. Self-actualization is the motivator. T7.3 and T7.4 refer.

Table 7 ELearning is highly useful to women - Career Development

Reason	ID#	Evidence (verbatim responses from research participants)	Source
<i>Women do not just want to be</i>	T7.1	In order for women to advance themselves academically they must be able to have access to studies, and at the same time ensuring that they do not	FG.6

Reason	ID#	Evidence (verbatim responses from research participants)	Source
<i>employed; they want to ascend the corporate ladder. Their feminine identity is important to them.</i>		neglect their role as mother and wife. This opportunity for self-advancement and educational empowerment has created the opportunity for ICT to play a role in facilitating this need.	Male
	T7.2	Women know that better education will give them better paying jobs but they also know that they have domestic responsibilities that they will not ignore, therefore, they use the ICT for online studies to achieve their goals simultaneously [while maintaining their gender identity roles].	FG.1 Female
	T7.3	Many women are pursuing online courses to fulfill their need for self-actualization.	FG.2 Female
	T7.4	The woman sees ICT as a tool to get to another level and not as an end in itself so that women occupy proletariat roles using ICT.	FG. 2 Female
	T7.5	We are living in an era of independent women who have rightfully gained their positions. They are using the online education to get ahead	FG.3 Male
	T7.6	Women will use ICT for online education opportunities because it suits their needs, not because they like IT.	FG.5 Female
	T7.7	Perceived usefulness of the technology led me to pursue a course on line. (Female, 34-41 age group)	FG.5 Female
	T7.8	I do not think it is an issue for women to go on line for online education. I think it has taken off the way that it has because many women recognize the value of online education as something that does not disrupt their lives. A woman has a lot going on in her life already when she has to be educated, get a degree and go up the corporate ladder and continue to be wife and mother in the home, carrying all of these responsibilities at the same level of intensity. All of these roles absorbing the same levels of attention from her. As ICT develops and the corporate and business world becomes more dynamic because of email and the inundation of	II

Reason	ID#	Evidence (verbatim responses from research participants)	Source
		information, I think that online education is one of the wonderful fruits of that dynamism that has allowed the corporate woman to be able to continue to reskill her life without having it disrupted too much. (Female, 50-57 age group)	
	T7.9	I think that women are just willing to do what they need to do. Women want to be out of the traditional scenario and are not finding their way out because of all of the other traditional demands that are upon them. It [eLearning] is simply an avenue. (Male, 42-49 age group)	II
	T7.10	E-learning has the potential to bring more women in developing countries to the discussion table of business and of government because it affords them a manageable opportunity to attain the level of education that will earn them a seat. (Female, 34-41 age group)	II
	T7.11	Women know what they want to do to succeed and they use the technology that is available to do it. They are governed by PEOU; they use technology that is easy to use so that they can arrive at an end. Hence they engage the basic technology of online learning to get higher education as it facilitates their other life obligations. Many women are capable and if they wanted to, they could be in the creative space of technology. (Female, 34-41)	II
	T7.12	Poor women can now say "we have a way to open the door for ourselves" because of the provision of HE through eLearning. (Female, 34-41)	II
	T7.13	I can see that online learning is tailor-made for women; you are a young wife, you have two or three little children, your husband is a professional, you are married recently, you have an opportunity to be promoted on the job but you have to get a masters. (Female, 57+)	II
	T7.14	More women are using the technological provisions to attain higher education through on-line studies. Their societal role and their traditional roles prevent them	II

Reason	ID#	Evidence (verbatim responses from research participants)	Source
		from acquiring higher education at the same pace with their male counterparts. (Female, 42-49 age group)	
	T7.15	Natural self-efficacy draws people to the technology if the technology will facilitate a specific need. Using the technology for the sake of using it is not the focus for women. (Male, 34-41)	II
	T7.16	I do not see education and technology so much as technology per se, it is there for women to take it in bite-sized amounts and therefore [they] are not choking on what is there because it has been made simple for them to use. They can use it at home [so this] means that it is tailor-made for women (Female, 57+)	
	T7.17	I would say that it is perceived usefulness that took me to ICT. Its ease of use was not a concern. When I learnt what it could do I wanted to use it and to learn more about it. It is easy to use for me, but it is not ease of use that drew me. (Female)	SQ
	T7.18	[I] had to familiarize myself with the technology and never thought I would have been able to do it on my own. (Female)	SQ

4.2.2 Theme Two

The second theme is that men and women perceive different values for higher education. Higher education is regarded differently between the sexes. It is a given in the opinion of some men and treated with indifference by others. Women see it as a necessity and seek to find ways to attain it. Older male respondents indicated that education was a right and the data suggest that the societal role ascribed to men of an earlier era facilitated them in pursuing higher education without hindrance because the granularity of their lives was handled by the females in their lives. In the words of an interviewee who is an educator, “ *In the days before online programmes when men had to study, a man would more readily get up and leave his family and go away to study and his woman and his network would understand that he has gone to England to do a degree. Often he came back with another family, but*

the point is you understood that.” Also, the data suggest that men in the past have not been subjected to the same pressures as women with regard to attaining employment based on educational background even though attaining higher education was easier for men than women. “Men do not have the same sense because they did not grow up with the feeling of being limited. They did not need to develop more options. They do not see education as being necessary to provide them with options”

Further, men past and present are seldom the home-makers and are less likely to be single parents. The male impetus to get HE is not as heightened as for the female. The reasons differ within the male gender by generation. In the case of the older male, discrimination was in their favour as already stated herein. The younger male members of the research population question the value of attaining higher education in relation to the duration and timing of participation. The relevance of HE as it is presented to their envisaged livelihood is in question.

Sub-themes I, II and III following, explain these perspectives using the data gathered in the research.

4.2.2.1 Sub-theme I - Factors in adult male participation online

The nature and content of the online programme are factors in adult male participation. ELearning in the context of this study relates to management studies. According to the findings, management studies as they are configured, do not offer the mental stimulation required to attract and retain some men. Participants in a Focus Group indicated “ *The nature of the online programme will determine how many men are attracted to the programme. Programmes geared towards engineering are more attractive than a programme geared to ethics or HR. In the back of the psyche of males, is the desire to do a masculine subject area.*” This is backed up by comments shown from Points T8.3 through to T8.14.

The data are replete with comments from males and females that un-stimulating pedagogies do not challenge men. As evidenced at Point T8.15 the male reported being bored by what constitutes eLearning in its present format. The platform

represents no more than a predetermined communication tool between lecturer and student or student and fellow student. According to these comments, men need to be challenged to create, to dismantle and re-build. Courses in management and other non-technological areas do not provide that type of engagement. Men it is said, like technology when technology is an end in itself, not a means to an end. In other words, if the eLearning exposure is related to creating something technological, it would appeal to men. As it is, the eLearning programmes being reviewed are merely the same courses formerly offered in a face-to-face environment, that men rejected as evidenced by their low enrolment numbers shown in the graphs displayed at Figures 4,5,6,7,8 and 9. T9.14 sums up what the majority of the men in the study feel about eLearning.

Table 8 Men and women perceive different values for higher education-the nature and content of programmes

Reason	ID#	Evidence (verbatim responses from research participants)	Source
<p><i>Men in this study appear to be motivated more by the creative element of academic learning than the purely theoretical element.</i></p>	T8.1	<p>Young people, particularly young males do not value education as men did before. Education is not as appealing as it was before. If education was considered as masculine there may be more men taking it. But given the popular culture in the Caribbean where there is music that promotes anti-education behaviour, it is not valued by young men.</p>	<p>FG.6 Male</p>
	T8.2	<p>I do not like reading; if I listen, I absorb more. If I go to class and listen and I do not read I will still know something, but if it is online and I have to read only I will be in trouble. (Male, 18-25 age group)</p>	<p>FG.7 Male</p>
	T8.3	<p>Interactive programmes that include using the technology to create would be useful.</p>	<p>FG.7 Male</p>
	T8.4	<p>Males like to be challenged. Males need to know that to achieve something they have to be challenged by it. Perhaps the view of online education is not challenging enough for a male - creating software is perhaps more challenging. The perception might be that it is not challenging enough, but they perceive education not to be challenging. The subject area may be of interest. If you offer an online degree called civil engineering, you are more likely to find a predominantly male presence</p>	<p>FG.6 Male</p>
	T8.5	<p>Men are less attracted to the online programmes because of the nature of the programmes being offered. Men prefer more hands-on topics. Courses that allow men to create are more likely to attract them. (Male, 34-41 age group)</p>	<p>II</p>
	T8.6	<p>If there were construction type courses or mechanical courses it is likely there will be more men wanting to access them. It is not the technology, but the types of courses. (Male, 34-41)</p>	<p>II</p>

Reason	ID#	Evidence (verbatim responses from research participants)	Source
	T8.7	For males with inquisitive minds the desire to go beyond is not present in the on-line classroom. (Male, 34-41)	II
	T8.8	They are just playing with technology doing the same mundane things. If it was in the study of computers, picking down computers, making computer connections with other systems, or something creative you may find more involvement and those things must be considered before it can be said that ICT itself has restrictions to males or even females. (Male, 50-57)	II
	T8.9	Introduce a course which requires video conferencing dealing with computers, picking it down, writing programmes you may see more involvement in terms of males. Males want to know how to, after we know how to, we want to continually build. (Male, 34-41)	II
	T8.10	Maybe the programmes should be more hands- on and more interactive to attract the male. (Female, 34-41)	II
	T9.11	As a male, I feel that interactive programmes that include using the technology to create would be useful. (Male, 34-41)	II
	T8.12	To bring men to the online environment, perhaps we should be looking at what their interests are.	II
	T8.13	The reason for men not being on line has nothing to do with the technology, it is to do with the subject matter. (Male, 40-45)	II
	T8.14	Online learning might not be what men consider to be technology. Technology is attractive to men as are cars as is fixing things. It is an extension of a toy. Because men continue the same way as they started off as boys with toys and they graduate into these areas and sometimes fall into it as a profession. Technology was not always a tool to do something; technology was an end in itself, i.e. to be in the technology, doing things in the technology. Now	II

Reason	ID#	Evidence (verbatim responses from research participants)	Source
		technology is a medium for learning, it is a different approach. There is no playing around or manipulating, it is just applying some set conduits of communication and relating with whoever might be the tutor and others in the classroom and these are through set channels. That is it. It is not the stuff you play around with. To say, I have John Jane Grace and professor Wallace. I can move one here, put one there - let me switch professor over here, I can blend these frames. That is something different. (Male, 50-57)	
	T8.15	My point is to do with the perception of education regardless of online or in traditional classroom. This is to do with the way the modern men view education. In earlier times, men were more into education and growth and it was seen as something more masculine to be educated, but on the other side of the coin, in modern times females tend to push themselves more (Male, 34-1)	II

4.2.2.2 *Sub-theme II - Values on HE via eLearning*

The younger adult males in this study do not conform to the traditional values of higher education and by extension to eLearning.

The opinion of the research population is that the modern culture of instant gratification has fashioned the thinking of the modern male. Emanating from the discussions with younger males, there appears to be a reluctance to devote extended time to attaining higher education. *“Education is not desirable to the young men today. The culture now for some is that education is a means to make money; if a male can get money without going through four years for a degree, then he will seek the shorter route.”* Comment T9.1 speaks to the same value. Pursuing higher education is not seen by younger men as vital to their success as it is seen by women or even older men. A young male interviewee (under 35) stated *“My father was the only one of 13 children to go to university, he started late and he saw education as a way out of a particular life. I do not think that young men see that as a way out any*

more. They want to be rap stars not realizing that it is only about 2% who make a success in this area. It is hugely complicated in a number of areas". This interviewee is at master's level in his education and is seeking to pursue a doctoral programme. He is different from the other young men because he is guided by the history of his family and not persuaded by the modern approach to education and learning. In this study, he was one of two that held that view.

As can be seen in Point T9.4 the opinion of some young men is that the amount of money to be invested in higher education is ill-spent. They are taking a direct approach to wealth accumulation. They feel that with a little bit of knowledge, they can be successful. Point T9.7 and T9.8 suggest that young males draw on their gender identity as providers and feel the need to be in the workforce sooner rather than later. Their focus is on 'now' and do not entertain the vision that higher education will prepare them for beyond the job interest they may have now. They therefore consider long hours devoted to attaining higher education an obstacle to their progress. *"Men want to make money right away. I studied because I was driven by my mother, but when I look at it I wonder if it was worth spending that money and if I could have gone much further had I put that money to a trade. In these times jobs need more certifications and trades training. Why do bachelors in accounts and then still turn to do ACCA, why not go straight to ACCA?"* The revelation from the data is that men have not rejected education, see T9.9; rather they wish to re-define what education is and how it is attained. They question its value in the scheme of life needs T9.10 refers. Evidence from the collected data of this finding is presented in Table 9.

Table 9 Men and women perceive different values for higher education - values on HE

Reason	ID#	Evidence (verbatim responses from research participants)	Source
<p><i>Younger men know what they want to do and they want education that will help them to achieve their defined goals. They do not want education to define their goals.</i></p>	T9.1	I have a bachelor's degree, but I would have been better off doing trades programmes bit by bit until I get where I want to be. (Male, 18-25)	FG.7 Male
	T9.2	I do not have the time and because of knowing I do not have the time, I do not have the interest. If it were something very quick then, yes I probably would do it. (Male, 34-41)	II
	T9.3	If there is an advanced course on how to play the piano, I would pursue it. Finding the time to go to someone's place to learn how to play is virtually impossible for me and my time and I would love to be better. I play very well, but I still feel a little insecure with certain genres of piano music. I would want a practical course more than a theory course. I am very far ahead of those with theoretical work. The course would be one with explanation, listening, dissecting through comment. There would be a level of theory but not heavily based on theory. When you are doing something practical you have to base it on some theoretical work. In the music because you are hands-on with whatever instrument you are trying to learn, the practical makes the theory easy to understand. (Male, 26-33)	II
	T9.4	Men are generally geared towards business. I do not know how useful it is for them to pursue higher education. A man will look at the amount of money to be invested in studying [and say] you could start up a business or buy a car. I have a friend who was thinking of doing a masters but he said when he looks at the money he may as well invest it in a truck and make some money. (Male, 34-41)	II
	T9.5	Attrition rate shows that the male gender is twice as likely to be asked to withdraw or who drop out. They do not like the long and drawn out programmes. (Female 57+)	II
	T9.6	Guys do not want to spend three years doing a degree; they are focused on making money early. (Male, 18-	II

Reason	ID#	Evidence (verbatim responses from research participants)	Source
		25)	
	T9.7	There are so many short cuts and avenues where one can make money instead of spending four years getting an education. The males consider themselves as the breadwinner so they cannot be spending time in the education system waiting to get a degree then to make money then to provide for the family. They want a shorter way. (Male, 34-41)	II
	T9.8	Presently, men are focused on making money and do not want to spend too much time learning how to do it. (Male, 34-41)	II
	T9.9	I would not want to pursue higher education because I am already here. It is not necessary for me to expand on this. However, if I was not in this field maybe I would pursue higher education, but the concept of online education is foreign as I would prefer to be in the face-to-face class. That foreign concept is what makes you hesitant because you do not know if you would succeed or not. I would not be sure if I would learn well or not. I actually did an online course about ten years ago but I did not follow through. I had lost interest. (Male, 26-33)	II
	T9.10	My mother wants to see all of her three children have a PhD. My sister has one but I do not see the sense of it. It might be something to do with the titles but it makes no sense to me. (Male, 34-41)	II

4.2.2.3 *Sub-theme III - Age, circumstances and gender.*

Age and circumstances are stronger drivers for the pursuit of higher education through eLearning than is gender. Age and circumstances of the individual are linked to the level of responsibility they have for themselves and for others. Two potential interviewees reneged on the agreement to be interviewed because on second thoughts they felt none of this applied to them. One very young man - age 21 - said his studies were on hold and when he decided to study he would go to class, meaning face-to-face. The other person was older and said that he might be looking to study something different but that would be when he retires so he did not see the need to do it on line as he would have time at his disposal. This perspective

is borne out by Point T10. 4. Young adults without the responsibility of family and older adults who no longer have responsibility for the day-to-day needs of children or other forms of care-giving intimated that they do not need the convenience of eLearning. Time to attend face-to-face classes was not expressed as a deterrent to achieving HE or skill development by this category of respondent.

Table 10 Men and women perceive different values for higher education - relevance

Reason	ID#	Evidence (verbatim responses from research participants)	Source
<i>Circumstances are stronger determinants for the choice of eLearning in pursuit of HE.</i>	T10.1	I can use technology very well, in fact I use ICT a lot but I do not think I want to study online – I do not see why I should. (Male, 18-25)	FG.4 Male
	T10.2	Regardless of the type of programme, I still think of online learning as too static. I cannot sit in one place; I cannot sit at my desk for too long (Male, 26-33)	II
	T10.3	I read online newspapers which are highly interactive, movies online, not dull and boring. Online learning is dull and boring. It is the design of the programmes rather than the technology. Technology does not bother me (Female, 34-41)	II
	T10.4	I will soon retire from work and need to pursue something of leisure (Female)	SQ
	T10.5	Note that although I have chosen the need to work on-line, the classroom setting is the preferred option had time allowed. Love classroom camaraderie and also verbal exchange with the lecturer. (Female)	SQ
		I'm preparing for retirement and prefer to pursue a skill at this time. (Female)	SQ

4.3 CONCLUSION

The observation that inspired this research is being explained by the protagonists – the men and women who do and who do not use eLearning for the pursuit of higher education. The facts reveal that women make up the majority of online learners. Older men are more accepting of eLearning than younger men. There appears to be a two-fold reason for younger men not pursuing eLearning in large numbers - The

first part is that eLearning simply represents higher education that is increasingly unattractive to some young men; the second part is that the eLearning platform holds no intrigue for many of the younger men.

Age and circumstances, regardless of gender combine to help the choice of eLearning for higher education as opposed to face-to-face learning in a bricks and mortar environment. Availability of time determined by level of life responsibilities also serves to guide the choice.

Age and circumstances in the research cohort for this study seem to have overshadowed the traditional values of attaining higher education. Those values do not appear to have been discarded whole-scale; rather, what is being asked for is a change to meet what is relevant to the learner/employee of the 21st century and by extension the labour market.

The data from all three sources also revealed three additional noticeable points, namely that ICT is masculine, men are intimidated by women in the learning environment and that technological development in the Region is slow. These points are not analysed or developed in this study because they divert from its focus. Nevertheless, they are critical points that are deserving of further research. Particularly to understand why female respondents reject the suggestion that they are marginalised in technology, but then proceed to highlight the advantages given to men in the area.

The next chapter discusses these findings, expanding on the themes presented here in relation to extant literature and looks at the contribution to the literature made by this research.

CHAPTER FIVE - DISCUSSION

5.1 INTRODUCTION

The literature has shown that there has been a lot of attention paid to eLearning in the attainment of higher education. That is to say, work has been done on eLearning as a modality with particular emphasis on the quality of eLearning. But there is a dearth of literature on eLearning in higher education from the gender perspective. When the core themes that have been presented in Chapter Four of this study are reviewed collectively, it becomes apparent that the success of eLearning as a tool in the attainment of higher education is dependent on its relevance in terms of access, delivery and content. Further, that collection of core themes also reveals that the relevance of the content of higher education to the perceived needs of the potential learners is intricately linked to the use of eLearning in its attainment. Martinez et al (2012, pp. 37-38) in discussing the instructional design profession and the training of its graduates, raise a number of questions regarding the relevance of how instructional designers are trained to use educational technology to design programmes that hold the interest of the learners. They speak about the importance of designers having awareness of learning theory which will help them to build in features in the eLearning experience to help the users of the facility. They asked “What are other areas in which Educational Technology programs can adapt to current labor needs that can make program graduates better equipped to have successful careers in the targeted labor markets?” They were strictly speaking about the training of instructional designers. However, through my research, I have found that the same thought process is necessary for any discipline being offered through eLearning. The eLearning design needs to be conducive to learning and the content must be what the learners can apply in the labour market. While the content of higher education per se is not the focus of this research, its importance in

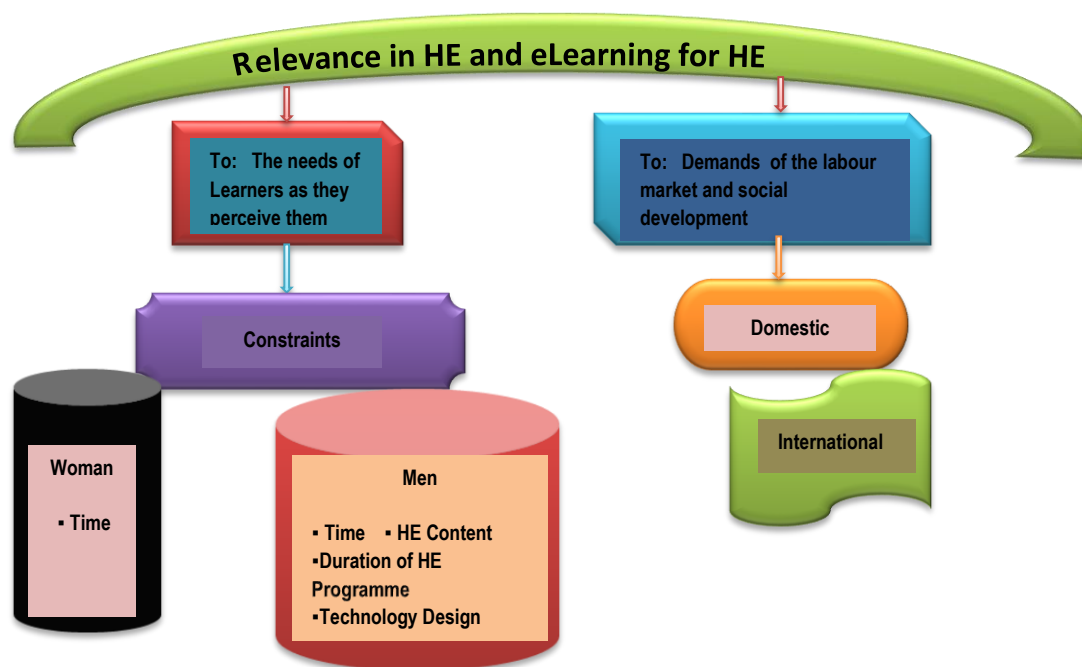
how the eLearning facilities are designed to be relevant to learner needs cannot be ignored and will require further study.

With the focus firmly fixed on eLearning, it is apparent that some eLearning programmes in use are not robust enough for many of the potential users whose exposure to IT and ICT has been more current and dynamic, thereby making the platforms appear staid and unattractive. See also (Srimathi and Srivatsa, 2009, pp. 738-742; Lim, So and Tan (2010, 203-218) . For eLearning to be attractive in the first place, and effective in the second place, the platform design must incorporate strategies that will promote learning based on the state-of-the art technology and attuned to the technological profile of the learners. Comments from young adult male respondents in this research who said that eLearning as they know it is unattractive, (see comments at T9.3 – T.914) suggest the need for consideration of the design of the platform with tools that the users will find stimulating while at the same time helping them to learn what is needed for a labour market that is current. The research highlights that learners are now not just consumers of knowledge, but also customers of HEIs and like customers they recognize the need and opportunities to 'shop around'. Also, it highlights the need to recognize the ICT skills and proclivities of modern users which could serve to have them involved in the co-creation of their own learning experience.

The contribution of this study to the wider body of literature on higher education is through the understanding of eLearning from a gender perspective. It is also through the recognition that the use of eLearning in higher education must be considered not only from the perspective of its quality, as has been done by extant literature in large measure, but also from the perspective of its relevance to the potential users and the society being served. In this chapter, I will discuss the findings from the two perspectives as emerged from the research and locate them within the context of literature on higher education. The rich literature on higher education and on eLearning as well as on gender will be incorporated in this discussion.

Acknowledging that higher education refers to post-secondary education, the target population of this study is the working adult. This brings gender issues into focus for the purposes of comparison between the users. The multiple reasons found in response to the research question – **How is the choice of eLearning in higher education institutions affected by gender** –coalesced to form the foundation of my contribution that presents eLearning as a conditional resource in the acquisition of higher education by adult learners experiencing constraints. Those constraints are encountered by both genders for vastly different reasons that relate to their gender ideology and identity. The gender ideological and socially constructed constraints found in the research are exacerbated by the lack of importance given to relevance in the design and marketing of higher education with eLearning as a conduit to higher education for the working adult. To be explicit, this study has revealed that beneath the umbrella of relevance, constraints in the use of eLearning for the attainment of higher education have emerged with different foci for men and women. Because of the lack of relevance, the male gender in this study is rejecting eLearning for higher education and by extension, higher education itself. The women in the study have articulated acceptance because of necessity which while not stating rejection, is not demonstrating total acceptance either. Figure 13 below is a depiction of how relevance governs the challenges that have emerged in this study.

Figure 13 Relevance in HE and eLearning Design



There is a dearth of literature on the two critical areas of these findings as a collective whole. First, the imperative of relevance in the design of eLearning higher education programme content as well as the design and engagement of eLearning technology for higher education is not as pronounced in the literature as it could be. There is some discourse on relevance which, in my opinion needs elaboration through further research in order to help sensitize eLearning programme designers to its importance in getting higher education through eLearning to the adult learner. Both Dias, (1992) and Lucas, (2014) draw attention to relevance in the provision of higher education. Second, higher education through eLearning from a gender perspective does not appear to have had any attention from researchers, although as separate issues, there is a vast body of knowledge. The scarcity in the first and the absence in the second have combined to open a gap into which I am seeking to position my contribution.

Relevance is a forceful emergent in this research. The contribution from this study includes the aspect of relevance in the delivery of higher education through eLearning from the perspective of gender.

It was revealed that there was an underlying issue related to the rejection by males of eLearning for higher education purposes. The comments presented indicated that what was being offered either by way of platform design or content was not relevant to their perceived needs. This brought into focus the realization that while women in the study did not reject eLearning to the extent that some of the men did, their resolve to use it as it is, is related to the liberation that eLearning would afford them in attaining higher education whilst maintaining their responsibilities based on their feminine identity. Consequently, the issue of relevance in the eLearning design is dormant in the perspectives of the women researched.

eLearning design for end-users' needs and the relevance of higher education to the populace are critical for development of a nation through human resources. Those human resources, adult males and adult females, have different needs. As depicted in Figure 13, the overarching theory is on relevance in eLearning for higher education.

The next two sections of this chapter will highlight the value of the contribution of this study to the literature on higher education by expanding on the areas identified above. Section 5.2 discusses the understanding of eLearning from a gender perspective, followed by Section 5.3 on the relevance in content of eLearning design for the attainment of higher education.

5.2 CONTRIBUTION I: eLEARNING FROM A GENDER PERSPECTIVE.

It will not be considered inappropriate to deliberate on eLearning from a gender perspective in a study discussing higher education because gender permeates all spheres of life and all spaces are gendered according to one interviewee who said "Is

there any space that is not gendered? All spaces are gendered so I would be surprised if IT, the use of IT the development of IT, the spread of IT occupied a gender-neutral space because gender is everywhere, not only in Caribbean societies, in all societies and the manifestation takes on other forms". As a point of departure for this section, I draw on Barriteau's (2001, p. 30) opinion that "Gender ideologies reveal what is appropriate or expected of the socially constituted beings 'women' and 'men'. They also expose how individuals create gender identities. The social expectations and the personal constructions of gender identities form the core of gender ideologies within a particular society. These ideologies establish the sexually-differentiated, socially-constructed boundaries for 'males' and 'females'" I discuss gender in this study not as a power dynamic which it may or may not be and therefore belongs in a different discourse, but as a socially-constructed dictator of what is right and expected for each gender within the context of attaining higher education. As it relates to developing and lesser developed countries, the gender debate on higher education in the gender frame is lacking, having been sacrificed for debate on basic education (Morley, 2005, p. 13). The contribution of my study seeks to further and help resuscitate the debate on higher education and gender, dealing specifically with how HE is pursued by the genders. The data in this study revealed a series of constraints on working women and working men in the pursuit of higher education. Section 5.2.1 looks at the constraints for women.

5.2.1 Constraints for female adult learners

The findings in Tables 5,6 and 7 of Chapter Four are on the value to women of eLearning. The vicissitudes of life render the idyllic features of gender ideology inoperable in many cases. In other words, the male as breadwinner and female as home maker does not always exist. There are variations to the model that see the female as assistant bread-winner and homemaker or as full bread-winner and home-maker. In less common, but stealthily growing circumstances (Wheelock, J, 1990, pp. 221-237; Wentworth and Chell, 2001, pp. 648-649; Gaunt, 2013) there is role reversal of sorts where the female is the full bread-winner and assistant home-

maker. In all of these permutations, the female retains the home-maker role (Hook 2010, p. 1486). Spousal responsibilities cannot be ignored in a discussion that addresses the wholeness of the female identity. These noble duties of the female within the context of the societal expectations of gender ideology become a constraint on the woman seeking to attain higher education. The aforementioned relegation of the female to the lower income earning levels within the organisation exacerbates the situation because her financial contribution to the household is below requirements and she is deprived of the wherewithal to engage services that will free her time to undertake higher education. Services such as child-minding or nursing for elderly parent(s) are of significant importance in social value and monetary costs. The constraint takes a more personal dimension when it is considered that access to HE for the working adult invariably falls after normal working hours. This reality points to personal safety issues particularly for the female. If she is a single parent, which is a common occurrence in the geographical space under review, these problems are multiplied and the cycle of poverty revolves in perpetuity.

It is not my intention to suggest that women's God-given role of reproduction is lost on society or to minimize its value in any way. Governments value this attribute and incorporate it into their development plans. However, the focus of that recognition is within the realm of gender ideology as it contributes to economic development. In reference to the state of Barbados, Barriteau (2001, pp. 110-111) opines "The Barbadian state incorporates women into development through population control, reproduction of the labor force and the maintenance of the family." When viewed this way, women's fertility is a direct contributor to national economy. It is a revered position and undoubtedly, the women in this study embrace their role. However, what cannot be ignored is that it brings with it constraints for the woman. It was pointed out in the interview that a successful woman is not judged by the efforts she has contributed to her craft or business, but by the successes of her family. It was further stated that this judgement is visited upon the woman by her fellow women and by the woman, herself.

Women have recognised the need to educate themselves in order to be better qualified and attract better remuneration for work outside of the home, despite their gender-related responsibilities. Their opportunities and prospects at out-of-the-home work are tied to their education. The literature and some of the comments from participants point to the area of discrimination within the work place for women (Comments at T7.2; T7.5; T7.10 refer. Also see Panteli (2012, p. 392).

The research indicates that if the average woman in the region under review is to execute her gender ideological role and uplift herself within the work environment and she does not already have higher education qualifications, she has to find a way to attain HE through a method that would harmoniously coexist with her lifestyle and life demands. This need is attended by real constraints. The primary one is the availability of time. A logical conclusion of this thought is that HE must be made available to working women in a form and fashion that is relevant to their needs. With face-to-face night classes being a challenge for the reasons already stated, a highly viable alternative is open and distance learning.

Open and distance learning (ODL) is the evolved state of what was traditionally known as correspondence studies which was pre-digital distance learning executed through correspondence courses conducted in hard copy via the traditional mail system. The mail element has been replaced by a technologically enabled, computer-assisted method of learning more commonly called electronic learning (eLearning). The constraints of distance and time have been changed and to some extent eliminated by eLearning. ELearning brings with it the ability to transcend barriers of time and space which appeal to the female described in this chapter.

ELearning allows women to pursue HE, maintain their female identity in relation to care-giving/child rearing whilst retaining a full-time or part-time job. This is because it affords them a relatively unconstrained timeframe in which to study. Most eLearning programmes follow an asynchronous pattern. This enables the

female to work outside the home, attend to family needs and select a convenient time to focus on the selected course of study. Please see the comment at T5.5.

The mainstay of eLearning is the use of technology; computer technology to be precise. The literature addresses the use of technology by women with a bias that posits, reasonably supported in some cases by empirical data, that women do not have the same level of computer self-efficacy as men (Ong and Lai, 2004, p. 825). Further Venkatesh and Morris (2000, p. 18) posit that while men approach technology because of its perceived usefulness (PU), women approach it only if they perceive ease of use (PEOU). The findings in this research disagree with both pairs of researchers. Women in the research have displayed computer self-efficacy which emanates from their desire to succeed. Speaking on self-efficacy one interviewee said: *I went to a school that was 'transitioning' to accept girls after 250 years as a boys-only institution. Every course, every sport, was male oriented. Metal work and carpentry were options as technical subjects. Our environment focused on the power of the mind. To succeed you had to have a good brain. So I essentially grew up in an environment where girls were expected to show that they were at least as good as the boys in order to be accepted.* This quotation from a business professional woman is in keeping with the theory of Bandura (1983, p. 391) that self-efficacy is not concerned by skills one has but with judgments of what one can do with whatever skills one possesses. This research has found that women are not driven by perceived ease of use, they are driven by their goals to achieve HE, therefore perceived usefulness of the eLearning technology to meet their needs is what causes them to use it. The following quotation is reflective of the sentiments of most of the women in the research population. *"When I think of women and studying and incorporate that with online and being tech savvy, I think that they [women] are adaptable because the push factor to achieve is to better themselves, or self-development, plus the convenience of being able to take care of family and everything else, those trump the IT issues or being tech savvy. I do not use something because it is easy, I like to face a challenge and if I know that there are goals in life and there are*

going to be challenges I will face that head on. The technology is useful to studies and I will use it, so it is Perceived Usefulness rather than Perceived Ease of Use”.

The research revealed that when driven by goals and constrained by circumstances, women can and will use ICT, in this case through eLearning in order to pursue higher education. There is no indication that eLearning is a first choice if a decision of modality were to be made by the female unfettered by constraints. There is no ground-swell for eLearning as a modality of choice. It is convenient when constraints exist. There is no indication either in the literature or the data that eLearning will annihilate attendance at face-to-face classes (Van Der Rhee et al 2007). What is emerging instead is that eLearning needs to address relevance to circumstances in the provision/attainment of higher education for women.

5.2.2 Constraints for male adult learners

The constraints presented as barriers to pursuing higher education through eLearning by the men in this study are complex. This is a surprising finding because traditionally when reference is made to barriers and/or complexity in attaining higher education, the subject is feminine (Renn, 2012, pp. 177-191; Baum et al 2014, pp. 164-175). The focus here is on the working adult for whom it is already established that the attainment of higher education is an outside-regular-hours activity. ELearning has been identified in the previous sub-section as the modality of convenience in circumstances where constraints exist. That being established, I will address the constraints for adult male learners in relation to the modality.

The study revealed that there are three dimensions to the adult male in relation to online learning, namely, the dimension of generation, the dimension of pursuit of higher education and the dimension of technology. The male population of this study consisted of participants under and over 35 years of age. They had different perspectives on the attainment of higher education. They also had different perspectives on the use of technology for study and on the definition of technology.

This research has not been clear-cut in ascribing affinity for or dislike of higher education or of eLearning in males to specific generations. In both the over 35s and under 35s, there are pockets of attraction and rejection of higher education and of technology. Some over-35 year old males indicated that the recognition that longevity is no longer a guarantee for upward mobility is what propelled them to pursue second degrees. This group acknowledged that traditionally, they did not feel the same level of pressure in obtaining employment based on their educational qualifications as women did. That did not make their need to obtain second degrees any less pressing. The sentiment expressed by the older men was that education was a right and an expectation. In the case of two Focus Group attendees faced with a new requirement of master's degrees for upward mobility in the public service in their country, they had sought to get themselves so equipped to avoid stagnation in the public service. Some of the under-35s who held bachelor's degrees expressed that they had pursued their degrees because of parental pressure and not because they felt that they needed to attend tertiary education in order to be employed. One went so far as to say that it was a waste of time to have pursued an undergraduate degree when he did. T9.1. One young male entrepreneur who did not have post-secondary qualification expressed the view that he had made it in the world of work without higher education and considered himself successful – see T9.10. What the men had in common was the view that the nature of HE was a deterrent to them pursuing further studies. They all felt that there was need for more stimulating programmes offered in HE and they felt that the duration of programmes of study was too long.

An under-35 year old male doctoral graduate felt that education was critical to development and displayed disappointment at the influence the 'macho-man' culture has on his contemporaries. These he said might be misguided in ascribing education and by extension, eLearning, to femininity. He said: *The whole hyper-masculine culture in the Caribbean is that you cannot really do things that are considered effeminate and they might not perceive it as challenging so to speak. It [eLearning] is not enough to stimulate them and keep them going unless it is a specific*

subject area that they desire to pursue that might pose a challenge like computer software. So the perception might be that online learning is more effeminate than traditional face to face education. Education is for soft people and on-line education is for even softer people. Coming from an under-35, this perspective contributes to my earlier statement that the males in the study did not hold a unified opinion on either higher education or eLearning. Further, this point of view suggests that, perhaps by failing to keep abreast of changes in society and the consequently necessary change in the provision of higher education, higher education institutions (HEI's) are out of touch. They may have unwittingly contributed to the emergence of a sub-culture: a rebirth to the discriminatory intent of post-colonial education systems that reigned up to the early nineties. Writing on the situation of the black male in Jamaica in relation to attainment of education, Miller (1994, pp. 113-114) points out that the effect of a marginalized section of society (reference is being made to women) striving to increase its lot through education is profound in the creation of a role reversal in society. Miller's thesis targeted an era when the perception was of a concerted effort to create division among genders with subversive intent. Twelve years later, Prendergast and Hylton (2006, pp. 14-21) draw attention to the underperformance of males in education inter alia, as a function of the theory of male marginalization. This theory is rejected by Barriteau (2001, p. 93). Bailey, (2004, pp. 67-68) writing on the issue of gender and education in Jamaica also questions the concept of 'male under-achievement' and female 'over-achievement' in the context of social economic and political power.

The era on which Miller's study was based is long past, yet, DeLisle, Smith and Jules (2010, pp. 405-417) writing about the Republic of Trinidad and Tobago, address the issues of male underachievement in education. Neither race nor colonialism is the focus in the latter study. Interestingly, the level looked at in that study is primary school which may call upon the work of Maurer (2011 pp. 915-930) that deals with the association between early education and the cognitive functioning differences between men and women when they get to an older age. My research is revealing that even in the absence of any effort at subversion, a chasm is being perpetuated

between the genders in the attainment of education. Unchecked, this portends ghastly consequences in the long-run in relation to national and regional development, with global implications. This is not to diminish or promote the importance of the discourse on the power dynamic of gender issues but to draw attention to the need for balance in the provision and acceptance of higher education for the universal good, using in this context, eLearning.

Still looking at the aspect of technology in higher education, the men in the study were reluctant to treat the eLearning environment as a technological one. There was an element of derision in their comments even though they accepted that descriptively speaking, it was technology in use; they voiced that it was merely a pre-designed tool, which afforded them no opportunity to be innovative – T10.2 refers. The over-35's felt that the eLearning platform was easy to use, it held no excitement, but it served its purpose. Their focus was on getting their master's degree and for that reason, they pursued second degrees through eLearning. In their own words, it was the "easier way to go about getting a degree" compared to the needs of a face-to-face modality in terms of managing their time. This perspective adds to the observation made earlier that there are no devotees to on-line learning per se, it is a tool of convenience. It is a necessity when other variables intervene. These men stressed the importance of the asynchronous feature in enabling them to work and study given the time constraints of a full work day at their level. Both generations of men indicated familiarity with the computer and some had high proficiency in many software packages. They had had exposure to cyberspace through one form or another but this holds no special influence for them to pursue eLearning. Literature exists that indicates (Van Der Rhee et al, 2007, p. 144) that having a high Technology Readiness Index (TRI) does not co-relate to the choice of eLearning over other modalities. This opinion is corroborated in my research. A comment from the Focus Group stated "*Interactive programmes that include using the technology to create would be useful*". These technology literate men in my study were of the opinion that if eLearning allowed them to explore technology and, or be innovative, they would more readily seek to pursue further

studies on line. Reporting on the success of what at the time was an experiment by Stanford University in offering a computer course on line, Hyman, (2012) quoted one of the professors as saying “These courses are a much more meaningful and active experience than the static online course materials that have previously been available to students.” This opinion is echoed in the perspective of an over-35 male, see T8.15 on the issue of the interests of the male. That man was speaking to the generally accepted notion that male socialization begins in childhood and remains unchanged in adulthood. He joined the chorus of interviewees who felt that men like to experiment, they like action and they like to create. This comment at T8.15 resonates with the observation made earlier in relation to the cognitive functioning differences between men and women.

Further, the research shows that men want higher education that will offer a better marriage of theory and practical elements to suit their career pursuits and lifestyles. For the younger males, instant gratification was more appealing than extended periods in terms of years spent, in a classroom learning what they can learn in the workplace. They have indicated that learning should be in smaller chunks that would allow them to learn, earn and return to learn as and when necessary and does not interrupt their desire and need to earn. This was a repeated refrain from the young men in the research even though the focus was not on higher education on its own.

It can be seen that while for some men, finding the time to attend face-to-face classes is a challenge in itself, which could lead them to pursue eLearning, there are concerns with higher education per se. The preceding also suggests that the rejection of eLearning is not based primarily on the modality. Not primarily, but partially. On one hand there are esoteric courses that last too long, courses that are not overtly related to the realities faced by young men; on the other hand there are platforms that are static in design and lacking in opportunities for creativity and innovation. These combine to create a barrier for some men in the pursuit of higher education through eLearning.

Sub-sections 5.21 and 5.22 have shown that serious constraints exist and that change in higher education presentation through eLearning that will serve to alleviate these constraints in the learners is necessary.

The second contribution to this study deals with the issue of relevance. This is shown in Section 5.3

5.3 CONTRIBUTION II: THE RELEVANCE IN CONTENT AND DESIGN OF eLEARNING IN HIGHER EDUCATION

Higher education and eLearning intersect in this study. Attempting to answer the research question: **How is the choice of eLearning in higher education institutions affected by gender?** I have found that the choice of eLearning is a consequence of the choice of higher education. The male and female genders have different reasons for deciding to pursue higher education and different reasons for choosing the eLearning modality. Similarly, the genders also have different reasons for rejecting both higher education and eLearning. It must be stated at this point that the research has not registered rejection by women of higher education or eLearning. However, I am extrapolating from the reasons given for the male rejection and the passive acceptance of HE as it is and eLearning design as it is by women, that rejection by females may be beneath the surface and should be explored in further research. In other words, the research has shown that women need higher education qualifications (whatever is in existence) to advance in the workplace; they need to attain higher education through a means that does not disrupt their lives so the flexibility of eLearning serves the purpose regardless of whether they like its design or not. Men do not have the same desperate demands as women; they are in a better position to choose what higher education they pursue and how the technology should assist, hence the rejection is being manifested more by the men than the women. It is my opinion that HEIs need to be proactive; and in seeking to address the issues by not simply stopping at what is overtly manifested, but to ensure that a solution encompasses the bigger frame of the problem with a trajectory into what it will become in the future..

The differences between the genders as found in this research are stark, but the significance of those differences in and of themselves pales against the larger problem which is that people who could form the eLearning community for higher

education are not doing so because of challenges. These are people who are at a stage of their lives where they are driven by a sense of purpose for which, in most cases, higher education is a necessary vehicle. As working adults, the learners in this study fall into the category of 'mature' with a differentiation of younger adult and older adult. Taking them collectively as 'mature students', the gravity of their barriers or challenges to pursuing higher education in the first instance and through eLearning in the second, should resonate with alarm in the conscientiousness of higher education providers. This category of learner has a focused reason for wanting/needing higher education far more so than young learners who for the most part, are sent to learn by their parents who sponsor them. The challenges of the mature student are social and economic in nature. Richardson, (2006, p. 310) makes reference to the obvious point that mature students are more likely to have non-academic responsibilities in the form of families or part-time employment. The same observation has emerged in this study and while, as stated earlier, the genders have different problems, they culminate in one essential problem – lack of pursuit and attainment of higher education. This portends disaster for national development and should resonate with government policy makers and social scientists alike. To address the larger problem as defined here, the different reasons for rejection or avoidance of higher education, and by extension eLearning need to be addressed.

The literature points to the critical importance of higher education to development of the individual with the potential effects to the nation state, region and the world. Literature also points to the use of eLearning in higher education with particular emphasis on the quality of eLearning and in some cases on security. There is a dearth of literature on eLearning in pursuit of higher education by gender. It is within this unexplored niche that the intersection of the two elements is revealed. The data gathered in response to the research question speak loudly to an aspect of the eLearning design that has not been addressed – relevance. The intersection of higher education and eLearning depends on relevance to the market it serves for its success.

The next two sub-sections will explore these two areas separately and show how they intersect, pointing to areas where success depends on relevance.

5.3.1 Higher education

There is no question that higher education is a critical tool of nation-building. A logical thought in that regard would be that nations through the governments' purse should provide higher education for their citizenry if that citizenry is to be engaged in the building of the nation. However, it is not as straight forward as that. For some nations, developing and lesser developed to be exact, higher education must be had but it cannot be afforded. Developing and lesser developed countries need to allocate higher proportions of their budget to education than they already do and are permissible within their financial resources. The topic of public funding for HE has been given extensive exposure in the literature (Gafar, J 2005, pp. 449-468; Nkrumah-Young and Powell, 2008, pp. 245-259; Patron and Vaillant, 291, pp. 261-271; Naidoo and Williams, 2014 pp. 1-18). Globally, state funding of higher education has shifted. Governmental funding in some developing and lesser developed countries has evaporated falling victim to 21st century economic challenges and, debatably, myopic planning.

The Government of Barbados announced in 2013 that it would no longer fund tertiary education at the rate of 100 per cent and that the student must carry 20 percent of the costs, thereby saving the government purse approximately BD\$40M (Campus News, 16 September 2013⁹). According to the Dean of the Faculty of Social Sciences of the University of the West Indies, Dr. Justin Robinson, (Nation News 5 March 2015) a multi-pronged funding model is being explored, with some features already in operation that see students applying for commercial bank loans, Government loans through the Student Revolving Loan Fund (SRLF) of the Barbados Government and individual arrangements with the institution for payment terms. These changes are a consequence of a tectonic shift in education funding universally. The UN System Task Team 2012 document reports that "...there is a growing awareness of the pressures being placed on public financing of education.

⁹ <http://www.cavehill.uwi.edu/news/releases/release.asp?id=461>

This has resulted in the need to seek more efficient use of these limited resources, ensure greater accountability in the investment of public resources for education, and ways in which to supplement these public resources through greater fiscal capacity..." Clearly, higher education in Barbados is caught up in a global movement, and while this change seemed brash and engendered vehement debate for and against with sentimental connotations related to local politics and historical truths, and has a sense of unease in the student community, it has brought a sober shift in mood of the learners. It has converted the students into consumers now demanding service according to what they are paying for. This attitude strengthens the findings in this research that higher education must be presented in a form that is conversant with market needs. The Barbadian students have transformed from being students receiving higher education based on the largess of a benevolent Barbadian governmental purse, to paying customers cognizant of their options and choices who are making demands. Exploring those options and choices will include looking at the off-shore providers that have been made legally available through the dictates of The General Agreement on Trade in Services (GATS). All signatories to the education services feature in GATS are "subject to legally binding regulations and complex arrangements" Collins, (2007, p. 285). Those 'complex arrangements' allow entry to local markets by HEI providers with large resources that facilitate flexibility. "The GATS provides for four principal modes of supply by which tertiary education can be influenced. These are Mode 1-Cross Border Trade; Mode 2-Movement of consumers; Mode 3-Commercial presence; and Mode 4-Movement of natural persons" (Hosein, Chen and Singh, 2004, p. 3) Barbados, a World Trade Organisation (WTO) member is a signatory to GATS but has not signed on to the Education Services feature even though other countries in the English-speaking Caribbean have. That, however, has not prevented off-shore higher educational institutions from providing services in Barbados. Such institutions are regulated through the licensing requirements for set-up and operating in the country. These regulations apply when the off-shore HEI attempts a physical presence in Barbados. However, when their entry is through cyberspace the regulations are not effective. There are other benefits of off-shore HEIs to small countries which should not be

overlooked when considering why cross-border higher education operations are permissible. According to Hosein, Chen and Singh, (2004 p. iii), "Certain CARICOM States (St Kitts and Nevis, St Lucia, Grenada, etc.) have attracted a total of fourteen offshore tertiary education institutions, the majority of which are medical schools. While the precise quantitative impact of this foreign direct investment (FDI) is yet to be determined in each country, the downstream business opportunities created is testament to the significant economic impact that FDI in Education Services can bring about." Added to this reality, is the fact that cyber access is free to all, and it will be seen that the higher education market in Barbados and the rest of the English-speaking Caribbean is as open as the Internet broadband services will permit. This applies to the rest of the English-speaking Caribbean whether or not they are trading in education services through GATS. This is the geographical space from where my research population is drawn. This population, through this research, is asking for HEI providers to listen to the needs of the market as far as content, design and delivery modalities are concerned. Refusal or inability to do so will see traditional programmes that have little or no bearing on contemporary issues continuing to experience decline in enrolment.

Concomitant with pertinent programme design and content is the necessity for a modality that is relevant to the needs, resources and interest of the potential market. At the same time, the potential market needs to be looked at with a wider lens. The market has two parts: the individuals who will pursue the studies, and the jobs they are pursuing the studies to fill. The HEI's vision must encompass both of these facets of the market. Those jobs are no longer just local, so higher education should not just be focused on what is needed locally, it must include what is needed internationally. This, in my opinion, is a positive outcome of marketization of higher education. This is reflected in the perspective of the UN System Task Team 2012 document that states "Any discussion of an international education agenda beyond 2015 would have to move beyond the traditional view of education embedded in the logic of North-South international aid, to one of global relevance. In this respect the quality of learning in the perspective of equity comes out as a universal issue that

every country will have to relate to". This change will cause HEIs to provide what is relevant to the learning public. It may be considered that the competition already referred to as being brought about by globalisation will benefit the populace in developing and lesser developed countries. Globalisation of higher education through the WTO/GATS instrument has positive potential for the HEIs in developing and lesser developed countries, provided it is properly monitored by governments. In speaking of WTO/GATS and higher education in China, Xu and Kan (2013, p. 215) opine "Cross-border provision provided an alternative fresh idea and solution to the problems restricting the development of higher education in China. However, there is common concern over the public provision of higher education undermined by foreign competition and commercial means". The interests, desires and needs of students are more critical today and demand closer attention of HEIs now that students are exposed to the HEI providers and the employment market of the world and to eLearning.

This research has shown that the potential learners in this market have a good sense of what they want and why. Nguyen et al (2014, p. 5) state that most researchers view students' attitudes to learning as having three components: cognitive, affective and behavioural. Cognitive – based on beliefs; Affective – based on emotions; and Behavioural – is a predisposition to action based of the first two. The research community in this study has displayed a predisposition to action based on their beliefs with regard to what, how and when they want to study. People want to study topics and disciplines that will make them employable either as hired employees or self-employed. One of the attendees of a male focus group is the holder of a bachelor's degree in psychology. He is young (under 35) and is self-employed as a graphics designer. This he said is where his passion is but the bachelor's degree simply shows that he went to university which he proudly states, even though in his opinion it did not develop his skill-set in graphics design. He was, as was the group, of the view that he need not have completed a full three-year degree in psychology to know that what he was studying was not part of his immediate career plan. He acknowledged that some of what he learnt in the degree programme comes in

handy at times in his business, such as researching projects and dealing with customers. Listening to this individual and to the entire group, it became obvious to me that one of the short-comings of the present educational system is the lack of strategies that sensitize the learners to the breadth of knowledge being obtained when they pursue a university education which transcends the scope of the discipline to which they are assigned. The belief of the research population is that the learning programmes must meet their needs as they perceive them. Their perception of their needs in higher education is in most cases linked to how they see themselves making a living. Another male focus group attendee with a Bachelor's Degree in Management has a regular job in a bank but he says he makes his 'real' money from a car valet service he runs on the side. Acknowledging that the bachelor's degree got him his 'day' job, he is earning more and is more passionate about his side business. This confirmed my earlier observation that it was not evident in this young man's thinking (and that of his colleagues in the Focus Group) that the bachelor's degree is what contributed to his entrepreneurship. That, I contend is because at the time of learning in the bachelor's degree, the relevance of what he was learning to possible future endeavours may not have been made clear to him. Notably, the group agreed that he could have learnt about the car valet business through the bachelor's degree in blocks of short time that would have gotten him to where he wanted to be rather than sitting down for a full three-year degree in university. This was a focus group of young males. Asked if he would pursue a master's degree, that young man said he did not think so as he did not have the time. When asked if eLearning would not bridge the time gap, he rejected the idea because he did not see how technology could be used to offer training in his type of business given his understanding is that eLearning is text based and static. He also did not think there was more for him to learn to make his business successful.

Where these young male adults are in a position to make a decision (that is, when they are not under the control of parents), they are staying away from higher education because: 1, it is not relevant to their lives as they perceive life demands;

and 2, it is not accessible given time constraints. For working adults, the time to physically sit and pursue higher education is an area of concern. This is the point at which higher education and eLearning intersect.

Sub-section 5.3.2 looks at what constitutes eLearning and the type of focus it has had over the years in its contribution to the attainment of higher education. It also looks at what needs to happen to make eLearning relevant.

5.3.2 ELearning

Electronic learning or eLearning is the term given to the use of information communications technology (ICT) for learning purposes (Tarus and Gichoya, 2015, p.1; Al-Saif & Anandhavalli, 2013, p. 1). ELearning has revolutionized the way people learn and has simultaneously added new value to the experience of learning while discarding some old values or practices. ELearning eliminates the 'touch and feel' of a traditional classroom, although it is debatable whether people, especially in adult learning environments, do 'touch and feel'. E-learning has replaced the chalk board activity and more recently, the PowerPoint presentation. In discussing eLearning and the technology for eLearning, one interviewee said "*I see technology no more than the pen, the slate, the typewriter; it is a means to an end*", this is similar in perspective to Al-Saif and Anandhavalli (ibid). To some extent, eLearning eliminates the 'instant replay' of comments and reduces the level of camaraderie that contributes to the socialization in a learning environment. My experience has been that learners in a two-year eLearning programme develop camaraderie after about five months of working together. Sometimes for a little longer when the geographical dispersion is vast. This is different from the early socialization that takes place in face-to-face classes. I have found that because eLearning brings a wide mix of backgrounds in one space, there is hesitancy in relationship building between the learners and the faculty and among the learners themselves. The boundary-less nature of cyberspace creates new frontiers that take time to penetrate. This is primarily so because of the awareness of the cultural and social sensitivities. Bentley, Selassie and Parkin (2012, pp. 75-87) speak of the missing clues that aid in cultural sensitivity when in an on-line environment. It takes time to

penetrate the cyber-colleague's cultural dictates and convictions. Consequently, I believe that erring on the side of caution is the practice for a while.

The two main models of eLearning delivery are synchronous and asynchronous. The synchronous version demands commitment to set times at which learners must be on line together, either with their facilitator or with their peers. It provides the convenience of not having to move one's self from one location to another in order to congregate physically. It engenders instant response and reaction. In that regard, it closely mirrors the face-to-face model but with a degree of flexibility not present in face-to-face. The asynchronous model provides choice of when to go on line within the boundaries of set timelines. It allows for privacy of thought and gives the learner a chance to research, reflect and introspect before contributing to discussions. Asynchronous delivery provides an even higher level of flexibility. Asynchronous eLearning was effectively used in the training of emergency medicine residents (Bronner, Murphy & Pearson, 2013, pp. S174) over a two-year period. It was concluded by them that asynchronous eLearning is an effective tool for individual knowledge acquisition in emergency medicine (EM) training for medical students working shifts. Either model of eLearning can simulate real life through the use of video and audio material. Videos provide a semblance of eye-ball to eye-ball contact and the audio features provide the learner with voice that can be repeated as many times as desired. ELearning also includes the provision of material on portable devices such as flash drives and writable CDs so that the learner can be mobile while learning. Social media such as Twitter and Facebook have become part of the electronic learning toolkit. These new tools bring a level of disruption to the higher education arena for which new strategies are needed if they are to be harnessed and converted into value-added elements for both the providers of higher education and the users of HE.

One stealthily galloping 'dark horse' in the eLearning arena is the MOOC (Massive Open Online Course) concept. Its true purpose is yet unknown and its beneficiaries are yet to be undisputedly defined. The MOOC facility requires a level of wherewithal that places it out of the reach of many fledgling and lesser ranked

higher education providers. Observers are concerned, but not quite sure what is the concern. Bulfin, Pangrazio and Selwin (2014, p. 290) state “One notable ‘disruptive’ impact of massive open online courses (MOOCs) has been an increased public discussion of online education. While much debate over the potential and challenges of MOOCs has taken place online, confined largely to niche communities of practitioners and advocates, the rise of corporate ‘xMOOC’ ventures such as Coursera, edX and Udacity has prompted popular mass media interest at levels not seen with previous educational innovations”. The issues of quality that permeate the literature on eLearning do not seem to be as prominent in the discussions on MOOCs. This is the type of unease that a disruptive technology brings to the table: it brings its own standards. These ultimately will include a redefining of what quality in eLearning should be. It could be argued that if it is for the most part, an altruistic venture, the quality pundits of eLearning have no basis just yet for constructive critique in that regard. Security of MOOCs is presently mainly the concern of the providers so at this stage of its development, MOOCs are not attracting attention from critics in relation to security in eLearning. These are still relatively early days and it may be seen that international standards will become necessary when the envisaged commercial aspect of MOOCs take firm hold. Lucas (2014, p. 33) points to the soon to arrive day when the disruption of technologies like MOOCs will affect the profitability of traditional institutions. “It is also likely that projects like MOOC U will be the end of the traditional for-profit college. A certificate and eventually a degree from MOOC and/or online classes from the top faculty in the country will soon be a better credential than a degree from one of the existing for-profits, and it will certainly cost less”. This disruption will not exclusively be enacted in developing or lesser-developed countries.

There is literature that discusses security and quality in eLearning. Much of the literature on eLearning focuses on the quality of the eLearning material and delivery as well as on the quality of the product, that is, the graduate. The security of access to the site where the eLearning is taking place (Graf, 2002, pp. 355-365) is another area of focus. Security in eLearning is looked at in the next sub-section.

5.3.2.1 Security in eLearning

Security is important when eLearning is used as an in-house corporate tool for staff training in order to protect trade secrets and other proprietary material (Graf, *ibid*). Security is also necessary to protect student grades when eLearning forms part of a university programme where official grading is done on line. This refers to protection from intruders as well as, from manipulation by students themselves (Graf, *ibid*). Security therefore is a vital component in the creation, delivery and management of eLearning programmes, but eLearning security is not an isolated situation. Internet technology is normally attended by high levels of security, starting with simple personal e-mail accounts, personal blogs, social media and cloud storage facilities. It follows that the implementation of an eLearning system must be accompanied by security features to protect from external and internal sources. This may explain why there is not extensive literature focusing on security in eLearning. Quality of eLearning, on the other hand, is of importance to providers as well as those seeking to obtain higher education through this modality.

5.3.2.2 Quality in eLearning

The issue of quality is of high importance in eLearning programmes. Quality as it relates to the content of the programme, as it relates to the human resources engaged in the delivery, and quality as it relates to the technological facilities (hardware and software including the internet). Quality has also been established as a critical yardstick by which to assess the value that eLearning brings to the learner. The word quality is applied to the learners themselves and the outcome of the eLearning process in those learners. Lecturers and content are all scrutinized under the microscope of quality (AL-Saif & Anandhavalli, 2013, pp. 4-9). Developing and lesser developed countries are plagued with limited bandwidth which presents eLearning as a frustrating prospect. Tarus and Gichoya (2015, pp. 1-14) point to one of the reasons that the introduction of learning management systems (LMS) fail in Sub-Saharan countries as being because of the lack of exposure of learners to ICT solutions and the absence or inadequacy of technological infrastructure. In other words, they are pointing to poor quality of eLearning.

In the Kingdom of Saudi Arabia, extensive work has been done to develop a high quality eLearning and e-Knowledge platform for the King Khalid University (KKU). “The eLearning Centre has designed and deployed a world-class technology platform to support eLearning and e-Knowledge processes at KKU. The platform combines best-of-breed applications. It also features seamless integration between Blackboard and all the other applications such as Tegrity, Elluminate and so forth. Students, faculty and administrators achieve authorized/authenticated access through the Blackboard portal to a robust, fully integrated learning management system (LMS) and supporting applications and knowledge resources. This LMS extracts data from the student information systems (SIS), and the KKU library, and Blackboard’s e-Portfolio. It also is supported by the Classroom Capture Application, Authoring Tools, e-Assessments, and Virtual Classroom Tools. A learning object repository (LOR) can share learning objects drawn from a variety of international open learning resources and content providers” (AL-Saif, and Anandhavalli, *ibid*). This is impressive. It reflects how wide the spectrum of quality in eLearning is and is related to wherewithal to provide such facilities. Further, the article speaks to quality management measures aimed at monitoring the system that include ensuring that broadband connectivity is of a high standard because “effective online learning cannot take place if the internet disconnection exists”. This approach is highly learner-centered from a quality of eLearning features perspective.

These two accounts, the first by Tarus and Gichoya (*ibid*) and the second by Al Saif and Anandhavalli (*ibid*), reveal that the quality of eLearning varies depending on the wherewithal of the provider. As a tool of higher education, this emphasis on quality is not misplaced. Universally accepted quality standards will serve to protect the unsuspecting end-user from sub-standard eLearning programmes. This is important given that entry to the eLearning market is open to all HEI institutions regardless of their rank in the higher education hierarchy and league tables. The already established thirst for higher education particularly in developing and lesser developed countries (Beckles, *ibid*) creates a ready market for unscrupulous providers to exploit. Well-appointed oversight bodies monitoring quality standards

in HEIs whether local or off-shore, will serve the eLearning community well (Ossiannilsson & Landgren, 2011, pp. 44-45). Literature on quality in eLearning research is extensive. Some of the literature relates quality to usability (Oztekin, Kong & Uysal 2010, pp. 455-469). The metrics for usability are indeed quality metrics, such as visibility, memorability, flexibility, reducing redundancy and error prevention. Attention to such detail will ensure that the platform and its features have universal appeal to the eLearning community. If the absence of these features or if their quality were of such low standard that they provided constraints to the learners and by extension affected intake and through-put, then providing them or enhancing them may be construed as building relevance into the organisation and management of eLearning .

The absence of mention of quality in the eLearning programme by the research population in my study causes me to assume that they take quality of programme as a given from the perspective of technological hardware, software and basic features. There was nothing to indicate that they are concerned with quality. Whether this lack of concern is because they are not aware of its importance as a differentiator in the selection of eLearning programmes or because their perceived challenges and constraints overpower the need for attention to quality, is unclear as it was not explored. That being the case and taking the findings and core themes that have emerged in my study, it may be reasonably interpreted that whether or not quality is in place, an eLearning programme may not be successful because it is undersubscribed. What value, philanthropic or commercial, is there of a good quality product and no participants for it? The implications of such a situation for the viability of HEIs that are either self-financing or sponsored by the national purse are ominous. ELearning and its inherent feature of quality should be relevant to the learner.

Critical areas of concern to the end-users in my study relate to their personal lives and how higher education and by extension eLearning can be made relevant to what they perceive as their need as they seek to acquire upward mobility through

education. The next subsection addresses relevance of eLearning in higher education incorporating the social and cultural nuances gleaned from the data.

5.3.2.3 Relevance of eLearning in higher education and relevance of higher education itself

From the foregoing, it will be noted that security of eLearning platforms which addresses learning material and learning outcome (grades and reports) is a given. Cyber property is as real as physical property such as real estate and is subject to the same efforts by criminal and sometimes malicious elements to encroach, poach, usurp and destroy as are visited upon physical property. Consequently, establishing security features is a matter of course, granted that the level of security relates to the value placed on the space in question. Based on that perspective, there will be no discussion on security further in this thesis.

Figures 2 and 3 present enrolment facts that point to declining numbers in the eLearning environment under review. The global economic crisis commencing in 2008 could be considered to have had an impact on this performance. The statistics revealed that the male decline was greater than the female. The specific reasons for this decline were not investigated. However, that decline added impetus to this study. The status quo at the time that economic crisis started to take effect in the Region was that more women than men were enrolling for higher education through eLearning; the effects of the economic crisis seemed to exacerbate what was an already unexplained gender disparity with regard to the use of eLearning for higher education attainment.

The research data reveal that there is discord between what is being offered as eLearning higher education and the expectations and needs of the learners. It is necessary to revert to gender differences here because the reasons for and effects of the discord in delivery and expectation are reflected differently between the sexes. The females in this study are 'making do' with what is provided. They are driven by their end goal and are accepting the features that help them to achieve that. The males in the study have taken a different approach. They have, to a great extent

removed themselves from the environment. The programmes are not giving them what they want and so they are finding other ways to develop their careers. The gender implication here is that unlike women, men have choices in how they go about earning a living so that if the traditional route, - that is through higher education - becomes inaccessible, they have other paths. Women on the other hand are at the stage where only higher education will open the career and corporate doors. Looking at the situation beyond the gender construct, leads to the need to understand what is contributing to inaccessibility. It is my opinion that enlightenment in that area will address not just male access, but will improve access for women as well. Drawing on the opinions expressed by the research population, my interpretation of the reason for the perception of inaccessibility by males is the lack of relevance in the content and pedagogy of higher education offered through eLearning to what the learners want. That can be summed up this way: higher education and eLearning as a tool for pursuit of higher education are not pertinent to the modern learner. This failure in pertinence is a result of the level of sophistication of the end-user market. I use the word sophistication to describe the maturity of the user.

The significance of what has been said in the preceding two sub-paragraphs is that the problem for my male research population is that higher education and eLearning are not capturing their imagination because as offered, there is no relevance to their needs defined by their sophistication. The problem, therefore, is relevance. That is, relevance of the content of higher education and relevance in the design of the technological features of eLearning.

Relevance to market needs for higher education in eLearning has not been widely presented in the literature directly, although it is not new. Some writers, such as Bronner, Murphy & Pearson (ibid) alluded to the work in their discussion on the value of asynchronous learning in emergency medicine. The relevance to the working patterns of the medical students who did different shifts was implied though that was not the focus of the report. It was important for all the shift trainees to have the same quality of training at times that were convenient to their

different shifts. Relevance is manifested here through convenience. Content is not at issue, delivery modality is.

In discussing quality, Bentley et al (ibid) include student (customer) satisfaction as one of the five pillars of quality. In addressing this pillar, they sought input from the students and made changes to accommodate the student requests. The changes specifically addressed the areas that the students indicated as being in need of improvement, namely, '*Replacing the Voice Café with WIMBA¹⁰*'. (This improved the sound, images, increased the functions, and improved the user interface. It *Improved course delivery*, this saw a restructuring of the format and timing of the on-line content, changing from providing material on CD for each unit. It *improved course and unit information* as provided in the unit handbooks which were standardized. It improved *provision of online training materials* that included an ICT guide and audio/video material for using the digital library. It *improved usability of the eLearning tool*, which saw an increase in hits up to as much as five times more than normal.) These changes were in response to the students' feedback and constituted technological and content features of quality in eLearning support. The changes resulted in satisfaction of the students.

The article by Bentley et al (ibid) was about quality and the importance of quality on student satisfaction. It was also clear that the changes that were made to the programme were relevant to student needs, which were articulated through the element of quality. For instance, providing the course material on the platform rather than on a CD could lead to an assumption that having the CD was no longer relevant to the student's lifestyles. The technology is fast moving away from the use of CDs with devices such as iPads and smart phones not being CD-compliant. Another assumption that I make to tie the quality issue to relevance is that the ICT guide for using a digital library provided in audio/video format was a modernization of the presentation of the guide, taking it from paper/text based to sound and sight. Sound and sight have more relevance in learning for the 'digital

¹⁰ WIMBA is a voice over internet system – Bentley et al 2012

natives' in this study than is bland text based learning. Prensky (2005, p. 12) states "Today's students want to learn differently than in the past. They want ways of learning that are meaningful to them, ways that make them see – immediately - that the time they are spending on their formal education is valuable, and ways that make good use of the technology they know is their birthright". Notably, and related to my study, the respondents profile in Bentley et al's (p. 14) study recorded three quarters male with an average age of 35.

In the article under review the students' needs all related to the quality of the technological aspect of eLearning. In the absence of data to the contrary, it can be argued that those are the needs that the market reflected as being relevant. The quality could have been improved without upgrading to devices that are contemporary and therefore relevant to the audience. Providing relevance creates motivation and spurs interest. What is being recognised is that quality and relevance are not mutually exclusive; they are different and could be developed separately but are often treated as one and the same. The literature also shows that while the issue of relevance in higher education is not new, it has been overlooked; Dias, (1992, p. 126-127) points out that policy reforms are needed which will seek to improve quality and pertinence of higher education systems. He further states "Relevance concerns, for example, the role of higher education within societies and deals with matters linked to development and democratization to the world of work and to the responsibilities of higher education in relation to whole systems of education." The research population in my study is saying the same thing in 2014 as Dias said in 1992. My learners want higher education that will equip them for the kind of work that is available in today's business environment, be it corporate employment or self-employment. They want to get to market early. Constraints were discussed in this study with regard to the duration of programmes and the need to construct knowledge in blocks that are interspersed with real work life. The comment "*I have a bachelor's degree, but I would have been better off doing trades programmes bit by bit until I get where I want to be*" is representative of the young males in this study.

Quality, Dias (ibid) further says, “mainly concerns matters aimed at improving the efficiency of higher education in order to reach its objectives: innovation and reforms, planning and management of resources, etc.” A good higher education programme or eLearning platform needs not be relevant to be of good quality. But despite its good quality, it may not be popular. Whereas if the quality is good and there is relevance to market needs/demands and the technological capabilities of users, there is a greater likelihood of sustainable subscription. Relevance to the environment of the eLearning design is critical (Tarus and Gichoya ibid).

The issue of relevance has emerged in my study as being important to the attraction of higher education for the particular category of learner under review, the working adult. In the first instance, there must be relevance in the content of the programmes, to the end users. Whether the provision of higher education is viewed as an altruism or as a business, full attendance is what will make the programmes and by extension the institutions viable. In order to attract learners in abundance, HEIs in the first instance must look into the relevance of the content of their offerings to the market(s) they are serving; that is to say, the customers (the students) must have an input into the ‘what’ and ‘how’ of the eLearning delivery. The employers of graduates from HEIs are also high worth stakeholders. What this means is that the programmes on offer must relate to what people (employees and employers) need. For the most part, people are seeking to advance their education in order to advance their careers and prospects within the working environment. Therefore they are seeking to attain the skills and qualifications that are applicable to the job market now and in the future. Employers for the most part want staff that can produce in the way and at the quality that will ensure the maximum return on investment. Considering that the technological infrastructure in the modern business entity is usually state-of-the-art, it follows that the eLearning design used to deliver higher education should be reminiscent of the work environment that the learner is preparing for. These are the two main stakeholders of the HEI, namely, potential employees and potential employers. In an environment of scarce economic resources, it would be considered wasteful of resources (private, public

and personal) when individuals are educated but are not employable.

Chudzikowski (2012, pp. 298-306) in discussing career transitions and career success points to the realization that the onus of career management “lies with the individual and no longer with the organisation”. The finding in this research supports this position. Many of the young men interviewed are seeking to enhance their earning capability via self-employment on its own or self-employment as a supplement to their jobs. Therefore, the programmes on offer must meet stakeholder needs; they must provide graduates with propositional knowledge (theoretically knowing) and skilled knowledge (being able to) that is relevant.

In the second instance, there must be relevance in the design of the eLearning platform to coincide with addressing the constraints that learners encounter. There were expressions of constraints with regard to what was considered unimaginative designs of the platforms that are essentially beneath the technology acumen of most of the young male users. In this regard, designing eLearning environments that conform to the features of modern technological devices will enhance mobility and will address the articulated needs of the males in this study as well as the unspoken needs of the females.

In the cases given earlier (AL-Saif & Anandhavalli, 2013, pp. 4-9; Tarus and Gichoya (2015, pp. 1-14) the learners are challenged by technological aspects which gave rise to improvements in quality as in the case by Al-Saif & Anandhavalli. However, constraints expressed in my research, point to relevance. The availability of time is a challenge for both genders. It bears reminding at this stage that the shortage of time is related to familial issues experienced mostly by women and job-related issues experienced by both genders but more so by self-employed males. Relevance in eLearning speaks to design strategies that transcend time barriers. Anywhere, anytime learning must mean just that.

The umbrella of relevance extends beyond the current stated needs of stakeholders in HE and eLearning. The visionary component of relevance embraces transformation. As part of their struggle to survive, HEI's through the lens of

relevance need to investigate the opportunities to be derived from the present disruptive technologies that will allow the preparation of the graduate of the future to serve the market of the future. Learn and earn and return to learn was highlighted by the male members of the research population. Future research may help to determine how such an expressed need can form the basis of a concept that serves present and future learning needs. Personalization of learning, co-creation of learning and incorporation of the labour market are elements that will fit under the umbrella of relevance.

This discussion suggests that the re-design of higher education through eLearning must be cognizant of how relevant it is to the needs of the market it intends to serve. Prensky (ibid) distinguishes relevant from real. He opines “Today’s students expect the same thing from their formal education as from the rest of their lives – that it be not just relevant, but *real*”. My study shows that ‘relevant’ is ‘real’ and real is relevant. Time and the lack thereof, are real from the perspective of my research population, male and female, regardless of generation. Designing higher education through eLearning that allows the learner to manage his/her time and be successful at studies as well, is relevant to their problems. It helps them to function and that is what they see as real. It gives them a chance in the employment market – that is real because it means what they are learning and are exposed to is relevant to the environment that will help them to survive and thrive.

For some, mainly the older generation, pursuing higher education in its current format will be done if it is absolutely necessary. ELearning provides convenience for some and they will use it. This is similar to the perspective of some of the women interviewed. Women are grateful for any opportunity to enhance their careers through education so some of them will take eLearning as it is. There is no evidence in the data that there are women who are rejecting eLearning because of its limitations – that does not rule out the likelihood that there may be some. However, the younger males have made it clear that they will not waste time in a classroom, eLearning or otherwise, doing studies that they see no immediate value for. This is a serious worry for the preservation of higher education as a public

good. If HE provision remains as it is, this perspective portends disaster for national development as it will exacerbate the existing problem of failing boys in the society (Morley, 2005, p. 216). Delivering higher education that will capture this demographic is critical as it is the demographic that will take HE into the future.

While this approach is pertinent to perceived needs, it runs the risk of fuelling the debate between philosophers and sociologists on the issues of 'academising' formally non-academic programmes so as to meet a market demand for graduates (Ek et al, 2013, pp. 1305-1318). To ignore the findings and the wishes of the market would be perilous to HEIs. Lynch, (2015, pp. 190-207) opines "Rather than being tyrannised by numbers and overwhelmed by the rhetoric of ranking and labelling, academics need to build a counter-hegemonic discourse to managerialism and neoliberalism in higher education, a discourse that is grounded in the principles of democracy and equal participation that are at the heart of the public education tradition."

The perspectives of the stakeholders of higher education through eLearning cannot be ignored.

The two core themes and six sub-themes of Chapter Four fall under an umbrella of relevance. The core theme for women is that *eLearning is highly useful to that gender*. The core theme for men was highly correlated to the perspective of women, that is: *Men and Women perceive different values for higher education*. The common thread running through these themes as revealed in Chapter Four is the need for relevance in eLearning for higher education to the lives of the learners.

What has also been deduced from the data collected is that the traditional divide between elite and non-elite qualifications is not of immediate concern of my research population. Both males and females want to be better equipped to be employed. This suggests that professional degrees such as those offered by CHSB-UWI are in demand, or would be in demand if their relevance to the job market and the ability of the learners to attain them were addressed through design and the value of their contribution to the learner's development, exposed through marketing

strategies. “The professional master’s degree has a more pragmatic and working-life orientated profile than the academic master’s degree, which is research-based and discipline-oriented”, Isopahkala-Bouret (2014, p. 5). The literature and the empirical data in this research suggest there is a place for both. It is my opinion that there are opportunities for CHSB-UWI and similar institutions in the developing and lesser developed countries to capitalize on the groundswell for professional degrees by making them relevant to stake-holders. This will be discussed further in Chapter 6.

The disruptive technologies discussed in this research point to, but do not explicitly identify relevance. The Minerva Project which is behind the new proposed MOOC in Rwanda (Lucas, *ibid*) is, by delivery design, seeking to be relevant to the needs of the young population of Rwanda preparing to rebuild the infrastructure of that nation.

The next section concludes this chapter by recapping the implications for HEIs and other stake-holders and the need to revisit aspects of higher education that address content and convenience in order to add real value and be relevant to the needs of potential users.

5.4 CONCLUSION – OF CHAPTER FIVE

My contribution to the literature on higher education through eLearning was presented in this chapter. The first part of my contribution addresses eLearning from a gender perspective and the second part addresses the relevance in content and design of eLearning in higher education. Relevance is treated second because it is not new, it is a revisited concept. However, relevance is the overarching concept under which the gender-related eLearning perspective resides.

The attention to gender is undeniable in a study of this nature. Attention has already been drawn to literature that proposes that all spaces are gendered. If that

is accepted then unsurprisingly, gender is revisited at this stage of the study. However, it can be seen from this chapter that the emphasis is unrelated to issues of marginalization or victimization on either side. Rather, there are perspectives of adult working men and adult working women which have been compared and combined to crystalize the problem for discussion.

This chapter discussed the numerous constraints that women face in trying to attain higher education and showed how women have made use of the facilities and features provided by eLearning in order to succeed.

The two distinct yet closely interrelated problems emanating from this study in relation to the adult working male, that is, the content of higher education programmes and the design of eLearning platforms, were looked at in this chapter. They both point to the lack of relevance in the provision of higher education to the needs of potential learners. The findings suggest that the present content of higher education is out of step with what men are looking for in education pertinent to contemporary needs and lifestyles. The findings also suggest that the modality of eLearning is itself too static in design to capture and retain the interest of the men who, to a great extent are highly technology ready.

The chapter discussed the areas of focus in extant literature on eLearning, namely security and quality. It was shown that while many writers have focused on the quality of eLearning, very little current work has been done on the relevance of eLearning design to the needs of its users within higher education. The chapter also showed that reference to quality invariably drew on the value of relevance. It revealed that the content and the pedagogy of higher education through eLearning must be imbued with a level of gravitas founded in relevance guided by modernity that would cause potential learners, male and female to envisage how their needs can be met. The recognition that new approaches to higher education should not diminish the importance of the philosophical underpinnings of education was also captured in this chapter. The next chapter concludes the study by providing an overview of all of the chapters in the paper.

CHAPTER SIX - CONCLUSION

6.1 INTRODUCTION

In this chapter, a synopsis of the thesis will be presented. It will draw attention to the applicability of the findings in response to the research question. The paucity of literature on higher education through eLearning by gender as a combined topic will be highlighted. The relevance of higher education and of eLearning design are brought together to establish the validity of the theoretical contribution to the literature emanating from this research. The soundness of the triangulation methodology used in data collection is also presented in this chapter. The implications for eLearning as a viable and sustainable option in the delivery of higher education based on these findings will be discussed in a general sense as well as with specific reference to The Cave Hill School of Business-The University of the West Indies in particular. The limitations of the study that give rise to the need for further research in order to enhance the literature in the area will be discussed. A reflection of my journey of discovery en route to this thesis and the magnetism that has been ignited for further research in order to expand and enhance this area of study will also be presented.

6.2 RESPONSE TO THE QUESTION

The research explored and established answers to the question: **How is the choice of eLearning in higher education institutions affected by gender?** The question was based on a priori that men are more au fait with technology than women. With eLearning being an integral part of the Information Communication Technology, it

was questionable why there were more women pursuing higher education than men using the eLearning modality. This observation gave rise to the question as to how gender affects the choice. The research revealed that the situation was more complicated than mere familiarity with technology. The research shows that the use of technology is the least of the barriers or attractions in the choice of eLearning by men and women. Gender ideology was found to be an integral contributor to the choice because of the dictates of the gender identities for men and women.

The two genders have different reasons for choosing or not choosing eLearning in pursuit of higher education. ELearning is a conduit, it is not the goal - higher education is. Gender ideology enters the discussion because gender issues permeate the every-day lives of all members of the society.

It was found that most of the women seeking to pursue higher education are employed outside the household and are constrained with familial responsibilities and work commitments. Combining the constraints, women reported a barrier to their physical attendance at a learning environment outside the home. Overcoming this barrier was made possible through the use of eLearning. This is the explanation for there being the reported higher level of female participation in eLearning. The women reported three roles demanding their attention, namely; family care-giver, employee and student. In some cases, being family care-giver is in addition to being partial or total bread-winner. The women in the study demonstrated that they were governed by the gender ideology that informs society in relation to the activities of women. They embrace the identity ascribed to them and find eLearning an invaluable tool with which to master their multiple roles. They demonstrated no affinity for, or dislike of technology in relation to learning. Rather, they presented a pragmatic approach to the use of technology in achieving their goals. ELearning provides a solution to the constraints that they have no way of evading, therefore the reality that eLearning involves engagement with technology holds neither obstacles nor attraction. They use the technology because it is useful and not because it may or may not be easy to use. They have not rejected bricks and mortar

and face-to-face learning, they are simply doing what is convenient for them. ELearning is therefore highly useful to women.

The likelihood of men being more au fait with technology has no bearing on the male choice of eLearning because eLearning represents a bigger issue in the minds of men, particularly men under 35 years of age. Further, the technology in use in the eLearning environment upon which the majority of the study is focused presented design flaws that were consistent with a lack of attention to the needs and abilities of the male learning community. While platform design was of importance it was the lesser of two barriers identified by males. The bigger issue for men found by the study is the traditional content and pedagogy of higher education which they consider to be not in keeping with their needs. It was revealed that they are not opposed to eLearning as a modality, provided the content of the learning programmes and the technological design were appealing and relative to their needs.

The gender effect on the choice is significant because gender ideology dictates different identities for men and women and not because eLearning is gendered. This is the full extent of the significance of gender to this research.

In the next section, the methods used in data gathering and literature review are discussed

6.3 METHODOLOGY AND EXTANT LITERATURE

6.3.1 Methodology

The methodology used in this study was a triangulation of focus group, individual interview and survey questionnaire in that order. The focus group helped to frame the other two methods. Coming out of the focus group it was evident that the topic was one that had not been given much thought, but one that when brought to light was considered worthy of discourse. For the most part, the focus group members acted as independent thinkers, although, it was obvious at times that they were

feeding off of each other. One male focus group had mixed generations. This was not ideal because the difference in opinion based on the generational gap could have become counter-productive. The opinions of the independent interviewees who were drawn from across the Caribbean corroborated those of the focus group attendees. The findings from these two sources informed the design of the survey questionnaire and facilitated the aim of seeing if the cloak of anonymity would yield a different perspective. The result was that it did not; the responses from the survey were similar to those from the focus group and independent interview. However, there were a few atypical responses coming from females regarding higher education.

This study benefited from the mixed methods approach. It provided solid support for the findings even though the entire research population was small. As regards the population, the weak link in the triangulation was the survey questionnaire. Out of a questionnaire population of 300 there were 99 responses. Data collected from the triangulation process was buttressed by statistical data accessed in a quasi-case study approach from the main institution of higher learning in the Caribbean, The University of the West Indies.

6.3.2 Extant Literature and the gap identification.

The literature on which this research rests relates to higher education, to eLearning and to gender. All three of these areas were well covered in the literature. In looking at eLearning literature, work on ICT as a whole was reviewed with a view to establishing gender proclivities and biases. Availability of literature in the three areas listed was abundant and bore significance to the region under review and presented similarity of issues within the lesser developed nations.

There was cross-referencing between three bodies of literature in different combinations. That is to say, literature on higher education discussed gender; literature on eLearning discussed higher education and literature on gender discussed higher education. But the co-mingling did not extend to all three areas. Consequently, I recognised that there was a gap in the literature on higher education

through eLearning in relation to gender. Further, the literature on eLearning was prolific on the issue of quality in design, but there was sparse attention paid to relevance in eLearning design to the specific and contemporary needs of the potential eLearning community. Reference to relevance in the design of eLearning for the attainment of higher education was also conspicuously lacking in the literature on higher education. My research is bringing a perspective on higher education through eLearning by gender and the relevance of Learning for higher education to the needs of the learning community.

This research contributes to the body of literature on higher education. It raises discussion on the relevance of eLearning as a tool for the attainment of higher education and it seeks to engender discussion on the relevance of content of higher education programmes.

There is need for more research to build up a reservoir on literature that addresses two mentioned gaps in the literature. The next section addresses my contribution to the literature.

6.4 NEW KNOWLEDGE – A PRODUCT OF THIS STUDY

A broad theory of relevance of design and content in eLearning for higher education as well as relevance in design of eLearning platform design will explain how choice of eLearning is affected by gender. The choice is made by women to use eLearning as it is because they are in a scramble to improve their educational qualifications to boost career prospects. Higher education and eLearning in their present forms are acceptable to women so they choose them.

The choice not to select eLearning by men is made because eLearning for higher education bears little relevance to the needs of the modern male who for the most part is au fait with current ICT features. ELearning is used to deliver higher education and has been found in this study to be considered by many men to be out

of sync with the needs of the potential learners. Additionally, eLearning platforms have been found by males to be uninspiring, unchallenging, lacking in intrigue and offering no scope for creativity and innovation.

6.5 THE FUTURE OF ELEARNING IN THE DELIVERY OF HIGHER EDUCATION

6.5.1 Learnings from this study

E-Learning as a modality for higher education is in its infancy. Before it reaches maturity it can be expected to traverse many phases and morph into many shapes. The findings of this research may play an integral part in the future design of eLearning for the attainment of higher education. There is reason to believe based on these findings that there is longevity in the role that eLearning can play in the delivery of and pursuit of higher education.

The different perspectives presented by the genders with regard to their choice of eLearning for attaining higher education provides an opportunity for programme designers to incorporate features that will work for both genders. For instance, the availability of time to working adults to pursue studies is a common constraint among the genders. Those time constraints stem from different reasons and different areas of their social lives. Nevertheless, designing features that help them to better manage time using eLearning for higher education will provide a solution for both genders.

The male respondents in this study presented concerns with eLearning aside from time. They cited platform design which I have already spoken to in this section and they also cited the actual content of the programmes available for them to study. While this study is not seeking to address deficiencies in current higher education programmes, the content of HE programmes will come into the discourse when the eLearning feature is being designed because of the perception of males that programmes are too drawn out and seemingly unnecessary. For the eLearning aspect of higher education to be made current and state-of-the art, attention will

have to be paid to what is being offered through this modality and the labour market that the graduates will serve. This approach brings into focus the main defect in eLearning for higher education that emanated from this research – relevance.

Relevance in the design of the platform will be tied to application in the content of the learning programmes. This in turn will be relevant to the needs of employers and the labour market as a whole, be it for self-employed or otherwise employed graduates from the learning system being designed. Relevance in the design of eLearning facilities is critical for its survival. When it is considered that the digital natives are adept at using technology, it would be accepted that the design of a modality for attaining higher education using technology must provide an environment to which they can not only relate, but one which stimulates them.

The research demonstrated that not all eLearning programmes are made equal and in situations where the financial resources are available, the provision is more state-of-the-art such as at the King Khalid University in the Kingdom of Saudi Arabia. Attention to quality at that university also addressed attention to relevance in the provision of facilities.

6.5.2 Reaching the global learning community

The steps taken by big name universities as revealed in this study to reach and sensitize the global audience to the possibilities at their institutions through the use of technology must not be overlooked. This move is recognition by those institutions of the long life of eLearning in the attainment of higher education. The Massive Open Online Class is doing just that. It therefore behoves HEIs in other parts of the world, particularly the developing and less developed regions to give consideration to this feature in offering online learning. This may appear contradictory with the immediately previous paragraph where reference is made to the eLearning programmes not being equal because of the lack of the necessary wherewithal in some cases. But it is not. I have positioned the MOOC as a marketing strategy executed by the big name HEIs. This is because the level of loyalty that emanates from apparently altruistic actions is vast and wide-reaching. The

literature also revealed that these institutions such as Udacity, AT&T and the Georgia Institute of Technology have found ways to earn revenue from the MOOC movement. These are strategies that HEIs wanting to be in the eLearning arena may consider researching with a view to adopting. In suggesting engagement of the MOOC concept, I am mindful of the opinion of Baggaley (2014, pp.159-163) who has likened the MOOC to a fast food restaurant. He stated that like the McDonald's food chain in the 1950s, educational administrators in 2002 have been similarly unwilling to increase input costs in order to increase student enrolment. He says, that "with the advent of the MOOC, however, many have succumbed without question to the idea of supersizing the number of students in a course and dispensing with teaching support as a viable alternative". Regardless of the level of merit in this criticism, it must not be ignored. My recommendation is that this warning must be heeded and such measures avoided. Innovative methods can be used to develop the MOOC concept to make it relevant to the learner, accessible and a source of revenue to the providing HEIs.

6.5.3 In the Caribbean specifically

In regions such as the English-speaking Caribbean where the financial resources for the provision of higher education through the use of technology is not as fluid as some of the developed countries using the technology, greater efforts will be needed to avoid missing the opportunities that the technology can provide to the HEIs and the populace.

For the period under review in this research, 2006 – 2012, the two agencies of the University of the West Indies offering eLearning reflected low turn-out by male students compared with female students. The Open Campus-UWI reported 2,201 males and 13,144 females while The Cave Hill School of Business-UWI recorded 344 males and 626 females. While there are no international statistics with which to compare these figures, the disparity between male enrolment and female enrolment is stark and suggests that the comments presented in this section regarding the future of eLearning for the attainment of higher education for working adults may be applicable to the University of the West Indies' agencies.

Further research is necessary to explore and examine the cultural implications regionally and universally of eLearning in assisting to bring higher education to the masses in the adult working environment. The aim of such research should be to develop strategies and systems that would foster an environment of gender balance in the pursuit and attainment of higher education.

6.6 LIMITATIONS OF THE STUDY

The issue examined in this study has implications for the development of higher education for the adult learner not just for developing and lesser developed countries. It bears value in all societies where there are working adults in need of access to continuing education facilities. Although the data collection was done in the English-speaking Caribbean, the literature review served to make a connection to other regions so as to present an international perspective. Unfortunately, a limitation was imposed by the lack of access to statistical data from some of the arms of the University of the West Indies. This served to reduce the data available for comparison with regard to overall enrolment. This limitation in relation to the wider statistical data from within the UWI was not fundamental to the quality of this paper. but were they present, would have enhanced the richness of the statistics presented and helped to paint an even larger picture of the gender disparity in enrolment in higher education.

The two themes and three sub-themes presented are fully supported by the data gathered from the Focus Groups and Individual Interviews. Data collected from the Survey Questionnaire was reflective of that collected from other formats, but was limited in quantity.

6.7 A REFLECTION ON MY JOURNEY – WHERE TO FROM HERE?

The journey to the conclusion of this DBA (HEM) was accompanied by a warm sense of achievement, phase by phase as I explored more and more literature and recognised the significance of the saying by Pulitzer Prize winner Will Durant that “education is the progressive discovery of our own ignorance”. For that reason, I felt that the DBA research could last forever just so that I could keep on uncovering so much knowledge about this area of higher education management to which I have contributed the last 23.5 years of my career.

I consciously put the non-essential aspects of my life on a holding pattern in order to focus on this programme.

It was worth it.

When I concluded my Masters in Online and Distance Education several years ago I felt that I was armed with all I needed to make a contribution to higher education through on-line studies. How wrong I was. This is not because I did not gain valuable knowledge in that programme. I did in fact gain vast knowledge which I have been able to use in the migration of the face-to-face academic programmes belonging to the organisation where I work to online and distance learning (ODL) format, and I continue to draw on the knowledge gained in the M.A. as I administer the programmes within my portfolio. But I realised that I was wrong in thinking I had all I needed to make a meaningful contribution because I got the stark realization that to have a voice in the policy creation and change in higher education required more than a master’s degree. Having pursued this programme, I appreciate the requirement for this level of exposure if one is to contribute to the policies and literature of higher education management. Operating under the chapeau of administrator, categorized me to execution of policies to which I made no contribution. Working also as a facilitator in an academic programme helped me to see the need for changes in the content and delivery of higher education, but

having only an administrator's voice I felt ineffective. Doing the University of Bath's DBA (HEM) programme opened the path for me to see where and how I can make my contribution as a knowledgeable administrator to this critical field of higher education for working adults. When I commenced the programme in 2011 and found myself in a class with 21 fellow administrators seeking to expand their knowledge and contribute to university administration from a policy perspective, I knew I was in the right place. I realised from their comments that there were other administrators out there feeling the frustration of 'tied hands'.

I am energized by the impact that globalisation has on national development through higher education via technology (eLearning, social media and hand-held devices to name a few), and the recognition that research is required to address this new frontier with a collaborative win/win orientation. The need for research is emphasised now more than ever at The University of the West Indies. Doing this programme has helped me see how I can make a contribution to the body of knowledge being created by the many eminent researchers of the UWI in investigating matters of significance to the people of our region and beyond in higher education management. More specifically, as I listened to the views of my research population I recognised that there are numerous seemingly unconnected, but vital areas in society requiring research in order to enhance the offerings of The Cave Hill School of Business-The University of the West Indies, and heighten its global competitiveness.

I am not an 'IT person' by any stretch of the imagination. But, throughout this journey, I mentally saluted holders of doctorates that were acquired during the pre-ICT years. I could not imagine doing this volume of research and work without the aid of the computer with its magical 'delete' and 'undo' buttons, or without the internet to provide quick access to the vast resources to be found on the University of Bath's on-line library. Not being able to purchase a reference book online and have it delivered to my reading device in minutes is inconceivable. Also, not being able to speak with my supervisor, Dr. Niki Panteli, who lives in Bath, in the United Kingdom, on a regular basis from my home in Barbados via video conferencing

technology would have changed the dynamics of the pursuit of this degree fundamentally.

The literature kept on unfolding and self-correcting, causing me to re-write paragraphs numerous times so as to capture all that was available and gain a perspective of what the future of eLearning for higher education could evolve into. The interviewing process was exhilarating. Amazingly, all interviewees and respondents indicated that they had never thought of this as an issue for discussion, yet had very much to contribute to the discourse. As the topic exploded into multiple facets, the research population expressed much hope that there will be a difference coming out of this research. Now that the thesis has been completed I happily close this chapter confident that I am equipped to make a meaningful contribution not only to my organisation The Cave Hill School of Business-The University of the West Indies in its quest for professional development of people of the region, but to the global discourse on the attainment of higher education through eLearning for the working adult.

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APPENDICES

APPENDIX 1 – CARIBBEAN AND CENTRAL AMERICA.



<http://www.worldatlas.com/webimage/countrys/carib.htm>

Countries primarily serviced by the University of the West Indies:

Anguilla, Antigua and Barbuda, Belize, The Bahamas, Barbados, The British Virgin Islands, Cayman Islands, The Commonwealth of Dominica, Grenada, Jamaica, St. Kitts and Nevis, St. Lucia, St. Vincent and the Grenadines, Trinidad and Tobago, Turks and Caicos.

APPENDIX 2 – FOCUS GROUP QUESTIONS AND SAMPLE RESPONSES

Attendees were asked to state their ICT background and job title; they were also asked to indicate their highest educational qualification.

The focus group participants were informed that the purpose of the focus group was to determine the most desired approach to the delivery of higher education for working adults with a view to improving what exists and adding new features if necessary, with a focus on eLearning. They were invited to discuss their perspective on eLearning for higher education and to state why they did or did not use it.

Responses included:

- *Caribbean has a high incidence of single parent households where the parent is female. In order for women to elevate themselves and maintain their households, they may seek to turn to online education*
- *Women know that better education will give them better paying jobs but they also know that they have domestic responsibilities that they will not ignore, therefore, they use the ICT for online studies to achieve their goals simultaneously [with maintaining their gender identity roles*
- *Education is not desirable to the young men today. The culture now for some is that education is a means to make money; if a male can get money without going through four years for a degree, then he will seek the shorter route.*
- *The nature of the online programme will determine how many men are attracted to the programme. Programmes geared towards engineering more attractive than a programme geared to ethics or HR. In the back of the psyche of males, is the desire to do a masculine subject area. For them to pursue a degree, whether it is on line or face to face, will depend on the nature of the course.*

Q. How prevalent is ICT usage, particularly computer technology?

Responses included -

- *Caribbean women see ICT as a tool to get to another level and not as an end in itself so that women occupy proletariat roles using ICT and are not involved in*

the creation of software or design. They are not interested. They just want to get ahead so they ICT in a way that it will help them.

- *I can use technology very well, in fact I use ICT a lot but I do not think I want to study online – I do not see why I should.*
- *As a male, I feel that interactive programmes that include using the technology to create would be useful.*
- *Men prefer to be in a pack. They do not like the alone time that online studies require.*

Q. There is literature that says that men use technology because they consider it useful but women use it only when they consider it easy to use. Comment?

Responses included:

- *IT is built on mathematics and not many women like doing mathematics. Women have skilled knowledge because they use the devices. Depending on the technical ability needed women have propositional knowledge. The society promotes males in technology and helps women to feel it is for boys and men but not for women.*
- *If more women are to get into IT, there needs to be more women IT teachers. People need role models. Women first need to break the glass ceiling so as to bring other women along. The schooling has inculcated the end-user ability for computers. There is no push to put girls into the programming arena, to go behind the scene to know what and how to do. They are not encouraged to experiment or to step out of the norm.*
- *Women embrace education a lot more than men do. Women will use ICT for online education opportunities because it suits their needs, not because they like IT.*
- *The problem stemmed from the early childhood practices where boys tended to get more ICT-type of toys and games than girls [did].*
- *The society promotes males in technology and helps women to feel it is for boys and men but not for women*
- *Perceived usefulness of the technology led me to pursue a course on line from a female.*

Q. We have observed that there are more women than men pursuing higher education through eLearning – why could be the reason for that so?

Responses included -

- *The nature of the online programme will determine how many men are attracted to the programme. Programmes geared towards engineering more attractive than a programme geared to ethics or HR. In the back of the psyche of males, is the desire to do a masculine subject area.*
- *Males like to be challenged. Males need to know that to achieve something they have to be challenged by it. Perhaps the view of online education is not challenging enough for a male. Creating software is perhaps more challenging. The perception might be that it is not challenging enough, but they perceive education not to be challenging. The subject area may be of interest. If you offer an online degree called civil engineering, you are more likely to find a predominantly male presence.*
- *Young people, particularly young males do not value education as men did before. Education is not as appealing as it was before. If education was considered as masculine, there may be more men. But, given the popular culture in the Caribbean where there is music that promotes anti-education behaviour, it is not valued by young men.*
- *The fact that women have been marginalised has created a psychological way that they think. They feel marginalized and feel they have to perform harder. Women are marginalised today; not to the extent that they were back then. We are living in an era of independent women who have rightfully gained their positions. They are using the online education to get ahead.*
- *Males may enrol only if it is absolutely necessary for them to enroll in an online programme because they do not have the choice of a face to face programme because time does not permit it. Online is far more intense.*

APPENDIX 3 – INTERVIEW QUESTIONS AND SAMPLE RESPONSES

The discussions in the focus groups assisted in the formulation of the discussion topic and questions for the individual interviews. Please see Appendix 3. The participants for the individual interviews was a cross-section of careers and qualifications ranging from Secondary School Certificate to Ph.D. ELearning users and non-users featured in the interviews, some of whom had attended the focus groups. Three lecturers from community colleges around the Region who were using eLearning as an aid to face-to-face teaching were included. One was a known to be sceptical about eLearning as a substitute for face-to-face leaning.

The outcome from the two face-to-face data collection points informed the design of the questionnaire instrument. The aim being to make the questions pertinent to research.

As an opening comment, the individuals were each asked to state their ICT background and job title; they were also asked to indicate their highest educational qualification.

The interviews for persons who had not been in the Focus Groups opened with the researcher asking the participants to give their perspective on eLearning and to explain why they did or did not use it. They were informed that the purpose of the interview was to determine the most desired approach to the delivery of higher education for working adults with a view to improving what exists and adding new features if necessary with a focus on eLearning.

The interviews for persons who had been a part of the focus groups opened with the researcher saying that following from the focus groups, a further perspective of the individual's opinion on the topic was being sought.

Responses included:

- *E Learning has the potential to bring more women in developing countries to the discussion table of business and of government because it affords them a manageable opportunity to attain the level of education that will earn them a seat.*
- *Online learning is dull and boring. It is the design of the programmes rather than the technology. Technology does not bother me.*
- *I have not chosen to be a technology path because I have no interest, not because I am not allowed or not capable.*

- *In the days before online programmes when men had to study, a man would more readily get up and leave his family and go away to study and his woman and his network would understand that he has gone to England to do a degree. Often he came back with another family, but the point is you understood that. Women were more reluctant to do that because they did not want to abdicate their responsibilities if they had families, with children helping raise a household and looking after aging parents and so on. Usually the women who could do it were the ones back then who were single and who did not have a family. Now if you could sit here and you could do a degree abroad then you juggle the other responsibilities. The abroad could be in terms of long geo distances or next door but the point is you do not have the traditional bricks and mortar to turn up to. So you juggle all of the things that you accept as responsibilities and women tend to do that more through how they understand how being a woman is; their own gender identities and therefore men may not be attracted to that mode of study.*

Q. What do you think of literature that suggests that men use technology because they consider it useful but women use it only when they consider it easy to use?

Responses included:

- *I went to a school that was 'transitioning' to accept girls after 250 years as a boys- only institution. Every course, every sport, was male oriented. Metal -work and carpentry were options as technical subjects. Our environment focused on the power of the mind. To succeed you had to have a good brain.*
- *I would use the computer to achieve my goal, it matters not if it is easy to use or not. I perceive the computer to be useful.*
- *There is no difference between PU and PEOU. It is Useful because it is easy to use. I am more inclined to go for PEOU. I know the usefulness of the phone but if it is not easy to use I am less likely to use it. Unlike the computer; I need my computer, I cannot do my job without the computer so that if it is difficult to use I am still going to use it. I will find a way to make it easy for me to use.*
- *Women doing sciences and enter medicine and look for the kind of work that will not give them an 18 hour day. They want that space for how women typically define their space; they worry about not having a family, they worry about not getting married, they worry about having to go out all the time. The branches of medicine they tend to look for are the branches that would guarantee 9 to 5. Why they think paediatrics is 9 – 5, I do not know. What I have said so far point to what constitutes the gender identity of women. The young woman who wants to do medicine, and wants her career as a doctor to fit around her career of a wife and a mother is defining herself more in terms of a*

traditional definition of a woman even though she has a fairly modern career. That is the lynchpin there, in terms of what constitutes the gender identity, if I am young and I am a doctor and I top the class and I married do I feel inadequate and worthy? And has that changed?

Q. There are more women than men signing up for eLearning in the Caribbean to undertake higher education. What do you think is the reason for this?

Responses included:

- Online learning might not be what men consider to be technology. Technology is attractive to men as are cars as its fixing things. It is an extension of a toy. Because men continue the same way as they started off as boys with toys and they graduate into these areas and sometimes fall into it as a profession. Technology was not always a tool to do something; technology was an end in itself, i.e., to be in the technology. Now technology is a medium for learning, it is a different approach. There is no playing around or manipulating, it is just applying some set conduits of communication; and relating with whomever might be the tutor and others in the classroom and these are through set channels. That is it. It is not the stuff you play around with. To say, I have John Jane, Grace, and Professor Wallace. I can move one here, put one there – let me switch professor over here, I can blend these frames. That is something different.
- Men are generally geared towards business. I do not know how useful it is for them to pursue higher education. A man will look at the amount of money to be invested in studying [and say] you could start up a business or buy a car. I have a friend who was thinking of doing a masters but he said when he looks at the money he may well invest it in a truck and make some money.
- Presently men are focused on making money and do not want to spend too much time learning how to do it.
- My mother wants to see all of her three children have a PhD. My sister has one but I do not see the sense of it. It might be something to do with the titles but it makes no sense to me.
- Attrition rate shows that the gender twice as likely to be asked to withdraw or who drop out, is the male. They do not like the long and drawn out programmes.

- *If there were construction-type courses or mechanical courses it is likely there will be more men wanting to access them. It is not the technology, but the types of courses.*
- *For males with inquisitive minds, the desire to go beyond is not present in the online classroom. They are stuck in discussion forums. This is ease of use. They are just playing with technology doing the same mundane things. If it were in the study of computers, picking down computers, making computer connections with other systems, or something creative you may find more involvement.*
- *Women can carry as many as six jobs so they have less time to maximize their advancement. Men have the luxury of many options. Women hold a full time job, want to be good mothers and good wives. Women will naturally explore the easiest opportunities for themselves. Women are challenged for time. They choose the options that are less complex, less time consuming.*

APPENDIX 4 – SAMPLE OF QUESTIONNAIRE INSTRUMENT

Dear Respondent,

I wish to invite you to participate in this short survey to help me to understand the desires, interests and needs of Caribbean working adults as it relates to pursuing higher education through an on-line system.

This questionnaire is designed for working adults who are presently pursuing higher education, that is, at either university or college level or are considering pursuing higher education in the next two years. This questionnaire is also for those who have completed higher education within the last five years regardless of whether they carried out those studies in a face-to-face basis or on-line class. The purpose is to determine the most desired method of study for working males and females in the Caribbean. Your responses will add value to the debate on higher education for adults and will improve what already exists.

Please be assured that your responses will be completely confidential and that your identity will not be revealed unless you specifically request it. This is purely for academic research purposes.

Thank you for taking the time.

SECTION ONE:

1. Gender: Male Female

2. Age range
 - 18 – 25
 - 26 – 33
 - 34- 41
 - 42– 49
 - 50 – 57
 - Over 57

3. Academic qualifications – indicate highest level:
 - Doctorate Master’s
 - Bachelor’s Diploma
 - Cape ‘A’ Level CXC

If yes, please select type

IT Music Graphic Design Entrepreneurship
Accounting

Other

If other, please state

.....

The following questions, 5A and 5B may both be chosen.

5A. I would like to study via online learning Yes No

If yes, please select one or all that apply:

Convenient for my family needs

Does not affect my job needs

Easy to use

Allows me more time to think about responses

Allows me more time to research the material being discussed

If no, please select one or all that apply :

I am not comfortable with using the computer

I am not comfortable with technology

I need to see my lecturer

I need to see my peers

I do not study well on my own

I never thought about it before

Other

If other, please state

.....

5B. I would like to study via face-to-face instruction Yes No

If yes, please select one or all that apply :

I work well when I am among other people

I need to see my lecturer in person

I enjoy the camaraderie of the classroom

I need to be away from home in order to focus

I need the discipline of peers to propel me

If no, please select one or all that apply :

It is not convenient for my family needs

It is not convenient for my job needs

I am overwhelmed by classroom environments

I am distracted by others

I do not speak up in public

Other

If other, please state

.....

6. Would any of the following situations be an obstacle to you in completing your desired course/programme of study?

(It was obvious to the researcher that making the point about the desire to improve eLearning for higher education purposes was a stimulating starting point in both the Focus Groups and the Individual Interviews. This statement was repeated in the invitation in the questionnaire instrument.)

Situation	Strongly disagree	Somewhat Disagree	Neither agree nor disagree	Somewhat Agree
Family commitments				

Work commitments				
My ability to use computer technology				
My access to the internet				
My ability to self-direct my studies				
My history of completing programmes				
Confidence in my ability to study at this level				
Confidence in my technology skills				

7. What is your confidence level in pursuing your desired course/programme of study?

Very confident Somewhat confident Not confident
Doubtful Fearful

Please state why you have chosen your response.

.....
.....

SECTION THREE:

8A. This section seeks to gage your perspective and level of interest in studying in an on-line setting:

	Strongly disagree	Somewhat Disagree	Neither agree nor disagree	Somewhat Agree	Strongly Agree
--	-------------------	-------------------	----------------------------	----------------	----------------

I am computer literate	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
..and I like using the computer					
..but I do not like using the computer					
I have a good knowledge of software packages such as Word, Excel, or PowerPoint.					
I am comfortable using the internet					
I can navigate the internet effectively					
I am comfortable using the computer but not the internet					
I like reading from my computer screen					
I like reading from my telephone screen					
I am comfortable working on-line with people whom I have met only virtually					
I am competent using the keyboard					
My English spelling and grammar are of a high standard					

I would like to investigate and resolve technological challenges on-line					
I would like to work with virtual creativity					

8B. This section seeks to gage your perspective and interest in studying in a face-to-face setting.

	Strongly disagree	Somewhat Disagree	Neither agree nor disagree	Somewhat Agree	Strongly Agree
I prefer to sit in a physical classroom					
I need to see my facilitator and peers in person					
I gather information through non-verbal communication					
I am energized by the physical presence of people					

SECTION FOUR

9A. I use the internet for the following purposes. Please tick all that apply:

For socialization

For research related to work

For research related to studies

For all of the above

Never

Other

Please specify "other"

.....

.....

.....

.....

9B. Using modern technology jargon in relation to computers, I can best be described as:

Digital native
(one born into the computer technological age and understands computer technology)

Digital immigrant
(one who is receptive to computer technology but was not born into it)

Expert
(a highly proficient and knowledgeable computer/technology user)

Technophobic
(one who is fearful and avoids technology as much as possible)

Other
(please specify)

10. This section explores gender perspectives on Information Communication Technology (ICT)

10A. As a male do you think that women are well represented in ICT. Yes no

10B. As a female, do you think that men dominate the ICT arena Yes no

Please explain your response

Thank you for taking the time. Your response will go a long way towards the development of online and face-to-face studies in our Region.

.....

Doctoral candidate

APPENDIX 5 – COLOUR CODED DATA

The data were interrogated using Yin’s Five Phases model and separated by colour into emerging themes. There were several iterations of this sorting that culminated in the following table. Each colour segment contains responses from the three collection points that are similar. Themes that were pertinent to the research were used for analysis. Other themes emerged and are shown here.

E Learning is highly useful to women: E Learning is not attractive to men: Men and women view HE differently: Other themes

EMERGING THEMES

	Data source	Supporting quotations
Focus Groups		<p>The Caribbean has a high incidence of single parent households where the parent is female. In order for women to elevate themselves and maintain their households, they may seek to turn to online education.</p> <p>The woman sees ICT as a tool to get to another level and not as an end in itself so that women occupy proletariat roles using ICT.</p> <p>Women tend to pursue online studies as they are more family oriented and the online platform allows them to spend less time away from the household.</p> <p>Women are more family oriented and therefore may not be as flexible as men in relation to time and family responsibilities and managing demanding work schedules.</p> <p>Right now, as I am pursuing this online program, it really puts a lot of pressure on me, at having to multi-task in studying and taking care of the family. Domestic duties must be done and children have to be assisted with school assignments. This I know most women, inclusive of many of my other female cohorts have to battle with. However, having to achieve this goal for success amidst these challenging circumstances</p>

Data source	Supporting quotations
	<p>demands increased performance which will then result in success.</p> <p>Many women are pursuing online courses to fulfil their need for self-actualization.</p> <p>In order for women to advance themselves academically they must be able to have access to studies, and at the same time ensuring that they do not neglect their role as mother and wife. This opportunity for self-advancement and educational empowerment has created the opportunity for ICT to play a role in facilitating this need.</p> <p>I believe that women have[displayed] flexibility in signing up for online studies. As adult students women have to work and at the same time look after their households.</p> <p>We are living in an era of independent women who have rightfully gained their positions. They are using the online education to get ahead.</p> <p>Women know that better education will give them better paying jobs but they also know that they have domestic responsibilities that they will not ignore, therefore, they use the ICT for online studies to achieve their goals simultaneously [while maintaining their gender identity roles].</p> <p>The fact that women have been marginalized has created a psychological way that they think. They feel marginalized and feel they have to perform harder. Women are marginalized today; not to the extent that they were back then.</p> <p>Women embrace education a lot more than men. Women will use ICT for online education opportunities because it suits their needs, not because they like IT.</p> <p>Perceived usefulness of the technology led me to pursue a course on line.</p>
	<p>The IT environment is male dominated and, does have males who seek to exclude females. They are not successful</p>

Data source	Supporting quotations
<p>Individual Interviews</p>	<p>because women who wish to be engaged in IT do. The schooling orientation facilitates a sense of self-efficacy that enables women to approach IT because [it] will do for them what they need to do and so they will do it.</p> <p>When speaking of higher education, it is not about being a technologist, it is being an end user to achieve what you have to achieve.</p> <p>I do not see education and technology so much as technology per se, it is there for women to take it in bite-sized amounts and therefore [they] are not choking on what is there because it has been made simple for them to use. They can use it at home means that it is tailor-made for women. A lot of them sign in late at night – after the family has gone to bed.</p> <p>Natural self-efficacy draws people to the technology if the technology will facilitate a specific need. Using the technology for the sake of using it is not the focus for women.</p> <p>There are no obstacles. Women only engage technology to serve a purpose. They are capable but not interested in the intricate technical side that involves creating code. Women seek what is useful for their needs and are not influenced by whether it is easy to use.</p> <p>As a tutor at the Open Campus I find that ladies have a desire to succeed. Even if the class is balanced, the women are the ones who are seeking to succeed. They ask more questions than the males do. They do it as a need to succeed. They will use the technology to learn because they want to succeed.</p> <p>Women can carry as many as six jobs so they have less time to maximize their advancement. Women hold a full time job, want to be good mothers and good wives. Women will naturally explore the easiest opportunities for themselves. Women are challenged for time. They choose the options that are less complex, less time consuming.</p> <p>Online study is where I find all of my books. I am replacing all of my hard-copy books with online books because reading online is better for me.</p>

Data source	Supporting quotations
	<p>I totally expect more women than men to pursue online learning. When you think of women's life, the flexibility that is built into online learning means that itbecause women tend to want to continue to do all of the things that they are doing in terms of their family, their job responsibilities, their children, their relationship they want to service that and if you pursue a degree on line you have a certain amount of control of your access to the studying in that sense.</p> <p>I can see that online learning is tailor-made for women; you are a young wife, you have two or three little children, your husband is a professional, you are married recently you have an opportunity to be promoted on the job but you have to get a masters.</p> <p>If you get an online programme you do not have to go to class, even if you have something where you check in and there is a face to face encounter it is not the same thing as being required to sit in the classroom week after week. So there is a built-in flexibility that takes into context the contours of your life.</p> <p>It would seem to me from my understanding of how women operate, online pedagogical strategies and approaches and offerings are just tailor-made for women. They still maintain the job, they still look after the children they still satisfy their husbands', man's or woman's needs whatever their intimate space looks like, and still fulfill their study responsibility. I am not at all surprised why more women turn up on line in terms of studying.</p> <p>What I would say as it relates to women being on line, is that it makes perfect sense to me because women look for things that would not disrupt what they have accepted as their core set of responsibilities especially when they get past the early years, teenage early 20s and so on. If they are professional, they hold down good jobs and they have some kind of relationship, they will be much more reluctant to disrupt that for the face to face classroom for set periods of study</p> <p>Online degree programmes offer women the greatest degree in flexibility in satisfying the need to achieve career</p>

Data source	Supporting quotations
	<p>aspirations and to look after whatever they defined as their responsibilities.</p> <p>I do not think it is an issue for women to go on line for online education. I think it has taken off the way that it has because many women recognize the value of online education as something that does not disrupt their lives. A woman has a lot going on in her life already when she has to be educated, get a degree and go up the corporate ladder and continue to be wife and mother in the home, carrying all of these responsibilities at the same level of intensity. All of these roles absorbing the same levels of attention from her. As ICT develops and the corporate and business world becomes more dynamic because of email and the inundation of information, I think that online education is one of the wonderful fruits of that dynamism that has allowed the corporate woman to be able to continue to reskill her life without having it disrupted too much.</p> <p>I think that because women are jugglers a lot more, so I think the flexibility of it appeals to women more. I think the ability to manage their time and the discipline. Women are focused; they are disciplined and can get on with the job. This makes the online forum something that women gravitate to.</p> <p>My concern is safety, for women leaving class at night. Therefore that is something that can be explored for online use for women</p> <p>I think that women just willing to do what they need to do. Women want to be out of the traditional scenario and are not finding their way out because of all of the other traditional demands that are upon them. It [eLearning] is simply an avenue.</p> <p>More women are using the technological provisions to attain higher education through on-line studies. Their societal role and their traditional roles prevent them from acquiring higher education at the same pace with their male counterparts.</p> <p>Women tend to be more focused and disciplined; this is what online studies require hence, women gravitate to it. It has a</p>

Data source	Supporting quotations
	<p>safety element for women seeking to study while working. Attending night classes located at long distances from their places of work/residence pose a security risk. Online solves that problem.</p> <p>The online education really provides for the female as a tool through which she can continue to learn and improve her skill set while at the same time holding down the traditional roles of mother and wife and of course her corporate and business roles.</p> <p>Women are not marginalized. They pursue what they have an interest in. Some women prefer to stay away from IT and depend on others to bring the IT aspect to their enterprise. They use the online because it is a means to an end.</p> <p>They will find it more convenient or interesting to do their programmes on line because of the convenience of being able to hold a full time job to perform at work being able to go home to their families at a given time to ensure that their schedule is still going and they can maintain their family. And also the flexibility of being able to complete their tasks at home and being able to study at a convenient time.</p> <p>Online gives flexibility. Even if you do not have a family in the world of work it is better when you look at the fast paced environment you are in and being able to manage your time to work on line as against having to go to class for set periods. For me, I really prefer online.</p> <p>Women know what they want to do to succeed and they use the technology that is available to do it. They are governed by PEOU; they use technology that is easy to use so that they can arrive at an end. Hence they engage the basic technology of online learning to get higher education as it facilitates their other life obligations. Many women are capable and if they wanted to, they could be in the creative space of technology.</p> <p>I would say that it is perceived usefulness that took me to ICT. Its ease of use was not a concern. When I learnt what it could do I wanted to use it and to learn more about it. It is easy to</p>

Data source	Supporting quotations
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use for me, but it is not ease of use that drew me.

When I think of women and studying and incorporate that with online and being tech savvy, I think that they are adaptable because the push factor to achieve is to better themselves, or self-development, plus the convenience of being able to take care of family and everything else, those trump the IT issues or being tech savvy.

I do not use something because it is easy, I like to face a challenge and if I know that there are goals in life and there are going to be challenges I will face that head on. The technology is useful to studies and I will use it, so it is Perceived Usefulness rather than PEOU.

Survey Questionnaire	
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Survey Questionnaire

Flexibility in time for classes, assignments and examinations. I can complete when I am available as I work on a shift system.

I would like to avoid the extra hassle and stress of traffic up and down the highway and having to find parking, and extra costs associated with babysitters

Note that although I have chosen the need to work on-line, the classroom setting is the preferred option had time allowed. Love classroom camaraderie and also verbal exchange with the lecturer.

Convenient for my family needs.

[I] had to familiarize myself with the technology and never thought I would have been able to do it on my own.

Data source	Supporting quotations
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The nature of the online programme will determine how

Data source	Supporting quotations
<p>Focus Groups</p>	<p>many men are attracted to the programme. Programmes geared towards engineering are more attractive than a programme geared to ethics or HR. In the back of the psyche of males, is the desire to do a masculine subject area.</p> <p>I can use technology very well, in fact I use ICT a lot but I do not think I want to study online – I do not see why I should.</p> <p>Interactive programmes that include using the technology to create would be useful.</p> <p>Males like to be challenged. Males need to know that to achieve something they have to be challenged by it. Perhaps the view of online education is not challenging enough for a male. Creating software is perhaps more challenging. The perception might be that it is not challenging enough, but they perceive education not to be challenging. The subject area may be of interest. If you offer an online degree called civil engineering, you are more likely to find a predominantly male presence.</p>

<p>Interviews</p> <p>Individual</p>	<p>Men are less attracted to the online programmes because of the nature of the programmes being offered. Men prefer more hands-on topics. Courses that allow men to create are more likely to attract them.</p> <p>I do not like reading; if I listen, I absorb more. If I go to class and listen and I do not read I will still know something, but if it is online and I have to read only I will be in trouble.</p> <p>If there were construction type courses or mechanical courses it is likely there will be more men wanting to access them. It is not the technology, but the types of courses.</p> <p>For males with inquisitive minds the desire to go beyond is not present in the online classroom.</p>

Data source	Supporting quotations
	<p>They are just playing with technology doing the same mundane things. If it was [sic] in the study of computers, picking down computers, making computer connections with other systems, or something creative you may find more involvement and those things must be considered before it can be said that ICT itself has restrictions to males or even females.</p> <p>Introduce a course which requires video conferencing dealing with computers, picking it down, writing programmes you may see more involvement in terms of males. Males want to know how to, after we know how to, we want to continually build.</p> <p>Maybe the programmes should be more hands on and more interactive to attract the male.</p> <p>As a male, I feel that interactive programmes that include using the technology to create would be useful.</p> <p>The whole hyper-masculine culture in the Caribbean is that you cannot really do things that are considered effeminate and they might not perceive it as challenging so to speak. It is not enough to stimulate them and keep them going unless it is a specific subject area that they desire to pursue that might pose a challenge like computer software. So the perception might be that online learning is more effeminate and more than traditional face to face education. Education is for soft people and online education is for even softer people.</p> <p>To bring men to the online environment, perhaps we should be looking at what their interests are.</p> <p>Online learning might not be what men consider to be technology. Technology is attractive to men as are cars as is fixing things. It is an extension of a toy. Because men continue the same way as they started as boys with toys and they graduate into these areas and sometimes fall into it as a profession. Technology was not always a tool to do something; technology was an end in itself, i.e. to be in the technology, doing things in the technology.</p>

Data source	Supporting quotations
	<p>Now technology is a medium for learning, it is a different approach. There is no playing around or manipulating, it is just applying some set conduits of communication and relating with whoever might be the tutor and others in the classroom and these are through set channels. That is it. It is not the stuff you play around with. To say, I have John Jane Grace and professor Wallace. I can move one here, put one there - let me switch professor over here, I can blend these frames. That is something different.</p> <p>I consider it a matter of discipline. When I was looking at the different programmes I decided I did not have the discipline to do an online programme. I rather to be guided sit down and have interaction with whoever the tutor may be. I signed up once for a programme on HBack Systems and I found it mind numbing just sitting in front of a computer.</p> <p>Regardless of the type of programme, I still think online learning as too static. I cannot sit in one place; I cannot sit at my desk for too long.</p>
Survey Questionnaire	No response

Data source	Supporting quotations
<p style="writing-mode: vertical-rl; transform: rotate(180deg);">Grains FOCUS</p>	<p>I have a bachelor's degree, but I would have been better off doing trades programmes bit by bit until I get where I want to be.</p> <p>While, I may agree that women are more family oriented and because of that takes advantage of the online programmes, generally we have more women furthering their studies than men.</p> <p>Especially in single parent families, where women need to find ways</p>

Data source	Supporting quotations
Individual Interviews	<p>to provide for themselves and their children and because most of the higher paying jobs were primarily male dominated, women saw it fit to educate themselves and pursued these areas.</p>
	<p>Education is not desirable to the young men today. The culture now for some is that education is a means to make money; if a male can get money without going through four years for a degree, then he will seek the shorter route.</p> <p>Young people, particularly young males do not value education as men did before. Education is not as appealing as it was before. If education was considered as masculine there may be more men taking it. But given the popular culture in the Caribbean where there is music that promotes anti education behaviour, it is not valued by young men.</p> <p>Men are less attracted to the online programmes because of the nature of the programmes being offered. Men prefer more hands-on topics. Courses that allow men to create are more likely to attract them.</p> <p>The reason for men not being on line has nothing to do with the technology, it is to do with the subject matter.</p> <p>With regard to the enrolment online, it is an educational thing; not specifically with regard to the online setting. If we were to ask if more males enrol in online learning than females we will find yes, but do more males pursue education than females you may find no. Is it education on the whole or is it just on line?</p> <p>It might be for online education, the courses offered have an impact on the decision of the male to enrol. Some males tend to be hyper-masculine and have the tendency to believe that certain subjects are not male oriented and may decide not to pursue them.</p> <p>I do not have the time and because of knowing I do not have the time, I do not have the interest. If it were something very quick then, yes I probably would do it.</p> <p>Most men do not like reading for the sake of it and are not</p>

Data source	Supporting quotations
	<p>comfortable with language and reading details.</p> <p>If there is an advanced course on how to play the piano, I would pursue it. Finding the time to go to someone's place to learn how to play is virtually impossible for me and my time and I would love to be better.</p> <p>Men are generally geared towards business. I do not know how useful it is for them to pursue higher education.</p> <p>A man will look at the amount of money to be invested in studying you could start up a business or buy a car. I have a friend who was thinking of doing a masters but he said when he looks at the money he may as well invest it in a truck and make some money.</p> <p>Men want to make money right away. I studied because I was driven by my mother, but when I look at it I wonder if it was worth spending that money and if I could have gone much further had I put that money to a trade.</p> <p>In these times jobs need more certifications and trades training. Why do bachelors in accounts and then still turn to do ACCA, why not go straight to ACCA?</p> <p>Attrition rate shows that the male gender is twice as likely to be asked to withdraw or who drop out. They do not like the long and drawn out programmes.</p> <p>Guys do not want to spend three years doing a degree; they are focused on making money early.</p> <p>I think that men like to fiddle and fiddle [sic] and would want more hands on. Men would rather to go on line and find out things rather than going into a structured class or course. . They prefer to talk to each other and Google and find ways of solving their problems. They prefer to dismantle and build. I think it there was some big problem; I do not know that they would go to a course to figure it out.</p> <p>Women of a generation went into HE because they had a greater sense of the importance of being educated and therefore be independent and have more options. Men do not have the same sense because they did not grow up with the feeling of being</p>

Data source	Supporting quotations
	<p>limited. They did not need to develop more options. They do not see education as being necessary to provide them with options</p> <p>Women have a sense of needing to provide for their children and not knowing if they will get someone to look after them. Men do not have those limitations. Men might not necessarily think of education as a way of providing them with options. Parents would not have been drilling into them the same way that they need education to develop options.</p> <p>There are so many short cuts and avenues where one can make money instead of spending four years getting an education. The males consider themselves as the breadwinner so they cannot be spending time in the education system waiting to get a degree then to make money then to provide for the family. They want a shorter way.</p> <p>The biggest challenge in the Caribbean is finding men in development courses and activities. The Caribbean man is doing whatever makes him happy he follows his niche. He will not fall into a finite kind of orientation.</p> <p>If there is an advanced course on how to play the piano, I would pursue it. Finding the time to go to someone's place to learn how to play is virtually impossible for me and my time and I would love to be better. I play very well, but I still feel a little insecure with certain genres of piano music. I would want a practical course more than a theory course. I am very far ahead of those with theoretical work. The course would be one with explanation, listening, dissecting through comment. There would be a level of theory but not heavily based on theory. When you are doing something practical you have to base it on some theoretical work. In the music because you are hands on with whatever instrument you are trying to learn, the practical makes the theory easy to understand.</p> <p>Presently, men are focused on making money and do not want to spend too much time learning how to do it.</p> <p>We have had conversations on how to maintain the numbers because of the economic situation and we see still that women are the ones who are pushing to get the education and because they have responsibilities aside from going to school, they have a</p>

Data source	Supporting quotations
	<p>preference for using online.</p> <p>My father was the only one of 13 children to go to university, he started late and he saw education as a way out of a particular life. I do not think that young men see that as a way out any more. They want to be rap stars not realizing that it is only about 2% who make a success in this area. It is hugely complicated in a number of areas.</p>
Survey Questionnaire	<p>Too expensive ^M</p> <p>Officially at the end of my academic tether ^M</p> <p>Not applicable ^M</p> <p>I will soon retire from work and need to pursue something of leisure ^F</p> <p>Short attention span ^F</p> <p>I prefer Vocational skills presently ^F</p> <p>I'm preparing for retirement and prefer to pursue a skill at this time ^F</p> <p>It doesn't seem to improve job options in the Caribbean ^M</p>

Other emerging themes

Theme: Acceptance that ICT is masculine	
Data source	Supporting quotations
Groups Focus	<p>The gendered aspect of ICT is evident in the way ICT is deployed and is no different from the aspects of Caribbean life where there is gender polarisation. Young women enter the ICT arena from the technical side but as they advance in age and take up familial responsibilities, their domestic roles tend to present a challenge to them being involved in the necessary activities of ICT.</p>

Theme: Acceptance that ICT is masculine	
Data source	Supporting quotations
Interviews Individual	<p>The stereo-type that has mechanics for men and receptionists for women is extended to ICT. Women occupy proletariat roles using ICT; men are more involved in the design of ICT.</p> <p>The ICT industry is dominated by men because of its science and mathematics components with women focusing on the softer skills side of ICT.</p> <p>IT is built on mathematics and not many women like doing mathematics.</p>
	<p>ICT is male dominated in the Caribbean but not at the expense of women</p> <p>I do not think you need to change ICT to embrace women. Women have chosen their path. They are not pushed out of ICT. It is a function of natural orientation.</p> <p>What we need is to help our women wherever they stand in the Caribbean to envisage a new landscape of their lives and to use ICT as a book that will reveal what is possible, a landscape in front of them so they can figure out the stepping stones between where they stand and the new landscape equals X Y or Zee so this what they have to do ; empower themselves, educate themselves in whatever discipline whether it is technology science or whatever to get into that new space and to stand powerfully and to have my voice heard</p> <p>Where I think the males exceed the females is the area of being technicians who come to fix the systems - the technical side of ICT. Companies run 24/7 since mission critical organizations such as banks and hospitals cannot be down for any length of time. In these technical support fields, you tend to have more males, and I will go to say a preponderance of males...why? Females do not</p>

Theme: Acceptance that ICT is masculine

Data source

Supporting quotations

Survey Questionnaire

feel safe handling the night shifts, going to ATMs in banks on their own at 2:00 am to fix it. In fact for these roles companies prefer to hire males and the beefier the male the better....like how a club chooses hefty males to be bouncers.

The IT environment is definitely masculine. When I think of IT I think of network communication, connecting PCs, servers all of which I think is male oriented. This is because I have always seen males in the environment and perhaps because there is need to move equipment around from time to time, I have assigned that gender to it

Most individuals in ICT based on my observation are mostly males. Females are not dominant in this technical field, but there may be an influx as years go by.

In Belize where I am located men are more likely to be hired as the IT personnel.

As a female Project Manager for ICT projects, I am often the only female in the room, even when the project team gets as large as 27 people. When there are other females, they are usually fulfill administrative functions or are the account managers/ sales representatives.

As a woman in technology we are surrounded by males. For every female in a technology related field, there are approximately 5 or more males. Additionally, if both a male and female applies for the same job, oftentimes the male is hired.

Yes. This is changing but very slowly. I was a sole female doing IT 20 years ago and little has changed since. Men are seen as technologically superior, whether this stereotype is correct or not. IT is seen as many as hardware oriented which is not necessarily true and subconsciously was seen as requiring the ability to lift

Theme: Acceptance that ICT is masculine	
Data source	Supporting quotations
	<p>heavy objects, a task unsuitable for the "weaker sex". IT is not solely hardware however and many do not realize that there is a distinction.</p> <p>Most ICT Units in the organizations are male dominated. In the organization where I work, there are 11 males and 1 female in the ICT Department. Also, for whatever reason, the females do not remain for more than a year in the department.</p> <p>Men are more open minded to being innovators, try things, females tend to be more conservative in their approach, these attitudes flow even to their approaches to IT</p> <p>Women are just as techy as men, it is only men who afraid of losing their dominance who prefer to think women are ignorant over ICT</p>

Theme: Technological development is slow in the Region	
Data source	Supporting quotations
Focus Groups	No response
Individual Interviews	<p>The Caribbean has to do a lot more to bridge the gap in technology for its people. It needs to mend the lack of efficiency and the poor use of technology. We as government have a lot to do to maximize the investment that we have made in technology to get efficiencies which will result in a better economy.</p> <p>The Caribbean needs to do more for its people, male and female for development in technology. Natural resources are limited to none for some economies within the Caribbean. Technology has to be the way forward. Additional training from school level will play a key role and it does not need</p>

to be a gender bias.

We do not have critical masses in the Caribbean for normal economics; we therefore need to depend on our brain. Technology innovation is brain work. When you put those things together, it is a no-brainer and you would expect that governments would realize that throughout the region and focus emphasis and effort into developing this area of coding and programming as a viable area of commerce.

The Caribbean has to do a lot more to bridge the gap in technology for its people. It needs to mend the lack of efficiency and the poor use of technology. We as government have a lot to do to maximize the investment that we have made in technology to get efficiencies which will result in a better economy.



Survey Questionnaire No response

Theme: Men are intimidated by women in the learning environment

Data source	Supporting quotations
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Focus Groups Some men do not attempt higher education because they do not want to fail.

Individual Interviews

Some men are just afraid of being in school.

The male does not like to be defeated especially in public

So what is it that men want, do they want a space that is defined exclusively as male?

Is it that men are challenged by the successes of women on line and they cannot keep up? Is it that they need to be alone to compete among themselves?

Does male ego play a role in men’s decision-making about higher education? Are they secretly (unconsciously) fearful of failing, and that fear holds them back?

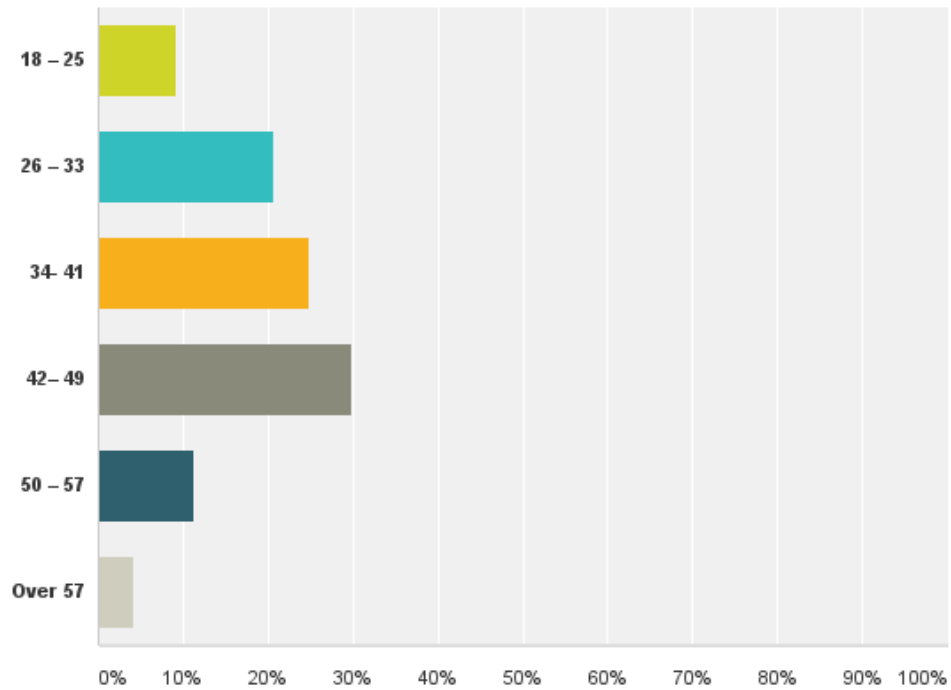


Survey Q No response.

APPENDIX 6 SURVEY DEMOGRAPHICS (A)

Q5 Age range

Answered: 97 Skipped: 2



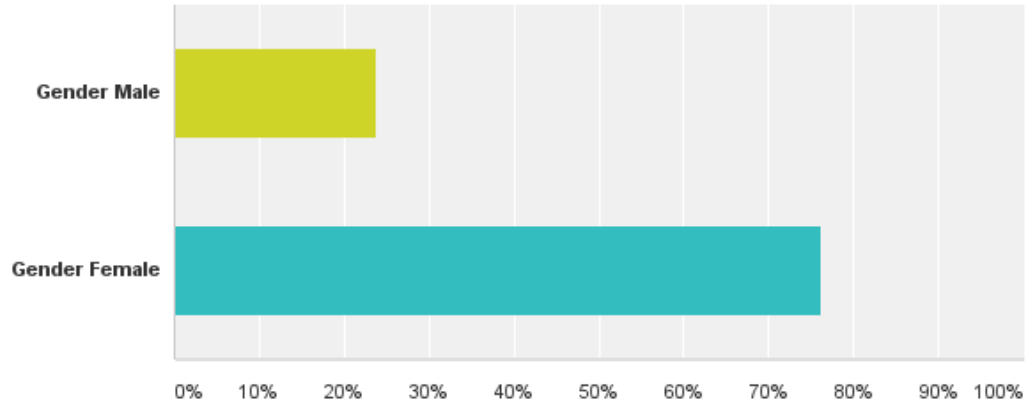
Please indicate your highest level of Academic qualifications:

Answer Options	Response Percent	Response Count
Doctorate	1.1%	1
Master's	38.3%	36
Bachelor's	28.7%	27
Diploma	21.3%	20
Cape 'A' Level	4.3%	4
CXC	2.1%	2
GCE 'A' Level	1.1%	1
GCE 'O' Level	1.1%	1
Certificate	2.1%	2
Other (please specify)		7
<i>answered question</i>		94
<i>skipped question</i>		5

APPENDIX 7 SURVEY DEMOGRAPHICS (B)

Q4 SECTION ONE:

Answered: 97 Skipped: 2



SECTION ONE:		
Answer Options	Response Percent	Response Count
Gender Male	23.7%	23
Gender Female	76.3%	74
	<i>answered question</i>	97
	<i>skipped question</i>	2

APPENDIX 8 RESPONSE TO QUESTION 6

	Strongly disagree	Somewhat Disagree	Neither agree nor disagree	Somewhat Agree	Strongly Agree	Total
Family commitments	20.90% 14	11.94% 8	10.45% 7	28.36% 19	28.36% 19	67
Work commitments	13.85% 9	15.38% 10	9.23% 6	44.62% 29	16.92% 11	65
My ability to use computer technology	84.62% 55	6.15% 4	6.15% 4	3.08% 2	0.00% 0	65
My access to the internet	81.54% 53	4.62% 3	7.69% 5	6.15% 4	0.00% 0	65
My ability to self-direct my studies	42.42% 28	18.18% 12	16.67% 11	21.21% 14	1.52% 1	66
My history of completing programmes	56.92% 37	10.77% 7	20.00% 13	12.31% 8	0.00% 0	65
Confidence in my ability to study at this level	55.56% 35	17.46% 11	19.05% 12	6.35% 4	1.59% 1	63
Confidence in my technology skills	72.31% 47	13.85% 9	9.23% 6	3.08% 2	1.54% 1	65