JOB SATISFACTION OF RESEARCH LIBRARIANS IN SELECTED RESEARCH LIBRARIES IN THE WESTERN CAPE

by

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A mini-thesis submitted in partial fulfillment of the requirements of the degree **of Magister Bibliothecologiae**, in the Department of Library & Information Science, University of the Western Cape

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KEY WORDS

Employees

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Job Characteristics Model (JCM)

Job Diagnostic Survey (JDS)

Job satisfaction

Librarians

Motivation

Research librarians

Research libraries

Western Cape

DECLARATION

"I declare that Job satisfaction of Research Librarians in selected Research Libraries in the Western Cape is my own work and that it has not been submitted before for any degree or examination in any other university, and that all the sources used have been indicated and acknowledged by means of complete references".

Wilhelmina Elizabeth Zaal

November 2012

Signed _____

Date _4/3/2013_____

ii

ABSTRACT

The study examines job satisfaction among research librarians in selected research libraries situated in the Western Cape region. Many studies worldwide have been done on job satisfaction in various subject fields including librarianship. The theoretical framework for this study refers however only on the Job Characteristics Model (JCM) (1976) of Hackman and Oldham. The reason why this model was chosen was because this model was the most appropriate model given the nature of the study, even though there are other models available. A brief overview of the other theoretical models namely; Maslow's (1943) hierarchy of needs and Herzberg's (1954) two factor theory of motivation are discussed as a starting point of this research study. Research librarians work under stressful conditions given the need to produce successful end results.

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First and foremost, I give all glory and praise to Jesus Christ my Saviour for bestowing the courage, health and mental ability on me to complete the mini-thesis. Jer. 29:11 "I know the plans I have for you, plans to prosper you and not to forsake, plans to give you hope and a future, then you will call upon me and I will listen to you".

Secondly, a special thank you to my parents, Mommy and Dera, my son Zaundrey and the rest of my family for believing in me, for your support your understanding and your patience.

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DEDICATION

This thesis is dedicated to my mother Kathleen Jacqueline Zaal and my father Dennis Lucardius Zaal

LIST OF FIGURES

UNIVERSITY *of the*

WESTERN CAPE

LIST OF ACRONYMS

CSIR   :   Council for Scientific and Industrial Research

HMO   :   Hermanus Magnetic Observatory

IMT   :   Institute of Maritime Technology

JCM   :   Job Characteristics Model

MRC   :   Medical Research Council

NRF   :   The National Research Foundation

SAAO   :   The South African Astronomical Observatory

SERC   :   Science and Engineering Research Council

SANDF   :   South African National Defence Force

SLA   :   Special Libraries Association

US   :   University of Stellenbosch Research Libraries

TABLE OF CONTENTS

UNIVERSITY *of the*

WESTERN CAPE

CHAPTER ONE: BACKGROUND TO THE STUDY AND PROBLEM STATEMENT

1.1 Introduction

Researchers tend to seek information and expect immediate results no matter what the circumstances might be. It is expected from research librarians to have a variety of skills and to be involved in many organizational activities other than librarianship. The job of a research librarian is always challenging and no day is the same as the previous one.

Research libraries are specialized libraries aimed to satisfy the information needs of specialized user groups. Special libraries hold rare books, manuscripts and similar material. Like other libraries they render the same service to their users.

1.2 Background to the study

Research libraries or special libraries are usually situated in private businesses and public organizations like hospitals, museums, research laboratories, law firms, government departments and agencies. These libraries maintain specialized research material related to their subject field or work. Special libraries may or may not be accessible to the public sector and may only be restricted to their employees. Some academic libraries that deal with post graduates have their own section in the library known as the Research Commons.

Shumaker and Talley (2009:4-5) acknowledge that the role of research librarians is of such a nature that it encompasses their work in a research institute or corporation whose offices are moved from a central library to their customers. Shumaker and Talley's (2009:34) summary of their research surveys shows that non-embedded librarians and embedded librarians are not showing any difference by virtue of their location, funding and supervision. Their survey also reveals that embedded librarians concentrate on relationship-building activities with their customers. Both the two types of librarians gained formal education, learned about their customers' needs through work experience and learning from their customer groups. They perform sophisticated service delivery to their customers.

The human resource side of the embedded librarian includes the following:
- Professional background
- Commitment to provide excellent services at all time
- Have knowledge and should understand the needs of the customer
- Ability to work with a diverse population
- Adapt to the changing needs of the customer

- Work independently and in a team (Kesselman and Watstein, 2009:394).

1.2.1 Research problem

The researcher noticed that previous studies within the framework of job satisfaction models had been done in the following categories: academic, school, librarianship as a whole, information management, public libraries, ICT infrastructure, digitization, job satisfaction of university librarians and job satisfaction of reference librarians. However, not much research on job satisfaction of research librarians within the framework of the Job Characteristics Model (JCM) of Hackman and Oldham had been done in South Africa. The fact that job satisfaction influences productivity, the individual must decide on a solution in finding happiness in a work place. The job itself should be challenging, providing achievement, autonomy, recognition, skills, knowledge and feedback. A job should be designed to offer challenges and interest and it should give the opportunity for development to those who desire growth. The majority of an individual's life is spent at the workplace, assuming that a person starts to work from the age of 18 until 65. Considering this amount of time in the workplace, it is important that the employee should be satisfied with the career path chosen (Krüger and Rootman, 2010:60).

Library users like researchers and students expect knowledge managers, also known as librarians, to render efficient and effective services at all times. Librarians are classified according to the kinds of libraries they work in (My plan ... 2012). The requirements of any librarian are the following:

- Reading comprehension
- Active listening
- Active learning
- Learning strategies
- Instructing

The abilities of librarians are the following:

- Written comprehension
- Oral comprehension
- Information ordering
- Oral expression
- Near vision

Work activities of librarians are the following:

- Retrieving information
- updating and using relevant knowledge
- interact with computers and library users
- communicating with supervisors and peers
- establishing and maintaining interpersonal relationships
- training others, processing information, identifying objects
- making decisions
- solving problems
- organizing, planning and prioritizing the day's work
- analyze data
- monitor, perform administrative activities
- control resources
- be creative, coach
- coordinate work
- recording, judging, scheduling
- develop strategies, building teams
- consult, assist, perform
- resolve and influence others (My plan … 2012).

Research librarians on the other hand should be actively involved to help support research. Quick [… et al], (1997:213) state that research librarians are emotionally driven. They require emotional intelligence to cope in their everyday life in order to accomplish certain goals and to see end-results.

1.2.2 Aim of the study

The aim of the study is to investigate the levels of job satisfaction among research librarians by using the framework of the Job Characteristics Model (JCM) of Hackman and Oldham 1976. The use of the JDS provides direct measures of all the variables in the Job Characteristics Model (JCM) (Boonzaier; Ficker, and Rust, 2001:13) by combining the three job dimensions which are skills variety, task identity and task significance. The Job Diagnostic Survey measuring tool is used to measure the degree of the overall Motivating Potential Score (MPS) of

3

a job itself. This tool measures personal, affective reactions of a person performing the job.

1.2.3 Research questions

The literature review is based on the research problem and questions. So is the theoretical framework which informed this study. The study will attempt to provide answers to the following questions:

1. What factors affect job satisfaction among research librarians in their working environments?
2. What factors contribute to job satisfaction?
3. What core job dimensions motivate research librarians to stay at their place of employment?
4. What impact does the working environment have on research librarians in their quest to stay loyal to their workplaces?

1.2.4 Delimitations and limitations

The study was limited to research librarians working in selected research libraries in the Western Cape. The study was relatively small because all other types of librarian were excluded during this study. Six of the seventeen research librarians could not participate in the study due to their busy schedules. However this number makes up the total of research librarians in the selected libraries. Some of the interviews were rescheduled. It would have been useful if the researcher could have conducted follow-up interviews. As a result the researcher had two weeks to complete the interviews, meaning the duration of the study was reduced.

1.2.5 Chapter outline

The mini thesis is composed of 5 chapters of which:

Chapter 1 provides background information, the aim of the study, and the rationale behind the project.

Chapter 2 deals with a review of the relevant literature pertaining to the problem and theoretical framework.

Chapter 3 describes the research design and methodology and discusses the motivation for a qualitative method to test the validity of the JCM model of Hackman and Oldham.

Chapter 4 deals with the presentation and subsequent interpretation of the data.

Chapter 5 deals with the conclusion and recommendations for further study.

1.2.6 Ethics statement

The researcher adhered to the ethics guidelines of the University of the Western Cape. The researcher respected the rights of the participants; obtained the consent from the research participants based on adequate information on the project. See Appendix 2 on page 60. Respondents were promised anonymity and their participation in the research project was voluntary. Participants were allowed to withdraw any time during the research process.

1.3   Background information of the following institutions under investigation

Below the researcher gives background information of the institutions under investigation.

1.3.1   The South African Astronomical Observatory (SAAO)

The SAAO was found together with the Royal Observatory at the Cape of Good Hope in 1820. It was the first scientific institute in sub-Saharan Africa. In 1970 the Republic Observatory in Johannesburg and the Radcliffe Observatory in Pretoria merged with the Royal Observatory to form the South African Astronomical Observatory with the headquarters located in the Royal Observatory. The South African Astronomical Observatory was established in January 1972 by a joint agreement of the Council for Scientific and Industrial Research (CSIR) of South Africa and the Science and Engineering Research Council (SERC) of the United Kingdom. The National Research Foundation (NRF) is now administering the SAAO. Although the 1.9-m Radcliffe telescope is situated in Sutherland, the SAAO's functions as a national South African centre for optical and infrared astronomy carrying out its own research programmes. The SAAO administrative headquarters host the main computer facilities, engineering workshops, library and a small museum in the McClean telescope building displaying various instruments once used. The SAAO library hosts a unique richness of pre-twentieth century journals based in the subject field of astronomy starting at volume 1 (South African Astronomical Observatory, 2011).

1.3.2   Institute of Maritime Technology (IMT)

The Institute of Maritime Technology was founded in 1975. IMT performs defense research to satisfy South African strategic needs and the South African Navy for techno-military support,

5

products and services. The IMT also want to establish applicable technology and systems to further the interests of the South African National Defense Force (SANDF). The Institute of Maritime Technology supports the SANDF with scientific informed advice, supports the development of technology and strategic products and the establishment of underwater technology for improvement of performance of its systems (Institute of Maritime Technology, 2011). IMT is active in the following domains:

- Naval mine warfare
- Submarine warfare
- Surface warfare
- Target characterization above water
- Target characterization subsurface
- Battlefield characterization
- Decision support

The IMT library holdings consist of topics regarding Maritime Engineering, Science and Technology. Below is the list as follows:
Ship and vessel descriptions, design and construction, ship powering, equipment, maintenance, repair, conversion, cargo handling, port design and operation. Safety at sea falls under environmental protection, coastal and ocean engineering, offshore technology, fluid mechanics, hydrodynamics, hydraulics and aerodynamics. Other topics that the library deals with are Ship resistance and propulsion, motions, sea keeping, structural response, material properties, corrosion and fouling; naval vessels and defense technology.

1.3.3 University of Stellenbosch Libraries (US)

The University of Stellenbosch is situated in the country's oldest town with its significant history of education. In 1685 the Dutch Reformed Church introduced regular schooling by which the Cape Colony was operating it during the 1840s. In 1866 the Education Act recognized the public school as a First Class Public School also known as the Stellenbosch Gymnasium. Stellenbosch Gymnasium in 1874, under the Higher Education Act, set up its own professorial division called the Arts Department presently the Faculties of Arts and Science. Later on a large College was built to house the Arts Department. In 1887 Queen Victoria changed the College's name to the Victoria College of Stellenbosch. In 1898 the Agriculture Department was established and a full faculty of Agriculture existed in the new University of Stellenbosch.

Training of teachers in 1895 began as the chairs of Philosophy, English Literature, Greek and Latin, Zoology, Botany and History and later on Applied Mathematics separated. New buildings were erected and a teaching university at Groote Schuur was later established. In 1966 the creation of a university at Stellenbosch was made possible by Mr Jan Marais of Coetzenburg who made a huge monetary contribution and under the University Act, under which Victoria College became independent, was passed by the Union Parliament. The University of Stellenbosch came in to effect on the 2nd April 1918 (University of Stellenbosch, 2011).

JS Gericke Library on the Stellenbosch campus opened its research commons in 2011. The Research Commons is for exclusive use of masters and doctoral students as well as researchers. The aim of the commons is to create an environment for research exchange and production, and scholastic debate. The Research Commons is situated on the lower level of the library. The Research Commons offer researchers the opportunity of engaging in debate exchange in the seminar rooms. It has a lounge where the researchers can relax and it has computer work areas (University of Stellenbosch, 2011).

1.3.4 Medical Research Council (MRC)

According to the Medical Research Council (Medical Research Council, 2012), Brock, J.F mentioned once that "medical research must, to justify the name, be consciously directed towards an end – the alleviation or cure of human illness and its ultimate prevention; it is basically a field of applied research". In 1969 this statement complied with the fuller definition that the Medical Research Council. "The objects of the South African Medical Research Council (MRC) are through research, development and technology transfer, to promote the improvement of the health and the quality of life of the population of the Republic and to perform such other functions as may be assigned to the MRC by or under this Act" (Government Gazette, 1991:1). The MRC's aim is to discover solutions to health problems with the help of highly qualified scientists and researchers. The MRC Research Units consist of 41 grouped and lead programmes listed according to the health priorities of South Africa. The health priorities are as follows:

- HIV and AIDS,
- tuberculosis
- cardiovascular disease and diabetes
- infectious disease
- crime and violence and injury

- cancer, public health
- health promotion
- women and maternal and child health
- nutrition
- brain and behavior
- genomics and proteomics
- environment and health
- South African traditional medicine (Medical Research Council, 2012).

Grants for short-term research projects are made available. In 1971 at Tiervlei the Municipality of Parow together with the Parow City Council and the Cape Provincial Administration donated a site for the head office in Cape Town, Parow. Life after apartheid in 1994 became much better because international co-operation increased and postdoctoral bursaries were awarded from the United States of America. A need for a relevant health care system towards the needs of the communities became a priority. Affirmative action was implemented and the building of research capacity directed at the most urgent health problems was attended to. In 1993 the MRC and Medtech had been liquidated, but because of the organization's strong foundation and loyalty of the staff, the MRC could survive its financial crisis. The shift of the organization's direction from its curiosity-driven impulse to rather focusing on the actual health problems of the community made its survival possible. The MRC changed from an inward-focused organization to a client-orientated science, engineering and technology institution (SETI) which became increasingly recognized by the public and private sector and reached a healthy financial wellbeing (Medical Research Council, 2012).

The MRC library makes use of WIZCAT, a restricted access database which is only available for MRC users. It is a web based knowledge and information management tool for corporate information centers and special libraries. The MRC library consists of in-house databases which are the following:
PubMED, MEDLINE, AIDSearch, POPLINE, South African Studies (SAS) and African Health Anthology (AHA). The librarian assists health professionals in accessing databases by offering search training. The library provides Information Repackaging (IR) which customizes information to meet specific needs of users. IR service is to locate, retrieve and evaluate and interpret information in a specific subject. It consists of information that is relevant and comprehensive. Document delivery is also available at a cost to the user through post, faxing

and electronic format to staff and private individuals (Medical Research Council, 2012).

1.3.5 Hermanus Magnetic Observatory (HMO)

The Hermanus Magnetic Observatory (HMO) was established in 1932. Since its origin the HMO has actively participated in the worldwide network of magnetic observatories. HMO's main function is to monitor and model variations of Earth's magnetic field. HMO has a research staff which specializes in geomagnetism, atmospheric physics, ionospheric physics, magnetospheric physics and space plasmas. Today the HMO contributes key earth data to several international Earth data repositories. These data include ionospheric data from the South African ionosonde network, geomagnetic data from four INTERMAGNET observatories in Southern Africa, the Gough Island, geophysical data from Antarctica, and Marion Island. In June 2007 HMO was designated as the Space Weather regional Warning Centre for Africa. The 1st April 2011 HMO changed its name to the South African National Space Agency Space Science (SANSA)and migrated from the National Research Foundation (NRF) under the SANSA Act No. 36 of 2008 (Hermanus Magnetic Observatory, 2011). HMO has a strong academic tie in South African and International Universities and it supports MSc and PhD research students into Space Physics, Geomagnetism and other Physics. HMO's staff consist all of either MSc's or PhD's in Physics. HMO also has an outreach to the community programme which promotes the exposure of school children from previously disadvantaged areas to Mathematics and Physics (Hermanus Magnetic Observatory, 2011).

1.3.6 Conclusion

This chapter concentrated on the background of the study and the problem statement derived from the literature. It describes background information of the characteristics of librarians in general and also the characteristics of research librarians. Chapter one gives a description of the activities of librarians and how research librarians can contribute to their working environments. The reason for the background information of the institutions is to familiarize the reader with the different types of working environments the selected participants are situated in.

CHAPTER TWO: LITERATURE REVIEW AND THEORETICAL FRAMEWORK

2.1 Introduction

A review of the literature in this chapter concentrates on Job Satisfaction in the workplace and in particular how it relates to libraries. The JCM theory was not much used by researchers in South Africa with the aim to test job satisfaction of research librarians in the Western Cape region. The chapter attempts to explore studies conducted in research libraries focusing on job satisfaction within the framework of the Job Characteristics Model of Hackman and Oldham, (1976).

2.1.1 Job satisfaction

Job satisfaction is a general attitude or feeling of the employees constituted by their approach towards wages, working conditions, control, promotion, social relations in the work area, and recognition of talent, personal characteristics, group relations and supervisors (Topper, 2008:288). It is the degree to which people survive better than others based on the individual's needs, desires, goals, and aspirations (Badawi, 2006:7) Job satisfaction also reflects on the individual's attitudes and expectations towards their work and goals (Thornton, 2000:219). Job satisfaction is regarded as one of the most widely studied topics in the history of both industrial and organizational psychology. In organizational science, job satisfaction plays an important role in individual attitudes and behaviours in order to enhance organizational effectiveness (Eid and Larsen, 2008:393-398). Intrinsic factors such as co-workers, supervision and the work itself and extrinsic factors such as pay and promotions all form the conceptualization to measure job satisfaction. These variables are also hidden depending on the connection the researcher wishes to manifest (Locke, 1976:28-32).

2.1.2 Job satisfaction in the workplace in general

Chen (2001) studied the relationship between loyalty to supervisors and top management, job satisfaction and intent to stay. He did the study of the commitment to supervisors versus organizational commitment. He defined loyalty to supervisor as the relative strength of a subordinate's identification with attachment and dedication. Psychological attachment to a person is best described as personal loyalty rather than as an impersonal form of commitment. Chen (2001:650-651) cites studies conducted by Becker (1992) and Williams and Hazer (1986), who proposed that loyalty to supervisors and organizational commitment is positively associated with job satisfaction. The five dimensions of loyalty to supervisors are:

- Dedication of oneself to the supervisor

- Effort on behalf of the supervisor

- Emulating the supervisor

- Identification with the supervisor, the feeling of pride for being a subordinate

- Internalization and congruence with the supervisor's value system

Chen (2001:651) suggested that loyalty to supervisors may have a unique impact on certain employee outcomes, such as employee in-role performance and organizational citizenship behaviour than commitment to the organization. Social information provides the sources for people's formation of their job attitudes. Chen's findings have shown that employers concerned with employees' job satisfaction and intent to stay should pay more attention to LS (loyalty to supervisor) in organizational commitment. Results have proven that in business organizations, the supervisor is a more important factor in influencing employee attitudes at work than the organization (Chen, 2001:657).

Greenberg, Wang and Dossett (1982:53) used the (JCM) of Hackman & Oldham, (1975) to observe the performance of undergraduate psychology workers. They used 20 male and 20 female undergraduate psychology undergraduates. Two work group sizes were on the assembly line while on the remaining conditions the 4 work group sizes were present. Each task size had to do assembling. The x 2 work group size each had 4 tasks to complete in order to finish the job, the same with the 2 size work group. Results showed that the x 2 work group size performed one task each while the 2 size work group 2. Rated by the job self on the five core job dimensions of Hackman & Oldham's (1975) Job Characteristics Model; jobs that are performed by smaller work groups are significantly more enriched. Also on task size, results showed that jobs with larger tasks were seen more enriching and that the workers were more motivated.

Hackman & Oldham, (1975:159-160) state that because of the lack of information regarding job enrichment resulting from behavioral science research, and the absence of data related from the effectiveness of various strategies for implementing work redesign projects. They had the capacity to develop the Job Diagnostic Survey (JDS) to measure redesign of any job. The JDS has its origins from methodological developments of Turner and Lawrence (1965) and Hackman and Lawler (1971), Hackman & Oldham, 1975. Boonzaier, Ficker, and Rust, (2001:11) did a review of research on the Job Characteristics Model of Hackman & Oldham, (1980), and the

attendant job diagnostic survey. The JDS can be used to:

- diagnose jobs considered for redesigning in order to establish whether the current potential of a job can enhance motivation and satisfaction amongst workers.

- identify those specific job characteristics that are in most need of enrichment

- assess the readiness of employees to respond positively

This measuring tool can be used by managers to help them to achieve an optimal fit between workers and their jobs by addressing motivation, satisfaction and performance problems caused by shortcomings in the nature of their work. According to Hackman and Oldham (1976:258) a job need at least one of the three job dimensions to prompt internal work motivation. The job characteristics that foster knowledge of results is feedback which is fostered by experienced responsibility for outcomes of the work. "The individual should feel strong personal responsibility for the success and failures on the job", (Hackman and Oldham, 1976:258). The JCM is designed to test jobs that are carried out by more or less independent individuals. This specific model offers us a guide for effective work group tasks designed for teams in order to motivate group members.

$$MPS = \left[\frac{Skill}{Variety} + \frac{Task}{Identity} + \frac{Task}{Significance} \right] \times (Autonomy) \times (Feedback)$$

Figure 1: Motivating Potential Score (MPS), (Hackman & Oldham, 1975:160).

By using the JCMs' combined outcome of a JDS, the results of the individual objective characteristics can be used in a group to motivate high job satisfaction in the workplace.
"For positive personal and work outcomes, high internal work motivation, high-quality work performance, high satisfaction with the work and low absenteeism and turnover should be obtained when all three critical psychological states" which are experienced meaningfulness of the work, experienced responsibility for outcomes of the work and knowledge of the actual results of the work activities, as seen in figure 2, are present (Hackman & Oldham, 1975:160). This is the result of individual growth need strength. "The basic prediction is that people who have a high need for personal growth and development will respond more positively to a job

high in the motivating potential than people with low growth need strength", (Hackman and Oldham, 1976:258).

According to Hackman & Oldham (1975:285) "employees are able to provide generally accurate assessments to the characteristics of their jobs". In order to predict employee behaviour, employee ratings of job characteristics are preferable to use because it is an employee's own perception of the objective that it is causal to their reactions.

2.1.3 Job satisfaction in libraries

The job itself, achievement and recognition are directly linked with motivation at work and the direct result of job satisfaction. Former studies, e.g. Topper (2008:288) showed that job satisfaction among librarians is influenced by:

- Age: older workers are more satisfied than younger ones
- Experience: employees with more experience are more satisfied than those with less experience
- Planning: those who plan to stay in one organization are more satisfied than those with other plans
- Departments: reference department librarians have higher job satisfaction levels than employees in other departments
- Professionalism: professional librarians are more satisfied than librarians without a library degree
- User studies: those working with patrons are more satisfied than those working ad hoc for example cataloguers

Although Davis (1999) and Hart (2010) did studies on job satisfaction in libraries using other methods, their studies are still relevant to this study, because it is their findings that are related to this study. The researcher want to investigate whether her results is related to these findings.

Davis (1999:8-11) did a case study based on a sample of public libraries, in the Cape Peninsula in 1997 which he divided into three sections. His research examined whether staff in public libraries, in the Cape Peninsula, was motivated to provide library services to users and what role staff motivation played. The library staff had to respond to how they perceived their work and library managers had to indicate the factors they thought were necessary for motivating staff. Davis's findings have shown a low percentage of 14% response from library assistants on staff

motivation and a level of 50% from librarians and a high of 75% responses were received from library managers. In conclusion the factors that were highly important to all three groups were job security, organizational procedures, and advancement on the job, growth opportunity and working conditions. "Although librarians and library managers indicated that staff members were motivated to provide library services, the same views were not held by those who performed the tasks relevant to service rendering" (Davis, 1999:10).

Hart (2010:53-62) did a study on job satisfaction in a South African academic library in transition. Hart (2010:54) purports that "most approaches to workplace motivation and satisfaction are influenced by issues such as human resource management in academic libraries whereby employees are motivated by a mix of factors". Her study included 31 members of staff; her data were gathered within the framework of the Human Resources Management (HRM) job satisfaction theory. Hart's findings reveal a love-hate job satisfaction relationship among the academic librarians of which the library was in transition. The academic librarians believed in their workplace, but certain major pointers of concern lead to tension in the work climate for example, restlessness including a sense of stagnation, frustration with inadequate resources and anger at poor remuneration. The academic librarians felt that new employees were given the opportunity to negotiate salary increases, while longer service employees were not given the same opportunity. According to Hart (2010:54), people are motivated by a mix of factors. Some of the findings that caused dissatisfaction in the above mentioned research done by Hart are listed below (Hart, 2010:60):

- Staff vacancies, shortages and inadequate opportunity for development
- Conflict
- Poor communication from leadership
- Poor leadership
- Inadequate resources
- Leadership not appreciating library employees' work
- Working conditions and lack of flexibility
- Physical environment
- Student attitudes

Martin and Roodt (2008:25) did a study on perceptions of organizational commitment, job satisfaction and turnover intentions in a post-merged South African tertiary institution. They did a non-experimental and cross-sectional field survey. The researchers used the internet to distribute their survey. The sample consisted of 367 employees of a South African tertiary

institution of which the target population were academic research, support and administrative personnel irrespective of their current employment contracts. Martin and Roodt used three measuring instruments to measure the variables in the study. The three measuring instruments were the Minnesota Satisfaction Questionnaire, the Organisational Commitment Questionnaire and the Turnover Intentions Questionnaire. The Minnesota Satisfaction Questionnaire (MSQ) assessed the level of job satisfaction to determine the degree of job satisfaction in characteristics associated with the task itself. The Organisational Commitment Questionnaire (OCQ) was used to measure organizational commitment. The third measuring instrument, the Turnover Intentions Questionnaire was used to measure turnover intentions. The first phase of the study was to provide proof that the measuring instruments and variables were reliable and valid. And the second phase was to investigate the relationships between sets of key variables. To process the data they used the Analysis of Variance (ANOVA) and the Structural Equation Modeling (SEM). The results of Martin and Roodt showed that there was a positive sentiment towards organizational commitment and job satisfaction with the organisation and a neutral feeling towards turnover intentions. A significant relationship regarding organizational commitment and academic qualification was found, where results showed that organizational commitment decreased as the level of education increased. Turnover intentions had a significant relationship with age as their finding shows that older respondents placed more investment into an organisation. Martin and Roodt came to the conclusion that the predictive model can be regarded as an important tool for managers. Their model was developed of internal components meaning that the model can be used to prevent turnover intentions in the organisation (Martin and Roodt, 2008:28-29).

Two employees may have the same job, experience the same job characteristics, and yet have different levels of job satisfaction (Hackman and Oldham, 1976:250-279).

Tella, Ayeni and Popoola (2007:1-16) did a descriptive survey on work motivation, job satisfaction, and organizational commitment of library personnel in academic and research libraries in Oyo State, Nigeria. Tella, Ayeni and Popoola (2007:1) concluded that in order to make employees satisfied and committed to their jobs in academic and research libraries it is necessary for strong and effective motivation at various levels, departments, and sections of the library. The target population was library personnel of research and academic libraries situated in Oyo State, Nigeria. A modified questionnaire was designed and structured on Work Motivation, Job Satisfaction and the Commitment Scale (WMJSCS). The researcher visited five research libraries and four academic libraries. The findings of the study revealed that no

differences existed in job satisfaction of library personnel in academic and research libraries. The findings of Tella's study reveal that a correlation exists between perceived motivation, job satisfaction, and commitment and that no relationship existed in the organizational commitment based on years of experience (Tella, Ayeni and Popoola, 2007:11). The findings of this study have pointed out some prominent issues in the field of librarianship:

- It is necessary for library management to meet the demands of their personnel in order to strengthen their motivation, satisfaction, and commitment to minimize turnover.

- Governments and library management should concentrate on improving the working conditions of library personnel.

- The last crucial area is on-the-job training to cope with the integration of information technology into library practices (Tella, Ayeni and Popoola, 2007:12).

Williamson, Pemberton and Lounsbury, (2005:129) did a study on career and job satisfaction in relation to personality traits of information professionals. More than 1300 information specialists participated in the research. These included academic reference librarians, archivists, cataloguers, distance education librarians, public librarians, records managers, school media specialists, special librarians, systems librarians and other information professionals. Library science students, library technicians, clerks and business analysts were not included in the research study. These participants responded using listserv requests and some completed questionnaires at a national library conference. The questionnaire had 100 questions on job and career satisfaction and one on life satisfaction. Findings of the study showed that significant correlations were obtained in both the personality variables and career and job satisfaction of information specialists (Williamson, Pemberton and Lounsbury, 2005:129-131).

2.1.4 Job enrichment
Job enrichment is a type of job redesign with the aim to reverse the effects of boredom by incorporating autonomy in the work place. It is important that the employees should be highly motivated which will lead to positive attitudes towards their work. Mullins (1996: 533) states that restructuring the nature of work itself, and providing job enrichment does increase job satisfaction. It is important that employees understand where they fit into the business. They

should know the importance of what they do, and how it affects other people, how they affect parts of the business and the consequences on other people of both good and bad performances. Implementing variety of tasks as part of an orientation process can help with job enrichment. Job rotation is also a form of individual job design which can help to remove boredom, even if it's just for a short term. (Mullins,1996:530). Job enrichment entitles the following:

- Turning employees' effort into performance
- Linking employees performance to rewards
- Making sure that the employees want the rewards (Job Enrichment, 2012).

2.1.5 Theoretical Framework

There are various theories of job satisfaction. For the purpose of this study 3 models that have particular value to job satisfaction are briefly discussed in the project. These models are Maslow's (1943) hierarchy of needs as cited by Gerber, Nel and Van Dyk (1998:244-260), Herzberg's (1954) two factor theory of motivation as cited by Greenberg and Baron (2003:153) and the Job Characteristics Model (JCM) (1976) as cited by Greenberg and Baron (2003:217). However, only the JCM model of Hackman & Oldham was used during the research study.

The reason why the researcher chose to incorporate Frederick Hertzberg and Abraham Maslow in this study is because their motivation theories can be broadly classified into process and content theories. Both focused on what motivates people. Maslow's (1954, 1943) Hierarchy of Needs and Herzberg's (1966) Two Factor Theory (Motivation Hygiene Theory) is considered an ideal classification for understanding motivational factors in the workplace (Bowden, Cattell, Michell and Distiller, 2008:14-18).

2.1.6 Characteristics of research librarians

Librarians in general are motivated and focused on clientele (Quick ... et al, 1997:213). Research librarians are expected to render prompt services to the user, and as a result they are considered as the best librarians that support scholarly activities (Webb, Gannon-Leary and Bent, 2007:59). Shumaker and Talley (2009:4-5) found that most research librarians holds Bachelor's degrees or Masters degrees in Library and/or Information Science and belong to the Special Libraries Association (SLA). Science or research librarians should be familiar with the subject field of their holdings (Slutsky, 1991:15).

The characteristics of research librarians are as follows:

- Collaborate / contribute to their customers needs

- Provide training on how to use the information management tools
- Meet with executives of their customer groups to discuss information needs and services
- Attend meetings, conferences or classes devoted to their customers' areas of expertise
- Collaborate and contribute to their customers electronic communications e.g. email, blogs, wikis and other web-based services.

Knowledge analysts, field librarians, librarians-in context, client-embedded services librarians (librarians providing specialized services) and project information specialists can all be classified as special librarians or research librarians especially when they are in learning environments like academic environments or institutions like research environments (Shumaker and Tyler, 2007:4).

If librarians participate in a group, or in a community or within an organization providing knowledge and information then they are known as embedded librarians. Embedded librarians are valuable to their environments and play an important role in the services that they render which contribute to customer needs such as:

- In-depth research and analysis
- Current news alerts
- Capturing knowledge and lessons of groups
- Acquiring and organizing information both internally and externally

Webb, Gannon-Leary and Bent (2007:210-223) mention that, "it is important that the librarian learn to know the user and understand the nature of the researcher's work". The research librarian should know the researcher individually by focusing on the following principles like:

- **Developing personal contacts with research units and researchers**

  In order for the research librarian to understand the information needs of researchers it is important to build a user-centered service. In this way the needs, wants and expectations of the user group can be understood. Surveys can help the research librarian to get a better understanding of how the library can participate in the researchers' needs and requirements.

- **Understand the research environment and demonstrate where the library fits in**

  It is important for the research librarian to maximize the importance of the services of the library in the organization. The staff of all the departments and levels should understand

the role of the services of the library in the organization and should know how the library contributes to the whole. The research librarian should demonstrate the library's services to the whole organization

- get involved in university
- faculty
- school and research committees

Communication with the researchers in order to find out what their top concerns are and daily frustrations, is important because it keeps them up to date with change by using awareness services.

- **Provide a transparent research portal**

  A transparent research portal will ensure that the library is visible to the rest of the staff.

- **Develop professional practice and expertise**

  Research librarians should demonstrate their expertise and professionalism: they should understand the structure of knowledge within the discipline they work in. Research librarians should have information retrieval skills, information management skills, understand user behaviour and should continue to grow in their profession.

- **Monitor and evaluate what they do**

  Research librarians should always look for ways to improve their current practices. By asking and answering questions.

- **The whole service counts**

  It is important that the user should be helped instantly when they need assistance. The research librarians should make sure that there are no duplicates or gaps in the holdings. The research librarian should be able to assist the user with any query in a professional matter.

- **Support the development of information literacy**

  The research librarians should manage and arrange material in a manner that the user can retrieve it. They should be supporting the development of information literacy. They should be involved in research training programmes, be proactive in supporting academics, research assistants, contract research staff, supervisors and postgraduates. Many of the researchers are authors and by supporting their work the library

automatically contributes to scholarly knowledge.

- **Embrace change**

  It is expected that the research librarian should keep up to date with new developments in the humanities, computing and electronic resources like e-books and e-journals. They should support the changing needs of the library user.

- **Become advocates for the researcher**

  The research librarian should be creative and pro active and give advice to researchers in matters where the librarians have professional knowledge and expertise.

- **Become researchers**

  Librarians should at a practical level become familiar with research methodology .By doing that they assist researchers to find errors in example indexing and referencing.

Carlson and Kneale's (2011:167-170) advice for embedded librarians is as follows:

- Be team players
- Secure support from their organizations
- Secure support from their colleagues
- Have entrepreneurial mindsets
- Accept and embrace risk
- Translate library science to the researcher
- Build trustworthy relationships
- Move outside their comfort zones
- Think and act outside the box

Motivation manifests in job satisfaction and performance. Greenberg and Baron (2003:230) claimed that today's work ethic motivates people to seek interesting and challenging jobs instead of just money. Lifetime employment is a thing of the past. People are more technologically advanced, and people tend not to stay at a single job for very long even if the job continues to exist. Today people do not only aim to move up the hierarchy they move laterally as well in order to avoid stagnation (Greenberg and Baron, 2003:230-232).

Motivation is a choice and it contributes positively to work, family, and beliefs. A motivated person can interpret change as a challenge and feels in control. "Motivation is concerned with a set of processes that arouse, direct and maintain behaviour towards a goal" (Greenberg and Baron, 2003:219).

In every working environment, recognition forms part of the motivational sector which inspires employees and by using performance appraisal systems contributes to job satisfaction (Quick … et al, 1997:212). People feel motivated and valued when they receive feedback from their immediate supervisors. Criticism can have a frustrating effect on a person and can make him/her feel incompetent which can lead to absenteeism. People feel that they are trusted and have a feeling of belonging when they have autonomy. They must be able to plan their daily duties and be productive in their own work space (Greenberg and Baron, 2003:214). In addition to this, jobs that are fulfilling are more satisfactory (Hackman and Oldham, 1976:251).

2.1.7 The Job Characteristics Model (JCM) (1976)

The Job Characteristics Model (JCM) of Hackman and Oldham identifies how people can get enjoyment out of their jobs and how the jobs can be designed to help people feel that what they do is meaningful and valuable (Hackman & Oldham, 1976:250-279). The JCM's 5 core intrinsic motivating dimensions is the most general level of the model. They are skills variety, task identity, task significance, autonomy and feedback. The core job dimensions determine the critical psychological states of the individual and this leads to the results of the personal and work outcome. The five core job dimensions that are prompting the three psychological states are as follows:

Skills variety refers to the extent or degree of the job and the capable skills and talents a person should have to accomplish many different tasks.

Task identity refers to the extent to which a job requires of an individual to complete a whole piece of work that includes doing it from the beginning to the end.

Task significance refers to the degree of the impact the organization is believed to have on others; it reveals the importance of a person's work to others in their jobs.

Autonomy is the extent to which people have the freedom to use their discretion to plan,

schedule and carry out their work as desired.

Feedback refers to the extent to which the job allows employees to have information about the effectiveness of their performance.

The first three characteristics of the five mentioned job dimensions above determine the psychological meaningfulness of a job. Autonomy contributes to experienced responsibility and feedback contributes to knowledge of results (Hackman and Oldham, 1976:257). "The links between the job dimensions and the psychological states and between the psychological states and the outcomes are shown as moderated by individual growth need strength", Hackman and Oldham (1976:255).

The JCM model's three critical psychological states are as follows:
- experienced meaningfulness of the work
- responsibility for outcomes
- and knowledge of results

These three psychological states affect various personal and work outcomes. It affects people's feelings of motivation, the quality of their work performed, and satisfaction, meaningfulness of work, absenteeism and turnover. Growth need strength (GNS) is referred to as the higher order of the JCM (Hackman & Oldham, 1975:162). As a result, workers with high levels of GNS should respond more positively to jobs with high levels of the 5 job characteristics (Hackman and Oldham, 1976:255). The JCM is theorized to be specifically effective to people who have a high need for personal growth and development (Greenberg and Baron, 2003:214-216).

The higher the experienced meaningfulness of work, responsibility and knowledge of results, the more positive the person appointed to do the work will be and the work will benefit (Greenberg and Baron, 2003:215).

The core job dimensions and the psychological states and the outcomes are the links to the individual growth need strength. The three psychological states are the results of the work activities of an individual who experiences positive affect to the extent of knowledge. Self-generated motivation only occurs when an individual feels fully responsible for his/her own work outcomes. All three psychological states must be present for the performer to generate self motivation. Should external motivators be insignificant, internal motivation will be low (Hackman & Oldham, 1976:255-256).
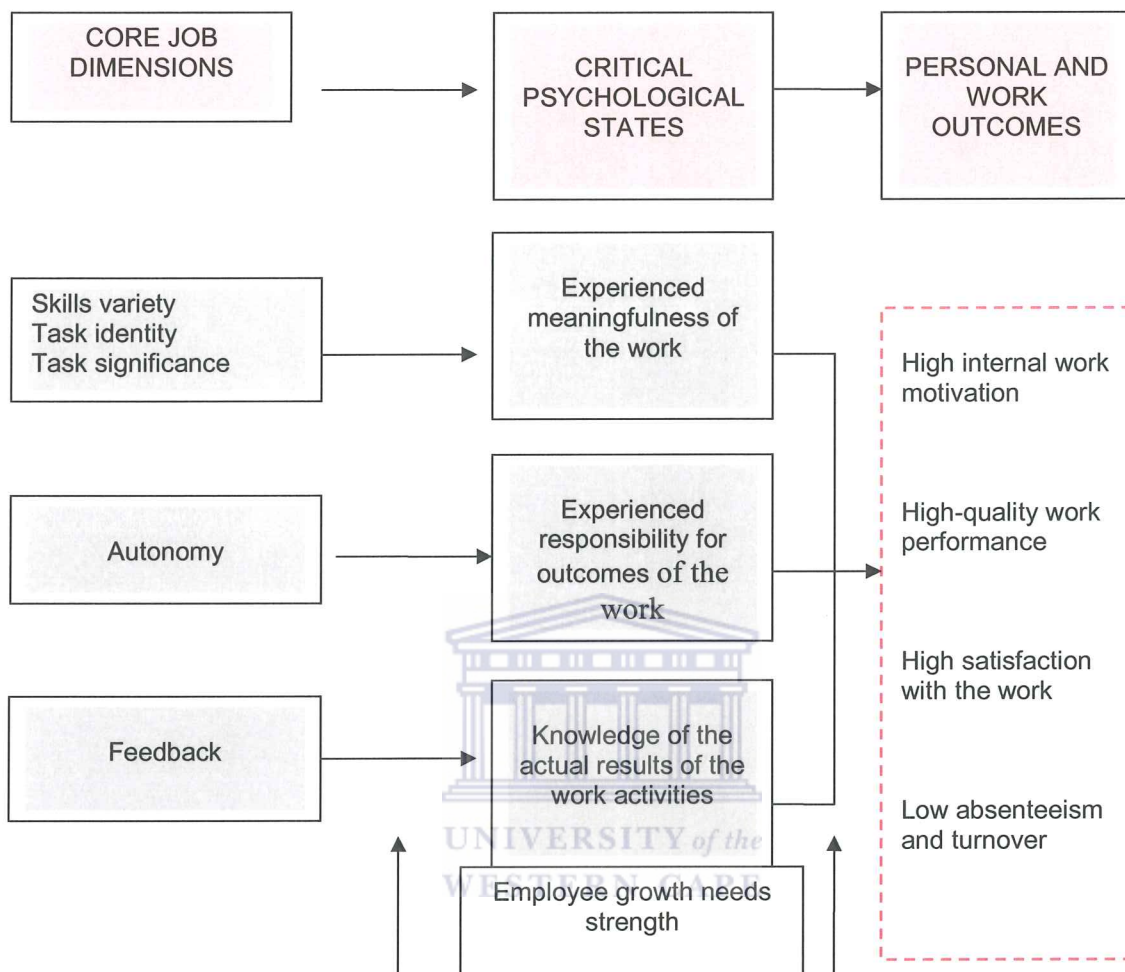
Figure 2: The Job Characteristics Model (JCM), 1976 as illustrated on page 217 of Greenberg and Baron, 2003.

2.1.8   Maslow's hierarchy of needs (1943)

Motivation continues to be a major topic of human resources management, because it exerts an important influence on action and behavior in organizations. Theories on job satisfaction involve motivation and overlaps with theories on motivation. Abraham Maslow was a behavioral scientist who developed a theory about the rank and satisfaction of various human needs and how people pursue these needs. Abraham Maslow's and Frederick Hertzberg's theories are widely cited in the business literature. Maslow's 1943 hierarchy of needs, or humanist approach to management, states that every person needs a reason to do something and that people are unique individuals and each person's needs differ (Greenberg and Baron, 2003:192-196). Various needs can be changed according to what they symbolize. People will only perform a

certain task when they are motivated or determined depending on their needs (Gerber, Nel and Van Dyk, 1998:256), as humans have the inner need for growth and learning. Below is an example of Maslow's hierarchy of needs.
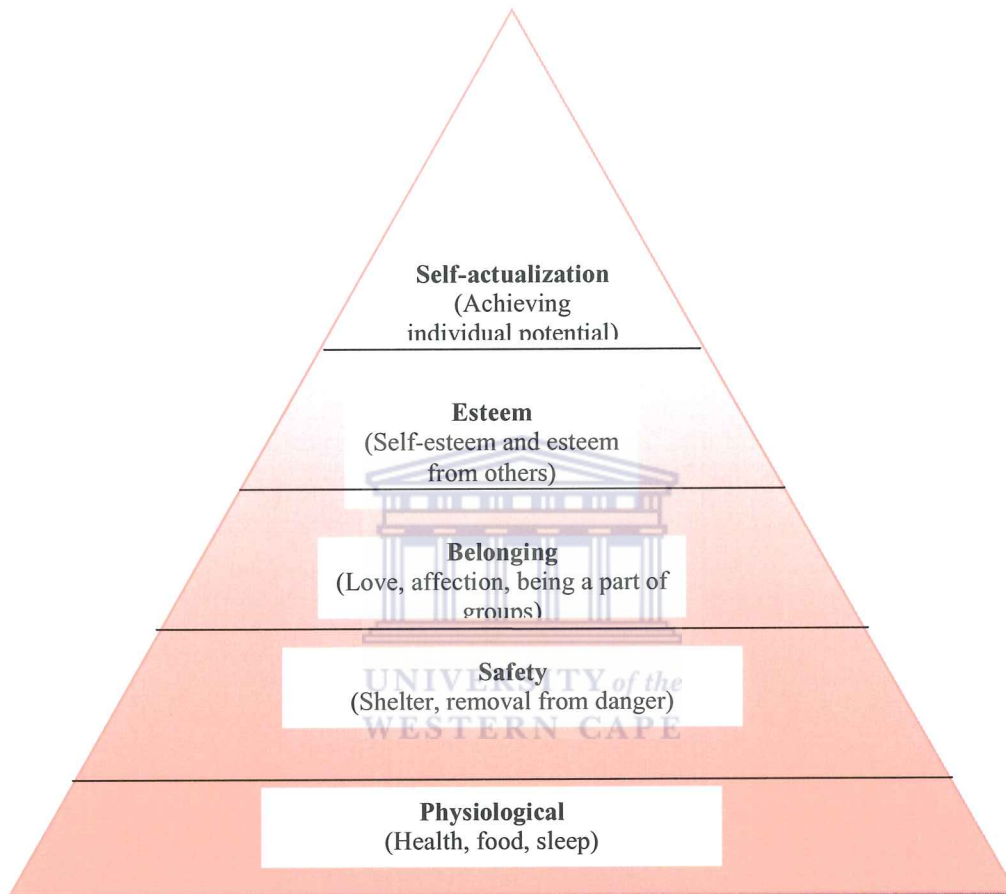
Figure 3: Maslow's 1943 hierarchy of needs, (Gerber, Nel and Van Dyk, 1998:262).

A person becomes self-regulating in his/her roles of these external incentives. Physiological and safety needs in the working environment involve safe work conditions, company benefits and job security. Social needs imply cohesive work groups, friendly supervision and professional associations. Esteem and self-actualisation needs involve job title, challenging job, achievement in work and advancement in the organization. Maslow proposed that each lower-order need must be fulfilled before moving to the next level.

Criticisms of Maslow's theory are as follows. His paper was not very scientific (Boeree, 2006). He used lists of characteristics and never actual research. Maslow never presented any data to

prove that his lists of characteristics were accurate. Criticism regarding his methodology is that he picked a small number of people that he declared self-actualizing. Maslow placed constraints on self-actualization by seeing achievement only seldom by young people. Lastly many of the best artists and authors suffered poverty and depression for example Van Gogh, Rembrandt and Galileo. Maslow seems to have concentrated only on people concerned with the big-picture when he defined self-actualisation. People like van Gogh thrived artistically even in the absence of finance and other factors of needs that had to be fulfilled according to Maslow's hierarchy of needs theory, but in many people's circumstances were not. People differ from one another and so do their desire and needs.

2.1.9 Frederick Herzberg's Two Factor Theory of Motivation (1954)

Frederick Herzberg was a psychologist who proposed a theory about job factors that motivate employees. He constructed the two-dimensional paradigm of factors affecting the attitudes of people. Frederick Herzberg's Two Factor Theory of Motivation (1954) or growth factors is based on factors in conditions of another. Herzberg states that a job will continue to generate high intrinsic motivation if it includes the factors of achievement, recognition, the job itself, progress and responsibility. Should one of the above mentioned factors be absent it would not necessarily dissatisfy the workers. Lindsay, Marks and Gorlow (1967:330) used a non addictive model of job satisfaction and included employee classification to Herzberg's two factor theory. They used a factorial design of 3x3x2 (motivators x hygiene x employee classification) which was employed to test their 3 hypotheses. They tested the treatment effects varied by presenting 18 groups of 15 industrial workers each with pairings of qualitative levels of job factors questionnaires.

According to Lindsay, Marks and Gorlow's (1967:339) results Herzberg's conception of job satisfaction being comprised of 2 factors should be reevaluated. The authors posit that other researchers and many more studied and criticized Herzberg's two factor theory of motivation. The disjointed relationship between motivators and hygiene factors in Herzberg's theory was not found in the present research (Lindsay, Marks and Gorlow, 1967:339). Motivators and hygiene factors appear to be related to job satisfaction in a non-additive way, meaning that job satisfaction cannot be predicted from weighing the levels of motivators and hygiene. Lastly the authors concluded that motivators are more important to job satisfaction than hygiene factors and that Herzberg's two factor theory should be re evaluated.

According to Gerber, Nel, and Van Dyk (1998:264) Herzberg (1954) was of the opinion that dissatisfaction occurs in the absence of hygiene factors or maintenance factors. Hygiene factors like remuneration are present at any work place. If for instance some insufficiency should occur in the work place, the staff will be less productive. Job design does have an influence on the employees, and working in unpleasant working conditions tends to reduce productivity. The work itself should be challenging and interesting and meaningful and allow personal growth in order to boost self-esteems.

Herzberg's motivators and hygiene factors are pointed out by Greenberg and Baron, 2003:153 and are illustrated in figure 4.

Leading to satisfaction(Motivators)	Leading to dissatisfaction(Hygiene Factors)
Achievement	Company policy
Recognition	Supervision
Work itself	Relationship with boss
Responsibility	Work conditions
Advancement	Salary
Growth	Relationship with peers
	Security

Figure 4: Herzberg's Two Factor Theory, (Greenberg and Baron, 2003:153).

When people are satisfied with their work, the satisfaction is connected to the work itself, and when they are dissatisfied it is usually owing to the environment in which they work (Kakabadse, Bank and Vinnicombe, 2005).

2.1.10 Conclusion

Chapter 2, the literature review and the theoretical framework, described job satisfaction, job satisfaction in the work place, job satisfaction of librarians and the human resource side of the librarian. This chapter described the reason why this specific model was selected for the study and literature background of previous studies done with the focus on job satisfaction. The researcher also describes the Job Diagnostic Survey (JDS) measuring tool and how and why it can be used in the workplace. Chapter 3 will focus on the research design and methodology.

CHAPTER THREE: RESEARCH DESIGN AND METHODOLOGY

3.1 Introduction

This chapter describes the design and methodology of the study. The target population was research librarians working in research libraries in the Western Cape.

To conduct the narrative study, data were collected using self-administered questions formulated from the Job Characteristic Model of Hackman and Oldham (1976). The interview questions as seen in Appendix 3 existed of different types of motivation and employee job satisfaction research questions. Some of the questions were aimed at exploring factors that contribute to job dissatisfaction, emanating from the concerns over possible job re-design and workplace improvement. The data were collected from The South African Astronomical Observatory (SAAO), Institute of Maritime Technology (IMT), University of Stellenbosch Research Libraries (US), the Medical Research Council (MRC) and Hermanus Magnetic Observatory (HMO).

The researcher chose research librarians as a sample because little research had been done in these specific organizations within the framework of the JCM model.

3.2 Demographic reasons

In terms of sampling a purposive method was adopted. According to Henning, Van Rensburg and Smit, (2004:71) purposive sampling methods focus on people of the desirable participants, which in this case are research librarians. The sample included the following selected research libraries in the Western Cape:

- South African Astronomical Observatory (SAAO) 1 librarian
- Institute of Maritime Technology (IMT) 1 librarian
- University of Stellenbosch Libraries (US) 7 librarians
- Medical Research Council (MRC) 1 librarian
- Hermanus Magnetic Observatory (HMO) 1 librarian

The researcher selected these research libraries because the institutions were geographically easily accessible and convenient to the researcher. The chosen research libraries belong to the South African Agency for Science and Technology Advancement (SAASTA) which is an agency of the National Research Foundation (NRF) (South African Agency of Science and Technology Advancement, 2012). The South African Institute of Physics (SAIP) a non-profit organization, whose members are voluntary professional physicists, was established in 1995 and their aim is to increase the understanding of Physics. Physics known as the study of laws of the universe

forms part of all physical sciences namely:

Experimental and observational physics

Computational physics

Theoretical physics.

Each of the research libraries selected resorts under some or other sub field of Physics (South African Agency of Science and Technology Advancement, 2012).

Field of Physics	Is the study of	institution
Astronomy and astrophysics Plasma and space physics Cosmology Meteorology	Stars, planets, galaxies, space technology, geology, geophysics, meteorology , theory of the universe, atmospheric phenomena for forecasting the weather	South African Astronomical Observatory (SAAO)
Oceanography Space and earth sciences Geophysics	Ocean currents, ocean sciences, atmospheric sciences, geophysics, mineral exploration, geo-processes	Institute of Maritime Technology (IMT)
Physics education Computational physics Applied physics Education Basic research	Physics and how it is taught Writing computer code and develop computational algorithms to efficiently solve physical problems of interest, the application of knowledge gained in physics to other areas	University of Stellenbosch Libraries
Medical, biological and health physics Environmental physics	Biophysics, medical physics, the application of physics to molecular biology and diagnostics and therapy, principles of physics to problems in the natural environment	Medical Research Council (MRC)

Electromagnetism	Magnetic forces produced by	Hermanus Magnetic Observatory
Basic research	electricity, magnetic structure of	(HMO)
Geophysics	the earth, geo processes,	
Plasma and space physics	mineral exploration. The	
	interaction between the solar	
	wind and the earth's	
	magnetosphere	

3.3 Methodology

3.3.1 Motivating the qualitative methodology to test the validity of the JCM

A qualitative research approach was adopted to investigate the job characteristics among research librarians and libraries. Qualitative research is used to gain insight into people's attitudes, behaviours, values, concerns, motivations, aspirations and culture or lifestyles. Characteristics of qualitative research:

- It takes place in the natural setting
- It uses multiple data sources
- It analyses inductively, recursively and interactively
- It focuses on the participants' perspectives
- It views human behavior through a socio political and historical lens
- It allows a design to emerge
- It is interpretive
- It has a holistic view of social phenomena (Creswell, 2007:37-39)

The theoretical framework of the JCM Model of Hackman & Oldham, (1975) was used. The researcher used the JDS measuring tool to analyze all the variables in the JCM model. The researcher looked at the phenomena in the participants' natural settings. The researcher used in-depth semi-structured interviews with open-ended interview notes to focus on one case study. The researcher wanted to know whether research librarians were satisfied in their working environments or not.

3.4 Interviews with research librarians

The researcher interviewed the research librarians by the use of the framework of the Job Characteristics Mode (JCM) of Hackman and Oldham, 1975 employed at the South African Astronomical Observatory (SAAO), Institute of Maritime Technology (IMT), the University of Stellenbosch Research Libraries (US), Medical Research Council (MRC) and Hermanus Magnetic Observatory (HMO). To save time the researcher conducted interviews and data verification on the same day of the interviews using two approaches:

Face to face interviews using note taking

Face to face follow up questions and information confirmation.

The goal of the study was to investigate whether the JCM's core dimensions can be used to test job satisfaction of research librarians.

The sample consisted of both male and female research librarians. The researcher contacted the participants after receiving permission from their departmental heads. The researcher then sent an email to all the participants on the list requesting their willingness to participate anonymously and voluntarily in the study. The email consisted of a consent form, see Appendix 1 and a letter of permission, Appendix 2.

Before and during the interviews the research librarians were briefed about the study and the duration of the study was explained. The researcher conducted a 30-45 minute, 1 on 1 semi structured interview with the participants. According to Kvale and Brinkmann (2009:177) there are seven stages of an interview. These are:

- **Thematizing**: explain and describe the purpose of the investigation and the topic before the interview starts

- **Designing**: plan the design of the study

- **Interviewing**: start the interview based on the interview guide

- **Transcribing**: in one's own words transcribe the oral speech on paper

- **Analyzing**: find meaning in the written text and decide which method of analysis is suitable

- **Verifying:** establish the consistency and strength of the interview findings

- **Reporting**: communicate the findings, results and methods of one's investigation and consider the ethical aspects

During the interviewing process, known as the interpretive process (Kvale and Brinkmann, 2009:177-178) the researcher and the participant are present. During the transcribing process the researcher condensed long statements by rephrasing the statements of the participants (Kvale and Brinkmann, 2009:205). During this process the researcher gained an understanding of what the participants interpreted.

3.5 Conclusion

Chapter three, the research design and methodology described the method that the researcher used to collect the data. It explains why this method was used. This chapter described the fieldwork in detail. Individual semi structured interviews were obtained, by the use of open-ended questions and non-directive listening. The chapter that follows deals with the presentation and interpretation and findings of the data.

CHAPTER FOUR: PRESENTATION AND INTERPRETATION OF DATA

4.1 Introduction

This chapter deals with the presentation and interpretation of the data collected from eleven research librarians of the five research libraries in the Western Cape region as indicated in Chapters 1 and 3. The data analysis and findings of the interviews were based on the five core intrinsic motivating dimensions of the JCM model of Hackman & Oldham (1975).

4.1.1 Themes

The researcher focused on the research librarians' responses which were given in a narrative form. Since this study adopted a qualitative approach and given that the sample is small, the study has to emphasise the results. The researcher had grouped responses together under themes. Nine themes were revealed through the interview process during transcribing process.

Themes
Factors contributing to job satisfaction
Factors contributing to job dissatisfaction
Skills variety
Task identity
Task significance
Autonomy
Feedback
Loyalty to the workplace
Absenteeism

The analysis is discussed under the following headings:

4.1.2   Summary of the data analysis

The researcher analysed the research findings within the framework of the JCM model as well to see whether the objectives were attended to.

The analysis of the findings of the participants and the semi-structured interviews provided insight of job satisfaction of the research librarians. The first four questions of the interview questionnaire in Appendix 3, focused on the participants' academic qualifications, years of experience, gender and age. This information gathered was only to introduce the readers to the biodata information of the participants who voluntarily agreed to participate in the research

study.

Participant Summary

There were 11 participants of whom 2 were males and 9 females. The participants had the following academic qualifications Bachelor degree of Technology in Library and Information Science, Honours degree in Library and Information Science, Masters degree in Library Science, Higher diploma in Library Science and Bachelor degree in Education. The participants' years of experience ranged from 5 years to almost 30 years and their ages from 20 to almost 60 years of age.

The rest of the interview questions were aimed at the job characteristics model as explained in the introduction of chapter 4. The responses as stated below are the views of the participants on how they consider their daily jobs.

4.1.3   Factors contributing to job satisfaction

On the question of what factors the research librarians think contributes to job satisfaction, most of the participants' responses were that they enjoyed helping the library users find information.

Participant 1

I enjoy interacting with people and helping people find information. When I search for information and struggle to get the information and finally succeed, it gives me great joy. I usually get praised by the library users.

Participant 2

Working with the post-graduate students is very satisfactory, especially showing them how to access different databases. My colleagues are also very supportive. I feel happy when post-graduate-off campus students bring me thank you gifts. The pleasure and joy expressed on their faces after I assisted them is remarkable.

Participant 3

It is a variety of work that is linked to the institution that makes me happy, no single day is the same as the other. Everything you are able to help with like helping with a research query, helping finding information is almost like being a detective. Research librarians don't have to be scientists but finding what the researchers are looking for is important and makes you feel

important. Travelling to work is exhausting, but my workplace is a good environment. Meeting astronomy librarians considers a lot of travelling but sharing information is a plus.

Participant 4

Helping people to find information gives me complete satisfaction. The environment and colleagues are interesting. Helping with a research query and finding information is very satisfactory.

Participant 5

Client service is most important, time consuming but satisfactory. I love implementing communication and webpage information. Helping clientele require a lot of my attention for eg thesis uploads information searches and to contribute to where the post graduates are almost done with their research.

Participant 6

Helping the students is very satisfactory. Showing students how databases work for eg Refworks and seeing the joy on their faces when they finally know how to operate the software.

Participant 7

I love what I do. Working with people eg students is very satisfactory, I like the environment the structure and the development. Feedback from clientele, for example the thank you notes that I receive. It is satisfactory when you are able to assist someone to find the right information. I strive to be positive. Job security is satisfactory. Knowing what you are doing is from your knowledge and experience satisfactory. The fact that you learn daily is satisfactory and that you grow as a person. Working with knowledge, learning new things and the environment is excellent.

Participant 8

Client service is most important to me. I enjoy student training like showing them the library databases and how to use it.

Participant 9 reported that meeting new people and doing online searches for the researchers is very satisfactory.

Participant 9

Meeting new people, assisting individuals in finding the information they desperately need, working online finding new and interesting things related to new technologies which enable better search ability of information and a variety of tasks therefore I'm always learning something new. Helping a researcher that has searched for two weeks on a research project and therefore unable to find the relevant papers which would assist in the literature review. A colleague recommended to her that she email me and I liaised with her about her requirements and goals for the search and gave her the process of completing a literature search request and once she had submitted request over three days I obtained 55 core articles and papers. Once I had emailed her the completed list she was ecstatic about the core research I was able to find where she could not. This makes my day in that my mission is always to obtain the quality literature they require for their research.

Constantly having changes within this field and how it grows with all these new technologies which enable better research capabilities for our users. The growth in what we do and the future potential is exponential and I'm glad this is a field that is so dynamic which makes my job even more enjoyable.

Participant 10

The ability to help people find the information they need to do their work. When I can fulfill journal article requests on the same day that I receive them satisfies me. I love interacting with people.

Participant 11 enjoy giving one to one training to the library users and meeting deadlines.
Participant 11

Giving one to one training to clients is very satisfactory and overall I feel happy when clients thank me after I got hold of their information and when I get things done before my deadlines.

The first dimension of the JCM of Hackman and Oldham is noticeable in the responses above, meaning that the JCM can be used to investigate job satisfaction of research librarians. According to the outcome of the job characteristics model , it seems that the model is suitable for testing whether the research librarians is motivated by looking at the task itself as the employee motivational strategy.

4.1.4 Factors contributing to job dissatisfaction

Although the researcher noticed positive job satisfaction behavioral patterns of the research librarians the next questions on factors contributing to job dissatisfaction showed some concern. For some research librarians, resistances to change from the managers' side inspire a feeling of frustration. The results can be summarized as follows:

Participant 1 and 5

The two participants feel that managers should show interest in their work output and that their profession should be respected.

Participant 1

Lack of interest of managers in suggestions. The approval channels from top management down are a devious process. The waiting process is not satisfactory. It is almost demoting. It almost takes 6 months before a suggestion gets approved. That's the only dissatisfaction I have, otherwise I am happy.

Participant 5

I would like others to respect my profession as a research librarian.

Participant 2 and 6

Both the participants' response was that they don't like repetitive work and that they are dissatisfied with their salaries.

Participant 2

Repetitive work, document delivery, administration and the process of mailing and copying is dissatisfactory. My job title is bothering me and the salary could be better.

Participant 6

I don't like repetitive work, it is time consuming, I prefer working with the library users, and it is very satisfactory. My salary could be better for the amount of time I spend at work and the service that I deliver.

Participant 3 and 7

Both participants 3 and 7 feel that they have not enough time in the day to complete their tasks. Also that they feel dissatisfied within themselves when they fail to find the relevant information for their users.
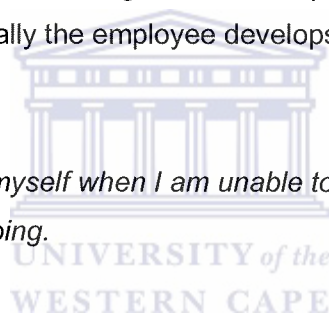
Participant 3

The fact that there is not enough time in a day to do everything is stressful. Travelling to work is exhausting, but I love my working environment. I only feel a sense of dissatisfaction when I'm unable to find the information the user requires immediately. It gives me a feeling of disappointment and a feeling of frustration within myself.

Participant 3 seem to experience job dissatisfaction due to the fact that there is not enough time in the day to complete tasks. The reason might be that the participant has too much to do, thus creating huge work pressure. Usually the employee develops some kind of dislike to the work.

Participant 7

Sometimes I feel disappointed in myself when I am unable to find the information the user requires, but I still love what I'm doing.

Participant 4 and 8

Both the participants feel that they are occupied with too much administration and that it does not contribute to job satisfaction. They feel that it is time consuming and unnecessary to deal with the completion of forms.

Participant 4

I'm dealing with too much administration, different forms that need to be completed daily, and I find that the evaluation of job performance is a waste of time because nothing changes. Classification is also time consuming.

Participant 8

Administration is not satisfactory to me. When writing a report you have to multi task because of the open office I have. I'm always busy with clients and writing the quarterly reports is a nightmare.

Participant 9 and 11

The two participants both are concerned about limited information technology.

Participant 9

Limited databases, budgetary concerns return on value of the information provided and dissatisfaction of a user. A typical incidence that makes me sometimes dissatisfied is having to explain year in and year out to other people how important the work that we do is in an organization.

Participant 11

I sometimes experience dissatisfaction with information technology

The collective findings of the interview transcript on whether dissatisfactory factors are present in the workplaces of the participants show that intrinsic factors such as coworkers, supervision and the work itself and extrinsic factors such as pay and promotions form the conceptualization to measure job satisfaction. The responses indicated that there was job dissatisfaction factors present when the questions were asked.

4.1.5   Skills variety

The responses show that all the participants agreed that skills variety is important in their daily job. It seems that research librarians overall found it a necessity to implement their personal skills in their daily job routines. The responses indicated that numerous additional tasks, own development and growth, challenging work itself and a variety of tasks is very satisfactory.

Participant 1

I agree that a variety of skills contributes in my workplace and that it is necessary to implement it in my daily job.

Participant 2

Yes I definitely agree that skills variety is important in your workplace. The job is more challenging when you use your different skills and talents.

Participant 3

Of course I think that a variety of skills are very important in the workplace. The nature of the job is so that my organizational skills get me involved in a variety of tasks. It is a small institution and I am actively involved in even conference organizing.

Participant 4

Different skills is required in any workplace, it contributes to job satisfaction.

Participant 5

I agree that a variety of skills is important in the workplace, because it is necessary for my own development and growth and it is important for client satisfaction.

Participant 6

My job is of such a nature that I have to use all my skills in the workplace, like entrepreneurial skills, technical skills, communication skills etc.

Participant 7

It is important to have different skills and very satisfactory to use it in my daily job since I render many services to the library users.

Participant 8

Librarianship is about implementing different skills in the workplace.

Participant 9

I consider a variety of skills in a working environment as very important, because a variety of skills are required as we are very few in our office. It is expected that you as an individual must have the ability to perform numerous additional tasks. Also as new jobs within our office come to light we have to adjust and develop new skills.

Participant 10

Skills variety is important. I am the only employee in the library and am therefore responsible for all tasks for example acquisitioning, classification, indexing, the issue desk, subscriptions, interlibrary loans, information, shelving, etc.

Participant 11

Skills variety is very important in a workplace. In our constantly changing world it is highly important to have the necessary skills that you can acquire in order to perform your daily duties.

Results show that all the participants use their different skills in their work place. They find it highly important to implement their skills. They comment that for the profession that they are in, expects different skills. The participants are happy to use their skills and would not want to do it otherwise.

4.1.6   Task identity

Results do show that research librarians finds it extremely important that task identity plays an important role in completing a task from beginning to end.

Participant 1

Completing tasks is what I do. It is expected from me to complete a task.

Participant 2

I cannot leave my work undone; I will not be able to sleep that night

Participant 3

Completing a task completes me, I am what I present. What can I say, I love what I do.

Participant 4

Task completion is very important. It is important to keep to deadlines, and perform a high quality of work. You expect from yourself to get the work done in time, it is satisfactory. A completed job is not done until it is done properly the first time.

Participant 5

Completing tasks is very important for me, it is very satisfactory.

Participant 6

I belief that when you start with something you have to finish it on time, and that it should be done properly.

Participant 7

My work is of such a nature that when I fail to complete one task it will end up having a ripple effect on my other outstanding chores.

Participant 8

Completing a task and doing it right from beginning to end is what counts. There is no time for leaving things to the last minute; every second counts.

Participant 9

It is expected from me to complete my tasks; it only contributes to personal satisfaction.

Participant 10

If I don't complete my tasks, the institution, patrons and suppliers will suffer, because task identity has a domino effect.

Participant 11

It is expected from me to complete a task and also for oneself it should be important.

According to Hackman and Oldham an individual understands that the results of his work have a significant effect on the well-being of others. Results show that the participants are aware of their influence they have on others which contribute to the outcome. They find their work meaningful.

4.1.7 Task significance

All the respondents agreed that task significance is important in the workplace. Many of the respondents' answers were short and straight to the point.

Participant 1

Yes my work gives me and others joy on a daily bases.

Participant 2

Most of the students are off campus and are dependent on the information that I give to them and that it should be relevant.

Participant 3

Because it is a small institution, your impact is nearly on everyone. Service that patrons want even up to binding is joyful.

Participant 4

Yes I get joy out of my workplace.

Participant 5

To a degree I don't have task significance because I need permission to implement new initiatives and tasks

Participant 6

The organization has a positive input on me, and because I am happy in my workplace I really enjoy what I'm doing.

Participant 7

I enjoy interacting with people that includes my colleagues, suppliers, students and researchers.

Participant 8

I love what I do; I enjoy working with my colleagues. They are very supportive and give me advice anytime I need assistance. My working environment is pleasant.

Participant 9

I love the work that I do as I help people every day with finding needles in numerous haystacks.

Participant 10

If my job had no impact on others, the institution would not have found it necessary to create the position I work in.

Participant 11

I love interaction and communicating with everybody, my working environment influences me positively.

4.1.8 Autonomy

The majority of the respondents think that autonomy is necessary in their daily jobs and that it gives them a feeling of freedom. As Greenberg and Baron, (2003:214) mentioned in their paper, people feel that they are trusted and have a feeling of belonging when they have autonomy. They must be able to plan their daily duties and be productive in their own work space.

Participant 1

I have plenty of freedom, independence and discretion

Participant 2

Freedom is available and I have autonomy

Participant 3

It is trusted that you perform your job to the level that is expected from you. You must have respect for others because people trust you. The structure is so that I get independence and scope from my immediate group head, knowing that I won't abuse the system.

Participant 4

Yes my work provides me with substantial freedom, independence and discretion

Participant 5

I have autonomy in my work place. I plan my day and do the most important chores first in the mornings.

Participant 6

I schedule my time on a daily basis.

Participant 7

I use my own discretion on a daily basis. I complete the tasks of high priority first.

Participant 8

I take responsibility for my own results. Autonomy gives me a feeling of freedom to some extent.

Participant 9

My job allows substantial freedom, independence and discretion in completing task assigned.

Participant 10

I have no one who tells me how to do things, except the procurement manager who makes sure procedures are followed. For the rest I have the freedom to schedule my time and also to decide on how to complete my tasks.

Participant 11

I schedule my own time as long as I complete my chores on time.

Although the findings show positive results the respondents answers were short and to the point. The researcher was able to notice a feeling of freedom amongst the participants when the question was asked. One participant did not really look enthusiastic regarding this particular question, but answered it anyway.

4.1.9 Feedback

When the researcher queried about whether the participants receive feedback in general and what kind of feedback they receive all the responses were positive results.

Participant 1

We have an annual survey, clientele satisfaction survey and performance review.

Participant 2

My line manager is very competitive. I get criticism from her.

Participant 3

I receive feedback from my performance review system, bonuses and increase.
I get gratitude and I once received a spa voucher from the group as a thank you gift.

Participant 4

I receive personal, written and electronic feedback mostly positive feedback. I receive positive feedback from colleagues and my line manager. I get more task orientated duties.

Participant 5

The performance review is not really satisfactory as it is a point system. There are some gaps that need to be improved that should initiate training opportunities.

Participant 6

I get feedback through evaluation forms for users. I get feedback from my once a year performance evaluation, about 20 forms go to lecturers for feedback from clientele and internal evaluation forms.

Participant 7

The performance evaluation gives me good feedback and it influences me positively.

Participant 8

Feedback from students, individuals, groups, lecturers, peers and colleagues is very satisfactory.

Participant 9

I am satisfied with the feedback regarding the progress of my performance, feedback from patrons, suppliers, and other colleagues.

Participant 10

My best feedback is the satisfaction of the library patrons. It is my job to keep them happy and every thank you is appreciated.
I receive feedback from library users in terms of gratitude for my services.

Participant 11

Feedback is important in the working environment because it helps you to improve on your possible short comings and it guides you in the right direction. I receive feedback during my performance reviews and patrons, which is usually positive.

The summary responses reveal that they are happy with their feedback. The positive feedback from the respondents indicates that there is a high motivational factor visible in the different work place. Communication from the managers, users and colleagues seemed to lead to positive job satisfaction.

4.1.10 Loyalty to the workplace

Participant 1

Happiness is important to me in a workplace, because you spend 8 hours a day at work and you have to enjoy what you are doing that is why loyalty is important.

Participant 2

Happiness is important because a happy working environment only brings out the best in you. Peer and colleague relations are important for communication and feedback and for information sharing.

Participant 3

Loyalty give you a sense of belonging, the relationship you built up with your colleagues and the way you work must be satisfactory.

Participant 4

It is important to stay loyal to your workplace because if you don't enjoy what you are doing you may think of other opportunities.

Participant 5

Not really it is a little important but loyalty should not be a factor. There are other more important things that enquire your attention.

Participant 6

I strongly agree that it is important to stay loyal to your workplace, it is not always easy but it has an impact on your work.

Participant 7

The department and my colleagues work closely together, so the internal environment must be positive in order to be positive. I would think that loyalty in your workplace is important.

Participant 8

Loyalty is important, because without loyalty and respect the whole structure will tumble down, you have to work together.

Participant 9

I feel that in order to achieve satisfaction within your work environment loyalty towards your workplace is important as only then can you as a component help better achieve the strategic goals of the institution.

Participant 10

The internal working environment is important in terms of making life easier, but eventually it is the satisfaction of knowing that you are doing what you were appointed to do and that others are benefitting because of your services.

Participant 11

Yes I think it's important to stay loyal to your working environment, it goes together with work pride and togetherness in a good equipped environment.

The researcher noticed that the majority of the participants in the study mentioned that happiness and loyalty to their supervisors and their working environment is important. Meaning that according to the JCM model the fourth and fifth core job dimension correlates with the critical psychological states of experienced responsibility for outcomes of the work and knowledge of the actual results of the work activities; whereby the outcome leads to high satisfaction with work and low absenteeism and turnover. The illustration is visible in chapter 2.

4.1.11 Absenteeism

The responses provided below the views of participants regarding absenteeism in their work place. The literature reveals that research librarians' core job dimensions are intact with their critical psychological states which results in positive personal and work outcomes. Examples of the answers were taken from the interview questions.

Participant 1

I only take annual leave. Sometimes when I'm really sick I will take sick leave and family responsibility leave only when I have to take my child to the doctor in case of an emergency. I love my working environment.

Participant 2

I take annual leave, study leave, sick leave with a medical certificate.

Participant 3

I take vacation leave, six weeks in December and went to Australia. Astronomy librarians meet every 4 years going to other countries.

Participant 4

I'm seldom sick like 3 days a year. I have annual leave.
I took half day work which helped to balance myself in my daily routine both as a house wife and employee but it ended up putting more pressure on my work balance.

Participant 5

I have not really taken sick leave; I have been sick 2 weeks but I usually take leave twice a year.

Participant 6

I take annual leave.

Participant 7

I have not really taken sick leave I take annual leave.

Participant 8

I take annual leave. I have been sick one day in 2003 and one day to attend a conference

Participant 9

30 days or so and most is annual leave with the exception of a few which was sick leave.

Participant 10

I work on a contract basis so I am not entitled to vacation or sick leave and I work hours that are convenient for me.

Participant 11

I take annual leave, and been sick one or three days during 36 months.

The summary responses show that the employees growth needs strength is visible, because of the number of days absent from work. All the employees seem to be enjoying what they are doing. Results show job satisfaction due to the results of the absenteeism question. Thus mean that the participants experience positive critical psychological states which lead to positive personal and work outcomes.

According to the findings of the research study during the interview questions being asked, results show high internal work motivation, high-quality work performance, high satisfaction and low absenteeism and turnover with the work. These questions were particularly based on the JCM model to test whether research librarians are satisfied with their jobs or not.

The findings of this study reveal that for research librarians, loyalty in their workplace is important in order to be happy in the workplace.

4.1.12 Conclusion

The findings of the study which is related to the problem statement revealed that the JCM can be used as a measurement instrument to test the psychological states of research librarians. As stated in the literature review the research librarians do show high internal work motivation, as seen in figure 2, of Hackman & Oldham, 1975.

The collective findings as related to the research problem suggest that research librarians are satisfied in their workplace. The researcher noticed high positive intrinsic motivational factors in research librarians, only a few research librarians experienced some negative feelings.

The positive findings of the study shows that research librarians are highly motivated people and that they are satisfied with the work itself. The libraries that they work in provide a sense of personal accomplishments. The summarized participant responses highlight the fact that they enjoy working with their clients and they love their environments. The findings do show low turnover and low absenteeism meaning that the participants are satisfied in the work place and that the growth need strength of the participants are visible.

The findings are related to the problem statement provided in chapter 1. To ensure happiness in the workplace all 5 core intrinsic motivating dimensions should lead to positive job satisfaction. The research librarians each in their own way do find happiness in their work place.

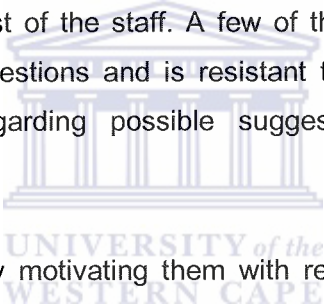## CHAPTER FIVE: RECOMMENDATIONS AND CONCLUSION

5.1 Introduction

The purpose of the study was to investigate job satisfaction among research librarians using the framework of the JCM model of Hackman & Oldham (1975) The JCM of Hackman and Oldham identifies how people can get enjoyment out of their jobs and how the jobs can be designed to help people feel that what they do is meaningful and valuable (Greenberg and Baron, 2003:214).

5.2 Recommendations arising from the study

The findings of the study led to some recommendations for research library staff including management.

Most of the participants are generally happy with the companies they work for. The results also show that most of the participants are pleased with the feedback that they receive from their supervisors, students and the rest of the staff. A few of the participants mentioned that their supervisors is not open for suggestions and is resistant to change. They take long when it comes to decision making regarding possible suggestions that the participants have communicated.

- Restructure pay scales by motivating them with rewards. Some participants feel that their remuneration packages do not meet their responsibilities.
- Evaluate staff job descriptions
- Rotate staff by moving them from one job or task to another. By moving them around, attempts to add some variety of tasks and help to remove boredom.
- Restructure administrative forms

5.3 Recommendations for further study

For future research in this area, a larger sample size across the whole Western Province of South Africa should be included. The influence of other research organizations in measuring job satisfaction of research librarians and the users could be further investigated. Future studies could involve questionnaires and interviews with the aim to investigate job satisfaction and user satisfaction. A further possible presence of mono-method could be seen as a limitation. The limitations below already identify further studies which will give more meaning to the study like:

A study focusing on post graduate students is needed to investigate whether they are satisfied

with the service that they receive from the research libraries.

A study interviewing the supervisors is needed to investigate the job descriptions of the research librarians and the policy and procedures of the research libraries.

A study focusing on the gap which is the question of five year plans the research librarians have. Thus result will emphasize the internal and personal job satisfaction dimension and the growth need strength of research librarians in detail.

The researcher would like a further study on skills variety. There is a noticeable gap in this question since the researcher did not implement what skills variety is referred to.

5.4 Conclusion

The findings of the study discussed the outcomes of the research questions. The researcher wanted to verify whether there is a link between job satisfaction and the levels of work motivation, work performance, absenteeism, turnover and satisfaction of research librarians.

The way the findings were interpreted determined whether the following research questions in Chapter 1 and 3 were answered.

4.2.1   What factors contribute to job satisfaction?

4.2.2   What factors affect job satisfaction of research librarians in their working environment?

4.2.3   What core job dimensions motivate research librarians to stay at their place of employment?

4.2.4   What impact does the working environment have on research librarians in their quest to stay loyal to their workplace?

The collective findings of the interview transcripts of all participants can be summarized as follows:

These responses suggest that as with the literature reviewed the Job Characteristics Model of Hackman and Oldham can be used as a tool to measure the degree of job satisfaction in a workplace should job redesign be considered. The JCM model is also designed to test whether people get enjoyment out of their jobs and how the jobs are designed to help people feel that what they do is meaningful and valuable (Greenberg and Baron, 2003:214). It appeared that the research librarians were enjoying client services and that it provokes a feeling of happiness.

These results resemble the three psychological states of the JCM model as mentioned in chapter 1. The three psychological states are experienced meaningfulness of the work, responsibility for outcomes and knowledge of results. These three psychological states as mentioned in chapter one affect various personal and work outcomes like affecting people's feelings of motivation, the quality of their work performed, and satisfaction, meaningfulness of work, absenteeism and turnover. That is why results showed that motivation is concerned with a set of processes that arouse, direct and maintain behaviour towards a goal (Greenberg and Baron, 2003:219). The results can also be interpreted as follows: All the research librarians interviewed reported that they are happy in their work places and that interacting with others including borrowers and peers are very important to them. It seems that the Job Characteristics Model (JCM) of Hackman and Oldham links with the job satisfaction factors of research librarians.

The summary score reflecting the motivating potential can be generated by using the core job dimensions of the JCM of Hackman & Oldham, 1975. The critical psychological states of the research librarians to stay at their workplaces are positive and as a result the experienced meaningfulness of the work is showing a high level of job satisfaction. Results based on interview findings show that job satisfaction is a general attitude or feeling of the employees constituted by their approach towards wages, working conditions, control, promotion, social relations in the work area, and recognition of talent, personal characteristics, group relations and supervisors. The job itself and achievement and recognition are directly linked with motivation at work and the direct result of job satisfaction as stated in the literature review of this study. According to Hackman and Oldham, 1976, jobs that are enriched are likely to be more satisfactory.

Factors leading to dissatisfaction in the workplace are as follows: too much administration, repetitive work, monetary incentives and managers who are resistant to change. Job rotation can be a solution. The literature review showed that the same factors were present in studies done by different researchers. The researcher noticed monetary dissatisfaction in this study. Although there are dissatisfaction factors visible in the data analysis results, the researcher still noticed a pattern of high satisfaction with the job itself. These positive results are noticeable in the results of the intrinsic core job dimensions questions which evolved during the interviews with the participants.

Hackman and Oldham, 1976, state that when people are satisfied with their work, the

satisfaction is connected to the work itself, and when they are dissatisfied it is usually owing to the environment in which they work. The findings related to the literature review provided in chapter 2, as the managers of the participants may now be faced with the challenge of implementing work redesign. The JDS measuring tool can be used by the managers to help them to achieve an optimal fit between workers and their jobs.

As seen in chapter 2, Hackman & Oldham's' 1975 Job Characteristics Model proves that rated by the job itself on the five core job dimensions that jobs performed by smaller work groups are significantly more enriched. Kakabadse, Bank and Vinnicombe, 2005, indicate in their findings that people are satisfied with their work, when the satisfaction is connected to the work itself.

The participants' results reveals that job satisfaction is a general attitude or feeling of the employees constituted by their approach towards wages, working conditions, control, promotion, social relations in the work area, and recognition of talent, personal characteristics, group relations and supervisors.

Autonomy contributes to experienced responsibility (Hackman and Oldham, 1976:257). Results show that there is a link between the job dimensions and the psychological states and between the psychological states and the outcomes. Results showed high levels of growth need strength (GNS) of the respondents according to the responses which are positive. It is no doubt that self generated motivation is present in the work places of the participants.

According to the JCM model of Hackman and Oldham (1976), job satisfaction influences productivity. The participants' psychological states were evident in the variety of ways it was identified.

The five core job dimensions, skills variety, task identity, task significance, autonomy and feedback are in line with experienced meaningfulness of the work, experienced responsibility for the outcomes of the work and knowledge of the actual results of employee growth need strength.

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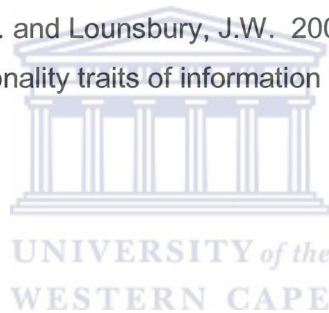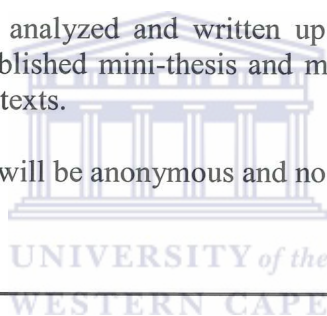
APPENDIX 1: Consent form

RESEARCH TITLE: JOB SATISFACTION OF RESEARCH LIBRARIANS IN SELECTED RESEARCH LIBRARIES IN THE WESTERN CAPE

Consent of Participant

I **Wilhelmina Elizabeth Zaal, Assistant librarian at iThemba LABS library, Old Faure Road, Faure, e-mail address:** wilhelmina@tlabs.ac.za under the supervision of **Dr G. Davis** of the Department of Library and Information Science at the University of the Western Cape, would be grateful if you could confirm by signing the form that you freely agreed to participate in this interview for this study.

Data from this interview will be analyzed and written up during the course of the research. Findings will be included in a published mini-thesis and may be used in public works such as academic articles and/or scholarly texts.

Your personal identity and details will be anonymous and no one will be revealed to anyone.

_____

Print Name

_____

Signature of Participant

_____

Date

APPENDIX 2: Research permission for qualitative research interviews

Dear Madam/ Sir

Re: Interview appointment

I am a part time MBibl degree student at UWC and hereby wish to ask your permission to participate in my research. My research topic is Job satisfaction of research librarians in selected research libraries in the Western Cape.

Can we possibly arrange for an appointment during this week for an interview questionnaire which will take up approximately 30-45 minutes of your time? Should a personal interview not be possible due to work load can we do a telephonic interview, or choose another day?

 Sorry for any inconvenience.

Thank you in advance
Kind regards
Wilhelmina Zaal
Assistant Librarian iThemba LABS
Tel no +27 21 843 1004
Wilhelmina@tlabs.ac.za

APPENDIX 3: Interview questions

Please answer the following questions.

RQ1.1

Academic qualification	
Experience in years	
Age 20-25	
26-30	
31-35	
36-40	
41-45	
46-50	
51-55	
56-60	
61-65	
Gender	

RQ1.2 What would you say satisfy you in your daily job?

Q2   What factors would you say contribute significantly to job satisfaction? The factors are as follows: monetary incentives, recognition, training and career development and or job security.

RQ1.2 Are there any issues which you consider to dissatisfy you in your daily job?

RQ3   What are your views regarding the following intrinsic core job dimensions?

Q3.1   Skills variety- the degree to which a job requires a variety of activities that draw on different skills and talents of the employee

Q3.2   Task identity- the degree to which a job requires completion of a task, from beginning to end

Q3.3 Task significance- the degree to which the job has an significant impact on the life of other people

Q3.4 Autonomy- the degree to which the job provides substantial freedom, independence and discretion to the individual in scheduling and determining the procedures to be used

Q3.5 Feedback- the degree to which workers are provided with direct and clear information about their performance.

In terms of feedback please relate to what kinds of feedback do you receive? **E.g. feedback from performance reviews, patrons and/or suppliers**

RQ4 Give your views on the importance of the internal working environment and the importance with regarding to loyalty to your workplace.

RQ5 Describe a typical incident in your daily routine where you are/were satisfied with your job.

RQ5.1 Describe a typical incident in your daily routine where you are/were dissatisfied with your job.

RQ6 In a period of 36 months how often have you been absent from work, what are the reasons?

RQ7 What kind of other aspects of your job would you like to share?