UNIVERSITY OF KWAZULU-NATAL

INYUVESI YAKWAZULU-NATALI

Experiences of end-users of the
Research Commons as a learning space:
a case study of the
Howard College Library

by

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LIST OF ACRONYMS

AL	:	Academic Librarian
DOLS	:	Director of Library Services
EGM	:	EG Malherbe Library
EU/s	:	End User/s
HCL	:	Howard College Library
IC	:	Information Commons
ICT	:	Information & Communication Technology Division
IT	:	Information Technology
LAN/s	:	Local Area Network/s
LIS	:	Library and Information Services
PG/s	:	Post Graduate/s
PLE	:	Personal Learning Environment
RC	:	Research Commons
RLC	:	Research Libraries Consortium
UKZN	:	University of KwaZulu-Natal

CONVENTIONS USED:

University	:	University of KwaZulu-Natal
Librarian	:	Academic Librarian

DECLARATION

I, Claudette Kercival declare that …

(i)   The research reported in this dissertation, except where otherwise indicated, and is my original work.

(ii)   This dissertation has not been submitted for any degree or examination at any other university.

(iii)   This dissertation does not contain other persons' data, pictures, graphs or other information, unless specifically acknowledged as being sourced from other persons

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      a.   Their words have been re-written but the general information attributed to them has been referenced;

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……………..……………………………

Claudette Kercival

Student No.: 8523605

DECEMBER

2011

Dedication

This thesis is dedicated to…

My Parents and Mother-in-law

Benny and Pam Padayachee

And

Mrs. Saraspathie Naidoo, respectively

for instilling in me the value of education

and traits of

perseverance and humility.

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I would like to place on record my gratitude to the following who have contributed to my journey into this research:

ABSTRACT

The landscape of learning spaces in academic libraries is undergoing continual change, re-adaptation and reconfiguration. These winds of change are ushered in by the very nature of the dynamic information economy. Globally, information needs of end-users in academic libraries have dictated the changing space trends as in this case study of the Research Commons of the Howard College Library at the University of KwaZulu-Natal.

The demands of the changing information economy have directed institutions of higher learning en route to tailoring their outcomes with the view to increasing research output and productivity. In view of this, Academic libraries are finding themselves increasingly becoming significantly involved in the process of research support.   The Research Commons (RC) is one such research support initiative of UKZN Libraries. This RC opened its doors, offering research facilities to a designate cohort of Master's, Doctoral students, Researchers and Academic staff on the 01st of October 2008.

Three years to date, the facility has grown in its popularity and patronage. The study of the end-users of the RC emanated from an express interest of the researcher who supports EUs in the capacity of a Senior Librarian. Time spent in the RC further, piqued the interest of the researcher, who was particularly keen about how EUs interacted with the elements of this space and their experiences thereof.

This study was conducted with the express aim of understanding, through a qualitative inquiry the experiences of the end-users of the (RC) situated at the Howard College Library of the University of KwaZulu-Natal. I the researcher in attempting to examine these experiences found myself having to address the following key research questions:

> What are the experiences of the end-users of the learning space?
> Who are the end-users of the Research Commons?
> With what elements of the Research Commons do the end-users interact?
> In what ways do the end-users interact with the different elements?

The survey methodology approach was employed using the following instruments:

> Online and manual survey questionnaires
> Interviews
> Observations

The different data collection techniques served to generate the richest data for the researcher to use in the interpretation of the results.

An important element of this survey was an attempt to ascertain as deep an understanding of the experiences of the EUs in relation to their interaction with this designated space and its elements in their research journey.

The findings of the survey demonstrated that the EUs of the RC did indeed encounter experiences that were precipitated by their interaction with the elements of this space. Significantly, it was revealed that EUs found that their time spent in the RC contributed positively to their research experiences. It was further established that interaction with the space and its elements influenced the way in which EUs work. In disclosing the desirability of the RC in meeting their research needs, the EUs were keen to render suggestions for changes and enhancements to the RC.

Overall, it was verified that this study shed valuable evidence on how the EUs experienced the RC. Consequently, emanating through the interpretation of the data, the researcher was able to identify possible gaps in the provision of this research support unit which has perhaps added value to this study in providing library management with the necessary understanding in addressing the research needs of the EUs of the RC more than adequately.

CHAPTER ONE: INTRODUCTION

1.1   Introduction

Research output and knowledge creation are increasingly becoming the central focus of university and its outcomes. Owing to this trend, the drive in this direction has compelled academic libraries at various tertiary institutions into rethinking their role in order to support this endeavour. Evolving technologies in the information industry provide another impetus that has extended the boundaries of academic libraries into realms that require re-imagination, re-conceptualization, re-configuration and re-adaptation of its essential functions.

At an ever-increasing pace, these augmentation processes, perpetrated by evolving technology, have meant that library and information specialists in the higher education sector become fully conversant and responsive to these changes which have a significant impact on the information needs of researchers and the university community at large. Failure in acknowledging that these boundaries of change are dynamic could result in academic libraries being non-progressive in meeting the information needs of their users.

The support needs of research students have recently "risen up the academic agenda" (Allan, 2010, p. 1), of several institutions. The information needs of students today are changing at rapid rates and this has impacted on the physical reconfiguration of academic libraries. The traditional space of libraries as we know is undergoing a significant metamorphosis in their attempt to provide for these changing needs. In an attempt to re-adapt their space, the EGM Library on the Howard College (HC) Campus of the University of KwaZulu-Natal (UKZN) introduced the Research Commons (RC) serves to highlight one of the ways in which Postgraduate students (PGs), and researchers affiliated to UKZN are being supported in their research endeavour.

The study by Shill and Tonner (2003) asserts that the building and expansion of academic library spaces has not diminished and the case of the RC at EGM Library serves to confirm this assertion. On an ongoing basis, academic libraries have to re-purpose and re-define their existing space in meeting the diverse needs of end-users (EUs).

Internationally, the archaic image of academic libraries is being overhauled through making provision for new and advanced services together with the traditional services (Massis, 2010). The drive for academic institutions to be creators and contributors to the global knowledge economy has created the impetus for support of research. Locally, this trend has placed pressure on South African higher education institutions into becoming global players in

contributing to this knowledge economy. Through the re-engineering of its programmes and services, academic library spaces are likely to be more effectively used. (D. R. Beagle, Bailey, & Tierney, 2006; Bourg, Coleman, & Erway, 2009; Himmel, 2001; King, 2000; MacWhinnie, 2003; Natarajan, 2009; Shill & Tonner, 2003).

In using the word 'learning space' in the title of this thesis, the researcher intended to create awareness that the experiences of the EUs at some point of their interactions with the RC, encompass a level of learning which contributes to the research initiative.

1.2 Definitions and terminology
1.2.1 The Commons concept

The Commons concept emanated as a model for the future academic library and is well described as a "portal through which students and faculty will access the vast amount of information and resources in the world and less a place where information is kept" (MacWhinnie, 2003, p. 243). The researcher's understanding of the Commons is that it is a physical space that hosts and provides all the resources necessary for scholarly research in academia. The 'vast' amount of information that MacWhinnie (2003) alludes to is indicative of the various formats that information can be accessed through in today's knowledge economy.

Judging from the literature this new concept in academic libraries has arisen as a consequence of the changing dimensions of information access. This concept has its beginnings in the academic institutions in the United States and Canada. The primary purpose of this concept is to facilitate a central space that allows its users access to all the information resources and technological support required to conduct their research in an integrated way.

The researcher identifies the Commons as a concept on the basis that its basic and central functionality of a communal space pervades through other types of Commons quoted in the literature review of this study. In some libraries these facilities bearing the Commons concept are termed differently from Knowledge Commons to Information Commons and Learning Commons. It is apparent that the names of the facility may differ but the "core service ideals remain the same" (Wong, 2009, p. 176). The dominant element of the spaces is that the library has brought together all the services relevant to its core purpose, to a central point for seamless access by its (PG) users. According to Beagle, the Information Commons is designed to help "chart the ongoing transformation of libraries into innovative arenas for learning, research and instructional support" (D. R. Beagle, et al., 2006, p. xv).

1.2.2   The Research Commons (RC) at HC (EGM Library)

The Research Commons (RC) at the EGM Library is a model that has its underpinnings based in the Commons concept (see APPENDICES L1-5).   The EGM Library is one of the four branch libraries situated on the Howard College campus.   The other three are; Eleanor Bonnar Music Library, Barrie Biermann Architecture Library and the GMJ Sweeney Law Library, all four falling under the umbrella of Howard College Library on the HC campus.   An Information Commons (IC) does not merely provide computers for researchers but it instead is "designed to facilitate interaction and serendipitous learning" (D. R. Beagle, et al., 2006, p. xvii).   In view of this study, it is for this very reason that the EUs' experiences are being investigated.   The above extract expresses exactly why the RC has come into existence.   The interaction that Beagle speaks of could very readily apply to this study and how the EUs interact with the space and its elements are therefore influential in the learning process at the RC.   Further, the researcher of this study has labeled the RC as a learning space, in the belief that learning does take place in the RC.   On whatever scale, time spent by the EUs in the RC has provided opportune instances where through their interaction with either their peers or the librarian some knowledge was imparted and gained.   The data of this study further reveals that EUs through their exposure to the RC have become confident in many of the required research skills.

The RC is particular to certain academic institutions in South Africa, one of which is the RC at the EGM Library of the University of KwaZulu-Natal.   It must be noted that EGM's RC was part of the Research Libraries Consortium Project and it was guided by principles laid down by the funders.   Hence, the EGM Library on the HC campus has been adapted to serve a specific cohort of the university community of UKZN.   The conditions were determined by the mission and vision statement of the RC. These are discussed at length under sections 1.3 and 1.4 respectively.

The RC is intended to provide postgraduate students (PGs) with an environment that is supportive and conducive to producing quality research promoting a research community. Further, the existing physical space of the EGM Library on the HC campus had to be reconfigured to make provision for the introduction of this additional space.   Senior librarians provide support to supplement the information needs of the EUs and serve at the RC on a roster basis.

1.2.3 End-Users (EUs) of the RC at HC (EGM Library)

Having mentioned that the RC was created with a particular cohort of users in mind, this group of end-users (EUs) comprises the following:

- Masters students
- Ph.D. (Doctoral) students
- Academic staff
- Library staff
- IT Support staff
- Research assistants.

A postgraduate student of the RC is identified as an individual who is engaged with postgraduate education or study and is registered in any of the Schools at the UKZN. It must be noted that this category of students is specifically the Masters and Ph.D. students and excludes the Honor's cohort of students.

1.2.4 Elements of the RC at HC (EGM Library)

For the intents and purposes of this study, the researcher found it imperative to explain and identify what is meant by the term 'elements'. The term element is used to signify or refer to any feature that exists in the RC and with which the EUs interact. The following are identified as the elements of the RC by the researcher:

- The various computer software packages that are used to engage in the research journey (data analysis software, operating systems)
- The electronic resources (databases, electronic journals, reference management software such as RefWorks and EndNote)
- Printing and scanning facilities
- The reference collection of books for research purposes
- Assistance from an embedded librarian at the RC
- The quiet environment within which EUs are able to sit and conduct their work
- Wireless connectivity for access to EUs' laptops
- Provision of a one-stop service for library research and technical assistance

1.3 Background into the RC at HC (EGM Library)

The RC facility at HC's EGM Library was initiated through a grant acquired from Carnegie Corporation of New York. It is part of the integrated Research Libraries Consortium (RLC) project. Carnegie's motivation for their generous funding can be extracted from the mission statement mentioned in section 1.4.   The funding from this grant was accessed by a group of six

institutions throughout South Africa; Rhodes University, Stellenbosch University, University of Cape Town, University of Pretoria, University of the Witwatersrand and the University of KwaZulu-Natal (UKZN). At UKZN, this funding was intended to serve in supporting PGs in their research journey. This marked the beginning of a new venture, taking the University of KwaZulu-Natal's Libraries one step closer, to contributing to the institutional vision of becoming the 'premier' institution of African scholarship (Nadupalli, 2009).

The EG Malherbe Library of HC hence saw the birth of the first RC on the 1st of October 2008 at a launching ceremony which was hosted by Professor Johan Jacobs (Acting Deputy Vice-Chancellor : Research, Knowledge Production and Partnerships) (see APPENDICES L1-4). At this event it was stressed that the aim of the RLC project was to enhance research output in South African universities by offering ongoing support to Masters and Ph.D. researchers and academic staff of the associate institutions.

The RC is a comfortable and spacious venue that boasts several features making the research journey all that more stress-free and accomplished for its end-users (EUs). There are 18 desktop computers with the latest software in academic computing as well as comfortable seating for EUs with their own laptops facilitated through ease of access with WIFI. Further, the RC provides access to a research portal for EUs which contain various electronic information resources as well as research management, writing and collaboration tools. In addition the RC has made provision for the facility to be supported by skilled research librarians. EUs of the RC have complete access to one-on-one consultations with knowledgeable and highly skilled research librarians. Access to the Library's electronic resources is made easy through the wireless connectivity.

The EUs have complete and unlimited access to the various bibliographic management software programmes which assist with the compilation of references and in-text citations. Coupled with this, a wealth of electronic resources from electronic journals, e-books and electronic databases, are at the EU's disposal to facilitate enhanced search results in their research endeavour. To complete the thread of support the facility also makes provision for EUs to print and scan documents as and when required (see APPENDIX L7 which depicts an advanced printer that enables scanning, faxing, copying and printing, all operations that are linked to the EU's student card). A facility with an ambience conducive to conducting research is eminently suitable for knowledge creation.

1.4 Mission and vision of the Research Commons (RC)

Below are the mission and vision statements of the RC in keeping with the objectives of the facility.

Mission: "To model transformation and enrichment in the support offered to researchers by South African academic libraries by taking advantage of existing strengths in South Africa's leading academic libraries to sustain, improve and consolidate the troubled research enterprise in our country".

Vision: To bring a wide range of digital resources together, with federated searching; to make appropriate resources more easily accessible-especially African content; offer various value-added services e.g. personal bibliographic software and the support service of skilled librarians; in an environment with the latest technology and ambience conducive to knowledge production. (Darch & De Jager, 2007, p. np).

1.5 Focus, purpose and rationale of the study

The **focus** of this study is concentrated within the confines of the experiences of end-users, past and present, of the Research Commons (RC) facility. The context of this study is EG Malherbe Library which is located on the Howard College (HC) of the University of KwaZulu-Natal.

The **purpose** of this study is to explore through interpretation and understanding, the experiences of end-users of the provided learning space. Through this interpretation the researcher anticipates accomplishing an understanding of firstly, how the EUs interact with the elements of this learning space (RC) in their research endeavour and secondly, what experiences the EUs derive from this interaction.

In terms of the **rationale** the following explanation serves to highlight the intrinsic value in the pursuit of this study. The motivation for this study has emanated from two key factors. First, as an academic librarian (AL), I am directly involved in the research support process and so am particularly interested in the functionality and presumed benefits of the of the RC. Second, this newly introduced research support facility, at the EGM Library on the HC campus, is seen as an important contribution to supporting the research endeavours of the institution and this study might serve to confirm or challenge this. Instituted in October 2008, funded by Carnegie Corporation of New York the aim of the RC is to provide specialized facilities and learning spaces to support the research process.

However, to date, there has been no documented research conducted on the RC at the EGM Library of UKZN. As a consequence the researcher viewed this as firstly, an opportunity to

provide literature on research focused on the RC as a resource crucial to the research process and secondly, that it could hopefully provide an opportunity for the library to acquire greater insight into the experiences of the end-users of its Research Commons and in doing so this may assist the ALs in providing a more efficient research support function.

The RC, in its attempt to support the research process, could possibly speak to the mission statement and goals of the UKZN in terms of promoting innovative research, building a rich research ethos and creating an intellectual environment that cultivates and promotes academic life. Research support at academic institutions is one of the key functions of an academic librarian and having had the opportunity of serving as an embedded academic librarian at this facility and interacting directly with the end-users, I soon realized that in order to enhance this support function, you needed to work from a knowledgeable understanding of the experiences of the end-users, hence the personal interest in pursuit of this study. Finally, one of the desired outcomes of this study will be to create awareness about, "the modern view of learning spaces" (Lippencott, 2005, p. 148) in academic libraries, the functions they serve in the research process and most crucially, how the end-users respond to and experience this learning space.

1.6   Objectives of the study

The objectives of the study were:

To establish how the RC is used by EUs and the ways in which their interaction with the different elements of the RC contribute to the experiences for the EUs.

1.7   Key research questions

The research questions for this study, therefore, are

- What are the experiences of the end-users of the learning space?
- Who are the end-users of the Research Commons?
- With what elements of the Research Commons do the end-users interact?
- In what ways do the end-users interact with the different elements?

1.8   Limitations of the study

According to the researcher the following are limitations of the study. Upon receiving Carnegie grants, three South African academic libraries were introduced to the Commons concept. From the consulted literature it is evident that this is a concept that is predominantly North American in its origin. One of the major drawbacks in conducting this study was the construction of a literature review that was able to truly capture the South African situation in terms of reference to

the RC. The researcher was challenged as there have been no complete studies conducted on either of the RC's currently operational in South Africa. Although there have been write-ups about the different RCs from other RLC members, they have taken a quantitative approach and could not be used to draw comparisons considering that this study adopts the qualitative approach.

The researcher was able to locate one case study of the Wells Library in Indiana University which resembled the elements of the RC at the EGM Library ("The Research Commons: a concept for the Wells Library East Tower,"). Hence, this study, directed at gaining an understanding of how this space is experienced by EUs, seems to be the first of its kind.

Further, with all the literature pointing to the United States and Canadian models, the researcher had to identify the user complement of the RC which differs substantially from the aforementioned model. It must be borne in mind that this facility was an adaptation aimed at addressing the "troubled research enterprise" (Daniels, Darch, & De Jager, 2010, p. 125) . It is assumed by the researcher that the term "troubled" refers to the state of research output and productivity at South African institutions of higher education. In a report by the Academy of Science of South Africa (2007), a survey of current Doctoral students (50% of the sample) in South Africa revealed that number one of the top ten reasons for students selecting a specific programme or institution was attributed to "the research focus of the department/programme.

This study further indicates that there are however, fewer South African Doctoral graduates in" (ASSAF, 2007, p. 58) relation to other countries and this affects our national standing in research and the ability to create and be innovative. It is this 'research focus' that has influenced the emergence of facilities and learning spaces in academic libraries thereby keeping institutional goals or outcomes at the forefront of development in academic libraries. The researcher had to therefore, place this study within the South African frame of reference. This came as a challenge as the purpose that the RC serves, deviates from the conventional Commons concept, which is explained in section 1.2.1 and 1.2.2.

1.9   Structure of the study

Having provided an outline of the area of research and the parameters of the study, the next chapter will provide a literature review describing the current state of knowledge pertaining to the topic. In Chapter Three the research design, methodology and methods used for the study are explained. The data collection plan, the analysis and interpretation of the generated results from the questionnaires (electronic and manual), interviews and observation sessions will be

addressed in Chapter Four. The final chapter deals with the highlights of the findings of the study, recommendations for future studies and conclusions. Lastly, all appendices with various consent forms, data collection instruments and a pictorial representation of the RC follow a list of references cited in this thesis.

1.10   Summary of the chapter

This introductory chapter serves to outline the area of interest within which this study is located. The purpose, objectives and key research questions of the study have been explained. The rationale and background into the RC as well as the limitations of the study have been described. Definitions pertaining to a more concise understanding of certain terminology have been delineated. This chapter outlined what will be investigated, the focus and the research process that will be adopted in conducting this study.

CHAPTER TWO: LITERATURE REVIEW

2.1   Introduction

Themes that emanate from the readings reviewed here for the study lend themselves to the **purpose** of this study which is to explore through interpretation and understanding, the experiences of end-users (EUs) of the provided learning space, in this case, the Research Commons at the EGM Library. Considering that this study is a case study, the readings also expanded into the domain of the concept of the Commons.

Emphasis will be placed on the **main phenomena** of the study which are the experiences of end-users of the learning space in relation to the elements that are offered in this space.   From my perusal of literature on the current state of South African Academic libraries and their role in research support, it is evident that much of the research conducted has been dominated by the quantitative **paradigm** (Hart & Kleinveldt, 2011; Rumsey, 2004), which could be seen as a **methodological weakness** as it only provides one kind of information.   Often though, quantitative studies provide base line studies for qualitative ones. Comparisons could not be made to these studies as the research approach differed. The researcher views this study as a base line study which will generate information that is qualitative in nature.

2.2   State of knowledge

It is evident that throughout the consulted literature, which tends to reflect mainly a positivist approach, evaluation and assessment of the learning spaces is deduced from "statistical analyses" (Meyer, Forbes, & Bowers, 2010, p. 64). A survey, conducted at the University of Surrey, showed that enhanced support services to PGs, in the form of a learning commons, resulted in improved information retrieval skills (Rumsey, 2004). This was established through data obtained from a series of questionnaires issued over a period of time that revealed the sample's engagement in information retrieval. However, the methodological downfall of the study was that it failed to reflect 'how' these enhancements impacted on the PGs research endeavours.

Another survey conducted at a South African University of Technology (Westerlund & institutionen, 1985), looked at the role of academic libraries from the perspective of a researcher. However, this study had a quantitative leaning and omitted postgraduates from the population of the sample in the survey.   The study set out to examine how researchers use their institution's library in their research endeavour. An important premise emanating from this study is that if institutions seek to increase their research output level, which is the case perhaps for all

academic institutions, and then academic libraries have a special responsibility in supporting this mission. Academic libraries are a fundamental support component of higher education institutions and their efforts should speak to the institutional outcome of research output and productivity.

It is for this express reason that the researcher deemed this area of investigation worthy of pursuit, considering that the newly created space of the RC was initiated with the main objective of supporting research at UKZN and it could further have an effect on the research output and productivity of the institution.

A literature search in several electronic databases and library catalogues, with **keywords** such as research support, research commons, information commons, learning spaces and academic libraries, PGs and South Africa (SA) revealed that only the University of Cape Town appears to have published a paper addressing this new concept in the South African context. (Daniels, et al., 2010). The paper write-up had a quantitative slant and lacked focus on the actual experiences of the end-user, as intended in this study. With regard to the **state of the knowledge** pertaining to the phenomena, it was identified that "it is too early to determine whether the Research Commons has had an impact on the productivity of researchers" (Daniels, et al., 2010, p. 129). Consequently, this provides a niche for exploration into the phenomena to be dealt with in this study.

Considering that the majority of the literature reflects upon academic library learning spaces within the Americas (North), this serves to identify a **contextual weakness**, thereby rendering it limiting for comparison to the South African context (Barton & Weismantel, 2007; D. R. Beagle, et al., 2006; MacWhinnie, 2003). There appears to be a **trend** in the literature, overwhelmingly in favour of the benefits of the learning space (Bennett, 2006; Daniels, et al., 2010; Forrest & Hinchliffe, 2005; King, 2000). It is clear from the literature that academic libraries are evolving as education and learning spaces and have helped to "promote collaboration" (Neal, 2009, p. 464) between faculty, the learning space, end-users and library staff.

Further, it is being viewed as a "space that facilitates active learning, allowing students the opportunity for self-discovery" (Barton & Weismantel, 2007, p. 395). It is this self-discovery that has piqued the researcher's interest with regard to this study of the end-users experiences of this unique space. Much of the literature (Lippencott, 2005; Meyer, et al., 2010; Rubin, 2011; Shapiro, 1994; Sinclair, 2007; Thomas, 2000) focuses on the environmental, ambient and aesthetic elements of the learning space; hence this skewed focus can be viewed as a **gap** in

published literature. If these elements are coupled with experiences of the end-user, it would likely then provide a more holistic approach in the analysis of the learning space. In terms of a **limitation**, the literature review is restricted to the confines of the South African frame of reference. However, the researcher also assumes that this could serve to broaden the approach and consequently improve the study.

A study at California Polytechnic State University (Davis & Somerville, 2006, p. 127) examined participant's "deep learning" that emerged from a new research support model, Research and Information Service and Education (RISE). An important finding of the study was that collaborative interaction is crucial for the "circulation of knowledge" (Davis & Somerville, 2006, p. 138). However, this study concentrated on the collaborative efforts between the key decision makers such as the library leaders and staff who are responsible for RISE but lack the focus on actual 'deep learning' that it speaks of.

Issues of concern would be **terminology** and **definitions** as well as the **functions** that are associated with the concept of the learning space and the end-users thereof. It is important to note that the use of terms and definitions may present some confusion when viewed from the different contexts. However, for the purpose of this study, the researcher attempts to provide an explanation on how the terminology is used in different ways that are typical to the South African context. According to the American perspective the terminology for the actual facility may vary from knowledge commons to learning portal, from academic learning commons to information commons. Further, in the literature, there's a lack of clearly defining exactly who or what the 'end-user' is. Each of the above mentioned targets a different group of users. In South Africa we make reference to postgraduate students as those who are at the Masters and Doctoral levels and to the teaching staff as the Academics. However, in the Americas the PGs are referred to as 'graduate students' and the teaching staff, 'faculty'. Consequently, tensions arise within the South African perspective of the RC, primarily because of the **terminology** used to describe its EUs. In having to serve a varied target group, the researcher assumes that the **functionality** and intended **purpose** of each of these Commons will be consequently different. In drawing attention to these various titles of the Commons, the researcher envisages providing a clearer understanding of how an RC differs in the South African context.

From the review of the literature it is clearly evident that the climate of academic libraries, especially with regard to their learning spaces, has undergone significant metamorphosis, has "created critical challenges for library leadership" (Rogers, 2007, p. 368) and has made a call for "organizational realignment" (D. Beagle, 1999, p. 82). Today, "many believe that the academic

library is doomed by technology" (MacWhinnie, 2003, p. 245). However, on the contrary as illustrated from the reviewed literature, library spaces still remain an essential service for various reasons, one of which is the creation of this unique, designated and reconfigured space, providing a portal through which several end-users may access a wealth of information resources and research support infrastructure for the creation of knowledge. However, it is apparent that there are significant boundaries of research to be uncovered with regard to the concept of learning spaces in academic libraries with particular reference to its end-users within the South African context, hence the motivation to pursue this study.

2.3 The Commons concept at UKZN

The concept of the Research Commons is relatively new to South African academic institutions. The researcher has established through an exhaustive information retrieval effort of all formats of material that very limited literature has been documented with regard to its end-users and their experiences in the use of this type of learning space. "Academic libraries typically identify research as a central pillar in their mission" (Westerlund & institutionen, 1985, p. 37). From 2008, with the onset of this so-called Commons phenomenon, academic libraries are attempting to develop new models for providing access to e-resources and digital information, in order to assist student in their academic pursuits.

In the South African context this learning space has been termed the Research Commons which provides support to scholars engaged in research from the Masters level and beyond. Unlike and differing from the North American concept, the Research Commons does not serve as a social networking forum for all students. A tendency exists in the RC to support students with their "ever-increasing reliance on the internet and electronic resources" (Shill & Tonner, 2003, p. 431) through a space designated for this express purpose. In doing so, unlike the North American trends mentioned and portrayed in the literature, the element of "collaborative learning" (Somerville & Collins, 2008, p. 803) does not appear to be a critical element for the learning spaces in the South African context. It appears that this 'collaboration' requires extensive engagement with faculty and library management. One of the common threads of discussion in the articles was the guiding principles for the design of the learning space and the need for it (design) to relate to "learning styles" (Sinclair, 2007, p. 6) of end-users. In the Americas these spaces have established themselves as places where students engage in collaborative learning. Inherent in this is the element of integration between other teaching and learning support units and the libraries. This integration will perhaps create a "culture of respect for diverse learning styles" (EDUCAUSE, 2011).

South African academic libraries have seen an upsurge in the adoption of this model but not on a grand scale. Locally, within the confines of UKZN, several satellite or branch libraries have tried to redefine their spaces to create unique spaces in their libraries to promote the component of research support thus attempting to meet the institutions outcomes. There has been an awakening to the "several advantages for students with this type of facility" (MacWhinnie, 2003, p. 244). However, the researcher is inclined to think that the key issue of these 'smaller scaled' RCs may face a sustainability challenge. It is evident that the existence of a RC requires reasonable investment.

The South African model of the American 'Information Commons' had to be re-adapted for a specific goal in focus as mentioned above. The difficulty comes in when establishing whether these spaces are merely 'glorified computer labs', or whether they offer more value in terms of the services in academic libraries. Review of the literature indicates evaluative research of this space and its users has not been conclusive, presenting uncertainty about the influence of RCs in the South African milieu of research support. The researcher is inclined to think that further impact analysis studies would perhaps provide a more convincing argument about how RCs feed into the research environment.

Academic libraries hosting this concept in SA have had to further undergo 'organizational adaptation' to ensure that the RC met the outcomes of the intended mission and vision. Apart from the physical revamp, the issue of staffing had to be addressed. There had to be skilling and re-skilling of staff in order for them to provide an efficient service in the RC. Hence, one of the conditions on receipt of this grant was that ALs attends the Librarians Academy to further empower them in understanding the logistics and dynamics about research and the research process.

2.4   Academic libraries and changing space trends

As pointed out in the literature by various writers, (Bodnar, 2009; Massis, 2010; Neal, 2009; Somerville & Collins, 2008), academic libraries are moving in the direction of the adaptation to embrace learning spaces as support mechanisms in the research process, as is the case in question for the RC at EGM Library. The academic library has been urged to expand its periphery to re-image and reconfigure its role not only extending itself into the learning realm of its end-users but also "by offering a plethora of services to enhance research assistance and the learning experience" (Massis, 2010, p. 161). However, in its determination to enhance research support, academic libraries should be cautious about ensuring an 'equitable sharing of resources' they offer.

Further, in keeping within the boundaries of this redesign and reconfiguration, "accommodation of the changing teaching and learning environment", (King, 2000) must be taken into cognizance. Academic libraries continually have to redesign their existing spaces to further make provision for integrated information technology, access to various e-resources and importantly to portals for an e-learning platform. There are several advantages for students with this type of facility. The fact that the information needs of PGs can be satisfied from a single location makes the facility of the RC all the more appealing to EUs.

However, RC's are not without challenges. Owing to the increasing postgraduate enrolments at HC, stresses have been placed on the physical environment of the RC and the services that come with it. One of the greatest challenges is that of having trained staff service this facility. Ideally it would be best suited for staff that are or have been engaged in research to serve in the RC. With this not being the case, it becomes necessary and essential for staff to receive training to be able to serve efficiently in the RC. The researcher acknowledges that the literature highlights that staffing and training of staff are crucial elements in the sustainability of the facility. The researcher is of the opinion that the provision of skilled staff can help EUs to achieve in the learning of searching skills and bibliographic knowledge management. A positive spinoff from this imparting of skills could lead to more EUs becoming empowered in researching their topics independently. And because of this 'common' environment, these empowered EUs can through interactions with their peers also assist and further share their acquired skills.

Irrespective of what these facilities are titled, it is evident from the perused literature that there are shared aims and objectives in the missions and vision statements of each of these entities. These aims and objectives speak to them being primarily a central or major access point in an academic library to providing information resources and technological support for researchers of the academic community, thus allowing students, faculty and researchers to integrate new technologies into their research undertaking.

Library buildings remain essential for a number of reasons and do not show signs of becoming obsolete anytime soon. Hence, this hybrid state has warranted the need for academic library managers to continually rethink the issue of space and its "re-purposing" (King, 2000). Regularly, depending on the exigencies of the situation, spaces have to be re-zoned to cater for the needs of different types of interactions with the library's collections. Elements such as noise levels, technical and teaching support have to also be taken into account. In its metamorphosis, the change in the physical environment of the academic library needs to be wary that a

psychologically supportive, aesthetically pleasing and safe facility is maintained. It is envisaged by the researcher that investment in the RC presents academic libraries with an opportunity to address important research related issues at faculty or schools levels.

2.5 Meeting the dynamic changing information needs of users

The trend of expansion in Higher Education is not particularly unique to South African universities and these developments come with their demands that need to be met in terms of the "paradigm shifts in teaching, learning and research as well as advancements in information systems and services" (Musoke, 2007, p. 532).

It has been foretold that if the academic library wants to maintain being the heartbeat of an institution it will have to augment its role into providing a "professional, customized, value-added" (Nadupalli, 2009, p. 7) service. The physical space in academic libraries has been modified to accommodate additional technology to provide students with the tools to use library resources successfully and to meet their changing information needs. Increased use of technology has impacted tremendously in the way academic libraries and their resources are used (MacWhinnie, 2003, p. 241).

Physical facilities of academic libraries are undergoing substantial change in gradual and revolving response to the changing the Higher Education environment. Specialized facilities for researchers such as fully equipped workstations supporting information access and retrieval with full word processing and printing facilities together with specialist assistance of Research librarians have to be provided in keeping with the dynamic needs changes of library users.

Users now expect access to information in a wide variety of formats, including print, electronic and multimedia, leading to a greater need for research assistance from academic librarians. It's no longer about bringing users to the library but rather about thinking creatively and taking the information to them. Even with continual electronic access, students still demand access to the library for longer hours to have a place to study. Academic libraries are a refuge for those who live in noisy residences or need a place conducive to study. The researcher assumes that this need not be particular to the African or South African situation but may be pertinent in other countries where many live in difficult conditions.

The researcher acknowledges that study needs are on a dynamic continuum and have undergone a drastic change. There has been a move from individual study to group study and this has impacted on the physical space allocation in academic libraries. The demands for group

study and seminar room facilities have grown. This noted change in users' needs is echoed in the following extract, "a portal through which students and faculty will access the vast amount of information resources in the world and less a place where information is kept" (MacWhinnie, 2003, p. 243).

2.6   Postgraduate support in Academic libraries

"Information needs of research students demand greater information skills" (Yin, 2012, p. 229). The researcher is inclined to think that access to information resources for PGs is indeed comprehensive and warrants substantial support from librarians.

A study by Dlamini (1999), revealed that the purpose of academic libraries is to serve students, academic staff, administrative staff, library staff, the neighbouring community and researchers with knowledge products and services. This would, according to the researcher of this study, undoubtedly include the cohort of postgraduates. However much they form part of the users of the academic library, it is quite clear that PG's information needs differ from that of the undergraduate. Hence, it would not be presumptuous in saying that they require a more sophisticated type of research support.

The researcher feels that it is this population of the student cohort who are responsible for the knowledge creation and who feed into the eventual increased research output and productivity vision of the institution. It is this need for a "knowledge creation workspace" (MacWhinnie, 2003, p. 242), that has encouraged academic librarians, academic staff and computer specialists to work together to provide the necessary technology and information services in supporting postgraduate research undertakings.   The RC at EGM Library has afforded the PGs the necessary support through this "new type of physical facility specifically designed to organize workspace and service delivery around an integrated digital and electronic environment" (King, 2000). For some the RC may seem as though it is exclusionary and far from the being 'common' to all. The researcher assumes that in addressing this exclusivity element, library management needs to ensure that all library resources are equitably accessible to all who need it.

2.7 The Howard College Library (EGM Library) case study

2.7.1   Mission of UKZN Libraries

The mission of the University of KwaZulu-Natal Library is to support teaching, learning, research and community engagement by providing a high quality, relevant expanding and innovative library and information service.

2.7.2   Vision

"To be a strategic partner in positioning the University of KwaZulu-Natal Library as the premier university of African scholarship" ("University of KwaZulu-Natal Library: Mission, vision and strategic goals, 2007 to 2011 –Status Report," 2007) .

In pursuing the above, UKZN Libraries have committed themselves to including in strategic plans the following to support the ultimate outcomes of the institution:

- Provide library and information services that are user-driven
- Provide information sources that support teaching, learning and research
- Provide effective teaching and learning strategies for users
- Optimise the use of library spaces to provide and environment that enhances the learning and research experience and position the Library as the intellectual centre of the university

2.8   Future trends: innovations in academic library space

Considering the rapid growth rate in technological advancement, demands on academic libraries are that they remain focused on new innovative initiatives to meet the ongoing needs of its users. The conventional academic library will continually be in competition with the several virtual institutions that have mushroomed overnight. Given this evolutionary state of information technology, there will be a continual demand for quality online or e-resources and research support initiatives.

It is without doubt that the academic library will have to continually develop creative funding strategies to maintain the adaptation of its existing space. The entire debate of the print versus electronic medium will continue to place the issue of space in academic libraries under the microscope. Several reviews of Information Commons are indicating that academic libraries are using an adapted version to transform their services and physical space to better fulfill their mission to foster learning and to support the educational goals of the parent institution.

The future of the academic library will continue to be molded by the demands of its users and driven by technology's dynamic rate of change. To remain viable, the future library must provide

the resources students need along with the physical amenities expected, whether skilled research assistance, the latest technology or comfortable study spaces. One of the main aims stipulated by the mission of the Stellenbosch RC is that "it aims to enhance the Library's contribution to accelerating postgraduate through-put and increasing research output by providing an environment conducive for research exchange, production and scholarly debate" (Van Wyk, 2011).

2.9 Learning environments and academic libraries

The researcher assumes that within the mission of the RC resides the purpose of being a learning environment. The researcher further anticipates that this facility could promote or facilitate learning. From the literature review and theoretical investigations within study it is evident that learning environments influence teaching and learning (Barton & Weismantel, 2007; D. R. Beagle, et al., 2006; Bodnar, 2009; Brown & Long, 2006; Davis & Somerville, 2006; Delanty, 1999; Himmel, 2001; Holzman, 2009; Vygotsky, 1978). According to Simons (2011), "space can have a significant impact on teaching and learning". Given the process that I have participated in and experienced, I am of the opinion that a learning environment serves to bring together key stakeholders in the teaching and learning process. In the context of the RC, this could be paralleled to the connection be the EU to the various elements within the RC and the learning experiences that takes place through this interactions.

The RC, with all that it has to offer can be easily compared to the "personal learning environment", (PLE) (Rubin, 2011). Importantly, Rubin (2011) describes the PLEs as "tools, communities and services" that enables learners to attain their educational goals. These 'tools, communities and services', can be likened to the computers and electronic resources, peers and librarians respectively that contribute to the research endeavour of the EU in the RC.

The Commons has attracted users not merely by meeting their needs but also by bringing together the elements of "technology, content and services" (Brown & Long, 2006, p. 9.1) under a distinctive space and environment. Literature on the Commons indicates that this service is not just about the provision of information but it offers an all-inclusive and seamless user service. In the case of the RC it delivers support in the research related domain.

Creating or promoting the link between the commons and the component of learning can present challenges. It is evident that for the environment to stimulate learning there needs to be substantial collaborative efforts on the parts of both the Academic libraries and Faculty. (Brown & Long, 2006). In highlighting the role of learning within the RC, the researcher anticipates that it

could justify its presence on different campuses. According to Mudavanhu's study (2008), the environment within which students function has important implications for student development. She further states that the design of the environment should "promote student development without discrimination of any form" (Mudavanhu, 2008, p. vi). The researcher views this as an important aspect and assumes that the RC could very easily be misconstrued as a prejudiced service owing to its select patronage clauses.

So what will the academic library of the future resemble? Will it be a constantly evolving information resource with skilled staff, fast and flexible access to digital and print information set within a comfortable and supportive environment that promotes and encourages scholarly research or will it become the virtual, faceless academic library of tomorrow? The researcher is inclined to think that the needs of teaching and learning could very well dictate the future environment of the academic library. As new technologies are increasingly informing the learning experience academic libraries have to seriously consider their role in meeting the needs of their academic community. (Freeman, 2005).

2.10 Summary of the chapter

The researcher attempted to create an overall picture of the state of the knowledge about the topic being researched. In doing so the researcher looked at the various components that lend clarity to the Common's concept, it's applicability to the RC and its role in South African academic libraries. Further, the researcher looked at the information needs of an academic library EUs and its impact on research support by academic libraries. The researcher further attempted to present and describe how the EU fits into this picture by highlighting their changing needs and the changes in the information economy that have contributed to the re-adaptation of academic library space. In this study the RC is viewed as a learning space, the researcher therefore attempted to provide a background into learning environments in academic libraries. The researcher also presented a snapshot of the future trends of space usage in academic libraries.

CHAPTER THREE: RESEARCH DESIGN, METHODOLOGY AND METHODS

3.1   Introduction

In this chapter the researcher will give an account of the research design and methodological approach of the study.   Further, the researcher will describe and explain the paradigm and theoretical framework within which the study is situated.   This will be accompanied by a description of the chosen methods used in the investigation and the collection of data. The findings of the study are intended to provide library management with a clearer understanding of how the RC is experienced by its EUs and further to be used as a guide to perhaps enhancing the facility and in doing so contributing to the bigger picture of improving scholarly research.

3.2   Research design

The theoretical framework within which the study is situated is a major component in the design of any research enquiry and forms the base from which the subsequent stages of the investigation evolves.   The theoretical framework of this study is guided by the collection of readings that were pertinent to the topic of the Commons. It further included information resourced about Academic library usage and its users with particular reference to changing trends. "Research designs are tailored to address different kinds of questions" (Henning, Van Rensburg, & Smit, 2004, p. 30), hence the type of design is dictated by the type of research problems. For this study the researcher in wanting to establish the experiences of EUs, found herself having to ask associated questions to gain a better understanding of these experiences. The researcher's line of questioning was qualitative as there was a need to investigate feelings, behaviour and practices of the EU's involvement in the RC.

The researcher's understanding of qualitative research is that it is typified by rich and deep description; hence, the play on language will determine how meanings of concepts are constructed to coherently present findings of data analysis.

This research is situated in a qualitative research paradigm and emphasis is placed on the experiences of EUs and the interpretation thereof. Working within an interpretivist framework presents the researcher with an opportunity to produce "descriptive analyses that emphasize deep, interpretive understanding of social phenomena" (Henning, Gravett, & Van Rensburg, 2002, p. 21), hence its appropriateness for this study. It is anticipated that this study could reveal an element of development through the experiences in the RC.   A fundamental assumption of this paradigm alludes to the fact that "individuals are not considered to be passive vehicles in social, political and historical affairs, but have certain inner capabilities which can allow for

judgments, perceptions and decision-making autonomy" (Garrick, 1999, p. 149). The researcher is inclined to think that it is these 'inner capabilities' which may influence one's potential development.

3.3 Methodology and theoretical framework

In acknowledging a qualitative approach, the researcher realized that the case study is often useful as an exploratory technique (Powell & Connoway, 2004). Case studies involve intensive analyses of a small number of subjects and provides a "unique example of real people in real situations" (Cohen, Manion, & Morrison, 2001, p. 181).   Further, different data collection techniques can be used in case studies as is typical of this study.

The uniqueness of this situation would be the Research Commons which is exclusive to the EGM Library at the University of KwaZulu-Natal. Even though there are other RCs in South Africa, they are not from within the province of KwaZulu-Natal.   As a research strategy, the case study is used in various research encounters to "contribute to our knowledge of individual, group, organizational, social, political and related phenomena" (Yin, 2003, p. 1). Consequently, from the above statement, the case study strategy was the most appropriate way in which the researcher could explore this topic. This study is investigating the experiences of a group of subjects (EUs) in relation to related phenomena (RC) within an organization (UKZN).

The theoretical framework of this study is two-pronged. Firstly, I have decided to focus on Vygotsky's social constructivist theory with particular reference to "learning through collaboration of social interaction or peer learning" (O'Donnell & King, 1999, p. 39), that ties in with the focus of the study, which is interpreting and understanding the experiences of EUs within a particular setting.

In this study, the RC is viewed as the educational support i.e.: the environment. A claim by Vygotsky that "humans are born with considerable intellectual abilities: their major development tasks are to do with coming to terms with the cultural artifacts that permeate the **environment** given to them" (Sheehy, 2004, p. 189), serves to support the focus of this study which looks at experiences of EUs having a link to the RC as the environment. Within the environment of the RC, there are several elements with which the EUs interact and it is this interaction that could impact on their experiences of the environment (RC). Of paramount importance is the "creation of a suitable social environment for learning" (Vygotsky, 1978, p. 85), hence the appropriateness to this study of the EUs experiences at the RC.

A further concept of Vygotsky's theory on development which also lends itself to this study, is the "scaffolding-type zone of proximal development" (ZPD) (Holzman, 2009, p. 113). In terms of the EU, key to this zone, is developmental progress and learning determined by the "surrounding culture" (Salkind, 2004, p. 280). The researcher anticipates that this 'surrounding culture' could be associated with the prevailing environment in the RC. EUs in their experiences of the RC come into contact with various elements that are intended to equip them in becoming independent researchers. In drawing from the analogy of the adult and child in the scaffolding ZPD, the researcher views the librarian as the adult and the aid; and the EU as the "child" and the less capable. The researcher assumes that this relationship mirrors the apprentice-master model and it may present an opportunity for librarians who seek to impart the necessary skills to EUs with the intention of creating independent learners. This relationship between the academic librarian and the EU ideally should serve to enable the EU to go beyond their developmental level and create new learning. The researcher is inclined to think that because there is no formal connection between the two (Librarian and EU), being an 'apprentice' may inhibit new learning on the part of the EU.

Secondly, theory relating to organizational development or change is crucial to this study considering that the transformation in learning spaces at Academic libraries is a direct result of a change in organizational development within Academic libraries. Previously, prior to the 1980's, change in institutions of higher learning was described as moving "at a glacial pace" (Sidorko, 2008, p. 307). Today organizational change is indeed one of the most influential spinoffs from dynamic technological knowledge domain which has "transformed the way users approach learning and the use of the library" (Forrest & Hinchliffe, 2005, p. 296). According to Schwartz (1997, p. 154), because of the impact of technological change it has become imperative to rethink organizational development in Academic libraries. Organizational development pre-empts organizational change and inherent in these changes one would encounter various organizational stresses. In the case of this study, the institution of the RC was viewed as a form of organizational development, enhancing the support function of the research domain. Owing to this development, staffing, structure and resources experienced changes which required adaptation of current work practices.

In explaining the elements of organizational change, the researcher further suggests the applicability of Kotter's model for change in libraries and " the sense of urgency" ("University of KwaZulu-Natal Library: Mission, vision and strategic goals, 2007 to 2011 –Status Report," 2007, p. 95) and how it impacts the user. This urgency can be communicated as the impact that

technology has had on the way libraries exist. The researcher is inclined to think that organizational change in libraries could also have a bearing on the experiences of the user. Library management needs to be cognizant of the user behaviour patterns when considering change in the library. There are still many library users who are caught in this hybrid state of using print together with electronic materials and there are others who have graduated to the complete electronic state.

Another important facet of Kotter's (1996) model is that it has to be supported by a team approach and this is typical of the case study in question. Librarians had to re-adapt their current job profiles to accommodate the change and introduction of this new feature in the library. The researcher strongly feels that these 'changes' could be material for further study in terms of how librarians respond to these changes and how they impact on their experiences. Key to Kotter's (1996) model is that the change process goes through a series of phases and critical mistakes and these phases can adversely or positively impact impetus for change. (Mento, Jones, & Dirndorfer, 2002, p. 45).

In view of this study, the researcher postulates that the process of change could be related to the experiences of the EUs of the RC. Events and activities in the RC could be a motivating factor for changes. Data in this study has revealed that the service in the RC during the weekend and after hours is compromised as there is no professional assistance (see section 4.2.1.2.3.). This could be factored into a change in the staffing structure which may address the need for support.

The researcher assumes that there is a relation between Vygotsky's perspective on the environment and learning and Kotter's perspective on organizational change and its effects. By this the researcher means that changes within the RC instituted by library management could influence the learning environment within the RC. For example, if the library decides to create seminar rooms in the RC, this could influence how EUs interact with their peers and could promote greater interaction and networking. The researcher further assumes that organizational change in the library is embarked on in order to create the necessary environment that could influence and support teaching and learning. The RC can therefore be viewed as an element of organizational change and an environment created for the enhancement of research support endeavour. Because this study seeks to examine the experiences of the EUs of the RC, it is viewed as an opportunity to use the knowledge gained about EUs experiences to prevent critical mistakes in the provision of an efficient research support function.

It is in the interests of this study that the researcher has sought to examine the experiences of the EUs in this 'changing' environment. With the "reconfiguring" (MacWhinnie, 2003, p. 241) of

physical space, libraries have been readapting to meet the new challenges, as in the case of the Research Commons. Educational research indicates that "students learn best in social environments" (Barton & Weismantel, 2007, p. 395), hence the basis of exploration into end-users of a particular learning environment, namely the RC. The above-mentioned theories, ideas and concepts are relevant to this study and the researcher is of the understanding that they support the view that the end-users learning environment influences their experiences. The researcher also feels that successful and conscious reconfiguration of the library spaces could result in a successful learning environment.

3.3.1   Advantages and disadvantages of the case study approach

The case study approach is not limited to a single source of data and this is typical of this study. Good cased studies benefit from "multiple sources of evidence" (Yin, 2012, p. 10). The researcher in recognizing that this is one of the important criteria of case studies was convinced in selecting this approach. As one of the advantages, the researcher is of the opinion that data gathered from various sources serves to provide a richer content for analysis and the researcher is thereby able to make more sound deductions. Further, in emphasizing the study of a phenomenon, in this case the RC, the researcher is attempting to place it in the real world context.

Considering that this is a baseline study, some may interpret using the case study approach as an "exploratory phase" (Yin, 2012, p. 5). In this case the disadvantage could be that the case study is merely viewed as a prelude to area of study. This may result in data not being viewed as important or serious and maybe dismissed for future studies.

3.4   Process of data collection

In answering the first key research question, *What are the experiences of the EUs,* data was collected in order to ascertain through interpretation an understanding of what the possible experiences of the EUs are, during their use of the RC. The researcher anticipated that the reasons and purpose for the EUs' visits to the RC could prompt differing behavior and in all probability generate varied experiences. According to the researcher, these experiences could range from the EUs' interactions with the physical environment to the electronic resources, to them networking with their peers or the Librarian on duty. From the data it is evident that there were similarities in EUs' responses to different elements of the RC. With regard to the issue of interruptions and connectivity, EUs displayed similar responses of frustration. Oddly enough, despite EUs having experienced these frustrations, they unanimously still maintained that the RC contributed positively to their research experiences (see section 4.2.3.2.5).

Consequently, this popularity has a direct link to the responses received from both the questionnaire and interviews which revealed an expressed the need to increase the number of computers in the RC. Data further shows that the most underutilized facility is the scanner. This underutilization could be attributed to the fact that the scanner is attached to the Librarian's computer and EUs require the assistance of the Librarian to conduct any scanning operation.

The researcher further acknowledges that in order to gain a deeper insight into the experiences of the EUs, it is necessary to understand the profile of the EUs. In order to achieve this, the researcher needs to lend clarity to the terminology or define exactly what an EU is and to identify who the patrons of this facility are, within the South African context, which provides answers to question two. A clear description of what constitutes an EU of this facility is offered in Chapter One (1.2.3) and from the data gathered in section 4.2.3.1.3, thereby addressing key research question 2, '*Who are the end-users of the Research Commons?*' The purpose of each EU's visit may differ and the researcher envisaged that these visits could dictate the nature of the EUs' experiences in their interaction with the elements of the space.

In respect of the third key research question, '*With what elements of the RC do the EUs interact?*', considering that there are several different elements available to the EU at the RC, the researcher posited that it was most important to establish what elements the EUs were interacting with in the facility. This could help the researcher estimate whether the EUs are using this learning space to its full capacity. In exploring how EUs interact with the elements of this space, the researcher could further highlight any challenges that may have been experienced. In terms of the EUs interactivity with the elements, the data revealed that the computers were the most frequent element that they interacted with. This could be indicative of the fact that the EUs are engaged in any number of computer related activities pertaining to their research. These could include searching on the electronic platforms or interacting with the different computer applications software in order to type their thesis.

The researcher acknowledged that the methods of participant observation, questionnaires and interviews served to best reflect the requirements for the fourth question, '*In what ways do the EUs interact with the elements?*' The researcher identified the need to gather data that would demonstrate first-hand and immediate activity within the RC hence the employment of this method. Through this method the researcher was able to gain a close and intimate comprehension of the EUs interactional activities of the RC which served to reveal their experiences.

Having established the methodology, the following process was to identify and elect the relevant techniques that would be most appropriate in collecting the essential data. At this point it becomes obligatory for the researcher to consider how the data will be solicited without committing ethical infringements. The researcher needs to also ensure that the elected methods should yield quality and trustworthy data. One way of maintaining this is for the researcher to use the method of triangulation. Triangulation can stimulate researchers to better explain, describe and analyze problems in research. (Jick, 1979, p. 210)

3.5   Triangulation

Triangulation according to Neuman (2004), is the idea that looking at something from multiple points of view improves accuracy. This serves to confirm that the use of multiple data gathering techniques further promotes precision and validity to the study. By employing more than one strategy in the data collection process, a researcher can provide more convincing and reliable conclusions. It is with this primary purpose that the researcher elected to employ three methods of data collection.

- Observations
- Questionnaires (manual and electronic)
- Interviews

According to Cohen (2007), the greatest use of triangulation pertains to the issue of validity rather than the   reliability check. Triangulation allows the researcher to be able to detect discrepancies within the collected data. Vast discrepancies may point to the invalidity of the data or it may make the researcher reconsider the data especially if it reveals something that is unexpected, however if these discrepancies are minimal then the researcher can confirm validity of the data. Triangulation provides that element of trustworthiness in the information which might verify each method but also allow for differences to be detected.

3.6   Participant sample and size

Prior to selecting a sample group to be studied, it is imperative for the researcher to define the population that will participate in the study.   According to Sapsford and Jupp (2006, p. 28), a sample is a set of elements selected in some way from a population. The researcher accepts this as an appropriate definition in order to identify the sample for this study. A sampling frame helps the researcher to identify the participating population of a study. In the case of this study the researcher has identified the sample population, defined firstly, by their level of postgraduate

study (Masters or Ph.D.) and secondly, their identities revealed through their access of the RC via the swipe card system.

In this study the main population is identified as all EUs of the RC without any distinction of any form. The main population was identified as those who had access and entered the RC. From this population, for the purpose of this study, a purposive sample had to be extracted or selected for each method of data collection. To reiterate, this study is intended to examine a part of the main population who are identified as EUs of the RC. It is this purposive sample of end-users of the RC that formed the sources of data for this study. They were selected from a database of users generated from the swipe card access system. This database of users listed all EUs of the RC from its inception to present day. The researcher further had the opportunity to select participants coincidentally eliminating the element of bias. Participants of the sample were used to generate data for this study by answering an online and paper-based questionnaire, and being participatory to an interview process.

From the main population selections were made as follows:
- First, those to be observed which included anyone that was in the facility at the time of the observation.
- Second, those EUs in the facility to answer the manual questionnaire
- Third, EUs selected for the electronic questionnaire
- Lastly, a selection of EUs for the interviews

For the purpose of the observation, end-users were identified as any person who had swiped their cards to gain access to the facility. These EUs could vary between students, academics, Librarian, visitors and alumni. Consequently, at any given point of an observation, the observed included every person that was active in the RC.

The researcher chose a sample size of 55 EUs to participate in the questionnaire. Twenty-five EUs were selected to answer the paper-based questionnaire and 30 EUs were selected for the electronic questionnaire from the database of EUs. A total of 25 manual questionnaires were handed to EUs within the RC and there was a 100% response rate. In section 3.8.2.2 a further discussion on the motivation of the sample size is presented.

In selecting the participants for the electronic questionnaire, 30 EUs were selected from the swipe access database according to their student numbers to participate in answering the electronic questionnaire. The researcher elected to select 30 EUs as she felt that a total of 55

respondents the questionnaire was adequate for the purpose of this study. An electronic link to the e-questionnaire was sent to each EU via their Groupwise email accounts enabling them to participate in the questionnaire electronically. Of the 30 EUs that were sent electronic questionnaires, the LimeSurvey software generated the following in terms of the response rate:

- 13 of the 30 EUs answered the e-questionnaire
- 9 EUs answered all questions and completed the questionnaire
- 4 EUs did not answer the open-ended questions of the questionnaire
- 15% of the sample of EUs selected completed the questionnaire
- In total, the questionnaire (both electronic and manual) was disseminated to 55 EUs.
- All 25 EUs responded to the manual questionnaire (100%)
- A total of 34 (62%) EUs, answered the questionnaire (25 manual and nine electronic).

For the purpose of the interview five EUs were selected from the database. No particular distinguishing criteria were used to select the EUs. The researcher was only able to ascertain each EU's enrolment year from their student numbers. This gave the researcher a guide as to how long each EU has been with the institution. The researcher then engaged in correspondence with them via email requesting their participation in the interview process. All five EUs positively responded to the request. They were then interviewed on separate days in the same venue at the HC library according to their availability and convenience.

Once again, the researcher selected different EUs who were not participatory to the questionnaire process. The researcher was able to eliminate the duplication by selecting different participants from the swipe access database. The researcher assumed that by targeting different EUs for the different methods of data collection this could perhaps provide a wider variety in terms of responses for the data collection. Access to the database of users facilitated in ensuring the validity of the sample. By this the researcher means that there was no repeat participation by any one EU in any of the employed data collection processes.

3.7   Ethical considerations of the researcher

"Respect for persons" (Cohen, Manion, & Morrison, 2011, p. 378) is viewed as one of the fundamental principles which gives rise to ethical requirements for informed consent. One of the key considerations in any research undertaking is the matter of obtaining access and ethical clearance from the relevant information holders in order to pursue a study. In light of this study the researcher established that no one person participating in this study was vulnerable or

disadvantaged in any way. The following in terms of ethical obligations were fulfilled and upheld by the researcher:

- In adhering to the principles of the *UKZN Research Ethics Policy* and *Code of Conduct for Research,* the researcher adopted suitable measures and implemented them. The researcher obtained permission to conduct the study from all key Gatekeepers and participants:

    - Director of Library Services   (APPENDIX B)
    - Deputy Dean: Students   (APPENDIX D)
    - Participants for each data collection process (APPENDICES: F, G, H)

- A formal application was lodged by the researcher and permission was obtained from the *UKZN Ethics Clearance Committee* (APPENDIX K)
- Participants' identities were anonymous and their contributions to the study were voluntary as stipulated in the consent forms
- Consent forms further provided an explanation into the research endeavour
- In ensuring anonymity, all collected data was securely placed in storage;
- Participants could exercise the choice to withdraw from the study at any time they deemed necessary; without having to provide any explanation and without negative consequences
- Credibility of the data collection instruments was maintained by providing credentials of the researcher and supervisor on each document of consent;

The participants of this study received no incentives for their participation in this study.

3.8   Methods of data collection

Data analysis encompasses the breakdown of the data into components that can be used to answer the research questions. Analysis of the collected data is only one part to the research process. It is the 'interpretation' of the results of each method that defines how the data has contributed to the study. One of the central purposes of analyzing data is to reduce data to an "intelligible and interpretable form" (Musoke, 2007), enabling researchers to draw conclusive deductions about the area being researched.

In an attempt to capture all EUs' experiences as accurately as possible, the researcher sought to employ three methods of data collection. For this study, ethical clearance was obtained from the Higher Degrees Committee of the UKZN and consent was granted from all role-players: the Director of Library Services (DOLS), The Director of Students and all EUs of the selected instruments of data collection as indicated 3.6

In justifying the three selected data collection methods, the researcher envisaged that:

- The semi-structured interview and the questionnaire would support the objectives of the study with more direct evidence about the EUs' experiences

- The semi-structured interview method could also offer the researcher the opportunity to ask probing questions to elicit direct responses to the questions. It further, offers flexibility to the researcher to look at the same aspect from three different angles considering that "the essences of research, after all, is concerned with the uncovering of what is not known" (Walford, 2001, p. 6).

- Since this is a qualitative study, participant observation in this instance is able to reveal complex interactions and behaviour of the EUs in the RC, allowing the researcher to systematically record events and analyze the activities using a coded thematic approach.

Further, the researcher felt that the adopted instruments serve to generate the most thorough and explicit indication in terms of the experiences of EUs with the elements, within the space of the RC. Upon interrogation, the researcher anticipated that these methods appeared to be the most appropriate in soliciting how and what the EUs experiences were in this learning space. In selecting the multi-method approach, the researcher attempts to offer the most appropriate explanation in support of the aims of this study. According to the researcher, the rationale in selecting this approach is motivated by achieving reliability and maintaining validity in the collected data.

3.8.1   Observations

As a research method, observation offers researchers several advantages in the process of data collection and the researcher views one of these as the opportunity to record information directly. In the case of this study the researcher was able to record information about the physical environment and the EU's behaviour within this space. During the observation sessions the researcher seized every opportunity and attempted to record as much of the activity that took place hoping to capture every essence of what actually happened during the observation sessions. In selecting the observation method the researcher sought not to only extract commonalities within each session, but also the differences that were inherent from one to the other. According to Gillham (2008), observations have an overpowering claim to validity because it deals with not what people claim that they do but what they actually do and it is this feature that lends itself to transparency. The researcher is inclined to think that the process of observation has its complexities and these can be manipulated by those being observed.

Participants in an observation session may appear to be engaged in research but whether the person is genuinely engaged is questionable. For example, the researcher may interpret an EU's interaction with computers to be research related, but how certain can the researcher be about the actual interaction which could possibly be totally unrelated to research. The researcher is further inclined to think that this type of scenario could lead to the researcher making several assumptions. This could indeed affect the validity of the observation process and the data generated. So whether observations reveal a true reflection of an event or situation is highly debatable.

For the purpose of this study the researcher selected the semi-structured observation method as she felt that it would generate richer qualitative information on the activities that transpired in the RC of EGM Library. The semi-structured format gave the researcher the opportunity to add matters that she deemed important to the observation. This indeed added a level of flexibility to the observation providing the researcher with an opportunity to render a more descriptive commentary.

The observation sessions took the form of "visual surveillance" (Leontiev, 2005, p. 147) which was recorded according to a structured observation schedule (see APPENDIX J). The researcher achieved a controlled observation in a direct manner by being unobtrusively positioned as a participant in the RC. In ascertaining behaviour patterns in terms of the EU's engagement with the elements of the RC, it was necessary for the researcher to structure each observation in the same way. This helped the researcher to make clearer deductions about differences or similarities that arose.

Observation of the EUs' interactions within the RC offered the researcher the opportunity to grasp an understanding of particular events that took place in the RC and how EUs responded to these events. The researcher strategically chose to conduct the observations at designated times because each timeframe was assumed to be profoundly different from the other and the researcher anticipated that it would generate varying data. Selecting these times enabled the researcher to draw substantial comparisons between the three sessions. The observations took place over the following periods:

- During term time
- On a weekend
- During vacation

Note: **EUs** in this section refers to those participants who were observed during the observation sessions.

3.8.1.1 Forms of observations

Observations can be distinguished in two ways. They could either be "structured and systematic or less-structured and qualitative" (Sapsford & Jupp, 2006, p. 57). In observational case studies the "primary data-gathering method is participant observation in a single information agency" (Fawcett & Garton, 2005, p. 51).

Unstructured observation is sometimes associated with participant observation. The most important characteristic of this form of observation is that the researcher does not work from a predetermined formula to measure or ascertain behaviour patterns. The data collection process allows for flexibility in gathering the data as the events unfold. So the observations in this study were not within a pre-determined or patterned framework.

In this study the researcher elected the semi-structured approach which enabled participant observation. Through this form of observation a substantial amount of qualitative data was collected which had to undergo a reduction process. Given that the observation was semi-structured, it made an allowance for flexibility in interpretation of events. The researcher was able to offer commentaries on the observations providing detailed descriptions of each observation session. The raw data was refined according to codes that were used to categorize and make the data easier to interpret.

Structured observations on the other hand provide data that is more quantitative, organized and statistical. This type of data could enable comparative studies to be undertaken. The observation schedule is formatted to enable swift analysis of data and does not allow room for flexibility. (Cohen, et al., 2007). Hence this form of observation was least desirable for the purpose of this study.

3.8.1.2 Advantages and disadvantages

Observation allows the researcher to record events and behaviour as it occurs. The researcher is inclined to assume that through observation a level of accuracy can be obtained in the data that is collected. As in the case of this study, this technique can also enable the researcher to examine the relative influence of many factors. The researcher, in this case was able to assess and observe how EUs' behaviours were influenced by certain occurrences within the RC. As an example, during one of the observation sessions, the researcher interpreted an EU's constant sighs and utterances as frustration with the erratic network connectivity problems experienced in the RC. This was able to give the researcher a deeper understanding of the emotional experiences of the EUs.

This method has its demerits as well, however the most relevant limitation for the purposes of this study is that, the EUs could have changed their behaviours or responses had they been aware that they were being observed. Further, EUs could have appeared to be using the computers but the researcher could not be certain if the interaction was research related. If the researcher needed to establish precisely what the EUs were engaged in, the act of observing would have become obvious and this could have affected the EUs' behaviours. The researcher is inclined to think that the EUs would have been far less forthcoming about their frustrations and problems if they knew they were being observed. It is possible that they perhaps would have been a bit more subdued and passive. In order to overcome this, the researcher assumed the role of a participant observer. The researcher assumed the role as one of the EUs in the RC and in doing so avoided being conspicuous. Had this not been done, the observation session would have perhaps generated inaccurate and inconsistent representations of the events in the RC.

Permission to conduct the observation sessions was secured from the DOL allowing for the research of the RC. In terms of observing the population in the RC, consent was granted by the Dean of Students allowing for the study of the EUs (see APPENDICES A-D).

For the purposes of this study observation has been used as a measure in "trying to understand an ongoing behaviour, process, unfolding situation or event" (Taylor-Powell & Steele, 1996). Reliability in observation can be linked to the fact that the results of certain actions are the same on different occasions. In qualitative study, "the researcher fills the role as an instrument of measurement" (Fawcett & Garton, 2005, p. 58). As one of the secondary limitations to this study, "observations are inevitably filtered through interpretative lens of the observer" (Sapsford & Jupp, 2006, p. 60). The role of the researcher without a doubt, impacts on the representation of the reality of any event.

In this study, three sessions of onsite observations, were conducted at specific times.
- Observation One weekday   8:00-17:00   during second term   (08/08/2011)
- Observation Two weekend   8:00-17:00   during second term   (20/08/2011)
- Observation Three weekday   8:00-17:00   September 2010 vacation   (29/09/2011)

The researcher elected to keep to the specified times because 8.00-17.00 signified a complete business day. For the duration of each observation, the researcher occupied a laptop space in the RC and assumed what you could call a covert position as one of the EUs. This allowed the researcher to unobtrusively conduct the observation. Permission to conduct the observations

was secured from the respective role players (see APPENDIX B and D). Each observation was conducted with a 'semi-structured' observation schedule (see APPENDIX J). The structure of the schedule comprised of elements and categories to be observed. The design of the schedule further allowed the researcher the opportunity to gather both quantitative and qualitative data. The semi-structured schedule allowed for the researcher to note down and describe in greater detail any events which could provide more substance to be qualitatively analysed. Semi-structured observation aims to "produce detailed, qualitative descriptions of human behavior that illuminate social meanings and shared culture" (Sapsford & Jupp, 2006, p. 62). This very aptly defines what the researcher hoped to achieve by employing this method.

3.8.2   Questionnaires

A questionnaire is one of the many instruments that can be used to generate data for survey research. The purpose of the research was to gain valid and reliable information so that certain deductions and conclusions could be reached. This can only be achieved if the structure of the questionnaire is sound. An advantage of the questionnaire is that it provides EUs the opportunity to contribute candidly to the study, whilst remaining anonymous. Data using this method can be collected "orally or written" (De Vries, 2000, p. 239). Questionnaires further allow the researcher to gather a substantially large amount of data within a short space of time. However, all of the above are dependent on the commitment of the participant and the time limits set by the researcher.

For the purpose of this study the researcher elected to use a semi-structured questionnaire. Again, keeping in mind that this study is situated in a qualitative paradigm, the use of a rigid structure would not have had the desired effect in ascertaining the necessary data for all 4 of the research questions. In designing the questionnaire the researcher wanted to establish certain quantitative variables that required measurement for the study, hence there were structured closed questions included in the questionnaire. The researcher also included a variety of questions that were able to generate quantitative and qualitative data as required for the purposes of the study.

Note: **EUs** in this section refers to those participants who answered the questionnaire.

3.8.2.1 Forms of questionnaires and types of questions

A good questionnaire is designed with its primary focus being to address the research questions and the objectives of the study. Over and above, in structuring the questionnaire, it is obligatory that the questions are elegant and efficient, in respect of grammar for ease of comprehension and its appropriateness in deriving the desired data. (Davies, 2007).

The types of questions that populate a questionnaire are dictated by the research questions and the paradigm within which the study resides. (Vanderburg, 2006, p. 33). A questionnaire could consist of any of the following: closed or fixed questions, open or unstructured questions and information questions each generating different data as guided by the research approach, objectives and purpose of the study.

3.8.2.2 Advantages and disadvantages of the questionnaire

The researcher assumes that questionnaires tend to encourage frank answers. This is largely because of the anonymity element and respondents may also answer the questionnaire in their own space with no interference of the researcher. With questionnaires large amounts of data can be collected over a short period of time. The researcher acknowledges that a limitation of the questionnaire as a survey instrument is that depth of understanding is restricted. In order to circumvent this problem, interviews and observations were conducted to solicit the appropriate information thereby complementing the data gathered from the questionnaire. As in the case of this study, the researcher used a questionnaire and included both open and closed ended questions. This generated qualitative information but the researcher also supplemented the effort in collecting qualitative data by employing interviews and observations.

3.8.2.3 Administering of questionnaires

The paper-based questionnaire was administered manually on the 4th of August 2011. The researcher by choice selected a sample size of 25 EUs and fortunately on the respective day of dissemination, there were 25 EUs present in the RC. There was a 100% response to this data collection process. All questions were fully completed by the responding EUs. There were no spoilt, incomplete or incorrectly answered questionnaires. The researcher selected 25 for this exercise as she felt that it was an appropriate size considering that the RC accommodates 25 EUs at one sitting. Hence the researcher was assured that a sample of 25 EUs was easily attainable for participation in answering the questionnaire.

Through UKZN's ICT department, the researcher was able to setup and upload an online form of the manual questionnaire using the open source LimeSurvey software. This was done to facilitate access for those EUs who would be selected to participate in electronically answering the questionnaire. The questionnaire was available over a month long period from 1st to the 30th of September, 2011 for any of the selected 30 EUs to answer. In view of the electronic questionnaire, some of the questions had to be adjusted accordingly to facilitate for its display limitations on the software. The following were also limitations in the use of the online survey:

- Incomplete responses: some EUs abandoned the answering process in the middle of the questionnaire resulting in inconclusive data being collected
- The request for the EU's participation was emailed. The researcher was able to track the activity of the mails however this was not a true reflection of the responses to the electronic questionnaire. Even though the EUs received and read the mail it did not necessarily mean that they participated in the survey. Upon tracking the mails the researcher identified that all 30 EUs received, opened and read the mail. Analysis of the response rate is discussed in section 3.6.
- Data collected was exported into SPSS for analysis. The researcher encountered problems with the licensing of this software and had to enlist the help of ICT to resolve the matter and successfully proceed with the data analysis.

According to criteria explained in section 3.6, the sample group of 30 was selected from the database of users and each was sent an email with an electronic link to the questionnaire. Justification and choice of the sample group of EUs is discussed under 3.6. In total, the sample population that participated in the questionnaire method, both manual and electronic, amounted to 55. The researcher exercised extreme caution when selecting both of the sample groups to avoid questioning the same EU twice. The questionnaire contained a combination of open and close-ended questions which were anticipated would generate qualitative and quantitative data for analysis.

3.8.2.4   Pre-tests of questionnaires

Once constructed, it is imperative that the questionnaire undergoes a pilot run or pre-test before it is administered. It is important that this pretest is conducted among a population that is similar to the sample. Pilot testing of questionnaires helps to give the researcher an opportunity to address any anomalies that may occur in the answering of the questions. It further allows the researcher to amend his or her line of questioning so that the questions are easily understood. For the purpose of this study the researcher tested the questionnaire on four PGs from the RC. Three open-ended questions were found to be ambiguous and had to be re-worded.

This step in the data collection process ensures that the questionnaire will be checked for clarity and most importantly, this increases the reliability, validity and practicability of the questionnaire (Cohen, et al., 2007; Marshall & Rossman, 2011; Savin-Baden & Major, 2010).

3.8.3 Interviews

As with survey research, the purpose is to "acquire current information" (Leontiev, 2005, p. 77) and in view of this purpose the interview suffices as a valuable tool in the collection of data. The purpose of interviewing is to find out what is in and on a person's mind and to access the perspective within which a person forms their opinions. Access to this type of information allows the researcher to draw more conclusively on how and why EUs experience certain situations in a particular way. The researcher is inclined to think that interviews are conducted when researchers cannot establish sufficient data through direct observation and this consequently makes up for the aspects that observation alone cannot achieve. Elements such as thoughts, feelings and experiences are difficult to physically detect and can only be revealed if asked about.

The researcher used this method in collaboration with other data collection methods, and felt that this method would help to elicit significantly more detailed answers pertinent to the experiences of the EUs. The approach of conversation analysis was used by the researcher in order to gain an organized and holistic overview of the data generated from this method. In analyzing content, the researcher is able to identify recurrent instances which repeat themselves across the spectrum of the responses. This pattern formation in the content then helps the researcher to make certain deductions.

Note: EUs in this section refers to those participants who were interviewed.

3.8.3.1 Interview strategies

Qualitative interviewing is a way of uncovering and exploring the meanings that people attach to issues as well as their feelings. According to Patton (2002, p. 342), there are four basic approaches to collecting data from open-ended interviews. Firstly, informal conversational interviews follow an unstructured format and offer the researcher/ interviewer flexibility during the process of the interview. Secondly, the standardized open-ended interview as an approach is typified by a structured interview questions but allows for a degree of probing by the researcher. Thirdly, the approach of a general interview guide is prepared by researchers to "ensure that the same basic lines of enquiry are pursued with each EU" (Patton, 2002, p. 343). Lastly, the closed-fixed response interview follows the prescription of questions and responses prepared in advance. In this approach the responses are preset for EUs and does not allow for personal contributions to data collections.

For the purpose of this study, the researcher chose individual interviews and adopted a semi-structured open-ended interview approach with a "proviso of guidance by the interviewer"

(Henning, et al., 2004, p. 53). The researcher used this approach as one of its advantages is that since each EUs answers the same question, it "increases comparability" (Patton, 2002, p. 349). In order to analyze the transcripts of the EUs responses the researcher identified core themes that presented in the responses. In this study the researcher adopted the "non-standardized interview" (Henning, et al., 2004, p. 57). Interviews were conducted and audio-recorded at a designated venue at the EGM Library.

This form of interviewing allows the EU to engage in conversation that will expose their experiences. One of the advantages that follow on from this approach to interviewing is that the interviewer is presented with the opportunity to probe and in the process 'guide' the responses from the EU so as to prevent any deviation from the topic under discussion. Given that this study aims to delve into experiences, this approach offered the researcher the most lucrative method of tapping into valid and reliable data within boundaries of what the EU would and would not allow.

3.8.3.2   Advantages and disadvantages of interviews

Interviews are communicative events aimed at finding out what participants think, know and feel about particular situations and events and it served the purposes of this study appropriately. The aim of the interview was to gain an understanding of the EUs perspectives of their experiences of the RC. It is for this reason that the researcher elected to employ a semi-structured interview that enabled the researcher to improvise follow-up or probing questions and to further explore meanings and other issues that radiate from mere engagement in conversation. The researcher was able to improvise questions to solicit the desired information.

Semi or unstructured interviews may prove disadvantageous as EUs could go off at a tangent in their explanations, leaving the researcher without collecting the necessary data.   Skill in interviewing is another crucial element that could determine the success or failure of the information sharing session. There are claims that interviewing within the family of research approaches is "also a deceptive method" (Arksey & Knight, 1999, p. 1). Certain EUs, depending on the sensitivity of the topic, may not want to reveal the truth about a situation for fear of disclosure. This could full well influence the results of this method. In order to prevent this situation from arising in this study, the researcher assured each EU of the confidentiality agreement and informed consent. Further, every EU was treated equitably in terms of the being interviewed in a safe and comfortable environment.

3.9   Evaluation of methods

"The researcher is the instrument" (Patton, 2002, p. 14) of measurement in qualitative research and the credibility of the qualitative methods depends extensively on the skill and ability of the person conducting the data collection. Crucial to any research endeavour is whether the selected methods of data collection are likely to be reliable and valid. Data needs to have value embedded in it, and then only can it be an admissible form of reliable data. For this study the reliability was enhanced through the method of triangulation. The researcher further employed content analysis which is based on examination of the data for recurrent instances of some kind to corroborate findings in the data. (Silverman, 2011, p. 170)

3.10   Summary of the chapter

This chapter discussed and presented the research methodology and techniques used in this study. The researcher adopted a survey approach in this study examining a purposive sample group of EUs experiences of the RC. The researcher used a multi-method approach to gather data from the sample of EUs. Questionnaires were disseminated to the participants manually and electronically, an interview of a selected group of EUs was conducted and lastly, three observation sessions were conducted onsite at the RC.

CHAPTER FOUR: DATA COLLECTION: ANALYSIS AND INTERPRETATION

4.1   Introduction

Data collection is the "soul of a study" (Van Wyk, 2011, p. 208)   The elements of validity and reliability depend on the accuracy of the collected data. The researcher concurs that no single method of data collection is superior at generation than the other. Hence, for this study the researcher has elected to employ three methods, each for their own merits and to further lend the element of credibility to the collected data.

In respect of the reliability of the data collected, the researcher has to take into consideration the circumstances surrounding the actual act of the data collection. For example, a researcher would have to be considerate to a participant's emotional state when either, interviewing them or requesting their response to a questionnaire. Participants' states of mind could very readily influence the manner in which they respond, thereby altering the reliability of the data. This acts as a catalyst in the choice of the multi-method approach by the researcher.

4.2   Method of analysis and coding of data

For the purpose of this study the data collected from the three observation sessions, a questionnaire (electronic and manual) and interviews of five EUs were analytically approached in the following ways:

- The observation sessions were evaluated and analysed using a semi-structured observation schedule. The researcher formulated the observation schedule capturing various areas of observation pertaining to the activity and interactivity by the EUs in the RC. In order to filter and categorize the data so that it was easier to analyze, the researcher used a list of categories for the data reduction process (see APPENDIX J). Data collected from such an observation presents a descriptive picture thus the data helps to broaden the description and assist in the interpretation.

- The responses obtained from the interview process were coded thematically and analysed. The researcher employed the same format of data reduction (see APPENDIX H) as with the observations sessions. Each EU's response was looked at in terms of commonalities and differences to reflect on the validity and reliability of the data.

- Analysis of the responses received from the questionnaire, both electronic and manual were treated with a two-pronged approach. This was done based on the fact that the structure of the questions was both qualitative and quantitative, hence

each category had to be analysed accordingly. Quantitative data was statistically analysed using the SPSS programme to generate frequency tables, cross tabulations using different variables, figures and graphs. The researcher used a thematic approach in analyzing the qualitative data that was generated from the open-ended questions.

4.2.1   Observations

The researcher decided to use observations as a method to further enhance the approach to this descriptive study and anticipated that it would yield a richer source of data pertinent to the experiences of the EUs. It has also been used to complement the 2 other elected methods of research providing a more holistic picture of the actual activities in the RC and can confirm what results may emanate from the interview and questionnaire.

4.2.1.1 Analysis of time of observation

The first observation session was specifically chosen to be the first day of the third term. There was anticipation, on the part of the researcher that several PGs would be starting their research for their respective topics of investigation. Students were still settling in with registration and enrolment especially the new students. New PGs were attending library orientation sessions.

The second observation session took place on a weekend during term time. The intention was to establish any marked differences or similarities in the activities that took place or how EUs interacted and responded to the elements of the RC during the week as opposed to the weekend, more especially since there was no Librarian available on duty at the RC on the weekends.

For the third observation session was during the September mid-term vacation. The researcher anticipated a significant change in usage patterns during this time and therefore sought to conduct an observation session. The researcher specifically chose this time as during this vacation the library does not get any quieter instead it gets busy as many start to prepare for upcoming examinations.

4.2.1.2 Emerging themes from three observation sessions and analysis

During the three differently timed observations the researcher was able to gain a general insight into what ways the EUs interacted with the various elements of the RC. The terminology 'elements' is explained by the researcher in section 1.2.4.

4.2.1.2.1   Usage of computers and space

During the first session the space is significantly well used and all 18 desktops and all allocated laptop workspaces are occupied by EUs throughout the entire time of the observation. Some EUs wait for the use of the desktops and whilst waiting they engage in some research with the print collection of the RC. It is apparent that even though the EUs do not get a computer they refrain from wasting time and use this time to engage with the print collection to supplement their research. Laptop EUs do not spend excessive amounts of time in the facility. They stay for a short while, leave and return later to continue with their research. Laptop EUs appear to be interacting with the print collection and the printing facilities of the RC. Laptops that are used belong to EUs.   At any given point in time of the observation all desktops are in use. It is noted that the EUs interact with the computers to access the databases and the internet for pertinent information on their research topics. In order for EUs to access printing and scanning facilities they need to engage with the computers.

Considering that the second session was during a weekend, the researcher anticipated that the RC could be relatively underutilized. On the contrary, however, all desktops were occupied from 8.30am. Significantly enough there were no EUs with laptops. Toward the second half of the day four EUs joined the space with their laptops.   The number of EUs whittles down to six from 18 towards the close of day at 17.00. Some EUs complain that it is stuffy in the room. An EU enquires about a discussion room from one of the others. The EU eventually goes to issue-desk and is able to get a group study room. He returns and leaves with one other EU with whom it appears he will be working.

Notably the EUs seemed to be more focused on using the computer software. Generally they were found to be accessing research domains and databases. The researcher is inclined to think that this interaction could contribute to an improved research process. The researcher acknowledges that during the observation it is difficult to distinguish what type of EU is present in the RC. Hence the researcher was unable to tell if the EUs were staff, students, part-time or full-time or from the residences on the HC campus. Per chance the researcher overhears a conversation between two EUs that indicates they are part-time students.

The researcher further notes the extensive use of the desktop computers. This could possibly indicate that the EUs perhaps do not have access to computers elsewhere, off-campus or in their homes. The researcher is inclined to think that had these EUs computer access in their places of residence, there is a possibility that the RC would perhaps not be so extensively patronized.

However, the responses to the interview process indicated that the use of computers were one of the attractions of EUs to the RC. Responses received in the questionnaires point overwhelmingly that there is a dire need for more computers to facilitate increased access for EUs. EUs further noted in the questionnaire that they on occasion had to wait in a queue to use the computers. For the researcher this speaks volumes in terms of the extensive utilization of the computers and its software. (See section 4.2.3.1.6 supporting use of computers and e-resources.)

The EUs indeed adjust this space to suit their own comfort levels. Lounging furniture and ottomans are used to relax on and read or work on their laptops. The EUs at the workstations use the ottomans to rest their feet. Some EUs recline in their chairs whilst at the workstations and take a breather. Overall, the researcher is inclined to think that although the RC has fixed furniture and fittings there are other items that the EUs use to create their 'own' comfortable space (see APPENDIX L11 that depicts casual seating areas for EUs who may want to relax and read or use their laptops). Responses to the questionnaires indicated that one of the most appealing things about the RC was the environment and its conduciveness to doing research. (see figure 4.2 N) which lists the 'designated space' as an appealing feature of the RC and in section 4.2.3.2.2.2 a more relaxed atmosphere requested by the EUs.)

It appears that the use of the RC is not 'only' about the physical elements, computers, collection and electronic resources but also about the aesthetical appeal and the effect it could be having on the mental states of the EUs. From the literature it is evident that the physical learning environment brings to bear great influence on the experiences of the EUs (Brown & Long, 2006; Freeman, 2005; Mudavanhu, 2008; Rubin, 2011; Simons, 2011), the researcher is inclined to think that one of the key elements of the RC is the comfort of the space.

The third session occurring during the vacation commences with three EUs in the RC. The number climbed to six around 9:30 and steadily increased to a maximum of 14 EUs. After 17:30 the numbers decreased to five. The drop in attendance could be attributed to an electric thunderstorm that was looming. One EU is working with both their desktop and laptop. The EU appears to be downloading some applications whilst typing up a document in Word on the

desktop. The researcher observes that the EU is downloading EndNote, bibliographic management software that is necessary for referencing. The researcher assumes that the EU is downloading EndNote so that he can have access to it when he is not in the RC. The RC computers are regularly defragmented and maintained. All unnecessary software is uninstalled and deleted. The EUs need to keep in mind that the computers are used by many EUs, as indicated Figure 4.2 L which demonstrates the extensive use of the computers in the RC; hence they may not personalize the software on any of the desktops as these cannot remain fixed.

In terms of usage of the computers and the space, the researcher anticipated that differently scheduled timeframes for the observation sessions would generate varying data. However, no significant differences were noted. The RC, at any given point in time of all three observation sessions, was well used. The researcher interprets this element of usage as a cue that, irrespective of the time factor the RC is patronized to its full capacity by desktop and laptop EUs. Observations of interactions between the EUs and the Librarian indicate that the Librarian provides guidance and instruction on how to search the internet and databases, skillfully using certain techniques in conjunction with the bibliographic software, RefWorks.

4.2.1.2.2 Usage of print collections

The print collections of both the main library and the RC are extensively used (see APPENDIX L6 that depicts a collection of reference material pertaining to research in the various disciplines). The RC has its own collection of reference books that are specific to the domain of research. EUs are cautioned by the Librarian to refrain from bringing reference books from the main library into the RC. This occurred twice during the three observation sessions. Many EUs refer to books on research methodology whilst others refer to books that provide guidance in the writing up of the dissertation. By bringing in books from the main section of the library, the mainstream library user is denied access to these books that are now in the possession of the RC EU but not issued to the EU.

A book that is not on the shelf and not issued to any user is as good as lost. It is important to note that the main section of the library and the RC are two separate entities and the RC has its own collection of research reference books. The researcher is inclined to feel that this situation may lead to some tension between the mainstream library user and the EU of the RC. Perhaps it needs to be stressed to the EUs of the RC that books need to be issued to them and then brought into the RC. This will avoid the problem of library staff not being able to account for any given book. A further observation notes that all books on statistical analysis such as SPSS and NVivo are consulted and extensively used by the EUs.

Often, EUs bring in books from the main library and use them in conjunction with the collection in the RC to support their research topic. A substantial number of theses that are brought in are on respective topics that EUs are researching. This probably indicates that EUs are looking at other research that has been conducted in the field of study for the literature review. There was a notable use of dictionaries and a few books on research methodology. Twelve theses were brought in from the main library all dealing with HIV/AIDS and community participation.

In all three sessions it was noted that, the main library as well as the RC's print collection was extensively referred to by the EUs. This is supported by the data in Figure 4.2 L which indicates 17.17% of the sample of EUs interacted with the print collection of the RC. The researcher is inclined to think that EUs do not only make use of the electronic information but also consult with the print.

The difference however, was that on certain days particular types of material were consulted. During the weekend session several print versions of theses were brought into the RC. The researcher assumes that the EUs are perhaps unaware of access to electronic theses via ResearchSpace, a digital repository of theses on the library website. Notably, during 2 sessions several books on the research process and research methodology were consulted. The researcher puts this varying consultation pattern down to the fact that the RC is patronized by EUs with different needs which dictates with what print material they interact. It is also possible that each EU is at a different stage in the research process. The use of books from disciplines can be linked to the data in Table 4.2 G which validates the varied patronage of the RC from EUs across various disciplines.

4.2.1.2.3   Interaction with electronic software and equipment

EUs engage with several software packages and the electronic equipment. With reference to the software applications, these range from Microsoft applications to browsing of electronic databases off the library website. Whilst some EUs launched search engines such as Google with Internet Explorer, some selected Firefox as their web browser choice. Some EUs conduct their correspondence using their Groupwise or Gmail accounts. The researcher is inclined to think that it is important for EUs to be able to interact with the computers according to their own requirements and needs. It is possible that the Groupwise email account is restrictive and the Gmail accounts are not. Hence some EUs may want to send their search results to an account that can accommodate for large file items. Further, by having two email accounts you prevent any access problems especially when one or the other server is down.

Two EUs attempt to download software from the ICT software repository unsuccessfully. The Librarian establishes that there are certain administrator rights that need to be implemented before conducting the download. The Librarian refers the problem to the ICT helpdesk. The printers (see APPENDIX L7) are extensively used as several EUs print journal articles as well as chapters of their thesis. One EU requests the assistance of the Librarian to scan documents.

With these various technical devices available, one may ask whether or not this is merely a 'sophisticated' LAN. The researcher is inclined to think that having support academically, aesthetically and technically gives the RC that 'edge' to being different to the normal LAN.

According to Vygotsky (Van der Veer & Valsiner, 1991, p. 315), the "nature of the environment" has an influence on development. The researcher is inclined to assume that the environment of the RC may contribute to the experiences of EUs in their research endeavour as indicated in the responses from the questionnaire discussed in section 4.2.3.2.5.

An EU experiences problems with formatting a document on Microsoft Word. The EU engages a peer for assistance. The EU's problem is resolved after some discussion and trial. An EU attempts to download the software for the anti-virus, receives an error message and abandons the process. An EU comes in requiring access to the scanning facilities but is unable to use the scanner as it setup on the Librarian's computer. Different Microsoft applications are engaged with, the most common being Word 2010. Other applications include Powerpoint, Excel and Notepad. A few EUs who are on both the desktops and laptops appear to be actively engaged with Facebook. Some of the EUs are conducting Google searches.

Noticeably, not many EUs are using the library's website or other literary databases for their searches. It is quite evident that EUs who have not attended a user-education programme, do not necessarily possess the finer searching skills which may enhance their search results. Through the user-education programmes EUs get to understand the differences that lie in searching Google as opposed to Google Scholar. EUs need to be enlightened to the literary merits of the various electronic resources that are accessible via the library's website. The following quotes from interview responses serve to validate the importance of interaction with the Librarian in order to enhance searching skills:

- **EU ONE:** "Now, only after learning how to use some software packages for data analysis can I say that I am equipped to do other research".

- **EU TWO:** "I don't only use Google like I used to, I now know how to use the various databases".
- **EU THREE:** "And I also feel by attending this learning space I have skilled myself in certain research areas especially data analysis and writing and gaining a better understanding of the bibliographic reference tools"
- **EU FOUR:** "I have had to skill myself with the technical and electronic resources which I think is crucial in this day and age when doing research"
- **EU FIVE:** "There was always help with the technical side of things and librarians were keen to help with the searches and overall help with the research process. I am able to work confidently on my own after receiving the help from the librarians"

There is intermittent use of the printer. The Job Access with Speech (JAWS) programme is launched by an EU and has to be resolved by the Librarian. This programme is a computer screen reader program compatible for Microsoft Windows that allows blind and visually impaired users to read the screen using text-to-speech output. Other than this slight interruption there are no other computer programmes or equipment present any problems. Operations accessed ranged from Microsoft Office applications, Groupwise (email) and the web browser of choice was Internet Explorer. The technician had to be called in to attend to one of the computers that manifested some sort of virus.

Immediate attention to these types of problems is crucial as EUs research information and data run the risk of being lost or becoming corrupt. The technician confirms that this matter can only be resolved if the computer is re-imaged. The library has its own IT personnel who are able to assist with such problems. However, judging from the responses received on the problems experienced by EUs, most of the problems recorded were technical. The researcher is of the opinion that IT support in the RC is crucial, considering that there is sophisticated computer software and hardware that requires a technical understanding. Evidently, EUs need to be adequately computer literate to reap the benefits of the RC as majority of the elements, are embedded in the electronic component.

In terms of interaction with the electronic software and equipment, there are distinct differences in EUs' experiences during the different times of attendance. The researcher identified three main areas of concern. Absence of a Librarian during the weekend and after hours poses problems for EUs as their support is compromised and they find themselves having to consult with their peers for assistance. Librarians are only available in the RC Monday through to Friday. This study has generated data that indicates the need for overall improved support in the RC

after hours and over weekends. The researcher has noted this as one of the areas of concern that emanated from the study. (See section 4.2.3.2.4 highlighting problems EUs experienced.)

Second, the researcher observed that EUs who visit the RC in the weekend are predominantly part-time students. It is clear from their searching strategies that they have not been skilled in efficient search strategies. The researcher assumes that these EUs have perhaps not had the opportunity to attend any user-education sessions. From discussions in the interviews and questionnaire responses it is evident that EUs who had been taught how to skillfully search gained confidence and were able to independently proceed with their searches. From the researchers own experiences, there have been notable improvements in EU's searching skills once they have attended user education sessions. They tend to display more confidence and understand how to interpret search results more efficiently.

(Quote from EU31's response in questionnaire: "Enhances researching skills and keeping up to date with data for thesis").

Training in search strategies are offered as user-education sessions at the library but during the week. Hence, these students are continuing to use common search engines to support their research, whilst there are several databases with literary material that they can source to improve their research content. As indicated earlier, it is imperative for EUs to attend the user-education programmes to enhance their searching skills.

Third, the lack of technical support also appears to be a problem. IT problems vary and include problems with the printer, computer applications and software. The situation is exacerbated during the weekend as there is no IT support. Again, it is the part-timers who are faced with the dilemma of having to resolve their own issues. Evidently, the weekend observation session reveals that staffing and support of the RC during weekends and after hours is an area for concern.

4.2.1.2.4   Interaction with peers and Librarian

During the first session, EUs merely greet one another and noticeably there is no substantial interaction between them as all are completely absorbed by their work ranging from typing up of their papers or reading and searching for journal articles (see APPENDIX L5 that depicts EUs engaged in scholarly research). Their acknowledgement of each other is purely cordial and they seldom get into discussions with their peers about issues relating to their research. EUs interact with librarians for different reasons (see APPENDIX L9 that depicts EU's engagement with the embedded librarian who provides research support), and their interaction is typified by requests for help with the downloading of software to assistance with accessing databases and

information related issues. From the manner in which they confidently carry themselves within the RC it is clear that this group is made up of EUs who are studying full-time. Notably, after 16.00 there is no Librarian and an EU has a problem with the printer. The EU leaves to go to the LANs in Shepstone building.

During the weekend session there is plenty of engagement between EUs and others. It appears as though many of the visiting EUs are part-time students and are only able to come to the RC on the weekends and find this an opportune time to source some assistance and network with their peers. Patronage of the RC during this session is predominantly by part-time EUs from the School of Nursing. Evidently, many of them are mature learners who have challenges with the use of some of the computer programmes.

During the vacation session discussion is at a minimum. Each EU is completely immersed in their own work. There is considerable interaction with the Librarian. The Librarian renders assistance to EUs on the formatting of a document.

The researcher acknowledges that the level of interaction between peers is significantly different at the weekend as compared to the other two sessions. This could be attributed to the absence of a Librarian in the weekend. Interaction with the Librarian is not typically information related. There are instances when EUs require advice on how to source other services for example the Bindery to bind their dissertations. So here we see the element of a collaborative space where other services over and above information for research purposes is being provided. Librarians are requested to assist with Microsoft applications problems and other technical queries.

The librarian's role in engaging with technical issues can be viewed positively or negatively. Negatively, librarians may feel that their profiles are being altered from information specialists to 'glorified technicians'. On the positive side, this can be viewed as an opportunity for librarians to develop their skills in the technical area and this could perhaps serve to enhance the support capacity of the Librarian.   The Librarian sometimes enlists the help of the IT personnel.   The researcher posits that interaction between peers may arise from the need for assistance in general.

4.2.1.2.5   Interruptions and noise levels

EUs appear not to observe or adhere to the cellphone rules within the RC. They continue to leave their phones on and when they ring other EUs are disturbed. Other EUs are visibly not impressed. This happens on many occasions and the Librarian eventually has to intervene.

Earphones or headphones appear to be a popular choice. EUs seem to work uninterrupted with these on. In a different instance, unexpectedly, the Jaws software is launched which can be heard by all unless the programme is disengaged. The Librarian intervenes and resolves the problem. There is a steady buzz owing to the discussions by EUs. Several EUs use this as an opportunity to network about their research progress however, cellular phone interruptions seem to have died down.

It is considerably noisy as the IT technician is busy with the installation of the Thin Client computer. This is a different type of computer system that operates with a series of terminals attached to a single computer. Currently each computer in the RC is a stand-alone computer. The library is in the process of running a second pilot survey in the use of this system. Cellular phones start to ring again causing an interruption. Once the technician has completed the installation of the Thin Client, silence resumes in the RC with exception of the door slamming shut and the sound of keys being struck on the keyboards.

In all three sessions, apart from the ringing cellphones and the EU's engagement with their peers there are no significant interruptions or errant EUs. Data revealed that a stricter level of discipline should be upheld (see section 4.2.3.2.2.4.). It has emerged from the data that some EUs have expressed the need for absolute quiet and that Librarians need to be a bit more vigilant in terms of monitoring the behaviour of the EUs within the RC. The researcher is inclined to think that the Librarian's role in the RC has the potential to be augmented in order to deal with these emerging issues of technical support and discipline and order. As revealed from the data in section 4.2.3.2.4., suggestions were made for librarians to skill themselves in the technical aspect of supporting the research process. The researcher is inclined to think that this is an area open for debate. Librarians may possibly not want a changeover to becoming technicians but rather remain as information specialists.

4.2.1.2.6   Connectivity and access issues

In the first observation session, there are no reported connectivity problems as everything seems to be running problem free with all 18 desktop computers. Intermittently, EUs using laptops alert the Librarian to the erratic wireless connection. The Librarian informs EUs that there is a prevailing server problem which is currently being attended to by ICT.

In the weekend observation session, two part-time EUs experience problems in terms of access to the network owing to their expired user logins. There is no Librarian on duty at the RC, so the users report to the issue-desk of the library to seek assistance. There is currently a pilot

operation on the use of a Thin Client. Users are reluctant to use these as they have no USB connections so these Thin Client computers are not being used. The wireless connection is down for the better part of the day. There is no backup to confirm what the problem is as ICT is not open during the weekend. EUs with laptops visit and work mainly with their Word documents. An EU has a problem accessing the RC. In order for the EU to enter the RC their student card has to be activated by ICT or a designated library staff member.   Fortunately, one of the on duty library information officers has the authorization to activate the card; hence the EU is able to access the RC. Information officers serve a crucial function in directing the users to the respective librarians. Each librarian is responsible for particular disciplines (Criminology, History, etc.) and information officers help in screening the library user's queries and directing them to the relevant librarians. The information officer could be viewed as a link between the Librarian and the EU. Information officers assist in providing directional and operational information to EUs and not in depth information characteristic of the research process.

During the vacation observation session, everything seemed to be running smoothly including the wireless access.

It is evident that connectivity and access issues lie in the domain of ICT. Considering that there is no weekend support in this area, alternate arrangements need to be made especially for EUs who visit the RC in the weekend.

In summation of the observation sessions, the researcher acknowledges that there is a pitfall in the service during the weekends. The observation sessions have highlighted that, EUs who patronize the RC on weekends are faced with experiences that are more challenging than those who use the RC during weekdays and business hours. The latter's issues are more readily dealt with owing to the fact that there is a Librarian on duty and that ICT is available. A featuring question one may ask, owing to these gaps is how different is the RC in what it has to offer to its EUs than what the main library has to offer. Granted that this is a designated space, created with the aim of supporting research endeavour at UKZN, but there are still a few elements that need to be examined by library management to fully accredit this facility as 'different or special'.

The researcher acknowledges that more observations would indeed have generated more data with richer information that would have presented opportunities for further in depth comparisons and claims. However, it must be noted that there were significant time constraints which placed limitations on the approach to selecting particular time frames within which the observations were conducted.

4.2.2 Interviews

The researcher selected five participants from the database of EUs. They were selected according to their year of registration, hence giving the sample variety in terms of the age variable. The researcher envisaged that this range of the sample would give a more broad-based approach to the EUs experiences. It was hoped that those EUs who had enrolled earlier would comment on the changes in the provision of the RC as well as how it has impacted on their research experiences. Apart from the year of enrolment which was established from the EU's student numbers, no other criteria were used in the selection of the sample for the interview method.

The EU's registration years ranged from 2006 to 2011. From this database one can only ascertain the identity of a user by their name and registration number, hence no other variables (race, gender, nationality) were used to categorize the sample other than that, they accessed the RC and were assumed to have had some sort of experience through their visit. The researcher identified this group as a purposive sample, as all this study required was to investigate 'any' EUs' experiences.

The researcher considered the interview as a method for the sole purpose that it could be used to sample the EUs' opinions. It must be noted that the interview in this case was used in conjunction with other methods in this research undertaking. The researcher desired to hear what the EUs had to say that was pertinent to their experiences. From the EUs' responses the researcher was able to identify essential dynamics of their experiences which the researcher then grouped thematically and discussed.

4.2.2.1 Emerging themes from interviews and analysis

Upon a close examination of the contents of the conversation that arose from the interviews, the researcher was able to determine various themes that emerged. This enabled the researcher to make deductions about the EUs experiences.

4.2.2.1.1   EU's usage of the RC

Each EU had varying responses in terms of the length and frequency of their visits to the RC. The researcher had to sometimes probe in order to ascertain a direct enough answer. In trying to establish why they visited or did not visit the RC at specific times, the researcher tried to ask but the EUs were not very forthcoming. They indicated that those were the most suitable times for them to attend. The following table of quotations from the EUs' responses indicates the diversity in their usage patterns:

TABLE 4.2 A EUs' responses on usage of the RC	
END-USERs (EUs)	RESPONSES
ONE	"Frequently, at least twice a week from 2010"
TWO	"Since the second semester of 2009, varies between three and four times in the week and almost always on a Saturday"
THREE	"For the past year, everyday but not on weekends"
FOUR	"For the past year, I'm a Masters student, course work, so especially for research with my assignments"
FIVE	"From its inception in 2008 to present, on average three times a week"

4.2.2.1.2   EU's understanding of the Research Commons

It is quite evident that all five EUs had little or no understanding of the dynamic of the RC facility. The little that they knew was that it was some type of LAN, similar to the ones that are in other buildings. This can be established by the following responses of the EUs:

TABLE 4.2 B EUs' responses on their understanding of the RC	
END-USERs (EUs)	RESPONSES
ONE	"Initially I thought it was some high tech environment with lots of sophisticated equipment, or a private environment for all postgrads not just Masters and above"
TWO	"I had no idea what it was."
THREE	"I had no idea what this facility was about"
FOUR	"I did not know anything about it"
FIVE	"It was another form of an allocated space for students to use, like the lans in Shepstone."

4.2.2.1.3 EUs' experiences of the interaction with the elements

EUs in general, rendered responses that created an impression of satisfaction with the RC. There appeared to be more positive comments rather than negative. EUs overall found the print collection of the RC very useful (Quote from EU TWO from interview, "The collection of research books is also very helpful and I often make use of them".)

Further, there were indications that the librarians were knowledgeable and helpful. The researcher is inclined to think that this may well be the defining element setting the RC apart from other similar facilities. Other similar facilities are not fully staffed and supported with all the elements. The support from the information services side of the research support equation, ties up with the objectives of the RC. It is anticipated that through this interactive support between the Librarian and the EUs, learning is taking place. This can be related to Vygotsky and the analogy of the master and the apprentice. The Librarian is the figure who is responsible for imparting the necessary skills that the EU requires in order to conduct his or her research. (Vygotsky, 1978).

After receiving help from the librarians one EU commented that she now feels more confident about doing database searches. However, concerns were raised over the fact that there is no professional assistance after hours.

There appeared to be a notable number of problems with the computers. Technical problems were resolved with the support of the IT personnel from the Library. Technical problems ranged from printing and network related problems to login and password problems. The librarians managed to resolve the matter. There were problems of understanding and learning how to use RefWorks. It was recorded that there is a "better understanding" (Quote of EU THREE from interview) of the bibliographic tools after a session of training conducted by the Librarian. This was resolved by the EU enlisting the help of the Librarian. Formatting issues on Microsoft Word was raised as a problem experienced but this was attended to by the Librarian.

4.2.2.1.4 EUs' experiences of the learning space

An EU commented that the RC was a "privilege". (Quote of EU 22 from questionnaire response). According to one of the EUs, the space was viewed as a "phenomenal way to support postgraduates". It was unanimously communicated by all EUs that the RC is a quiet space, conducive to studying and getting serious work done. This overall response was indicated in both the interviews and questionnaires. It was revealed that you can work in the RC without interruptions. In terms of interruptions, the slamming door appeared to present a disturbance.

Further, interactions between the Librarian and the EU at times disturb other EU's. One EU reported having to wait for the use of a desktop for a significant amount of time.

All five EUs expressed that at some point they needed technical assistance with either software programmes or searching on database, which confirmed the impressions recorded during the observation sessions. These were however attended to by the librarians. The interviews described their experiences as "rewarding, enlightening" (Quote of EU TWO from interview) and "fulfilling" (Quote of EU THREE from interview).

It appears as though the EUs go through similar stresses and nightmares during their research journeys and upon interaction with their peers in the RC they soon realize that they are not alone and that others share similar anxieties.

4.2.2.1.5 EU's approach to their work

By and large, there was a general sense that, spending time in the RC gave the EUs a better understanding of what was expected of them as researchers. The following are quotes supporting this claim:

- "I have a better understanding as to what is expected of me as a researcher" (Quote from EU THREE from interview).
- "It made me more aware of what my research needs are and that there is help that can be found in this learning space, the RC" (Quote from EU FOUR from interview).

The researcher assumes that the RC has facilitated the coming together of a number of PGs at a communal venue. This 'common' space has initiated the interaction hence leading EUs into being exposed to other EUs and how they conduct themselves. This came about through their interactions with their peers. EUs were further enlightened as to what their research needs are and how to satisfy them. Improvements in research skills were reported and EUs acknowledged their confidence in searching databases after receiving training from the librarians.

From the responses it is apparent that the RC has given the EUs a sense of focus in terms of the direction that they are forging ahead with their research in a supportive environment. This is supported by data gathered in section 4.2.3.2.5.2. Searching skills appear to have graduated from the basic Google searches to the more advanced and search strategies on the various databases. This was confirmed from responses received in the interviews and questionnaires. There reported responses of being more "knowledgeable about the library and what it has to offer" (Quote of EU ONE from interview).

The researcher assumes that the role the RC plays in the supervisory process is important. It is believed by the researcher that the RC could serve as a link between the access of information and the EU's information needs. However, the supervisor, researcher, librarian, and the RC each need to work collaboratively in taking into account what is best for the EU needs. The researcher acknowledges that there is definitely a need for guidelines on how the RC can best serve within the supervisory process, defining boundaries of expertise.   As an example, librarians could be tasked with the information retrieval skilling of EUs or the teaching of referencing whilst the supervisor guides the EU on examples, and the elements of academic writing. It must be stressed that no one entity is more significant than the other, however together they can serve to ameliorate the research process.

4.2.2.1.6   Influences on EUs' experiences

According to one of the EUs (EU ONE) this designated space "puts you in the zone, encouraging you to work". The researcher found this to be a profound statement as this notion filtered throughout responses from EUs that participated in the questionnaire survey and the interview. EU's pointed out that the physical and aesthetic environment of the RC precipitated an atmosphere conducive to studying and engaging in scholarly research.   EUs inferred that they now have a better understanding as to how technology has impacted on the research process.

"I have come to understand how technology has impact on the research process and the fact that you need to be savvy in this regard to do research efficiently" (EU FOUR from interview).

Further, EUs stressed the realization that they came to regarding the seriousness of doing research and the dedication it requires. This facility has bestowed upon this cohort of students a sense of "importance" (EU ONE). The researcher is inclined to think that this 'importance' could be reflective of the EUs understanding how they fit into the bigger scheme of things, institutionally and it may also impact their view of having a superior status. This element of importance could easily be interpreted by library users in general as to their being 'less important' than the users of the RC. Library management therefore need to be cautious in providing an impartial service.

The fact that the RC is a space where knowledge is being created has made EUs realize the importance, relevance and benefits of this facility (EU TWO). The RC has also been viewed as a component in the chain of motivation to EUs, supporting and encouraging EUs to strive harder in their research endeavour (EU FIVE). EUs share an element of enthusiasm and want to engage in further research. Interaction with peers is helpful especially when you are not on your own campus and require advice or guidance. EUs are influenced by the fact that they are

participating in developing the wealth of knowledge that is being created and that they have a role in the research productivity of the institution. This claim is supported by quotes obtained from questionnaires"

- **EU 9:** "I think it's necessary and a good idea to have such a facility in all if the campus, because it has a potential of improving the output and productivity of research at the UKZN"
- **EU 25:** "Having this facility on every campus will encourage research"
- **EU 34:** "Important space to promote research and knowledge production"

All five EUs interviewed, answered unanimously to the RC's positive contribution to their research endeavour. This is evident from the following responses of EUs:

TABLE 4.2 C EUs' responses the RC's contribution to their research endeavour	
END-USERs (EUs)	RESPONSES
ONE	"Yes, I feel more confident in doing my searches now and I am aware of what other researchers' needs are. Now when I have assignments I come straight here, the only thing is sometimes I have to wait because the computers are being used. You see I don't have a laptop. Sometimes the wait is long. I have also learnt many things about the library, like what it has to offer, you know, its services and collections I can refer to help me. Now, only after learning how to use some software packages for data analysis can I say that I am equipped to do other research".
TWO	I am motivated by the space. Just watching everybody work is encouraging. Now when I have any research to do I come in to this learning space and I find myself not leaving until I am done. I don't only use Google like I used to, I now know how to use the various databases. The collection of research books is also very helpful and I often make use of them".
THREE	"I have a better understanding as to what is expected of me as a researcher. I feel more confident when approaching a subject area. And I also feel by attending this learning space I have skilled myself in certain research areas especially data analysis and writing and gaining a better understanding of the bibliographic reference tools".
FOUR	"I have had to skill myself with the technical and electronic resources which I think is crucial in this day and age when doing research".
FIVE	"I look forward to coming to this space. I am able to complete my tasks because I tend to be more focused. I have become more knowledgeable about the how to do searches on a research topic in various databases".

4.2.2.1.7   EUs' perspectives on research

Overall it appears as though, with the presence of the RC, EUs now have a better grasp of what is expected of them in the research environment. EU FOUR described one of the benefits as having exposure to "seasoned researchers". The researcher is inclined to think that the EU was making reference to the 'veteran' EUs, those who have been using the RC since its inception. With regard to the impact on research output it was felt that it would have a positive impact and contribute to the wealth of knowledge production, bringing prestige to the institution.

EUs expressed that the RC is a welcomed facility for all engaged in research, benefitting academics that support their PGs. EUs are able to supplement their contact sessions in the research process by using this facility. EUs appear to be motivated by their peers and the way in which they conduct themselves in the RC. This is confirmed by the following responses from the interview:

- **EU 1:**   "I think meeting other students and interacting with them helped me find my feet. Sometime it can all be too much, the stress of studies, only until you meet others with the same problems then you understand that you're not alone"
- **EU 2:**   "I am motivated by the space. Just watching everybody work is encouraging"
- **EU 3:**   "Firstly, it has influenced the way I think of research and researchers and the contribution they make to knowledge creation"
- **EU 4:**   "It was an enlightening experience for me to see how seasoned researchers operate"

The RC further, presents those who are less fortunate, with the space and equipment to supplement their research needs in further study. This study has revealed that 55.88% of the sample of EUs is funding their own study. Certainly finance is an integral part of research and granted the RC in offering the elements that it does indeed reduce the financial stresses on the EUs and therefore reduces some of the distractions that PGs may have.

EUs conveyed that it would be convenient to have this type of facility on every campus as it will enable the EUs to have access to their supervisors. The RC is patronized by EUs from across all five campuses. Had each campus their own RC, it would be ideal as EUs would probably patronize their own campus RC and have easier access to their supervisors. The researcher is inclined to think that supervisors for respective disciplines may be based at respective campuses. This would then facilitate for easy access by PGs to their supervisors.

The institutional merger of 2004 resulted in five campuses, three being interdisciplinary and two being discipline specific. This impacted on UKZN libraries in that discipline specific books and other library materials had to be housed on the respective campuses. Hence, EUs indicated that if there is a RC on each campus they would have access to the books of their discipline within which they are conducting their research. EU TWO styled the RC as being a "catalyst" in attracting other researchers and it will contribute to the research output.

The researcher assumes that with offering this designated space (RC) comes with the motivation of EUs wanting, and now also being better equipped, to complete their research. Not all EUs were convinced that the availability has impacted the research productivity since no studies have been conducted to corroborate this claim. However, they did indicate that this could be one of the mechanisms geared to meeting the university's research objectives. The researcher is inclined to think that this may appear to be easily accomplished in theory; however, in practical terms sustaining this designated space (RC) is relative to its impact on research output and institutional research visions.

4.2.2.1.8   EUs' perspectives on enhancements or changes in the RC

All five EUs interviewed, unanimously concluded that the RC needs change or enhancement that they feel would enrich the experiences of all EUs. The following is a list of proposals the EUs suggested that would further improve the current status of the RC:

- Sliding doors will help the interruptive noise and sound proofing of the facility will also help with interruptions from outside the building.
- A more relaxed environment with additional couches to promote a comfortable ambience.
- Discussion cubicles/ chat room / seminar room
- Private office for the Librarian to consult with EUs (see APPENDIX L that depicts consultation taking place in an open space); librarians consult with EUs within full view and earshot of other EUs.
- Lighting needs attention. The glare of the sun gets a bit much and this can be resolved by installing blinds.
- More plug points for laptops are needed
- Definitely more computers/desktops
- Coffee machine or water cooler
- Headphones to borrow

- Multimedia facilities for videoconferencing and Skype.

- Dedicated librarians for continuity.

- Professional assistance after hours.

The above recommendations made by the EUs are further analyzed in section 4.2.3.2.2.

Importantly, considering that the above mentioned recommendations for enhancements have emanated from the EUs, it is possible that these could render the learning space (RC) more effective in its role of supporting research. Literature has undoubtedly created awareness that learning spaces in academic libraries need to be adapted to the prevailing needs of its users. (Barton & Weismantel, 2007; Bennett, 2006; Brown & Long, 2006; Forrest & Hinchliffe, 2005; Mudavanhu, 2008; Neal, 2009).

4.2.3   Questionnaire analysis

The total size of the sample for the questionnaire both manual and electronic was 55. Twenty-five EUs participated in the paper-based (manual) questionnaire whilst 9 out of a 30 EUs responded to the electronic questionnaire. There was a 100% response rate from paper-based questionnaire as compared to a 30% response rate from the online questionnaire. The online questionnaire was hosted on the LimeSurvey site for 3 weeks. Clearly from this response it is evident that online surveys do have pitfalls and could indeed skew the data collected in a particular study. Limitations of online surveys were discussed in Chapter 3 (3.8.2.2) which serves to illustrate the researcher's claim about data being skewed. The researcher therefore found it necessary to cover both bases by also disseminating a paper-based questionnaire. The researcher attributes this short space of time as a factor in the low response rate. Thirty-four EUs responded to the questionnaire making the response rate total of 61.8%.

4.2.3.1 Analysis of quantitative data generated by questionnaire

4.2.3.1.1 Age and gender of EUs:

TABLE: 4.2 D Age and gender profile of EUs					
			Gender		Total
			Male	Female	
Age	25 years and below	Count	5	6	11
		% of Total	14.7%	17.6%	32.4%
	26-35	Count	8	0	8
		% of Total	23.5%	.0%	23.5%
	36-45	Count	2	10	12
		% of Total	5.9%	29.4%	35.3%
	46-55	Count	0	3	3
		% of Total	.0%	8.8%	8.8%
Total		Count	15	19	34
		% of Total	44.1%	55.9%	100.0%

The age profile of the EUs reveal that the bulk of the sample was 45 years and younger (91.2%) and the remainder of 8.8% was between 46 and 55 but not older than 55 years.

The gender profile indicates that the EUs were predominantly female (19 EUs), representing 55.9% of the sample whilst 44.1% were male (15 EUs). The researcher is of the opinion that this large representation of female EUs could indicate that there are more females than males engaged in postgraduate study or it could be that more female EUs are attracted to engaging with this space and its elements.

4.2.3.1.2   Nationality and race of EUs:

TABLE: 4.2 E Nationality and race profile of EUs			Race			Total
			Black	Indian	White	
Nationality	South African	Count	10	9	1	20
		% of Total	29.4%	26.5%	2.9%	58.8%
	Other	Count	14	0	0	14
		% of Total	41.2%	.0%	.0%	41.2%
Total		Count	24	9	1	34
		% of Total	70.6%	26.5%	2.9%	100.0%

A cross tabulation between nationality and race of the EUs revealed that the majority (58%) were black South Africans. However, a significant count of other nationalities totaling 41.2% was revealed. EUs of other nationalities comprised off the following: Cameroonian, Malawian, Mozambiquan, Nigerian, Rwandan, Ugandan, Zambian and Zimbabwean. The significance of the 'other' in the nationality category is that all constitute EUs from Africa. The researcher assumes that this could infer that the international student cohort at UKZN is made up predominantly by African students.

The researcher is inclined to think that this might be relevant to the need for purchasing equipment and software that caters for the various language groups. For example there may be a need to purchase dictionaries in languages that are spoken by the various race groups listed above. This further leads to the question as to whether the RC is currently equipped with appropriate materials given the diverse patronage.

4.2.3.1.3 EU's affiliation to UKZN and their campus of study

TABLE: 4.2 F Profile of EU's affiliation to UKZN and campus of study			Affiliation to UKZN			Total
			Masters student	Doctoral student	Academic staff member	
Campus of study	Howard College Campus	Count	18	6	0	24
		% of Total	52.9%	17.6%	.0%	70.6%
	Nelson Mandela (Medical)	Count	1	0	0	1
		% of Total	2.9%	.0%	.0%	2.9%
	Pietermaritzburg Campus	Count	2	1	2	5
		% of Total	5.9%	2.9%	5.9%	14.7%
	Westville Campus	Count	3	0	1	4
		% of Total	8.8%	.0%	2.9%	11.8%
Total		Count	24	7	3	34
		% of Total	70.6%	20.6%	8.8%	100.0%

A cross tabulation between the variables and campus of study discloses that the majority, (70.6%) of the sample of EUs were from the Howard College campus. The largest percentage in the postgraduate category (70.6%) fell within the Masters group which came from across all five campuses. A point of observation is that there was substantial patronage of the Research Commons (29.4%) from other campus EUs, the highest being Pietermaritzburg with 14.7%.

The researcher envisages that the use of the RC by non HC EUs could be linked to their responses about the presence of an RC on each campus in section 4.2.3.2.3. In drawing this table, the researcher anticipated that it would indicate that the RC is being patronized by EUs from other campuses and this could serve as an motivation to commission RC being set up in other campuses.

## 4.2.3.1.4 Schools in which research is conducted by EUs

TABLE: 4.2 G Profile of schools in which research is conducted

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Architecture, Housing and Planning	1	2.9	2.9	2.9
	Community Development	1	2.9	2.9	5.9
	Development Studies	1	2.9	2.9	8.8
	Drama and Performance Studies	1	2.9	2.9	11.8
	Education	1	2.9	2.9	14.7
	Education (Higher Education)	2	5.9	5.9	20.6
	Law	1	2.9	2.9	23.5
	Leadership Centre	1	2.9	2.9	26.5
	Nursing	2	5.9	5.9	32.4
	Public Health Medicine	2	5.9	5.9	38.2
	School of Development Studies	2	5.9	5.9	44.1
	School of Economics	1	2.9	2.9	47.1
	School of Environmental Science	3	8.8	8.8	55.9
	School of Languages and Literature	2	5.9	5.9	61.8
	School of literary Studies	1	2.9	2.9	64.7
	School of Management	2	5.9	5.9	70.6
	School of Psychology	5	14.7	14.7	85.3
	School of Social Work	1	2.9	2.9	88.2
	Sociology and Social Studies	4	11.8	11.8	100.0
	Total	34	100.0	100.0	

The above table indicates in which schools research is being conducted by the sample of EUs. The majority of the research, according to this sample is being conducted in the School of Psychology (14.7%). It is important to note that there are several other schools within which research is currently underway and these schools could also benefit from using the RC to support their research. Evidentially from this sample of EUs no researchers are from the Science stream. This could be closely linked to data gathered in 4.2.3.2.3., in terms of how EUs perceive the presence of a RC on each campus. This could also be linked to the issue of practical exercises and lab based experiments. It could be that because the RC presently does not have equipment to support scientific research, it is therefore not patronized by students from the science disciplines. Evidently, EUs feel that it would be beneficial to have a RC on each campus as materials, resources and staff of respective campuses would be at the EUs disposal according to their disciplinary requirements.

4.2.3.1.5 Funding status of EUs

TABLE 4.2 H Profile of funding status of EUs		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Self-funded	19	55.9	55.9	55.9
	Funded by an organization	15	44.1	44.1	100.0
	Total	34	100.0	100.0	

Figure 4.2 J   Profile of funding status of EUs
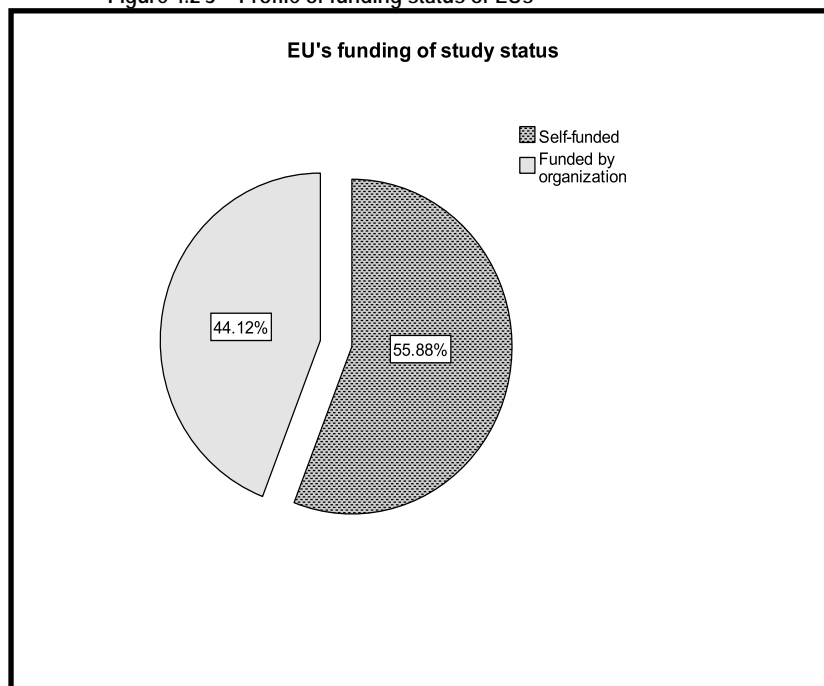
The above figure illustrates the profile of the EU's funding status. With the greater portion (55.8%) being self-funded and the lesser (44.12%) being funded by either their departments from within the university or from other organizations. The researcher is of the opinion that if research is appropriately and adequately funded, this could attract researchers to engage in further study. Costs of engaging in postgraduate studies is substantial, hence the researcher believes that it is the provision of spaces such as the RC at UKZN that could help the researcher reduce the cost. The researcher is inclined to assume that from the observation sessions it is evident that the extensive use of the desktops indicates that not all EUs have the privilege of owning a laptop. Data from all three methods show that at some point an EUs was subject to queuing for the use of a computer.   This could further point to the fact that not EUs can afford a laptop and spaces such as the RC prevents EUs from being denied the full benefits of PGs at UKZN.

4.2.3.1.6 EU's purpose of visit to the RC

FIGURE 4.2 K   Profile of EU's purpose of visit to the RC
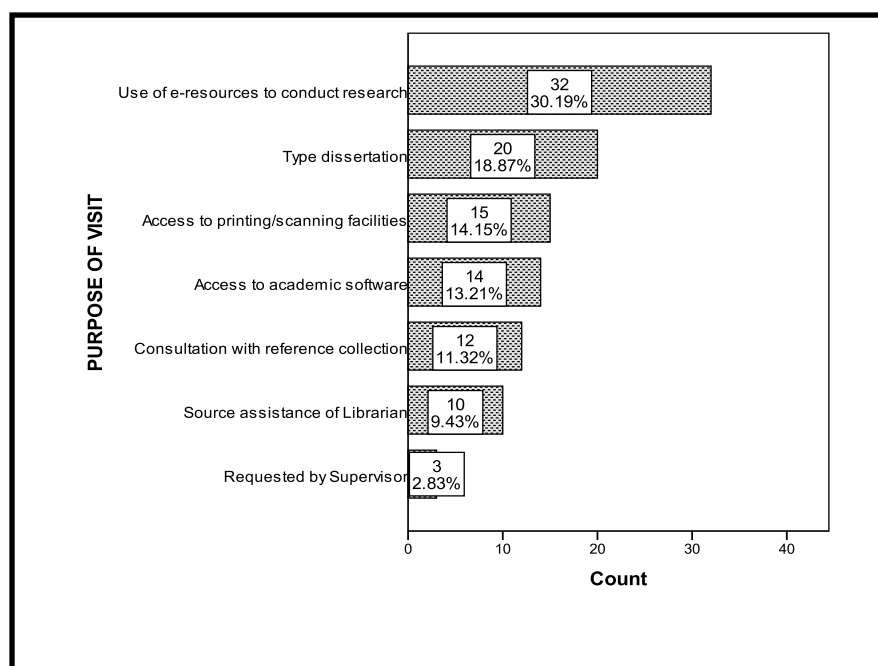
It is apparent from the above figure 4.2 K that the predominant purpose for EU's of the sample visiting the RC is to use the electronic resources to conduct their research. E-resources could range from access to the various electronic databases or repositories that contain journals, e-books, referencing tools and software tutorials. This is an important indicator for this study that the aim of the RC is to support research and the provision e-resources. The high usage of e-resources indicated above shows that the EUs are using the elements to support their research and the provision of e-resources.

Significant to the researcher is the purpose with the least count of three (2.83%). This is open to speculation as to whether supervisors are aware of the RC and what it has to offer the EUs. The data indicates that the need for more computers is essential and the lack of access to a computer could be linked to the extensive usage in searching of the e-resources and typing of EUs theses.

The data in this table further illustrates that the provision of the e-component in support of research is crucial to postgraduate study.

4.2.3.1.7   EUs' interactions with elements of RC

FIGURE: 4.2 L   Profile of EUs' interactions with the elements of the RC
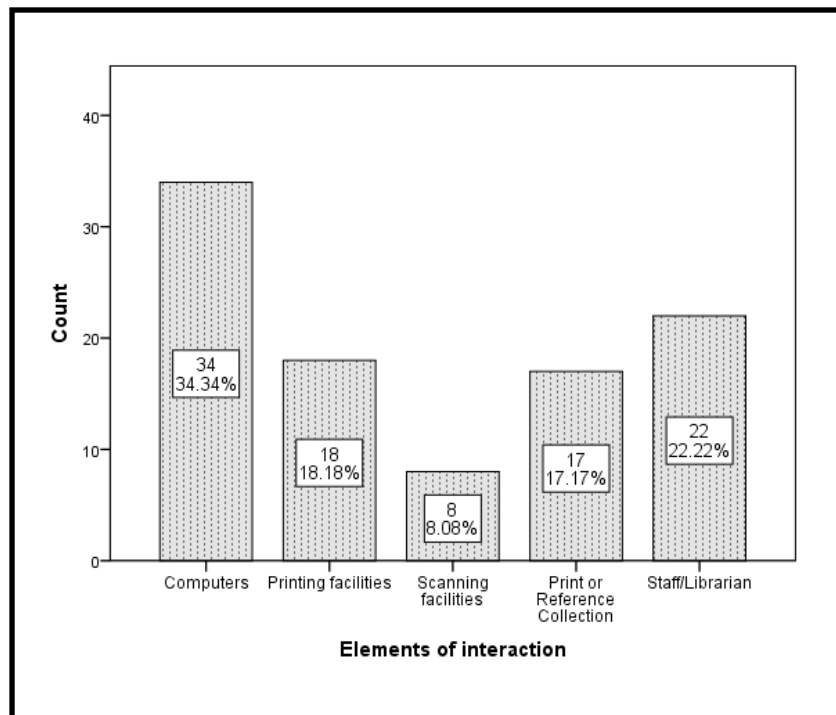
The above graph profiles EU's interactions with the elements of the RC.   The elements are broadly categorized.   The most prominent of all interaction is with that of the computers (34.34%) and is consistent with the earlier indication that the prime use was around accessing e-resources.   This means that the computers were probably used for several reasons ranging from purely researching of topics to typing of dissertations.   The count of 34 indicates that the entire sample of EUs interacted with the computers in some way or the other.

Significantly 22 of the 34 EUs of the sample interacted with the Librarian and researcher assumes that this is partly due to the fact that the Librarian is stationed in the RC.   A traditional LAN set up only has computers and printers available. The academic, technical and aesthetic support that is rendered in the RC makes for a different and special LAN.

4.2.3.1.8   EU's usage of software programmes

FIGURE: 4.2 M   Profile of EU's usage of software programmes
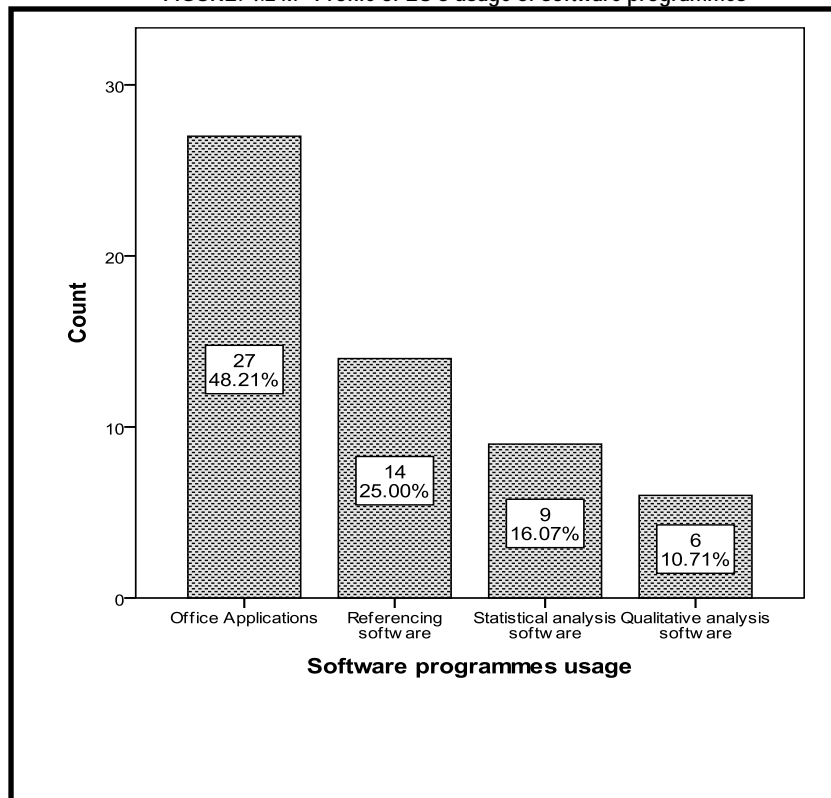
The above graph displays EU's use of computer software that is on RC computers. Most popular is the use of Microsoft Office applications (48.21%). Use of these applications included the following: Microsoft Office Word, Excel, Powerpoint and Adobe which was stipulated by the EUs in the questionnaire. The use of referencing software (25%) comprised of RefWorks and EndNote as stipulated by the EUs in the questionnaire. In total 15 (26.77%) of the EUs of the sample made use of analytical software which was either NVivo or SPSS.

The above figure further indicates that the EUs are engaging with software that may add quality to their research. The use of referencing software and analytical software could help to EUs in presenting information that it reliable, valid and legitimate. More importantly the use of referencing software could assist in preventing plagiarism.

4.2.3.1.9 EUs' responses to the appeal of the elements of the RC

FIGURE: 4.2 N   Profile of EUs' responses to the appeal of the elements of the RC
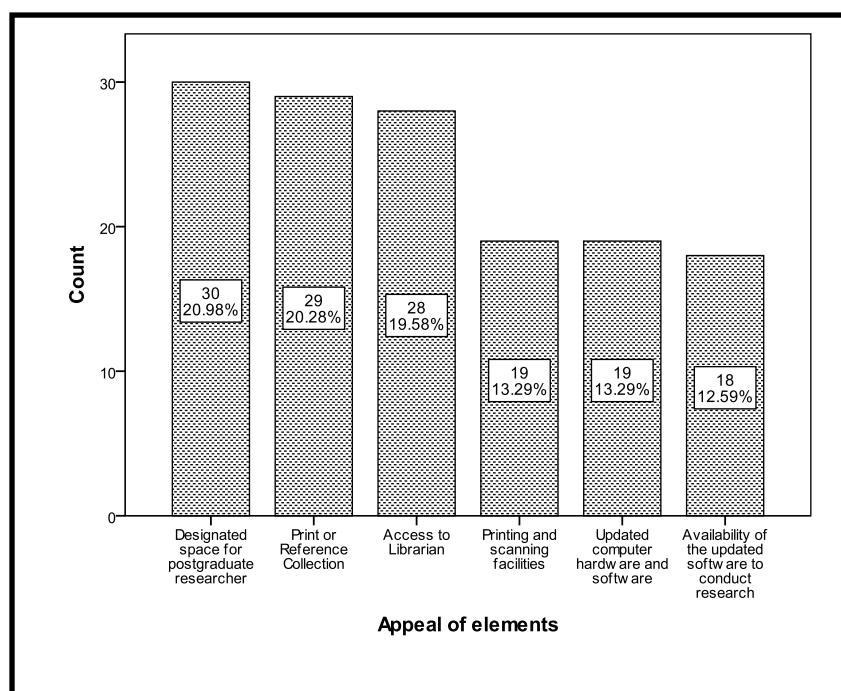
The rationale behind this graph was to establish which of the elements of the RC appealed to the EUs the most. From the graph it is evident that the designated space made the greatest impact with a count of 30 (20.98%). Evidently, from the above data, the researcher is inclined to assume that PGs do indeed desire a separate space to conduct their research. Hence the researcher is persuaded by the notion that the presence of such a space could impact on research output and productivity. This is supported by data gathered in section 4.2.3.2.3 and 4.2.3.2.5.

Judging that there are no overwhelming disparities in one over the other, the researcher can attest to the fact that all the listed elements appealed to the EU. This graph serves to confirm that the RC is not merely a 'glorified lan'. The 'designated space' element is high on the agenda of the EUs and the data collected has shown that the space has contributed positively to their (EU's) research journeys.

The researcher is inclined to think that the attraction to this 'space' goes beyond the issue of access to the technological components (computers, printers, scanners and e-resources) of the RC. The researcher assumes that it is the associated elements of the RC such as, the quiet environment conducive to research, a decorum that is maintained in the RC by staff ensuring a study space free of disruption and noise, access to an embedded librarian who can assist with research related queries and importantly an environment where EUs can network with peers and forge relationships in the domain of the research community, that makes the use of the RC all the more rewarding.

4.2.3.1.10 EU's responses to repeat usage of the RC and problems experienced

TABLE 4.2 I Cross tabulation profiling EU's repeat usage of RC and problems experienced

			Problems experienced.				Total
			No problems	Technical support	Academic support	Other	
Return use of RC		Count	1	0	0	0	1
		% of Total	2.9%	.0%	.0%	.0%	2.9%
	Yes	Count	15	12	4	2	33
		% of Total	44.1%	35.3%	11.8%	5.9%	97.1%
Total		Count	16	12	4	2	34
		% of Total	47.1%	35.3%	11.8%	5.9%	100.0%

The researcher, in presenting this cross tabulation wanted to draw a correlation between 'return use' as a variable and the problems experienced in the RC. An overwhelming response of 97.1% of the sample of EUs indicated that they would return to the RC despite a recorded 44.1 % of EUs who reported having experienced problems. 47.1% did not experience any problems in the RC. Of the problems that were experienced by the EUs, a substantial 35.3% were registered against technical problems. Further analysis and interpretation of the problems experienced by the EUs is dealt with in section 4.2.3.2.4.

4.2.3.2 Analysis and interpretation of qualitative data generated by questionnaire

Content analysis is a set of procedures used in the "evaluation of qualitative information" (Fink, 2003, p. 101). Qualitative information may be gathered through survey methodology which could employ various instruments and techniques. For this study the questionnaire comprised of both types of questioning, qualitative and quantitative. The ensuing discussions by the researcher are an engagement with the qualitative data derived from the questionnaire.

4.2.3.2.1 Disability profile of EUs

No EU from the sample indicated that they were afflicted by any disability. The researcher is of the opinion that this is an area for further exploration as it needs to be established whether the RC has been marketed to this sector of the university community. The Jaws computer software programme for the blind is installed on one of the 18 computers in the RC. The researcher assumes that a closer examination of the RC needs to be undertaken to establish whether it is at all disability friendly and whether this could have impacted on the RC's use by disabled students.

4.2.3.2.2 EUs' responses on improvements in the RC

4.2.3.2.2.1 Technical improvements

A priority on every EU's list was that there is a need for more and faster computers added to the facility with all peripherals. This request is supported by evidence gathered in figure 4.2 L which indicates that the computers and its peripherals are extensively used in the research process. Often because of the lack of computers EUs resort to using the undergraduate LANs or also wait until a computer is free for use depending on the urgency.

Requests were also made for other technical devices such as scanners, colour printer, earphones that may be borrowed in the facility. The researcher anticipates that these items may serve to improve the EU's experiences. Owing to the reportedly substantial technical problems experienced many expressed that the support of an IT technician as an essential.

4.2.3.2.2.2 Aesthetic improvements

In view of improving the aesthetic appeal of the RC, EUs requested a more relaxed environment with a little less structure. The following supports the request for improvements from the interviews:

- **EU 1:** "It should be more relaxed with more lounge seating, refreshments like a drinks or fresh juice vending machine for maybe water/tea/coffee/juice. Not food, maybe some nourishing snacks like health bars"
- **EU 2:** "Coffee-bar to add to the relaxed environment"
- **EU 3:** "It should be a facility where researchers can just relax and interact outside or without having to sit next to their desktop. Like information, sharing sessions so I would like this facility to have an additional area where they can be themselves and have that relaxed atmosphere. They can do their research but at the same time have relief and relaxation"
- **EU 4:** It would be nice to have a coffee machine or a water cooler. It gets stuffy inside and we often get thirsty, we eventually have to go out and buy something. The space needs to be spruced up to make it a more relaxed atmosphere and ambience"

There should be provision of an area for light reading and perhaps a coffee bar where EUs could take a break to get some relief from the serious work. EUs also indicated that a relaxed environment could be achieved by including couches and more informal seating. The researcher

is inclined to think that the request for softer and more comfortable seating would help especially when long hours are spent at the computer doing lengthy searches.

4.2.3.2.2.3 Physical environment improvements

There was an overwhelming request that the space be extended and maximized to accommodate more EUs. This could imply a level of popularity of the RC. Suggestions were also made for the provision of a discussion venue which could be used by peers or supervisors and their students for consultation sessions. The following responses support these requests generated from the:

- Questionnaires:
  - **EU 5:** "A bigger research commons will be helpful as sometimes it is full and inaccessible"
  - **EU 8:** "More computers and space needed as there are many students on campus doing research especially those doing masters and doctoral programmes"
  - **EU 16:** "More computers, time wasted waiting for a computer, got to be here early"
- Interviews:
  - **EU 1:** "I think it is important to maybe survey the users to establish what they need in the RC. "The lighting, maybe it needs some blinds. The glare from the sun on the glass can be a problem. Maybe on the inside windows too. Sometimes students distract you"
  - **EU 2:** "Definitely more computers/desktops"
  - **EU 3:** "I would like to see it having a seminar room having discussion rooms. Sometimes you engage with your peers and don't realize that you are interrupting others".

The venue tends to get overcrowded and stuffy because of the poor ventilation. Huge glass walls allow much of the sunlight to filter through. Apart from heating up the RC it also creates a glare on the computer screens. This can be easily overcome with the installation of blinds to block out the light.

More space needs to be provided for laptop EUs. Currently not all EUs have laptops and sometimes have to wait to gain access into the RC. One way to circumvent this is that the library could provide laptops which could be loaned to the EUs for the duration of their visit in the RC.

EUs can work on the laptops and save their data onto mobile devices such as external hard drives or flash drives.

One of the EUs responded that there should be a separate Commons for each of the Masters and Doctoral cohort of EUs, "More PCs. One RC for MA & One for Ph.D. too small" (Quote from EU 30 from questionnaire). This may seem to be exclusionary but it could prove beneficial as both these EUs may have specialist needs. The researcher is inclined to think that the underlying concept of the 'commons' would be defeated if this put into operation.

The RC is intended to be a sort of 'research commune', with one of the objectives being learning through interaction with the space and its elements which includes all EUs. Further, the researcher views the RC as a place where peer mentoring and partnering in research can be encouraged resulting in growing the research community of practice and attaining the ultimate goal of knowledge creation. This is indicated in data gathered in sections 4.2.1.2.4 and 4.2.3.2.3. The researcher is inclined to think that this may also be a case of growing exclusivity.

A suggestion was put forth for a private consultation room or office for the Librarian. This proposal would help the Librarian provide unrestricted interaction with EUs. The researcher assumes that this type of isolated consultation could be necessary if discussions are of a sensitive nature. It is envisaged by the researcher that during these consultation sessions the Librarian may not only offer guidance for research but may also provide counsel in terms of the emotional well-being of EUs.

4.2.3.2.2.4 Discipline

Users expressed the need for routine checks of the RC to confirm eligibility of EUs. The researcher is inclined to think that the EUs have begun to claim this space and are not keen to have the RC 'infiltrated' by those who don't rightfully belong there. EUs tend to bring in unauthorized persons into the facility. EUs often don't abide by the rules of the RC which stipulate that the facility is strictly for the use of PGs (Masters and Ph.D.). Occasionally EUs bring in their friends who don't belong to this cohort and allow them access to the computers and resources in the RC. The researcher assumes EUs view this as a form of denying those who rightfully have access.

This situation really opens up a whole new debate about the equitable provision of services in the library. Had there been more spaces like the RC offered across the board then perhaps this situation would not have arisen. The problem for library management is, being able to strike a

balance in having a relaxed setup but not at the expense of having the discipline factor being absent.

EU's also requested a stricter level of discipline to be maintained as some EUs don't observe routine rules of the facility.

"Increase the space and the availability of computers. Routine checks of all facility users for eligibility" (Quote from EU 22 of questionnaire).

Cellphone usage, eating, and drinking persist even if EUs are requested to desist from doing this. The researcher is of the opinion that had there been a designated area for EUs to eat and drink this may not have been a problem. There was also a proposal made for a sound proof cellphone booth where EUs could take their calls without causing any interruptions or having to leave the RC to make a call.

4.2.3.2.3 EUs' responses to the presence of an RC on each campus

All EUs were unanimous on the following opinions:

Having such a facility on each campus will be extremely beneficial to not only the EU but the mentor or supervisor, overall improving the academic experience of PGs. EUs also commended the facility for its environment which is conducive to engaging in research and being able to network with other EUs and share in the research experiences. They also commented that they would have full access to their respective collection of materials to support their research discipline EUs mentioned that it is an excellent feature which will serve to encourage postgraduate research and enhance research capacity. The following are some of the extracts from the questionnaires supporting this claim:

- **EU 1:** Excellent idea - it will encourage postgraduate research
- **EU 20:** Good idea. A lifesaver for some of us not techno savvy
- **EU 24:** Highly recommended as its essential for postgrad students
- **EU 29:** This will improve research among learner and also improve the quality of research

Remarkably the RC was viewed as having the potential of improving the output and productivity of research at UKZN. Considering the assumptions of the EUs that the RC is a form of encouragement to engage in research this could perhaps have an effect on the research outcomes of the institution.

It is apparent from the responses of the EUs that some view the RC as a lifesaver for those who are not techno savvy. As data has indicated much of the stress is experienced in the technical aspects of the research process. The researcher assumes that EUs could have possibly faced greater technical challenges had they not received the support that they did whilst in the confines of the RC.

EUs felt that having a Research Commons on each campus will limit travel expenditure and accommodate more researchers "It will be a good thing, this will limit travel and expenditure and accommodate more researchers" (Quote from EU 26 from questionnaire). The researcher envisages that this will aim at meeting the needs of EUs who reside in noisy residences and need to in an environment which is more beneficial to them.

EUs are of the opinion that the presence of an RC improve the quality of research and promote knowledge production. The following substantiate this opinion:
- Questionnaires:
    - **EU 9:** I think it's necessary and a good idea to have such a facility in all if the campus, because it has a potential of improving the output and productivity of research at the UKZN.
    - **EU 15:** Excellent idea. Will enhance research capacity.
    - **EU 25:** Access to research librarians has improved the quality of my research.
- Interviews:
    - **EU 2:** I think that having this facility has increased the number of researchers, the quality of research and also contributed to the research output

It is possible that EUs feel this way because of the experiences they've had with the support of the librarians in the RC. Perhaps the EUs gained knowledge about certain processes that have made them realize the value and benefit of being exposed to this space.

4.2.3.2.4   EUs' responses to problems experienced in the RC

From the responses of the EUs it appears that the problems faced were predominantly technically related, as indicated in table 4.2 I. Issues concerning the lag of internet connectivity were raised. The researcher assumes that could be attributed to bandwidth issues.
Some programmes had to be installed in order to access material and EUs experienced difficulty in downloading the software. There were often problems with the printer such as paper jams and not being linked to the default printer. Password and access problems that were encountered were resolved by the ICT Department.

The fact that EU five from the interview session indicated having to leave the RC to complete whatever he or she was doing is an area of concern. It was confirmed that this EU experienced some technical difficulties and there was no Librarian or technician available to resolve the problem. In view of why the RC was designed this situation should not have arisen. The one important guarantee of the RC is that all research needs can be met in a single venue.

EUs commented that not all the librarians are fully conversant with the technical problems and this entails having to source help from an IT person "IT technician are rarely available, most of librarians do not necessarily seem to understand main programs that we are using, therefore they are limited in their academic assistance" (Quote of EU 7 from questionnaire).

This is an issue that needs to be examined by library management so as to define the parameters within which the Librarian operates. According to the researcher job descriptions of the Librarian will perhaps have to be re-configured to embrace the technical aspect. This does offer motivation for further exploration into how organizational changes in academic libraries impact the profession of librarianship.

EUs experienced challenges in doing their literature reviews and were assisted by the librarians. It was noted by one of the EUs that in order for librarians to assist Ph.D. candidates they too need to be in possession of a Doctoral degree to understand the needs of these EUs. Some EUs indicated that they had problems downloading software and had to get assistance in order to successfully run the programmes.

Absence of a Librarian in the RC was also raised as a problem. The researcher envisages that this could be attributed to the fact that the RC is staffed by librarians on a roster system. It appears as though that a more permanent staffing structure for the RC needs to be investigated by library management.

EUs identified the need for training on how to use some of the software especially for statistical analysis. The researcher views this as an opportunity for both librarians and EUs to skill themselves in this area. Librarians can further use this as an opportunity to arrange for training sessions to be hosted by the ICT division to address this need and hence promote an environment of collaborative learning.

4.2.3.2.5 EUs' responses to the RC's contribution to their research experiences

Upon examination of the responses to this question, the researcher deduced a unanimous response from all EUs that the RC as a facility has indeed made a contribution positively to their research journey and endeavour. This has led the researcher to confirm that the experiences of the EUs in the RC may all not have been problem free, but they were perhaps able to resolve them and continue to benefit from this space whilst developing in the research domain. Data from the observation sessions have indicated that EUs, through the manner of engaging and interacting with each other are able to help each other in the absence of a Librarian. However, the nature of the problems were such that they were easily resolved which may not always be the case.

The EUs' responses are categorized and interpreted as follows:

4.2.3.2.5.1 Research endeavour

The electronic format of information has given EUs the opportunity to keep informed of the current trends in their field of research. It has made information searches seamless creating less stress for the EU. EUs feel that having access to the Librarian will improve the quality of their research.

4.2.3.2.5.2 Approach to work

EUs agree that they are able to confidently do searches on research topics. EUs comment that working in this space promotes their progress. Further EUs endorse the fact that they have a better understanding of what the process of doing research entails.

4.2.3.2.5.3 Supportive environment

Being in a quiet environment has contributed vastly to getting research projects completed. The venue is safe, calm, and comfortable and is well supported by the staff and library material. The RC is well equipped and it allows for EUs to give their research the time and attention it needs.

4.2.3.2.5.4 Development

Time spent in the RC has helped enhance EUs research skills and sharpen their ability in referencing and creating bibliographies. EUs agree that they are more comfortable using certain programmes after being guided by the librarians. The following extracts support these claims:

- Questionnaires:
- **EU 11:** Got help with the literature review compilation
- **EU 20:** Being guided on the use of RefWorks was useful
- **EU 21:** Referencing is much easier since I can email myself the ref list of all journals used in a particular day.
- Interviews:

- **EU 1:** Yes, I feel more confident in doing my searches now and I am aware of what other researchers needs are

The researcher in analyzing and interpreting the data grappled with being objective. It must be reiterated that this study was intended to examine the experiences of the EU of the RC. In unpacking their experiences, several questions emanated in terms of justification of such a facility. The researcher further struggled with the notion that this 'commons' concept is not so common after all, as it is intended for the use of a select group. Several vexing questions arose in the researcher's mind however; the most obvious was "Are academic libraries creating an 'academic elite' by providing spaces such as the RC?" With academic library's dwindling print collections, digital conversion initiatives and 'greening' of its collections, should not the entire library be moving in this direction of digital information changeover?

Last but by no means the least, how equitable a move is the initiation of a RC. Shouldn't all users of the library be impartially served? The need for information will remain but will the need for libraries? It is therefore imperative for academic libraries to creatively think of ways to retain their clientele. The answer may lie in a truly **common** Research Commons.

Much of the data points to the experiences of the EUs that emanated from their interaction with the elements of the RC. Having this designated space appears to have given the PGs the elevated status that makes them feel valued. There is a possibility that they may regard themselves with a degree of importance now that they realize they are contributing to the bigger picture in terms of research. The researcher is inclined to think that the experiences revealed by the EUs in this study could very well serve as a basis for encouragement to potential PGs in wanting to engage in research endeavours.

4.3   Summary of the chapter

In this chapter the researcher offered an outline of the data collection plan and presented an analysis of all three chosen methods of data collection. The data collected from the questionnaires and interview question schedule administered to the sample of EUs and the data collected from the observation sessions was presented, analysed and interpreted. Considering that a multi-method approach was adopted by the researcher the following chapter will draw on conclusions, comparing the generated data and its trustworthiness in helping the researcher gain a deeper and clearer understanding of what were and how EUs have experienced the RC.

CHAPTER FIVE: CONCLUSIONS AND RECOMMENDATIONS

5.1   Introduction

This chapter provides the concluding remarks of the study and relevant recommendations are made in response to the analysis of data and interpretation of the results engaged with in the previous sections.

5.2   Findings of the study

The purpose of this study was to explore, through interpretation and understanding, the experiences of EUs of the RC.   These experiences were expressed in terms of how they interacted with this space and the elements within the RC that generated either similar or varied experiences. The three methods of data collection revealed instances of commonalities and differences in the EUs' experiences.   The key findings of this study are highlighted as follows:

Most importantly, one of the shared positions of all EUs of the sample indicated that their research experience was positively contributed to by the presence of the RC, as substantiated in table 4.2 C. Many commended the introduction of such a feature in the library and mutually agreed that there is an express need though for several changes which could improve and enhance the service offered at the RC.

There is concern that there is an absence or lack of professional and technical support after hours and over the weekends.   This may imply that the part-time cohort of EUs are disadvantaged and are subject to a compromised service, especially since the RC may be most appropriate in meeting their information needs. At present librarians provide support in the RC only during business hours, Monday to Friday.   Evidently in this study, this had a direct implication on the services offered to those who patronized the RC out of business hours. However, it must be noted that it is not only the RC that is not professionally supported after hours but also certain sections of the EGM Library service.   The researcher sees this as a breach in the library's service to its users and perhaps needs to be examined so that it (the library) reaches as many of its users as possible in the provision of information services.

There were mutual indications to having the facility maximized and developed to exist on all five campuses. This would then be able to accommodate for greater numbers of EUs to engage in research and benefit from this space. It was communicated that on account of its (RC) high usage, the situation necessitated for the installation of more computer workstations as the lack

thereof resulted in delays and queues. Interaction patterns of the EUs further reveals that they make extensive use of the electronic component of the RC.

Presently, even though the RC may appear to be aesthetically adequate, there were suggestions that the RC be given a facelift, creating a more relaxed environment with more updated multimedia facilities such as videoconferencing, more lounging furniture for laptop EUs and a slightly less formal setup. Further, it was conveyed that when adjustments are made to the current facility, the EUs' needs should be examined holistically in terms of what they see as suitable and appropriate for use in the RC. EUs indicated that it was necessary for a discussion room that could enable them to engage and network with their peers and their supervisors when the situation arose.

In addition, during the interview, EU FOUR quoted the following: "It would be ideal to have professional assistance after hours and there should be dedicated librarians for continuity. Every day the librarians change, and sometimes you need to get the help of the same person". Evidently, there appears to be a need for an embedded librarian to provide support in the facility. The researcher is inclined to think that the rationale behind this would be for continuity. Presently, each day there is a different librarian on duty at the RC at EGM Library. Perhaps, if there is one or two librarians permanently based at the RC, this may result in EUs wanting to interact more frequently with a Librarian with whom they are familiar. This could also serve to forge stronger links between the EUs and librarians.

Data revealed that 35.3% (TABLE 4.2 I) of the sample experienced technical challenges and there were proposals that there be technical assistants available to help in these situations. This is especially important since the library has limited IT staff and the ICT division does not provide a support service after hours and during weekends.

The scanning and printing facilities are not user friendly and require upgrading. Currently, if EUs need to scan any documents they have to enlist the help of the librarian as the scanner is linked to the librarian's computer. If this facility (scanning) could somehow be activated on the current printer it would make scanning easily accessible.

The print collection should be reassessed to embrace a greater variety of books on research. There have been recommendations that the collection be formulated so that it includes books on research within different disciplines. The researcher assumes that this may pose problems considering that there are other students who may require those types of books and who may

not necessarily be PGs (see section 4.2.1.2.2). This is an important consideration as it relates to the debate on the exclusionary nature of the RC. If this recommendation has to be met it would give rise to duplication of the print collection, something that academic libraries are trying to steer away from.

This study has revealed that EUs who experienced IT problems out of business hours simply had no support. The researcher assumes that the library needs to engage the support of the ICT division to offer a help desk service during and after hours. During the observation sessions EUs resorted to enlisting the help of peers in the RC during the weekends and after hours. The researcher is inclined to think that this could impact poorly on and minimize the usefulness of the RC.

It became evident through the observation sessions that there is a need to educate EUs on the finer techniques of online search strategies specific to their research interests (see section 4.2.1.2.3.). The observation session revealed that EUs in the weekends are less proficient with efficient searching skills. Many were observed to be doing Google searches as opposed to searching in other literary databases such as Google Scholar or Google Books.

It was discovered that it is essential to market the facility more aggressively in all faculties to get the PGs to patronize the RC, see table 4.2.3.1.4. Significantly noted within the sample of EUs, was that the RC was not patronized by any of the disability students. There is need for further investigation into how the library can target this group of EUs as well as other PGs from the various faculties. The majority (70.6%) see TABLE 4.2 F of the EUs were from the Masters' programmes. Lower recorded percentages among Doctoral candidates (20.6%) and academics (8.8%) shows significant disparity in attendance which could also require exploration.

Upon analysis of the various schools in which research is being conducted, significantly none of the EUs were from the Science and Engineering disciplines (see TABLE 4.2 G). In recognizing this significant absence of these EUs, the researcher feels that the library could perhaps undertake to market the RC to these particular groups of EUs. Evidently, a more proactive approach needs to be adopted in the marketing of the RC to Schools in all disciplines. Plans need to be made to circumvent missing the various target groups of EUS. Relationships need to be developed between subject librarians and school representatives in order to further stress the benefits of the RC. These relationships link to the very element of collaboration that is important in the sustainability of the RC. (Neal, 2009)

EUs expressed that librarians need to have a separate consultation venue. This would allow unrestricted and unhindered interaction between the librarian and the EU in the meeting of information needs of the EUs. At present there is no isolated space for this interaction and this may impact on the willingness of the EU to discuss matters in the open.

Most importantly for this study, the high (97.1%, table 4.2 D), response rate in terms of the repeat usage could very well be attributed to the high (100%) response rate of positive contribution to EU's research experiences. This means, the sample of EUs have indicated that the RC facility has contributed positively to their research experiences and that they would return to the facility to reuse the facility.

5.3   Concerns emanating from the findings of this study

The researcher in having familiarized herself with the analysis of the study considered this as an opportunity to raise the following concerns that could possibly contribute to the enhancement of the RC. The management and implementation of PG user education programmes need to be cognizant to the literacy and information needs of part-time PGs as highlighted in section 4.2.1.2.3. Provision needs to be made for this cohort of students who can be educated on how to conduct literary searches to improve the quality of their research. An idea would perhaps also be to design a user education programme in the form of an online tutorial which can be made available on the 'Learning@ukzn', the learning management system of the institution. This would then be accessible by students remotely through the various electronic mediums.

In terms of reskilling, it is apparent that the skills levels of ALs need to be tailored in order to placate the needs of the EUs in the RC. It is crucial that each librarian, in providing a service in the RC, is fully conversant with the research process and have themselves too been engaged in research. Librarians who have been previously engaged in the research process could more easily understand the requirements of EUs research needs, hence providing a more efficient and appropriate support system.

It's becoming imperative that the supervisory process in research be designed with the view to incorporating the role of the AL which could only serve to enhance the support component to the EU. Librarians need to be more proficient in understanding how they can complement the process. Further, their knowledge and interpretation of institutional processes on research and supervision need to be succinct in order to effectively support the research process.

The researcher would like to stress and reiterate that the conclusions drawn in this study were purely from the evidence gathered from the data and was in no way influenced by her own experiences as a researcher or academic librarian.

5.4   Recommendations for future research

In view of this being a baseline study, it provides the library with preliminary information about the EUs of the RC at EGM Library and could serve as a benchmark against which other studies can emanate. Areas for further research are recommended as follows:

- Considering that the institution of the RC included substantial re-adaptation of EGM Library's space and organizational structure, any investigation into how it has impacted on existing space, staff, resources and organizational reconfiguration would be beneficial for future change management endeavours.

- With this study being qualitative in its approach it has opened up the latitude for quantitative research to interrogate the use of the RC at the EGM Library and its impact on research output and productivity at UKZN.

- In view of servicing all EUs from the wider university community, a needs analysis survey of PGs could be undertaken to ascertain a more profound perspective on how academic libraries should be featuring in their (EU's) research endeavour.

- Bearing in mind that, from this study, the EUs' experiences have exposed the need for expansion of the RC, exploration should be embarked on to establish how best to address this element of supply and demand across all five campuses. The RC at EGM Library has been a funded initiative by Carnegie Corporation of New York.   Its presence has procured a level of expectancy that all five of UKZNs' campus libraries should in all earnestness have an RC of their own. For the EGM Library the issue of its RC's sustainability is an area of concern. An essential question is will its survival depend on further secured funding or will its maintenance and expansion dig deep into the coffers and treasuries of UKZN Libraries?

- In light of the RC being offered to a designated group of the university community, this approach could be viewed as a step toward the creation of an academically 'elite' group. It would be interesting to explore the views of those who are not privy to such a facility. Perhaps an investigation into their perception of how they view this space and its users would serve to enlighten library management on how to equitably serve 'all' its users.

- The researcher in having recognized that this study could have served in the form of a self-study chose instead to focus on the experiences of the EUs of the RC. The researcher, viewing herself as an educator, in electing this focus instead of a self-study

felt that investigating EUs experiences would provide greater insight into the domain of research support by librarians and academic libraries.

- The researcher is of the opinion that further study could be undertaken to investigate how the RC has impacted on the profession of the academic librarian.

In addition, the researcher is of the opinion that the success and longevity of the RC depends on several other variables. However the researcher is inclined to think that in addition to the funding and resources, there needs to be an explicit understanding of collegiality between and 'buy in' from students, staff and faculty of the university community. This will then lend itself to collaboration between faculty and ALs consequently achieving co-operative learning and integrated learning environments, hence "developing research communities" (Allan, 2010, p. 142).

5.5 Conclusions

In concluding, "Quality in the library must be particularly linked to knowing and understanding users' needs and expectations" (Alvite & Barrionuevo, 2011, p. 10). Generally speaking, customers, users, clients and patrons often see and measure quality of service in relation to the experiences they encounter. A service is only as good as its weakest link. However good the service may be, if a user has on a particular occasion had a poor experience, this unfortunately becomes a reflection of the entire service.

Therefore, this study, in delving into how and what the EUs' experiences of the RC are, has presented critical information for library management to understand how to provide the resources EUs need coupled with the physical features to promote and foster scholarly research. Further, this study has made provision in the creation of awareness of a modern view of learning spaces in academic libraries. The feasibility of future libraries lies in their ability to provide skilled research assistance with the latest technology in comfortable spaces. (MacWhinnie, 2003, p. 254).

The objectives set out by the researcher for this study (see section 1.6) were achieved by the data collected through the elected methods. The study was able to generate data that highlighted the various experiences EUs had within the RC. It further gave background information into one's understanding of the elements of the RC and how the EUs interacted with these elements.

The research questions for this study were:
- What are the experiences of the end-users of the learning space?

- Who are the end-users of the Research Commons?

- With what elements of the Research Commons do the end-users interact?

- In what ways do the end-users interact with the different elements?

The objectives of the study therefore were to:

- Establish what are the experiences of the EUs of the RC

    - The data revealed overall positive experiences in this designated space. EUs further, in interviews indicated that this learning space has positively influenced their understanding and their approach to their work in the research domain.

    - EUs experienced problems that were predominantly of a technical nature and further suggested that their research experiences were positively contributed to by the RC and its elements and pointed to returning to the RC to continue with their research needs.

    - The EUs' experiences also showed trust and respect for the librarians and mentioned that they were knowledgeable and helpful. However, mention was made of the need for ALs at being sufficiently adept in supporting both the Masters and Doctoral EUs. Perhaps librarians with Ph.D. qualifications may serve as a counterpart to the supervisor which could further, enhance the supervision process.

    - Interviews of EUs disclosed that, time spent in this space has made them more confident in their searching and research strategies. Further, with the teaching and guidance they have received from the librarians they can now work independently especially with searching of databases and using bibliographic management software programmes e.g. RefWorks and EndNote.

- Establish who are the end-users of the Research Commons?

    - From the responses to the questionnaire the researcher was able to establish the various categories of EUs that patronized the RC. The researcher was also able to identify the type of EU from the details obtained from the swipe-access database of records. They were identified as follows:

    - Masters and Doctoral students

    - Academic staff

    - Support staff (ALs, technicians and maintenance staff)

- Establish what the elements of the RC are used by the EUs

    - The researcher in addressing this question looked at the RC and all that it offered from the physical space to the technical and academic support. These

were then listed in the questionnaire for EUs to indicate their interactivity with them. Briefly categorized the elements were as follows:

- Staff (ALs) and peers
- Computer software and electronic equipment
- Print collection
- Designated space

- Establish an understanding of the EUs interactivity with the various elements of the RC.
    - During a series of observations the researcher was able to ascertain how the EUs interacted with the elements of the RC. Types of software programmes were identified in their use and the researcher also got an understanding of how EUs interacted with the physical space.

5.6   Summary of the chapter

The premises of this study seek to unpack the experiences of EUs in the RC. The researcher, in engaging with this topic anticipated that, from this acquired understanding of experiences, an association could be made between them (the experiences) and the value and importance of the RC in the process of research and knowledge creation in academic libraries. The researcher in this chapter presented the highlights in the findings of this study and further went on to list areas of concern that emanated from these findings and recommendations for subsequent research into associated areas were offered.

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C. Kercival (Mrs.)
212 Avoca Road
Effiingham Heights
Durban North
4051

21 June 2011

Dr. B. W. Ngcobo
Deputy Dean of Students
University of KwaZulu-Natal
Howard College Campus
King George V Avenue
Durban
4041

Dear Dr. Ngcobo
REQUEST FOR GATEKEEPER'S PERMISSION

I am a Master's student in the Faculty of Education, specializing in Higher Education. The theme of my research lends itself to the critical issue of Postgraduate support in Academic Libraries, with particular reference to the Research Commons facility at the E.G. Malherbe Library on the Howard College Campus. I intend to, through this research initiative, investigate the experiences of all end-users of the Research Commons facility

The study will be conducted through an analysis of interviews, observations and questionnaires presented to the users of this facility. The users of this facility are made up of Postgraduate students and staff from across all 5 campuses. In order to proceed with gathering data to support this study, participants need to be sourced from the database of end-users that is generated from the swipe access system. Permission has been granted by the Director of Libraries to access this data. Kindly see attached document.
 I hereby seek consent to engage with the above said participants in the collection of data for this study. The data collection process is threefold. Firstly, permission is required to **observe** the facility with the participants in it. Secondly, a **questionnaire** will be circulated manually within the facility and also sent electronically to a random sample of end-users selected from the database of end-users. Third and lastly, the **interview** process will involve participants who are staff members that have served in the Research Commons.

Your consideration in granting this request will be greatly appreciated as this will provide an opportunity of creating literature pertaining to the Research Commons of Howard College.
Thank you for taking the time to entertain this request.

C.Kercival (Surrrey)	Supervisor: Ruth Searle M.A. (Zim), MSc.
Senior Librarian	Faculty of Education: Higher Education
Information Services Division	University of KwaZulu-Natal
E.G. Malherbe Library	Pietermaritzburg Campus
Contact: 0837772581 ©	Contact: 0312601388
0312602063 (o)	Searle@ukzn.ac.za

DEAN OF STUDENT'S APPROVAL DOCUMENT

Mrs C. Kercival
212 Avoca Road
Effiingham Heights
Durban North
4051

02 September 2011

Dear Mrs Kercival
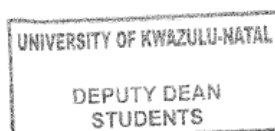
REQUEST FOR PERMISSION TO CONDUCT A SURVEY

Your letter of 2nd September 2011 refers. I hereby grant permission with regard to the above and wish you everything of the best in your endeavours.

Yours sincerely

Dr BW Ngcobo

Deputy Dean: Students

Howard College & Medical School

UNIVERSITY OF KWAZULU-NATAL

DEPUTY DEAN
STUDENTS

DEPUTY DEAN: STUDENTS

C. Kercival, (Mrs.)
212 Avoca Road
Effiingham Heights
Durban North
4051
21 June 2011

Dr. Nora Buchanan
Director of Libraries
University of KwaZulu-Natal
Howard College Campus
King George V Avenue
Durban
4041

Dear Dr. Buchanan
REQUEST FOR GATEKEEPER'S PERMISSION

I am a Master's student in the Faculty of Education, specializing in Higher Education. The theme of my research lends itself to the critical issue of Postgraduate support in Academic Libraries, with particular reference to the Research Commons facility at the E.G. Malherbe Library on the Howard College Campus. I intend to, through this research initiative, investigate the experiences of all end-users of the Research Commons facility.

The study will be conducted through an analysis of interviews, observation and questionnaires. In order to proceed with gathering data to support this study, participants need to be sourced from the database of end-users that is generated from the swipe access system. I hereby seek consent in attaining access to this database in order to pursue the study. The data collection is threefold. Firstly, permission is required to observe the facility noting activity at three different times. Secondly, a questionnaire will be circulated manually within the facility and also sent electronically to a random sample of end-users selected from the database of end-users. Third and lastly, the interview process will involve participants who are staff members that have served in the Research Commons.

Your consideration in granting this request will be greatly appreciated as this will provide an opportunity of creating literature pertaining to the Research Commons of Howard College. Thank you for taking the time to entertain this request.

C.Kercival	Supervisor: Ruth Searle
Senior Librarian	M.A. (Zim), MSc. (Surrrey)
Information Services Division	Faculty of Education: Higher Education
E.G. Malherbe Library	Pietermaritzburg Campus
Howard College Campus	University of KwaZulu-Natal
University of KwaZulu-Natal	
Contact: 0837772581 ©	Contact: 0312601388
0312602063 (o)	Searle@ukzn.ac.za
kercival@ukzn.ac.za	

GATEKEEPER'S APPROVAL DOCUMENT

UNIVERSITY OF
KWAZULU-NATAL

Ms C Kercival
212 Avoca Road
Effingham Heights
Durban North

15 August 2011

Dear Ms Kercival,

REQUEST FOR GATEKEEPERS' PERMISSION

Your letter of 21 June refers. Your research investigation sound very interesting and worthwhile. I hereby consent to your attaining access to the database of end-users of the Research Commons facility in the E G Malherbe Library and look forward to reading about the results of your investigation.

Yours sincerely

Dr N Buchanan
Director of Library Services : UKZN

Director of Library Services

Postal Address: Howard College Campus Durban 4041, South Africa

Telephone: +27 (0)31 260 2317   Facsimile: +27 (0)31 260 2051   Email: webster@ukzn.ac.za   Website: www.ukzn.ac.za

Founding Campuses: Edgewood   Howard College   Medical School   Pietermaritzburg   Westville

Questionnaire for users of the Research Commons
Please place a tick in the appropriate box, filling in the blank if 'other' is selected, in the space provided

SECTION A : DEMOGRAPHICS

1. Gender:
   - ❑ Male
   - ❑ Female

2. Age
   - ❑ 25 years and below
   - ❑ 26-35
   - ❑ 36-45
   - ❑ 46 -55
   - ❑ 56 +

3. Do you have a disability?
   - ❑ Yes
   - ❑ No

   Explain…………………………………………………………………………………………

4. Nationality
   - ❑ South African
   - ❑ Other (please specify)

   …………………………………………………………………………………

5. Race
   - ❑ Black
   - ❑ Coloured
   - ❑ Indian
   - ❑ White
   - ❑ Other (please specify)……………………………………….……………………………………………..

6. Specify your affiliation to the university
   - ❑ Masters student
   - ❑ Doctoral student
   - ❑ Researcher assistant
   - ❑ Academic staff member
   - ❑ Support staff member
   - ❑ Visitor
   - ❑ Other (please specify)

   …………………………………………………………………………………………

   …………………………………………………………………………………………

Section B : Course of study

7. Which campus are you studying at?
    - ❑ Edgewood
    - ❑ Howard college
    - ❑ Pietermaritzburg campus
    - ❑ Westville campus
    - ❑ Nelson Mandela (Medical)
    - ❑ Other (please specify)

    …………………………………………………………………………

8. In which school are you conducting your research? Please state
    ………………………………………………………………………………………

9. How is your research funded? (if not self-funded please specify funder)
    - ❑ Self-funded
    - ❑ Funded by ………………………………………

Section C : Research Commons' experiences

10. What is the purpose of your visit? (tick all that apply)
    - ❑ To do research into your topic using the electronic resources available
    - ❑ To source the use of the academic software
    - ❑ To access the printing facility
    - ❑ To consult the collection of reference books in the facility
    - ❑ To type your dissertation making
    - ❑ To source the assistance of the research librarian
    - ❑ Upon the request of your supervisor
    - ❑ Other (please specify)

    ………………………………………………………………………………………

11. Which of the following elements did you interact with in order to conduct your research?
    (tick where applicable)
    - ❑ Computers
    - ❑ Printing facilities
    - ❑ Scanning facilities
    - ❑ Reference collection (books)
    - ❑ Staff
    - ❑ Other (please specify)

    ………………………………………………………………………………………

12. What software programmes did you use whilst you engaged in the research process?

    - ❑ Office applications (please specify)
    ……………………………………….…………………………..
    - ❑ Referencing software (please specify)
    ………………………………………………………………...
    - ❑ Statistical analysis software (please specify)
    ……………………………………………………..........
    - ❑ Qualitative analysis software (please specify)………………

13. Did the following elements of the facility appeal to you? (tick the appropriate box)

	YES	NO
Designated space for postgraduate research		
Availability of the updated software to conduct research		
Access to a Research Librarian		
Advanced computer hardware		
Advanced computer software		
Collection of reference books for the exclusive use of commons users		
Other (please specify)		

14. What improvements would you recommend for the facility?

    ……………………………………………………………………………………………

15. What is your opinion about having such a facility on every campus? (please explain)
    ………………...

Section D: Evaluation of service

16. Will you use this facility again?

    ❑ Yes
    ❑ No
        Why?
        ....

17. If you experienced any problems, please specify in which area you did?

    ❑   Technical support (please specify)
        …………………………………………………………………………………………
    ❑   Academic support (please specify)
        …………………………………………………………………………………………
    ❑   Other (please specify)
        …………………………………………………………………………………………

18. Has the availability of such a facility contributed positively to your research experiences? If yes, please state

    ❑ Yes
    ❑ No
        Why?
        ……………………………………………………………………………………………
        ……………………………………………………………………………………………
        ……………………………………………………………………………………………

THANK YOU

<u>INFORMED CONSENT (MANUAL QUESTIONNAIRE)</u>

College of Humanities
Faculty of Education
University of KwaZulu-Natal
Pietermaritzburg
3200

Dear Participant

I am a Masters student in Education, specializing in Higher Education in the Faculty of Humanities at the University of KwaZulu-Natal and I am investigating the experiences of users of the Research Commons facility at the Howard College Library.

Your assistance is kindly requested in the answering of a questionnaire which will assist in sourcing the relevant data required to conduct this study. Answering of the questionnaire will take approximately 15 minutes of your time. Please feel free to contribute any vital information you deem significant to this enquiry.

Please be reminded that your participation in this research is entirely voluntary. Further, this study does not require for you to reveal your identity and all responses will be treated in a confidential manner.

Your input is extremely valued as this academic knowledge production endeavour is the first of its kind.

I hereby consent to being voluntarily participatory to this study.
Name (optional)...
Signature..
Date:...

Thank you

Principal Researcher
C.Kercival
Senior Librarian
Information Services Division
E.G. Malherbe Library
Howard College Campus
University of KwaZulu-Natal
<u>Contact</u>:   0837772581 ©
                 0312602063 (o)
                 kercival@ukzn.ac.za

INFORMED CONSENT FORM (ELECTRONIC QUESTIONNAIRE)

College of Humanities
Faculty of Education
University of KwaZulu-Natal
Pietermaritzburg
3200

Dear Participant

I am a Masters student in Education, specializing in Higher Education in the Faculty of Humanities at the University of KwaZulu-Natal and I am investigating the experiences of users of the Research Commons facility at the Howard College Library. You have been selected from a database of users that has been generated from the swipe access system. Please be assured that access to this database has been sanctioned by the Director of Libraries, Dr. Nora Buchanan for the express purpose of this study.

Your assistance is kindly requested in the answering of a questionnaire which will assist in sourcing the relevant data required to conduct this study. Answering of the questionnaire will take approximately 15 minutes of your time. Please feel free to contribute any vital information you deem significant to this enquiry.

Please be reminded that your participation in this research is entirely voluntary. Further, this study does not require for you to reveal your identity and all responses will be treated in a confidential manner.

Your input is extremely valued as this academic knowledge production endeavour is the first of its kind.

Thank you

Principal Researcher
C.Kercival
Senior Librarian
Information Services Division
E.G. Malherbe Library
Howard College Campus
University of KwaZulu-Natal
Contact: 0837772581 ©
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                  kercival@ukzn.ac.za

SCHEDULE OF INTERVIEW QUESTIONS TO END-USERS WHO HAVE HAD EXPERIENCES IN THE RESEARCH COMMONS

1. How often have you used the Research Commons?

2. What was your initial understanding of the concept of the research commons?

3. What has been your experience of this space?

4. How has it changed or expanded the way you work?

5. What has been the most significant in influencing your understanding of the Research Commons?

6. What effect do you think this feature of the library has had on the research endeavour at UKZN?

7. Would this kind of feature enhance the postgraduate research support if it were on different campuses?

8. If you were to change any of the features of this facility, what would they be and why?

DATA REDUCTION CATEGORIES FOR OF INTERVIEW RESPONSES

1. Emerging themes from interviews and analysis

    a. Frequency in usage of the RC

    b. EU's understanding of a RC

    c. EUs' experiences in their interaction with the elements

    d. EUs' experiences of the space

    e. EUs' experiences approach to their work

    f. Influences on EUs' experiences

    g. EUs' perspectives on research

    h. EUs' perspectivs on enhancements or changes in the RC

<u>INFORMED CONSENT FORM FOR INTERVIEW</u>

Dear End User of the Research Commons

I am a Master's student in the Faculty of Education, specializing in Higher Education. The theme of my research lends itself to the critical issue of Postgraduate support in Academic Libraries, with particular reference to the Research Commons facility at the E.G. Malherbe Library on the Howard College Campus. I intend to, through this research initiative, investigate the experiences of all end-users of the Research Commons facility. The primary purpose of this study is to understand how the experiences of the end-users in this learning space have contributed to the research process.

This research will involve your participation in an in-depth interview that will take 45 minutes to an hour. You are being invited to participate because I feel that as Academic Librarians your time spent in and your knowledge about the Research Commons could further add to the data about users experiences across the spectrum of this facility.

Please be reminded that your participation in this research is entirely voluntary. Further, this study does not require for you to reveal your identity and all responses will be treated in a confidential manner.

Thank you
Certificate of Consent
I.. (Full name)
hereby confirm that I understand the contents of this document and the nature of the research project and I consent to participating in this study.
I understand that I am at liberty to withdraw from the process of this interview at any time, should I so desire. I further am assured that my identity will be kept confidential.
Signature of the Participant   Date
....   ……………………..
Principal Researcher
C.Kercival
Senior Librarian
Information Services Division
E.G. Malherbe Library
Howard College CampusUniversity of KwaZulu-Natal
Contact: 0312602063 (o)
                0837772581 ©
                kercival@ukzn.ac.za

K

OBSERVATION SCHEDULE OF ACTIVITY IN THE RESEARCH COMMONS

DATE   TIME

NO	ASPECT OF OBSERVATION	OBSERVATIONS
1	DATE AND TIME OF OBSERVATION	
2	NUMBER OF PARTICIPANTS IN FACILITY BEGINNING AND END OF DAY	
3	USAGE OF THE PRINT COLLECTION FROM WITHIN THE FACILITY	
4	USAGE OF THE PRINT COLLECTION FROM THE MAIN LIBRARY(BOOKS, JOURNALS, THESES)	
5	NUMBER OF DESKTOP USERS	
6	NUMBER OF LAPTOP USERS	
7	OBSERVATIONS OF INTERACTION WITH ELECTRONIC SOFTWARE AND EQUIPMENT (PRINTERS AND SCANNERS)	
8	COMMENTS ON SCANNING FACILITY	
9	ANY ENGAGEMENT IN DISCUSSION	
10	CELL PHONE INTERRUPTIONS/USAGE	
11	CONNECTIVITY ISSUES	
12	INTERACTION WITH THE RESEARCH LIBRARIAN	

DATA REDUCTION CATEGORIES FOR ANALYSIS OF OBSERVATIONS

1.   Analysis of time of observations
2.   Emerging themes from observations
   a. Usage of computers and computer space
   b. Usage of print collection from the RC and the Main Library
   c. Interaction with electronic software and computer equipment
   d. Interaction with peers and Librarian
   e. Interruptions and noise levels
   f. Connectivity and access issues

ETHICAL CLEARANCE CERTIFICATE

**UNIVERSITY OF
KWAZULU-NATAL**

**INYUVESI
YAKWAZULU-NATALI**

Research Office, Govan Mbeki Centre
Westville Campus
Private Bag x54001
DURBAN, 4000
Tel No: +27 31 260 8350
Fax No: +27 31 260 4609
snymanm@ukzn.ac.za

25 October 2011

Mrs C Kercival (8523605)
School of Higher Education

Dear Mrs Kercival

PROTOCOL REFERENCE NUMBER: HSS/1029/011M
**PROJECT TITLE: Experiences of end-users of the Research Commons as a learning space: A case study of the Howard College
Library**

In response to your application dated 10 October 2011, the Humanities & Social Sciences Research Ethics Committee has considered
the abovementioned application and the protocol has been granted **FULL APPROVAL.**

Any alteration/s to the approved research protocol i.e. Questionnaire/Interview Schedule, Informed Consent Form, Title of the
Project, Location of the Study, Research Approach and Methods must be reviewed and approved through the amendment
/modification prior to its implementation. In case you have further queries, please quote the above reference number.
PLEASE NOTE: Research data should be securely stored in the school/department for a period of 5 years.

I take this opportunity of wishing you everything of the best with your study.

Yours faithfully

....
Professor Steven Collings (Chair)
Humanities & Social Science Research Ethics Committee

cc Supervisor – Mrs R Searle
cc Ms S Naicker

1910 - 2010
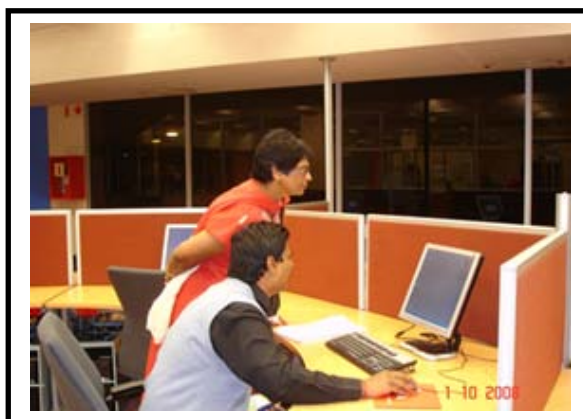**100 YEARS OF ACADEMIC EXCELLENCE**
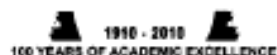
Founding Campuses: ■ Edgewood   ■ Howard College   ⁓ Medical School   ■ Pietermaritzburg   ■ Westville

PICTORIAL REPRESENTATION OF THE RESEARCH COMMONS
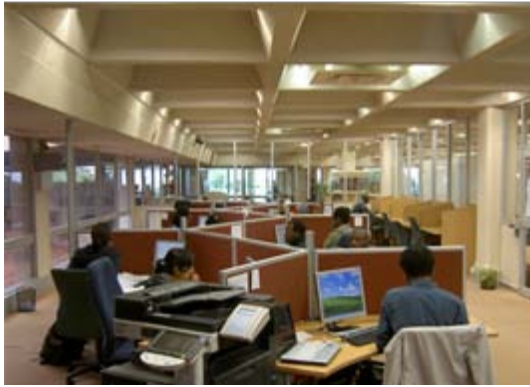

L1 OPENING CEREMONY 01 OCTOBER 2008

L2 COMMEMORATIVE PLAQUE OF ANDREW CARNEGIE

L3 STAFF VIEWING THE NEW COMPUTERS

L4 SIGNAGE AND DIRECTIONS TO THE RESEARCH COMMONS

THE RESEARCH COMMONS TODAY

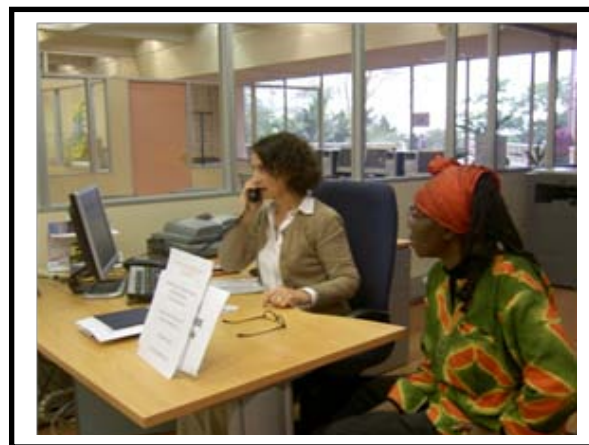L5 END-USERS BUSY ENGAGED IN SCHOLARLY RESEARCH

L6 GROWING RESEACH REFERENCE COLLECTION

L7 NEW AND IMPROVED PRINTING AND SCANNING FACILITIES

L8 LAPTOP END-USERS USING DESIGNATED SPACES

L9 LIBRARIAN ENGAGED IN RESEARCH SUPPORT OF END-USER

L10 SWIPE ACCESS INTO RC

L11 CASUAL SEATING FO R LAPTOP EU's

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