Working Towards Improved Facilitation of Research Capacity Development at Walter Sisulu University (WSU) Using Action Research (AR) Methodology

by

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ABSTRACT

This study was originally undertaken to change and improve the way I do my practice at Walter Sisulu University as a Research Associate whose responsibility is to facilitate research capacity development and research excellence within the University, amongst academics and postgraduate students. The success of the Research Resource Centre that I manage depends on the way I promote research culture and research productivity amongst academics and postgraduate students. According to Leedy and Ormrod (2013, p. 2), research is a systematic process that is used to collect, analyse, and interpret data in order to increase my understanding of the phenomenon about interest and concern about a given/identified phenomenon. In this case my own practice changed and improved for the better.

The main objective of this study, therefore, was to examine the reasons behind the decline in research productivity in terms of research output and how this could be reversed through action research study intervention in order to enhance research productivity at Walter Sisulu University (WSU). The Department of Higher Education and Training's (DHET) allocation of research output units for WSU indicated that there was a decline in research output from 2005 to 2010. The extent to which my practice improvement could contribute towards changing or improving research productivity was a question which this study addressed through a quantitative, qualitative and self-reflective action research cyclic inquiry. I organized sample strategies of this study as follows:

- For quantitative data, I used 120 lecturers as my respondents through questionnaires (females = 47 and males = 73) who were randomly selected;

- For qualitative data, I used 24 lecturers as respondents who were randomly selected with whom I conducted interviews; and

- For self-reflective action research cyclic inquiry I used 7 Transformative Education/al Studies (TES) project group members as my focus group.

My research findings concluded that the heavy teaching workload at WSU was problematic and lecturers/academics could not devote time to do research. My recommendation is that research should be made compulsory so that academics become aware that at least one or two published articles are required from them, for the benefit of annual university research productivity. Some research participants also recommended that the Research Resource Centre must include programs that focus directly on active participation in research in order to increase the capacity of individual researchers so as to build a critical mass of competent researchers, perhaps by even including incentives as a reward for doing research.

According to Koshy (2010), action research is a specific method of conducting research by professionals and practitioners with the ultimate aim of improving practice. My new knowledge, therefore, in respect of how a concerned Research Associate, from a Historically Disadvantaged Institution (HDI), provided the impetus to create a collaborative practice in a higher education institution which was forced to merge with two former technikons (which lacked understanding of what a university means by research productivity and research output). I consequently developed the Nkosinathi Sotshangane's cyclic practice improvement model through self-reflective action research, from which I believed other research practitioners could learn by doing something similar in their own context.

DECLARATION

I, Nkosinathi Owen Sotshangane, student number 191614904, solemnly declare that this thesis, titled: "**Working towards an improved facilitation of research capacity development at Walter Sisulu University (WSU) using Action Research (AR) Methodology**", is my original work. I have not registered for any other academic award during the period of registration for this action research study.

Doctor of Education (D.Ed.) Candidate: Nkosinathi Owen Sotshangane

Signature: ………………………………………………………..

Date: …………………………………………………………..

Supervisor: ……………………………………………………. Dr J.M. Molepo

Date: ………………………………………………………………

DECLARATION ON PLAGIARISM

(i)   I understand 'plagiarism' as the wrongful appropriation and stealing and publication of another author's thoughts, ideas, or expressions, discoveries and inventions and so on and representing them as one's own original work. This is the practice of taking someone else's work or ideas and passing them off as one's own.

(ii)   I have, therefore, duly and appropriately acknowledged all references and conformed to avoiding plagiarism as I define and understand it.

(iii)   I have made use of the citation and referencing style as suggested by my supervisors.

(iv)   I declare that this thesis is my own, as it is about my own practice improvement, through action research methodology.

(v)   No one is allowed to copy my work and present it as their own as the study is about me and the work that I do.

(vi)   I am committed to uphold research and professional integrity in academia as illustrated in Chapter three of my thesis.

(vii)   I am aware of the consequences of engaging in plagiarism as this is explained by the WSU Intellectual Property (IP) Policy.

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Signature   **Date**

ACKNOWLEDGEMENTS

First things first, I would like to take this wonderful opportunity, in Jesus' name, to thank my former supervisor, under whom I began conducting my study, former WSU Research Champion, Prof Thenjiwe Meyiwa. She is currently the Registrar at Durban University of Technology (DUT); her professional guidance, her encouragement, and the transformative effort that she demonstrated throughout the duration of my research proposal and early stages of chapter one and two of my study are appreciated.

Secondly, I wish to express my appreciation to the following supervisors who took over supervision after Prof Meyiwa had left WSU: Prof Teresa Chisanga (English Department) and Dr Moisha J. Molepo (Faculty of Education), for their professional guidance, patience and for believing in me.

Thirdly, on a more personal note, I will forever be so grateful to my late mother (may her soul rest in peace!). I would not be who I am today if it were not because of the love from my mom, Mrs Nozola Mirriam Sotshangane. I was and still am a mother's boy and I am so proud of that!

Fourthly, my heartfelt thanks go to my entire family at home (Eswazini), Nkumba Location, Nowalala A/A in Ntabankulu, for their belief and trust in me.

Finally, how can I leave out the Transformative Educational Studies (TES) project group members at WSU, and TES members from UKZN & DUT who were my action-research, self-reflective, cyclic-inquiry participants. Their participation and contribution during our interaction was incredible and much appreciated.

And -- above all – to Almighty God – through His love and protection, **kogcina mina**!

DEDICATION

From the bottom of my heart, I hereby wish to dedicate this thesis on action research to my late mother and the Sotshangane family at home.

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"***If you have the courage to begin, you have the courage to succeed.***" - David Viscott

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May 2015

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ACCRONYMS/ABBREVIATIONS

WSU	Walter Sisulu University
NMD	Nelson Mandela Drive
UKZN	University of Kwazulu-Natal
DUT	Durban University of Technology
CUT	Central University of Technology
MUT	Mangosuthu University of Technology
HR	Human Resources
AR	Action Research
PAR	Participatory Action Research
DHET	Department of Education and Training
HDI	Historically Disadvantaged Institutions
SPSS	Statistical Products and Service Solutions
TES	Transformative Education/al Studies
IP	Intellectual Property
DST	Department of Science and Technology
RRC	Research Resource Centre
DRD	Directorate of Research Development
SARUA	Southern African Regional Universities Association
CHE	Council on Higher Education
SER	Self-Evaluation Report
CREST	Centre for Research on Evaluation, Science and Technology
ERP	Emerging Research Programme
LET	Living Educational Theory
QDA	Qualitative Data Analysis
CAQDAS	Computer Assist Qualitative Data Analysis Software

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LIST OF DIAGRAMS

CHAPTER ONE: INTRODUCING MY CONCERN AND WHY

1.1   Introduction

This thesis is originally undertaken to change and improve the way I do my practice at Walter Sisulu University as a Research Associate whose responsibility is to facilitate research capacity development and research excellence within the University, amongst academics and postgraduate students. The success of the Research Resource Centre that I am employed to manage depends on the way I promote research culture and research productivity amongst academics and postgraduate students. What do I mean by research? According to Leedy and Ormrod (2013, p.2), research is a systematic process that is used to collect, analyze, and interpret data about interest and concern about a given/identified phenomenon. In this case, my own practice which I realized needed to be improved for the better.

My concern involved asking myself this question: "How can I improve the way I do my work and generate evidence to support my claim to change and improve the way I do my practice". This is why the actual topic of my study is as follows: "Working towards an improved facilitation of research capacity development at Walter Sisulu University (WSU) using Action Research (AR) Methodology".

The main objective of this study was to examine the reasons behind the decline in WSU research output from 2005 to 2010 and how this could be reversed through action research study as demonstrated in Table 1.1.

This chapter deals with the background to the study, statement of the problem, the research questions, the aim and objectives, the rationale and significance of the study, the limitations and delimitations of the study.

1.2   Background to the study

I am employed as a Senior Research Associate at WSU to manage the Research Resource Centre, which is intended for the use of all senior post-graduate students and academic staff members of the University. One of my responsibilities is to implement a strategy to facilitate the transfer of research skills to emerging researchers. This strategy includes: organizing seminars, specific discipline workshops, training programmes to address research-related issues like the Statistical Products and Service Solutions (SPSS), a software that according to SPSS (UK) Ltd, 2005 is a solution for research solutions. Also, where appropriate, I would assist individual emerging researchers with one-on-one interaction for assistance with particular research projects. Analogically, being a researcher is a once-off opportunity to sow the seed that, through various dimensions of the research programmes, hopefully germinates and grows into a strong, fruit-bearing plant. This analogy is not intended to be patronizing towards academics, emerging researchers and postgraduate students, but a motivational and encouraging expression of a way of life and an addictive one too, especially for novice researchers and postgraduate students.

In view of the fundamental significance of research productivity for measuring academic excellence and ensuring sustainability, universities can no longer afford to relegate research to the background. In order to survive, a university has to make research a pivot around which all academic activities revolve. According to Hattie and Marsh (1996, p.529), quality research and teaching should be informed by research, just as responsive and relevant community partnerships are based on research. Universities mainly operate on the assumption that research and teaching are closely intertwined for mutual benefit. According to the Southern African Regional Universities Association (2012, p.7), research and knowledge creation are defining characteristics of a 'University; absence or severe diminution of this aspect in a higher learning institution spells an imminent loss of its university status. This is the situation in many universities of our Southern African region. Also, sustainable income generation for academic

activities depends on research. In terms of the *Policy and Procedures for the Measurement of Research Output of Public Higher Education Institutions (2003)*, all public higher education institutions must submit their subsidy funding claims for research outputs annually, in the form of publications, to the Department of Higher Education and Training (DHET). The Department allocates a research subsidy based on calculations of units for approved publications. Research produced by universities is measured by the number of journal articles, chapters in books, books and conference papers that academics publish annually in approved local and international publications; for example, the DHET's latest Report on the Evaluation of the 2012 Universities' Research Publication Outputs which came out in February 2014, a list of all institutions with their respective research publications outputs for 2012, is presented in Chapter Two, Table 2.1. Institutions have been rated according to their volume of publications output units, the top having the highest number of units, while the bottom has the lowest. WSU is rated the third from the bottom which means that, indeed, research productivity in terms of research output at WSU needs to be changed and improved.

Fundamentally, in my study the focus was about my practice, this therefore implies that as this research report unfolds, the focus shifts from 'I' to 'we'. 'We' refers to all academic lecturers with whom I interacted as my research participants, in terms of how I can better facilitate research capacity development in future, for the purpose of changing the situation at WSU. According to McNiff and Whitehead's glossary (2006, p.256), action research is a form of research that enables practitioners to learn how they can improve practice, individually and collectively. The focus is on the 'I' in collaboration with other 'I's. It is hoped that this study will be particularly helpful in improving the whole university's research output practice.

Collaborative practices assume that all participants are on an equal footing and that discourses take the form of dialogue between equals. Underpinning such initiatives is the understanding that groups share certain collective values that they wish to realize eventually. At a personal level, 'I' wish to improve my personal practice from collective

learning about my practice, and about the process of collaborative learning about how my research participants can, from their perspectives, help me improve the facilitation of research capacity development at WSU using action research.

1.2.1 Motivation for the study: The present allocation of research output units to Walter Sisulu University

Annually, DHET reports on its evaluation of all South African institutional research publication outputs to inform universities about the outcome of the evaluation of annual research output. For example, the latest reports on the evaluation of the yearly institutional research publications' outputs are intended to present WSU with a summarized assessment of its research performance for the 2009 and 2010 academic years. According to the 2007, 2009 and 2010 DHET reports on allocation of research output units, there has been a decline in WSU research publications outputs from 2005 to 2010. The DHET's Policy and Procedures for the Measurement of Research Output of Public Higher Education Institutions (2003) requires all public higher education institutions to annually submit claims for research outputs. Institutions are required to submit audited journal claims and claims for publications in books and conference proceedings with the relevant supporting documentation. Books and conference proceedings are evaluated by a panel of experts drawn from the higher education sector. Based on calculations of units for approved publications, institutions are provided with research subsidies. It is hoped that these reports will assist every institution in analyzing its research performance and will also highlight some aspects with which the institution can further engage when analyzing the sector report.

Every year, annual letters serve to inform universities about how many units have been allocated for journals, books and for conference proceedings; this amounts to the total units for that year's publications. According to the allocation of research output units for WSU, there has been a decline from 2005 to 2010 when the university received 22.43 units compared to the 2005 academic year when it received 33.32 units. In 2007, WSU was allocated 15.85 units for journals, 0.83 for books and 1.83 for conference

proceedings. This amounts to a total of 18.51 units for its 2007 publications. The university was awarded 14.15 units for its 2008 research publications outputs compared to 18.51 units for its 2007. Over these four years research output decreased by 25% at WSU.

Another component of research productivity at universities is patenting, which is dependent on research activity and research output, however, not all higher-education institutions have high patenting activities, according to the DHET (2011). All South African institutions are meant to be research intensive, but some universities are geared mainly towards teaching. WSU seems to be one geared for teaching, and this does not mean it is exempted from being research intensive as expected by the DHET. One of the reasons for the low patenting activity by South African scientists is that "research has not been carried out with commercialization in mind and has, therefore, lacked market focus". Another reason can be the low research capacity of the South African higher-education institutions. This is supported by the fact that patenting activity at most of the major established higher-education institutions (Jacobs & Pichappan, 2006), with reasonable research capacity and substantial funding for research and development, substantively mirrors that of publication outputs; however, with WSU is facing the challenge of a decline in research output, as indicated by DHET annual reports of 2007, 2009 and 2010 academic years. The White Paper 3 states that a Programme for the Transformation of Higher Education (1997) outlines a single co-ordinated higher education system. This policy applies to all public higher education institutions, and thus does not differentiate between universities and technikons (now referred to as Universities of Technology). As a consequence, its implementation is not differentiated according to institutional type (Policy and Procedures for Measurement of Research Output of Public Higher Education Institutions from the Ministry of Education, 2003, p. 3).

This is also explicit in R&D expenditure per higher-education institution. There is a need, as set out in the ten-year plan for Science and Technology (DST, 2007), to

increase the development of research at the institutions if South Africa is to progress to a knowledge-based economy; for example, Table 1.1 shows percentages of the total journal outputs of Cluster C institutions from 2005 to 2010.

Despite the overall increase in publications outputs between 2005 and 2010, it is of concern that WSU had negative growth rates during this period, according to the DHET report on evaluation (DHET, 2010, p.10); for example, from 2005 to 2010 the university research output ratings were as follows:

Table 1.1: WSU amongst other Cluster C universities' research output ratings from 2005 to 2010.

Institution	2005	2006	2007	2008	2009	2010
TUT	1.2%	1.3%	1.3%	1.7%	1.4%	1.9%
CPUT	0.9%	0.8%	0.6%	1%	1.4%	1.6%
UFH	0.7%	0.9%	0.9%	1%	1.5%	1.5%
UL	1.5%	1.3%	1.3%	1%	0.8%	1%
UV	0.4%	0.2%	0.2%	0.4%	0.6%	0.8%
UZ	0.6%	0.7%	0.6%	0.8%	0.8%	0.7%
WSU	**0.5%**	**0.3%**	**0.2%**	**0.2%**	**0.3%**	**0.5%**
DUT	0.3%	0.4%	0.5%	0.3%	0.5%	0.5%
VUT	0.2%	0.3%	0.2%	0.2%	0.4%	0.5%
CUT	0.4%	0.5%	0.4%	0.3%	0.4%	0.4%
MUT	0%	0.1%	0%	0%	0%	0.1%
TOTAL	6.7%	6.8%	6.2%	6.9%	8.1%	9.4%

Table 1.1 demonstrates annual research output. There is always a short institutional report from the DHET attached to every annual report which is meant to assist institutions with their own analysis of their research performance, as well as to improve efficiency in processing the submission of research publication outputs to the Department of Education. It is hoped that this report will somehow assist institutions to address factors that might have contributed to the decline in research output and

thereby improve research output in the future. This is why the purpose of this study is an action inquiry which begins with the question, 'How do I improve the way I facilitate research capacity development at WSU using action research methodology?' Action research, according to Koshy (2010), is a specific method of conducting research by professionals and practitioners with the ultimate aim of improving practice. This is echoed by the research vision for Walter Sisulu University which is to create an enabling environment that empowers staff and postgraduate students to conduct research.

The new knowledge gained from this study will deepen my understanding of WSU's conditions and contribute to the way needed to improve or change our practices for the better. Moreover, the insistence on research productivity amongst researchers at WSU will ensure rootedness and the sustainability of knowledge generation, as well as the increased likelihood of relevance and applicability. This condition presupposes an environment adequate to support research of the highest calibre and which insists upon the rootedness of such research as well as its positive spill-over effects on the local community that the university serves.

Though successful research is frequently attributed to individual researchers or research teams, we all know that such success is determined by more than individual brilliance, hard work, and team competencies. It revolves around such factors as the nature and quality of the research environment generally, the facilities and other resources at the disposal of the researchers, inclusive of prior or contemporaneous work by other researchers in related fields.

Generally speaking, according to Govender Prega's (2011) article titled: 'Varsities need more doctorates', an official audit found that many South African universities are failing to produce essential research (*Sunday Times Magazine, 17 April 2011)*. Dr. Mamphela Ramphele, who was then chairman of the Technology Innovation Agency (TIA) established by the Department of Science and Technology (DST) in 2011 to stimulate technological innovation in South Africa, stated:

Some universities were failing because they had become prisoners of the past. We have some of the best brains for addressing problems such as waste removal and harnessing solar power, but we are not using their knowledge.

The country's 23 institutions had pocketed R1.2 billion for research conducted and published in 2009, however, an audit by a 12-member panel, showed that 60% of the research was by five universities, while eight others, including WSU, Venda, Limpopo, Zululand and Durban University of Technology, produced only 3.8% of the total output. The panel commissioned by the DHET claimed that the calibre and qualifications of academics were key drivers in the volume of research produced. The universities which fared poorly showed that they did not have many staff with doctoral and master's degrees. This report expressed concern over the fact that research output had declined at WSU and in Limpopo between 2005 and 2010.

The above findings therefore motivated the necessity to conduct this study because I anticipated that the research findings could lead to better facilitation of research capacity development and improved research productivity in this university, from the academic lecturers' perspectives. This also informed the choice of action research methodology in this study based on McNiff and Whitehead's (2006, p.7) argument that action research is a form of enquiry that enables practitioners everywhere to investigate and evaluate their work, however, public acknowledgement begins with the private acknowledgement of practitioners themselves. This is why it is generally not commendable to expect someone else to value your work if you do not value it yourself. I need therefore to appreciate the importance of my work in relation to my capacity to generate both new practice and new theory, and to see how this ties in with policy formation and implementation. As a researcher, I continuously ask myself: What am I doing? What do I need to improve? How do I improve it? My accounts of practice show how I am going to try and improve my own learning and influence the learning of academic lecturers with whom I interact at work, during workshops, trainings, seminars, etc. that I regularly organize. These accounts come to stand as my own

practical theories of practice, from which other colleagues can learn if they wish to do so (McNiff and Whitehead 2002).

Actually, the idea of developing human capability is core to action research. People might have different reasons for starting an action inquiry. I felt that my current practice needed to be changed for the better, and I could get this information from my research participant's perspectives by evaluating my work in order to explain how I had been doing my work previously. This means evaluating what has been happening; has it been working or should I change something? For example, as a Research Associate I wanted to know how academic lecturers with whom I interact could respond to my practice. I wanted to evaluate the effectiveness of the way I facilitate research capacity development. This involved asking: How can I improve the way I do my work by generating evidence to support any claim that I need to improve the way I do my work? When I asked, "How can I improve what I am doing …' I meant to say, how can I better facilitate research capacity development to enhance research productivity in future at WSU?

1.3   Statement of the problem

According to the Department of Higher Education and Trainings' allocation of research output units for Walter Sisulu University, there has been a decline from 2005 to 2010. Because of this decline in research productivity in terms of research output, the aim of this study is to contribute towards increasing research productivity and the production of high-level skills which are needed by the academic staff members to advance the objectives of this university. Over the last seven years research output at WSU has decreased by 25%. Following from this statement of the problem from the DHET's report on evaluation of the 2005 to 2010 institutional research publications outputs, I became concerned as I am responsible for the facilitation of research capacity development in order to enhance the university's research productivity amongst fellow

academics. The question that I asked myself was, 'How can I improve the way I facilitate research capacity development at WSU?' The extent to which one is able to contribute towards changing or improving research productivity is a question which this study seeks to address using action research methodology as explained by Whitehead (1989) and McNiff (2001, p.10). According to McNiff and Whitehead (2006, p.28), action research means working with others at all stages of the process. This study investigates my practice in relation to academic lecturers with whom I interact when facilitating research capacity development such as promoting writing for publication workshops. 'Writing for publication' is definitely not a solitary activity in a university that I can do alone. The process of being research productive involves most lecturers and researchers who find time to attend such research workshops.

Research capacity development is 'my' responsibility which is essential for realizing the university academic status of producing excellence in research and teaching, and this contributes to sustaining the development of the university. When reference is made to academic excellence of an institution by the DHET the focus is never exclusively on teaching and learning, but also on a comprehensive and integrated service provided by the university. As explained earlier, for any university to survive it has to make research a pivot around which all academic activities revolve. Hence, according to Koshy (2005, p.1), research is a form of disciplined enquiry leading to the generation of new knowledge, therefore, any university's strategic plan should, among other academic activities, focus on working towards improving facilitation of research capacity development. In most African countries, however, conditions for research have been severely compromised, according to Sawyerr, Secretary-General, Association of African Universities in Ghana, (2004, p.211). This is proved generally by employees who receive poor remuneration for teaching and learning services, and consequently, some employees end up changing workplaces because they are looking for reasonable remuneration. In order to retain lecturers and encourage them to stay in one workplace for a longer period, a university ought to give them better remuneration for services rendered like other universities, for example, Walter Sisulu University pays its lecturers

less than the University of Cape Town. Furthermore, recently, few posts were advertised through jobs alert (www.indeed.com) where it was shown that UCT remunerates at a rate of ZAR 702 000, 00 for an Associate Professor and ZAR 882 000, 00 for a professorship position. How to change this situation is one of the greatest challenges of our time, and must begin by addressing the basic and mutually, constitutive conditions that have given rise to this situation. These are: acute shortages of qualified university staff, work load and understaffing, resilient budgetary deficits of the university, and so on. These challenges necessarily result in the erosion of the university's capacity to carry out meaningful and productive research. This is not merely a logical conclusion but an acknowledged reality at Walter Sisulu University currently. This is why in most African countries conditions for research have been severely compromised this is manifested in the generally, poor remuneration, heavy teaching loads, inability to mentor and supervise postgraduate students and inadequate knowledge and experience to be research productive (Sawyer, 2004).

In short, the university's progress depends on capacity to generate, acquire, adapt, and apply modern knowledge to services and products that directly respond to the needs of immediate communities that the university serves, however, WSU lacks adequate resources to generate, acquire, adapt and apply such modern knowledge, and this is why there is a need for an innovative participatory approach to better facilitate research capacity development needs. According to Sawyer (2004, p.213), every society must have the capacity to generate, acquire, adapt and apply modern knowledge if it is to take advantage of the opportunities and reduce the risks posed by the rise of a knowledge society, thus, in the absence of on-going research activity, one cannot talk meaningfully about research-capacity building whether in social affairs or in academia. As a Research Associate, it is my responsibility therefore, to thoughtfully engage in this practice that involves changes that are more satisfying in order to help create desired changes in the way research-capacity development has to be practically facilitated. McNiff and Whitehead (2006) argue that this activity is definitely not a solitary activity that one can do alone successfully. Such successful research is frequently attributed to

research teams, such success is determined by more than individual brilliance, hard work and team competencies. The following are my key research questions.

1.4   Key and sub-research questions

As a Research Associate, whose responsibility is to facilitate research capacity development, my main research question formulated for this study is as follows:

> How can 'I' improve the way I facilitate research-capacity development at Walter Sisulu University using action-research methodology in order to enhance research productivity?

The following are sub-questions of this research:

1. How can 'I', as a research associate collaborate better with postgraduates and academics to sustain my facilitation efforts in order to improve research capacity development?
2. How can 'I' sustain this collaboration between academics, postgraduate students and myself?
3. How can 'I' access their prior knowledge and make use of it in the process of improving our practices?
4. How can 'I' encourage WSU to promote collaboration between academics and their postgraduate students' work for publication purposes?
5. How can 'I' manage a research process in order that the necessary changes that ought to happen at WSU promote sustainable capacity research development?

1.5   Research objectives

The main objectives of this study are to:

- examine the reasons behind the decline in research activities and productivity and how this can be reversed through action research study intervention;
- engage the skills to enhance the building of research capacity towards a new generation of researchers at WSU, focusing also on postgraduate students' engagement;
- explore how, as a research associate, I could better facilitate research capacity development within the university;
- examine ways in which research capacity building could be used to address present research challenges that have led to the decline of research productivity at WSU.

In order to achieve these research objectives, I used one-on-one interviews and questionnaires with academics in eliciting data regarding their everyday activities. This was done for the purposes of establishing an improvement process by explaining and describing their feelings and values towards their practices and my practices. The end product was an articulation of our own living educational practices. Zeichner (1998) in his 'New scholarship of teacher education' supports the concept of self-study as being crucial to this exposition of values that is an integral part of my professional practice. Through this study, my understanding of my practice's reflection of my standards and values capacitated me towards improvement of the way I do my work. In this way the challenge which is the decline in the research productivity of the university, could be changed for the better, because I, thereafter, would be able to know exactly what needed to be improved. As I said earlier, the process of finding out reasons that have led to the decline of research productivity at WSU is not a solitary engagement, and I therefore needed to work collaboratively with the academic staff members who helped me reflect on my practices. This also helped me come to an understanding as they all

brought out their own values regarding their understanding of the effectiveness and improvement activities needed in order to enhance and sustain the way I ought to facilitate research capacity development. Improving the way I facilitate research capacity development will not only benefit me but will also benefit academics with whom I interact, as well as the university's research status or ratings. Sharing of values in a collaborative way will serve the university's research mission and vision which is to create an enabling environment for staff to conduct both applied and basic research and empower staff and postgraduate students with research knowledge and skills so that WSU can contribute to the existing body of academic knowledge.

1.6   Rationale for this study

In order to make the necessary changes needed for better research capacity development depends on my ability to question and reflect on my previous practices and experiences, and ultimately, having learned from such experiences, I can improve the way I ought to do my work. From this experience, I can also help to capacitate more academics to improve what they are supposed to be doing to improve their own practices. According to Coghlan and Brannick (2005, p.35), reflection is the process of stepping back from experience to process what the experience means, with a view to planning further action. In the context of this study, action research methodology is definitely the right choice when seeking ways in which I can facilitate research capacity development by transforming the quality of research related-activities, thereby enhancing institutional research productivity and the production of high level skills needed to advance the objectives of the university. According to Lewin (1951), a key value shared by action researchers, is the abiding respect for colleague's knowledge and for their ability to understand and address the issues confronting them and the community that they serve. For some years, Lewin (1951), Whitehead (1989), McNiff (2006), and others have been using action research with the main question being: 'How can I improve my own practice? This question describes and explains the learning and

action that has to be taken by employees to improve the way they do their work in their workplaces. By conducting this study I wish to be part of the movement to improve my practice, and further improve research productivity at WSU. My study therefore incorporated the values from my research participants plus the added dimension of placing that learning experience within the context of WSU, which will in itself be a development of the Research Resource Centre which is meant to help facilitate research capacity development.

Having chosen to use action research methodology gives me the confidence to claim that this study has the potential to eventually promote better facilitation of research development at WSU. From the outset, this study was intended to draw a picture of how I planned to improve the way in which I do my work for the better. There is an intellectual argument here about the different ways in which people learn. Piaget (1996, p.218) in this theory of learning noted:

> *Development is not a continuous accumulation of things learnt step by step, but 'intellectual' revolutions equal to change in the structure of intelligence.*

This intelligence component is a factor that this study is trying to address at WSU as one of the major personal research projects based on my own practice as a research associate whose responsibility is to better facilitate research capacity development. The idea of this study's guideline for other colleagues is explored and anticipated to become an embedded part of their teaching, learning and research strategy outcomes. This therefore supports this study's fundamental reasoning which is to guide other researchers out there on how they can improve and change their own practices for the better, therefore, this study reflects a theoretical idea of how any novice researcher and academic lecturer can improve his or her own practice.

1.7   The significance of this study

Walter Sisulu University's interpretation of benchmarking university research output has been slow, despite its recognition by other universities as an important tool in the pursuit of continuous quality improvement. Facilitation of the research capacity development in this university is therefore meant to generate new knowledge on how to enhance or improve research skills among the academics through action leading to personal, professional and institutional development. The university expects good research administrative skills, and therefore, the Directorate of Research Development and the Research Resource Centre must prove that they add value to the institution's research development programme. I take this as a challenge as all these different and sometimes competing expectations, come together in the workplace at the same time. The consequence of such means a greater demand than ever before on institutional resources. This includes demands such as physical space for the growing research administration functions, professional development needs, and financial demands of changing technology as well as the cost of providing mandated programmes and oversight.

As change continues, the cost of managing such increased change accelerates; however, change is neither absolute nor static, and we cannot simply watch such change from the periphery, no matter how much we, at WSU are tempted to do just that; we cannot (and I must not, as a Research Associate) simply avoid values and personal commitments to our work at this university. It is indeed, significant that the value of action research is used to improve the present situation at WSU, that is, to avert the decline of research productivity. Knowledge comes from doing action research, as this study shows. As an action researcher, I feel compelled to act collectively with other colleagues in gleaning this new knowledge from their perspective, based on reflection of my actions. This is why it was imperative for me to use action research as a methodology to be able to elicit data that I needed to bring about change. Fundamental to action research is the idea that the facilitation

of research capacity development at my workplace can only be understood by trying to improve through reflective action of myself as well as reflective action of academic lecturers who I know are affected by the same problem statement of this study, that is, the decline in research productivity and research output at the university.

1.8   My concern as a Research Associate

The experience and expertise of a research associate might be of constructing a personal short, medium or long-term research plan; project management; writing a research proposal collecting and analyzing data, choosing appropriate research methodology, preparing an article for publication, mentoring and guiding students for postgraduate studies and supervision, attending national or international conferences, and so on. As a Research Associate, 'I' am expected to perform the above duties in such a way that I remain relevant to individuals with widely-divergent needs yet still achieve their different goals. A Research Resource Centre is, by definition, a research mentoring centre. From the outset, that is, in the year 2004, when 'I' joined the Directorate of Research Development, 'I' was appointed to be responsible for the management of the Research Resource Centre, and 'I' recognized that successful mentoring could only occur where individuals' personalities and total situations were taken into account. It is a fallacy that research mentoring can occur in a vacuum. Bearing this in mind, based on many understandings of mentoring, the following features best describe the Research Resource Centre:

- Linking experienced colleagues with those less experienced to assist in training;
- Building research capacity;
- Inviting researchers to learn from examples;
- Building collaboration;

- Offering encouragement and advice;
- Providing empowerment and affirming one's environment of field of specialization;
- Building confidence amongst researchers and novice researchers;
- Encouraging or promoting researchers exposure through attending conferences for a public scrutiny;
- Writing for publication for the purposes of promoting research output, and
- Promoting research culture and research productivity.

Building research capacity is a key to research development which is the creation of time and space in the context of research orientation interventions for interaction between post-graduate students and young researchers; in other words, providing a forum for exchange of ideas. Very often, it has to be across disciplines. In some measure, this must occur during seminars and workshops where people frequently engage with one another. Most significantly, the workshops provide a context for a meaningful conversation between colleagues and research development coordinators. In this way, researchers may discover one another and gain confidence, so they may begin to approach the Research Associate with ideas for interventions that draw on their own resources. From this, 'I' can draw encouragement as a sign of researchers moving from dependence through independence to interdependence. Examples of emerging researcher initiatives in which 'I', as the Research Associate should play some important role are the following:

- Organizing seminars, workshops, conferences, and so on, always helping in putting different scholars and researchers together with the same intention of sharing information. Both academics and postgraduate students can learn from one another and as a result, it is then easier to formulate any collaboration, according to their ideas and fields of studies, and so on.
- It is my responsibility to regularly organize workshops, particularly on writing for publication, and of course, this helps with research productivity and publications

which subsequently helps to increase research output. The motive behind this is to help novice researchers and postgraduate students to become more exposed to get used to writing for scholarly publications and this helps them in finding ways to improve their academic practices for the better;

- Another responsibility is running the Research Resource Centre commitment where I am committed to encourage the promotion of research and writing skills workshops, which in some cases, provide a kick-start to research consciousness and research productivity. Within the university, there are departments or faculties that do not provide a supportive environment for research to their staff. My responsibility is then to interact with such departments and encourage academics on how to engage themselves in such contexts, that is, academic practices and how to communicate with those in leadership positions to engender a sense of urgency in seeing and promoting a research culture as part of the core business of academics in a university. As I alluded to earlier, in order to survive, a university has to make research a pivot around which all academic activities revolve; and

- For some academics, the research path is clear-cut and obvious, in terms of both content and method. Nevertheless, others (usually those working alone) struggle to identify a research focus, or one with sufficient academic rigour. The reality is that research development does not occur at a uniform pace and that in some cases it takes time before measurable research output happens. It is then my responsibility to promote a possible way of collaboration amongst academics and to some extent, this has helped some departments learn to work together, even in terms of applying for group funding and engaging in one project.

Action research in this study focused on my research participants involving my practice. In this case, participants were viewed not only as sources of data, but also as actors who participated in this study as the statement of my problem also affects them, hence it is about the decline of the entire university's research productivity; the responsibility was not only 'mine', but it was also my participant's responsibility. This is why Koshy

(2010, p.1) defines action research as a specific method of conducting research by professionals and practitioners with the ultimate aim of improving practice. As an action researcher, I therefore, ought to accept full responsibility for exercising influence on other colleagues: hence action research focuses on other people in relation to me as a researcher, for example, the information that I collected from my research participants was about me, my practice, my success, my struggles, my failures, and so on.

To sum up, according to McNiff and Whitehead (2006, p.258), action research is a process of the 'I' investigating the 'I', who asks, 'How can I improve the way I facilitate research capacity development at WSU using action research methodology?' The living 'I' is the epistemic centre, where the research is about 'I' who is generating knowledge. Frequently, the 'I' forms a collective so that the 'I' exists in an 'I-we' relationship, and the question then becomes, 'How can 'we' (collaboratively) improve the university research productivity at WSU?"

1.8.1 The importance of research capacity development at WSU

According to the Policy and Procedures for the Measurement of Research Output of Public Higher Education Institutions (2011), the DHET's allocation of research output units for Walter Sisulu University shows that there has been a decline of research productivity at WSU from 2005 to 2010. The DHET expects WSU to do whatever it takes to change on many levels, though most markedly, in the type of work that it does to meet the university's responsibilities and DHET's requirements. A decline over the last eight years in low research productivity at WSU has profoundly influenced the status of the entire institution. The system, processes, and policies of the university, more often than not, still reflect services that the university formulated many years ago when it merged in July 2005. As a Research Associate, I have been continually reviewing the use of limited resources to best support the research goal of the university which is to:

Create, amongst other things, an enabling environment that empowers academic staff and postgraduate students to start featuring conduct of research amongst their activities.

I found it necessary to work collaboratively towards an improved facilitation of research capacity development using action research methodology. This was to fulfill a goal of creating an enabling environment amongst the university researchers, that is, amongst academics and postgraduate students. As the rationale of this study states: action research is a specific method of conducting research by professionals and practitioners with the ultimate aim of improving practice (Koshy, 2010, p.1). In other words, the general idea refers to a state of affairs or situation where the 'I' needed to change or improve the way I capacitate research development, hence, in using an action research study approach, the goal of the "action" was for a change in the way "I", as the Research Associate, whose responsibility is to better facilitate research capacity development for improvement purposes.

Generally speaking, this action research study focused on other people's perspective about the way I (as a research associate) conduct my practice. This is why this study used a 'self-study action research' approach. Broadly, self-study, according to Samaras (2011, p.20), comes under the conceptual umbrella of practitioner-based research which has taken many forms (e.g. reflective practitioner research, action research, narrative inquiry, and praxis inquiry). I chose action research as it is a "wonderful uncomfortable" place to be. Once I began my journey of investigating my past practice, I had no way of knowing in advance where I would end up (Mills, 2007, p.2). Action research, like any other problem-solving process, is an ongoing creative activity that exposed me to self-reflection about my practices along the way. Moreover, according to Mills (2007, p.2), action research is any systematic inquiry conducted by teacher researchers, principals, school counsellors, or other stakeholders in the teaching/learning environment to gather information about how their particular schools operate, how they teach, and how well their students learn. This information is

gathered with the goals of gaining insight, developing reflective practice, effecting positive changes in the school environment (and on educational practices in general), and improving student outcomes and the lives of those involved.

Generally speaking, a method such as action research or teacher research, auto-ethnography and narrative inquiry are typically used in self-studies (Loughran et. al., 2004). Numerous self-study scholars came to self-study research from action research, and this makes sense as there are both similarities and differences between these two methodological approaches. In addressing an action research methodological approach as a form of practitioner research related to self-study, McNiff, Lomax and Whitehead (2003, pp.9-20), in order to show differences and similarities claim that action research "place(s) the 'I' at the centre of the inquiry process, as a form of self-study or first-person inquiry". They clearly articulate their position in supporting such social research that fits the 'I' in the research of action and influence:

> *The emphasis on the living person "I" shows how individuals can take responsibility for improving and sustaining themselves, and the world they are in. "I" have the capacity to influence the process of social change in this way, because "I" can influence others in my immediate context, who in turn can influence others in their contexts (within the university). The circles of influence are potentially without limit. Collectively, individuals can generate world-wide change.*

I therefore believed that by striving to work with other colleagues collaboratively to produce publishable scholarly work for publication, I believed I could 'make a real and important difference in terms of affecting the life chances of my colleagues and the postgraduate students and academic lecturers with whom I interact. It also needs to be noted that what an individual does in his or her daily work, though it could sometimes be on a small scale, does make a difference. If there are other colleagues embarking on similar research, by striving to work collaboratively with each other to write for publication, they could somehow, cultivate hope in the face of such a challenged

environment at WSU. I believed this could make real and important difference in terms of affecting the work and life of each action researcher and the broader environment within which WSU is located.

Fundamentally, my major goal of my action research practice was to examine and gain knowledge about my context as I seek to improve the declining research productivity situation at WSU. The impact of understanding the situation at WSU and that of other colleagues, with a view to wanting to make a contribution to the knowledge-base of solving this problem of declining of research productivity, is peculiar to this university context. Such important work, according to Samaras (2011, p.21), can be accomplished with the support and critique from other colleagues. In this regard, on one hand, some of the employees are lecturers who regard a classroom as the laboratory for change, others, including myself in relation to my responsibility as a Research Associate, could be regarded along as educational and research reformers, whose task is to try and contribute towards rebuilding the culture of research within the university. Furthermore, using the self-study action research approach, the "self" was the focus of the study with the goal of leading to a reframed understanding of my role in order to impact other academics' learning from my practice. As a self-study action researcher I was a resource for my research and problematized myself in my practice situation in order to improve my practice. Self-study, although related to action research, as explained above, has distinguishing differences according to Feldman, Paugh, and Mills (2004) and it has distinctive methodological components, for example, the term self-study is employed when the explicit focus of the research being undertaken is related to teaching and teacher education practices (Loughran, Hamilton, LaBosky & Russell, 2004). Initially, self-study focuses on the researcher first on how, for instance, improvement on both the personal and the professional level can be done in order to be able to better facilitate research capacity development at WSU.

Sawyerr (2004, p.16), on the other hand, argues that it is useful to consider one important component when referring to research capacity development. In universities

and research institutions, for example, the capacity of individual researchers includes their skills, competencies, attitudes and values are developed primarily through appropriate training programs and courses, conferences, seminars, workshops and so on. All reflect involvement in research activities that the Research Resource Centre is responsible for organizing. Research therefore, is nurtured by the assembling of a critical mass of researchers, the cultivation of a positive research culture, and the presence of incentive systems that make a research career attractive.

According to Sawyerr (2004, p.16), a research model is that of an individual or a small group of persons pursuing research as a first choice and in their area of professional interests. Of course, there is a need for facilities, good management, and appropriate incentives that recognize and reward high-calibre research. It is indeed so important that research at WSU must be promoted amongst both academics and postgraduate students, even beyond fears of it being closed down due to disruptions by both academics and students, as reflected in the article below from the Daily Dispatch Newspaper of the 19th of August 2013, as Diagram 1.2. Under such circumstances, I completely agree with Sawyerr (2004, p.16), in that the research model could be that of an individual (like a research associate) or a small group of persons pursuing research as a top priority of their choices and in their area of varied professional interest.

Worries grow on WSU's future

By MSINDISI FENGU
Education Desk

STUDENTS at Walter Sisulu University (WSU) are growing more concerned and frustrated that the month-long strike by lecturing staff w+ill harm their qualifications.

There are also growing concerns over the viability of the university which caters for some 21 000 students in four campuses.

The labour stalemate between management and unions over pay increases is set to continue after a court challenge by management was postponed again to August 27.

The concerns of students come amid rumours the institution may be closed.

Earlier messages were circulating among students the university would close, but management has denied it.

Student leader, Lali Ngobe, said they were worried potential employers would question the credibility of their qualifications and whether they could actually do the job.

As a result, the South African Student Congress (Sasco) met the National Education Health and Allied Workers' Union (Nehawu) in East London on Friday.

Sasco provincial secretary Tembani Makata said students were very concerned.

"A resolution has been taken

Rumours of plans to shut down denied

that at least by the end of next week students will be back in class and there will be lectures. Nehawu has committed to this resolution.

"We are together in this but we don't know about management."

Makata said the organisation was concerned potential employers in the private and public sector would have a negative opinion about the credibility of WSU students' qualifications.

"A catch-up plan will have to be effective to ensure we make up for the lost time," she said.

Nehawu provincial secretary Xolani Malamlela said it was agreed in the meeting their members would only return to work if management agreed to their demands.

"The ANC has agreed and supported our demands and we are going to engage at a political level with the Department of Higher Education and Training (DHET) Minister Blade Nzimande."

However, independent education expert Graeme Bloch said there

would not be any impact on the credibility of the qualifications as yet.

"The strike is an internal issue and won't affect qualifications unless room is opened for corruption."

"Obviously the overall viability of the institution is an issue. The DHET has not been great, though its mostly hands off approach is right.

"WSU must sort out staff, academic and non-academic staff and student issues."

WSU spokeswoman Angela Church said time lost during the strike was a concern and management had developed a catch-up plan to assist students.

"Any interference with the core business of the university is of great concern. However, the academic quality will not be compromised.

"All WSU's qualifications are accredited by the Council of Higher Education (CHE) and professional bodies."

Questions were sent to CHE, but no response had been received at the time of going to print.

Church added there were no plans to shut down the university.

"The management has not taken a decision and there are no plans to do so. This is just a rumour and we have communicated that on our Facebook page," Church said.
— *msindisif@dispatch.co.za*

Diagram 1.2: Daily Dispatch Newspaper of the 19th of August 2013 illustrates the proof of the rumour about the plans to close down Walter Sisulu University (WSU).

Judging from this threat or university's disruptions of its operations, there is a need for facilities, good management and appropriate incentives that recognize and reward high-calibre research. WSU should try and avoid such disruptions caused by the rumour of closing WSU down.

In short, the Department of Higher Education and Training is committed to the improvement of research output and urges all institutions to continue working towards this goal. According to the DHET report of (2010, p.19), the major concern was with institutions that have experienced declines in research output for the past four years (2005-2009). Such institutions were WSU (annualized decline of -11.05% per year) and University of Limpopo (-8.66%). Both institutions were identified by the DHET as seriously in need of assistance.

Clearly, this study can be for the benefit of WSU, because it ought to address the pressing need to transform teaching and learning in this Higher Education institution. This might be outside the scope of this study, but according to the report by Scott, Yeld and Hendry in "A Case for improving Teaching and Learning in South African Higher Education" (2007, p.2), not only does improvement to Higher Education seem less significant than initially thought, but in terms of throughputs the Higher Education system as a whole is not doing very well. As the authors indicate, these outcomes undermine the gains made in terms of access and raise a number of issues about the quality of the educational process and the possible reasons for the unsatisfactory results. However, the teaching and learning, which WSU seems to be considering most does give weight to the provision of institutional support for Higher Education staff who wish to improve their educational practice (HEQC, 2005/2006a; HEQC, 2005/2006b). However, WSU ought to include, amongst other things, encouragement of its academics towards research productivity.

1.9 Research design and methodology

The Research Resource Centre where I practice as a Research Associate is intended for the use of all senior post-graduate students and academic staff of WSU who need to be capacitated in order to be more research productive. The mission of the Research Resource Centre is to promote research a culture within the university through facilitating research capacity development and research excellence within the university. Although the primary focus is on research in the human and social sciences, the centre embraces the full range of disciplines within the university. My study's focus was to improve my practice with insights from the most up-to-date academic and educational theories in order to improve research capacity development at WSU.

In the evolution of my work as a Research Associate, I sought to enhance my systemic contribution to improve my practice using action research methodology, hence my participation in collaborative activities with academics to explore the implications of research. In this study, I asked some academics questions about how I could improve the way I facilitate and promote research capacity development amongst postgraduate students and novice researchers in a bid to help enhance research productivity and output at WSU. This task, however, cannot be accomplished by me alone as an individual. Research productivity requires commitment of many individual academics working collaboratively. If I have to better facilitate research capacity development in order to be able to transform the way I generate knowledge, this requires communication for purposes of sharing of ideas and for mobilizing actions required by this process. Researchers make their contributions by sharing their desires, values, advices, suggestions, recommendations and so on. Action research can enhance learning opportunities whenever needed to reverse the decline of research productivity at WSU. This is why the motive behind conducting this research was to examine what might have caused the decline in research productivity and research output at WSU, and how this decline can be reversed through such a study intervention that became 'my' responsibility as a research associate.

1.9.1 The use of 'I'

In action research the object of inquiry is not other people, but the 'I' in relation with other 'I's. In addressing action research as a form of practitioner research related to self-study, McNiff, Lomax and Whitehead (2003, pp.9-20) claim that action research place(s) the 'I' at the centre of inquiry process, as a form of self-study or first-person inquiry". These scholars clearly articulate their position in supporting such social research that fits the 'I' in the research of action and influence:

> The emphasis on the living person "I" shows how individuals can take responsibility for improving and sustaining themselves, and the world they are in. "I" have the capacity to influence the process of social change in this way, because "I" can influence others in my immediate context, who in turn can influence others in their contexts (within the university). The circles of influence are potentially without limit. Collectively, individuals can generate world-wide change.

This means that the field of action research grew dramatically and distinctively from other forms of practitioner research in the past decades. I am eager to better understand what action research methodology is and what value it holds for my research study. As Zeichner (1999, p. 8) points out: "the birth of self-study and action research in teacher education movements around 1990s was probably the single most significant development ever in the field of teacher education research". Yet, a major goal of this action research study is for researchers to gain tacit knowledge about their research so 'I' sought to improve and assess my own practice, its impact on my own research practice and my contribution to the knowledge base of doing research at WSU. Otherwise, in self-study action research, the focus of the research is oneself. (I study myself, not other people). The question I had to ask myself was: 'How can I improve what I am doing?' My aim was to show how I hold myself accountable for what I am doing. Of course, such an important work, according to Samaras (2011, p.21), can be

accomplished with the support and critique from colleagues. In that regard, one would refer to my practice and carrying out of this study as an educational reformulation, where I have to reform my practice first, so that the whole process enables others to transform as they imbibe knowledge of how they can improve their own practices. This means then that this could only be through a systematic reflection of my practice from my research practitioner's perspective to provide meaningful insights into my daily practice and offer valid accounts of how I could develop and facilitate research capacity development. This action will not only benefit (change) me but will also benefit (change) other academic practices as well. This means therefore that this study is a personal and professional development of 'self' practice, which is sometimes expressed as 'I' when referring to myself within this study.

The focus on the 'I' was not accidental, but a considered response to what I needed to ask academic lecturers about my practice. I was able to achieve this self-inquiry study through collecting and analyzing data and hoped to finally come up with recommendations based on this data about myself. The justification was that 'I' was, as the participant researcher, central to this study as I explored my own learning and practice in the university research capacity development which carries both responsibility and the improvement process.

As the research unfolded, the boundaries between me and academic lecturers with whom I interacted began to dissolve, as we all saw ourselves as united in a common endeavor to improve our own practices within the university (McNiff and Whitehead, 2006, p.11). Boundaries began to dissolve, as 'I' came to see myself together with my research participants sharing information regarding my practice through the collection of questionnaires and conducting of interviews and developing a common understanding about what 'I' was doing and why. As an individual researcher, 'I' was at the centre of my own enquiry, being seen to exist in company with other individual 'I's' and as a result, we, each of us asked ourselves, how do we hold ourselves accountable to each other?' As a matter of fact, action research, according to McNiff and Whitehead

(2006, p.26), aims to understand what I/we are doing, and not what 'they' are doing. This demonstrates a shared commitment towards 'we - I' forms of inquiry.

In actual fact, there are two forms of 'I' considered in this study, 'I' the researcher developing and thinking as I work with colleagues, that is, academic staff members and 'we' are all (as university academic employees) required to contribute in improving the process of doing research for the purposes of improving research output of the university. This is to say, 'I' the university employee, a Research Associate whose duty is to capacitate research development amongst academic lecturers, and 'I' the researcher, as I was conducting this study which is about working towards an improved research capacity development at WSU using action research methodology.

To conduct this research study, I used an action research approach that required 'self-study action research' as the focus. I use a synthesis of ideas from these two fields and the paradigm to show how as a researcher I could create my own living theory whilst acknowledging and integrating insights from the fields of others (academic lecturers). Hitchcock and Hughes (1989a:209) support the Schön (1983) idea of the 'reflective practitioner' and Stenhouse (1975) 'self-reflective researcher' in 'empowering professionals and generating critically effective emancipatory activities that feed into effective practice'. According to Coghlan and Brannick (2005, p.35), reflection is the process of stepping back from experience to process what the experience means, with a view to planning further action. This is true of any research practitioner. This process of reflection and self-evaluation does not happen by accident and I believed that carrying out such a practical action research provided me with an opportunity to be engaged in research-capacity development in a necessary and meaningful way.

1.9.2 The significance of 'self-reflection' in action research study

I commenced this study as a demonstration of the practical reflection of my own practice; I was evaluated by participants who had previously attended some of my research capacity-building workshops that I had organized and conducted on how to use Statistical Products and Service Solution (SPSS); for example, on 25th and 26th August 2011, I conducted this workshop on two campuses at WSU: firstly, at the Nelson Mandela Drive Campus (NMD) campus on 25th and at Buffalo City Campus on 26th August 2011. Basically, data was collected through questionnaires that I issued to both workshop participants in an attempt to find out how they evaluated the way I conducted the workshop, a workshop that I coordinated using SPSS. The findings from this data indicated how 'I' should try and improve the way 'I' conduct workshops in future for the betterment of research skills. This self-evaluation of my own practice examined whether I was living up to the workshop participants' expectations or not. I often do this because, as evaluation results show in Table 1.3 my work at this university has to do with encouraging research practitioners to be much more research productive. I therefore need to constantly check whether I am doing the right thing as the participants and the university expects competence of a Research Associate. I therefore ought to make it a habit that my practice is always open to a critique, as this is required by the university's self-evaluation program.

A report based on my performance evaluation became an account of my own action inquiry as I asked my colleagues, 'How can I improve my practice?' According to Whitehead (1989), such a practice is increasingly understood by other scholars as a means of influencing the epistemological base of an organization as a main body for delivering new knowledge. In addition, transformation of a research culture that may emerge as a result, and how the quality of research needs to be established in order to contribute legitimately to research capacity development, needs to be interrogated. I framed this inquiry using a set of questions originally developed by myself, and I first

outlined the differences in terms of campuses where participants were based on 'I' find this as an important aspect of my inquiry.

The Statistical Products and Service Solutions (SPSS) reading emphasizes that it is always important to understand the research process in its entirety before commencing a research study; for example, my action research study used both quantitative (SPSS) and qualitative (NVivo) research methodologies. The objective of this workshop therefore, was to show novice researchers how to prepare the data for analysis using SPSS, especially for researchers using quantitative research methodology that I used to capture and analyze data for the purpose of this study. This demonstration was a contribution to the development of research capacity through workshops that I organized with some insights from my own practice's influence of other colleagues' own learning. My objective for conducting such workshops was to help improve my colleagues' practice on how to prepare data, capture and analyze it using SPSS. With this attitude in mind, I see action research as an inquiry which is undertaken with rigor and understanding so as to constantly refine my own practice. The emerging evidence-based outcomes that can contribute to the process of improving the way I do my practice, according to the rationale of this study reflects on my practice first before making any judgment about the people with whom I interacted.

Through reflective practice, I explored what it meant to workshop researchers on how to capture, edit and analyze the data using SPSS. The description and explanation of what I meant by the principles of research design and explanation of what I meant by SPSS unveiled a process of action research and reflection process which enabled participants who attended the workshop at Nelson Mandela Drive campus and participants who attended in Buffalo City, to better understand my own practice; for example, one of the self-evaluation questions which I found focused on the judgment of the training from the workshop participants' perspectives was: "*Did you find Statistical Product and Service Solution (SPSS) Training most useful/beneficial to you as a participant?*"

As shown in the Table 1.3, out of 46 participants, 43 found this workshop most useful and beneficial and only 3 participants answered "No" to this question.

Table 1.3: Through this frequency, SPSS helped to prove how reflection helped to ascertain what others thought of the work that I do at WSU.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	43	93.5	93.5	93.5
	No	3	6.5	6.5	100.0
	Total	46	100.0	100.0	

Initially, Table 1.3 demonstrates the necessity of the conduct of such activities as it is my responsibility as a Research Associate to organize trainings, workshops, seminars, short courses, and so on, related to all aspects of the research process within the university.

Secondly, the question that I asked in the self-evaluation questionnaire ascertained whether or not the workshop or training was attended only by academics or post-graduate students. As 'I' am in the centre of inquiry, this question helped me determine how many academics actually attended this training as compared to post-graduate students. As 'I' am responsible 'I' wanted to determine whether academics took such trainings or workshops seriously or not. As shown in the Table 1.4, out of 46 participants, 88% were academics and 12% were post-graduate students.

Table 1.4: SPSS training was needed by mostly academics in 2010 & 2011 (around the time I began this study).

Are you an academic or a post-graduate student?

Thirdly, one of the questions that I asked in the self-evaluation questionnaire was specifically about 'myself', as follows: "*Would you say the trainer, Mr. Nkosinathi Sotshangane, was helpful in answering your questions or any specific misunderstanding?*"

Table 1.5: SPSS frequency showing how I actually conducted specifically, in order to reflect on my work.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Poor	1	2.2	2.2	2.2
	Fair	9	19.6	19.6	21.7
	Good	26	56.5	56.5	78.3
	Excellent	10	21.7	21.7	100.0
	Total	46	100.0	100.0	

Only one person was of the opinion that the way 'I', as a trainer, answered questions or dealt with any specific misunderstanding poorly that is one out of 46 participants. Looking at the way this question was answered; one can conclude that the SPSS training (or workshop) was regarded as a "generally good" training/workshop, which seemed to be needed by most academics and post-graduate students.

This demonstration shows that the issue about 'I' or 'self' is an important component in the framework of this study as it shows how 'I' can personally improve my own practice from the participant's perspectives. This process demonstrates evaluation of 'my' own practice using these candidates' perspectives. I was working towards improved facilitation of research capacity development at WSU. This indicates that while the world of educational research has come to a point of real acceptance of action research in educational studies as an appropriate paradigm, as outlined by Brown (1999), a research practitioner can personally be involved in the process of conducting a study yet also reflect on his or her own practice throughout the study.

As a matter of fact, according to Reason and Bradbury (2001, p.1-2), action research seeks to bring together action and reflection, theory and practice, in participation with other colleagues, in a pursuit of practical solutions to issues of pressing, for example concern to academic lectures, in my study, and, more generally, the development of individual academics and their university. Therefore, action research is about working towards practical outcomes, and also about creating new forms of understanding, since action without reflection and understanding is blind, just as theory without action is meaningless.

As I am searching for practical knowledge and liberating ways of knowing, working with other academics and postgraduate students in their everyday teaching and learning lives, I can also see that action research is participative research, and all participative research must be action research. In the context of self-reflection demonstration, action research is only possible with, for and by myself and targeted research participants from the university in my study.

I involved workshop participants in the questioning and sense-making of the research, and in the action which was the workshop focus. To put this differently, action research is a method that I am using for improving research practice at WSU. It involves action, self-evaluation and self-reflection, based on gathered evidence. Following data collection, changes in practice will be implemented so as to guide how I can improve my own practice. This is true of any practitioner. This process of reflection and self-evaluation of workshop participants did not happen by accident and I believe that carrying out such action research, together with feedback provided me, as a practitioner, with an opportunity of knowing how to engage myself in a meaningful way.

With this statement in mind, I define action research as an inquiry, undertaken with seriousness and understanding so as to constantly refine practice. The emerging evidence-based outcomes contribute to the researching practitioner's continuing professional research capacity development. Since action research starts with everyday

experience and is concerned with the development of living knowledge, in many ways the process of inquiry is as important as specific outcomes.

Action research is also emancipation which leads to not just new practical knowledge, but to new abilities to create new knowledge of how to solve problems. With the use of action research I was able to examine what might have caused the decline in research activities and productivity at WSU and how it could be reversed through an action research study intervention.

The efficacy of action research, which is a dynamic process for personal and professional development serves as a form of self reflective questions which enable practitioners to better understand and solve problems of interest to them in their own educational setting (Saurino, 1996). Through the SPSS demonstration, I tried to prove that action research was, indeed, a portion of Participatory Action Research (PAR), which this study is about.

According to James (2008, p. 8), participatory action research mixes participatory research which is defined as research conducted in circumstances where diverse practitioners work together to achieve reliable results. In this context, this implies that all research participants will have an equal opportunity to comment on all aspects of this study. As with the SPSS workshop/training, participatory action research offers a practical and effective approach to all participants who wanted to improve their own practices. This is because participatory action researchers intentionally make positive changes through the action cycle as they progress with the project. I am particularly enthusiastic about this action research methodology because it included collaborative participation and increased involvement of multiple functions within the university as part of the problem-solving effort. The potential of action research becomes real when ideas are linked with action. This means that having conducted a workshop/training, and having evaluated the way I did just that work, gives me meaning to know how I ought to do my work for the better, because I have taken action to find out how can I

improve my practice. Through this study, I communicated my ideas as a theory of my real-world practice by explaining what I was doing, why I was doing it, and what I hoped to achieve. This personal theory is a living theory, because I changed and developed it as I changed and developed myself. To me the purpose of action research was therefore to generate a living theory about how learning through the conduct of this study will help improve my practice into a new, better practice, that is, working towards better facilitation of research capacity development at WSU, even beyond the following delimitations of my study.

1.10 Delimitations of the study

This study was about working towards an improved facilitation of research capacity development at Walter Sisulu University using action research methodology. It was conducted at a comprehensive university that is rural-based and considered a previously disadvantaged university. In South Africa, such universities have been found to be relatively in the areas of research productivity (www.che.ac.za). Although WSU has four campuses the process of the study was confined to one campus only, Nelson Mandela Drive – where most research of the university is considered to be conducted. Nelson Mandela Drive is the main campus of the university. Locating the study within this context is both for delimitation purposes and to maximize success. The problem of decreasing research productivity at WSU affects the financial status of the university as WSU, like any other South African university receives funding from the Department of Higher Education and Training (DHET) according to the research output that it has produced. Having a low research output results in the low funding that it receives from the DHET, so the promotion of research productivity amongst WSU academic lecturers was, and still is, desired so that it can improve its status in terms of its research output. As I am employed as a Research Associate whose responsibility is to facilitate research capacity development amongst academics and postgraduate students this study is about my own practice improvement. The research is not about others, but about myself and my practice based on my research participants' perspectives in feedback

which reflects on me. I used 120 academic lecturers for quantitative data, 24 academic lecturers for the qualitative data and 7 TES members who were also academic lecturers, all of whom I refer to as my research participants.

1.11 Definitions of Operational Terms

The following are the definitions of the terms that I found most relevant to the context of my action research study and that I have used frequently throughout:

Research-capacity development – I am employed at Walter Sisulu University (WSU) as a Research Associate whose responsibility is to facilitate research capacity development and research excellence within the university, amongst academics and postgraduate students. I capacitate and promote a research culture amongst them for the purpose of enhancing research productivity.

Action research (AR) - McNiff and Whitehead (2006, p.7) argue that action research is a form of inquiry that enables practitioners everywhere to investigate and evaluate their work. As a concerned Research Associate at WSU, I decided to take action and conduct a study based upon this question: "How can I improve the way I facilitate research capacity development in order to enhance research productivity amongst the academics and postgraduate students with whom I interact when facilitating research capacity development.

Participation Action Research (PAR) – This involves participation and action through seeking to effect meaningful change at Walter Sisulu University. According to Wimpenny (2010, p.93), authentic participation in research requires sharing the way in which research is conceptualized, practiced and brought to bear in light of my research's situation as a Research Associate.

Self-Study - In addressing action research as a form of practitioner research related to self-study, McNiff, Lomax, and Whitehead (2003, pp. 9-20) claim that action research "place(s) the 'I' at the centre of an inquiry process, as a form of self-study or first-person inquiry".

Research participants – As an action researcher I did not do research on other people, but on myself, in collaboration with my research participants. This became a solution to the problem of not being able to access all the academics at Walter Sisulu University about the way I conduct my practice (through self-reflection on how I facilitate research capacity development), I then selected a small number of academics who had the characteristics in which I was interested in using as my research participants.

Triangulation – This is the use of three different methods (quantitative through questionnaire, qualitative through interviews and through an action research self-reflective, cyclic inquiry) to collect and analyze data in order to validate and make my data reliable and trustworthy.

Observation – During the self-reflective, action was research, cyclic inquiry, one of the ways in which my action was different step is because my actual presentation that I gave in front of my research participants as an action was now being observed. Practically speaking, observation took place during discussion time soon after my action (presentation) by which they were able to judge my performance.

Reflection – This was that moment when my research participants examined and constructed, then evaluated and reconstructed their concerns regarding my actions which were through presentations that I made during my facilitation of research capacity development as a fourth step after observation in cycles. Reflexivity could then be supported by using the perspectives of my research participants.

Transformative Educational Studies (TES) – This involves project group members of which I am also a member. Basically, the TES project aims to support academic staff members who are pursuing Master's and Doctoral studies using the 'self-study' and 'action research' approach. These are the academics with whom I interact weekly and they are the academics I used as my 7 research participants with whom I interacted in three cycles when facilitating research capacity development through a self-reflective action research inquiry.

Practice-improvement - The purpose of my study was an action inquiry which began with the question, 'How can I improve the way I facilitate research capacity development at WSU using action research methodology?" Action research, according to Koshy (2010), is a specific method of conducting research by professionals and practitioners with the ultimate aim of improving my practice. The research vision of Walter Sisulu University is to create an enabling environment that empowers staff and postgraduate students to conduct research.

Inquiry – This is a formal investigation that I conducted regarding my concern towards how can I improve the way I conduct my practice for the purpose of improving it. This is my research issue and one which originates from my statement of the problem about declining research productivity at Walter Sisulu University from 2005 to 2013. My inquiry is a research process that I undertook with the aim of changing the situation at WSU for the better, in terms of resolving the way I do my practice.

Collaboration – Having worked jointly with the academic lecturers who cooperated as my research participants through the use of three different research methodologies to collect, analyze and interpret my data (quantitative through questionnaires, qualitative through interviews and through an action-research, self-reflective cyclic inquiry) they helped the process by being collaborative. I could not have done my study alone; I needed participants or respondents to help me with the information that I needed about the way I had been facilitating research capacity development at WSU.

Coding – This is the action of identifying passages of text from the qualitative data that I voice recorded when conducting interviews from 24 research participants and for which I used NVivo to analyze this. This data exemplified some ideas or concepts that I connected to five different themes which represented their ideas. These texts reflected the characteristics indicated by the codes and their definitions with other similarly-coded passages or texts.

Transcription – This is the process of transferring audio or voice recordings of speeches into a typed or word-processed form in order to use NVivo software to analyze this qualitative data that I received through conducting interviews.

Statistical Products and Service Solutions (SPSS) - I collected the quantitative data as a first phase through the use of questionnaires directly from 120 academic lecturers I used as my research participants, and who answered closed-ended questions. These were pre-coded for the use of SPSS software to define, enter, edit and analyze such a data.

NVivo - This is a type of software which enabled me to keep good records of the qualitative data that I received through conducting of interviews with 24 academic lecturers I used in the second phase as my research participants. I used this software to capture what was being said and how was it expressed and then examined it closely and analyzed it. The software provides a powerful and structured way of managing qualitative data analysis.

Generalizability – This is the degree to which it is justifiable to apply any new knowledge of practice improvement to a wider population as an explanation and description of how I finally found a particular way of achieving the main objective of my study which could be used by other research practitioners for the same purpose.

Informed consent - I explained the purpose of the study and the extent to which I, as a research practitioner, was going to be involved with the targeted research participants in a language which they would understand. As in **Appendix B**, my research participants signed an informed-consent form to show, in writing, their willingness to participate in my study and their full understanding of the possible benefits and risks to themselves.

Reliability - According to Gibbs (2007, p.151), reliability is the degree to which different observers (such as research participants in my study) made the same observations or provided me with the same data about the same question that I asked them; For instance, if the results were consistent across repeated investigations about improving my practice, this means that through a quantitative, qualitative, action-research, self-reflective, cyclic inquiry, under different circumstances, I would be able to elicit similar, reliable answers from all the research participants, thus deeming my study reliable.

Validity – This refers to the degree to which my research provided a true picture of the situation at Walter Sisulu University and my responsibility as a Research Associate who was being studied, I refer to this as the internal validity. External validity refers to the extent to which the data that I collected from academic lecturers I used as my research participants can be generalizable to a wider population of academics at Walter Sisulu University.

New Knowledge – This means aiming to exercise my educative influence to persuade different research practitioners that they have learned something new from me, and primarily that they have learned how to do things for themselves, in order to change and improve their own established practices for the better, using action research methodology. This refers to a theory of new knowledge (what is now known), including a theory of knowledge acquisition or creation (how it came to be known).

1.12 Conclusion

Much of the literature (Whitehead, 1989; McNiff, 2001; Reason and Bradbury, 2001; Koshy, 2010; DHET Report 2009; etc.), that I have read emphasizes the practical nature of the action research method which has been proven to be a possible solution to the problem related to capacitating research development at WSU. The motive behind this study or conducting of this research was to improve my own practice, that is, how I could improve the way I did my work, for the purpose of effectiveness in facilitating research-capacity development at WSU. From my research participants' perspectives, about the way I intended to do my work, their feedback helped me improve and eventually change the way I conducted my own practice. Ultimately, improving my own practice will firstly, benefit academic lecturers themselves, especially those who participated in this study and secondly the university research productivity status will change and improve. This is why I considered action research as a constructive inquiry, during which, as a Research Associate, I was, eventually, from academic lecturers' feedback, able to construct my knowledge of specific issues through planning, acting, evaluating, refining and learning from the past and the present situation's experiences.

This is a continuous learning process in which I intend to learn further while seeking a clear way of how to better facilitate research capacity development while the work modes and responsibilities constantly change. At present, however, the mission, vision, and research goals of the university have not changed from the old service model where the university provides astatic set service? or menu of service to everyone, therefore, in the next chapters I intend to report on how I adapted and/or changed the way I could facilitate research-capacity development and, if possible, add to the service menu; the mandate being to change the old system of operation for the better at this university. The present problematic situation, however, required myself firstly and my targeted research participants, with whom I worked in a participatory manner to solve

complex and multi-faceted research-related problems which had led to the drop in research productivity at this university.

CHAPTER TWO: LITERATURE REVIEW

2.1 Introduction

According to Whitehead (2010, p.13), transformation of educational practice and knowledge through educational enquiries such as how to improve research output cannot be accomplished by an individual. They require the commitment of many individuals. This is why the focus of my study has been on academics for the purpose of sharing ideas, through interviews that I conducted with them and through questionnaires that they responded to; feedback from their answers helped me mobilize actions for better practice. As Lewin (1951, p.169) puts it, the success of the facilitation of research-capacity development depends on how one combines both theory and practice, that is, research motive and action in order to achieve positive personal and social change. Cohen and Manion (1994, p.192), also describe the emerging nature of action research as essentially an on-the-spot procedure designed to deal with a concrete problem located in an immediate situation that needs to be solved immediately.

This means then that, ideally, this study was a step-by-step process that I planned as a researcher, to constantly reflect action over varying periods of time and by a variety of mechanisms (conducting interviews and questionnaires). Such variety ensured that ensuing feedback could be translated into modifications, adjustments, directional changes and redefinitions (as necessary) so as to bring about lasting benefits to the ongoing process of directing research-related activities towards greater understating and the improvement of the practice of research-capacity development at WSU. The key words: including, better understanding, improvement, change, reform, problem-solving, step-by-step process and modifications demonstrate the reasons for the use of action research methodology as an appropriate mode for me, as a researcher, to conduct this study.

Through the process of conducting such a study, I encouraged my research participants within the teaching profession to undertake their action inquiries, and I believed that, somehow, this action would demonstrate opportunities for research and change that is needed within academics and a researcher's practices (McNiff, pp.1138-1153). In a way, I engaged myself and my research participants in research which explored and directly informed a changed practice. I had hoped that, at the end, I and the research participants would be able to be transformed from being submissive conformists to being active change agents in our own-life world. We worked together collaboratively with one motive behind this study which was towards: how we could manage research in order that the necessary changes that ought to happen at WSU promoted sustainable research capacity development. This convinced me that collaboration would offer a practical problem-posing and problem-solving approach at grassroots level, the intention being that this action would, eventually, lead to a meaningful educational change for those directly involved in this university.

2.2.1 The policy for measurement of research output of public higher education institutions

In line with the White Paper 3, there exists a Programme for the Transformation of Higher Education (1997) which outlines a single coordinated higher education system. This policy applies to all public higher education institutions, and does not differentiate between universities and technikons. As a consequence, its implementation does not differentiate according to institutional types.

2.2.2 Policy framework

As part of the strategic objective envisioned by the National Plan for Higher Education, this policy aims "to sustain current research strengths and to promote research and other knowledge outputs to meet national development needs" (National Plan for

Higher Education, p.70). The purpose of this policy is to encourage research productivity by rewarding quality research output at public higher education institutions. The policy, however, is not intended to measure all output, but to enhance productivity by recognizing the major types of research output produced by higher education institutions and further use appropriate proxies to determine the quality of such output. Research output is defined as textual output where research is understood as original, systematic investigation undertaken in order to gain new knowledge and understanding (Policy and Procedures for Measurement of Research Output of Public Higher Education Institutions by the Ministry of Education, October 2003, which came into effect on 1st January 2005 for the 2004 research outputs). Peer evaluation of the research is a fundamental pre-requisite of all recognized output and is the mechanism of ensuring and thus enhancing quality; for example, higher education institutions may only claim once for each subsidizable research output. Institutions must claim the outputs with a publication date of the preceding year in the current reporting year. Furthermore, for the purposes of subsidy, recognized research output, in terms of this policy, comprises journals, books and proceedings.

Basically, higher education institutions accrue units based on productivity within subsidized research output for the reporting year, however, the allocation of units is determined by the type of research output and the institutional affiliation of the authors. What this means is that the claiming institution accrues the full subsidy if all the authors are affiliated to the claiming institution. In the case where authors are affiliated to two or more institutions, the subsidy is shared between the claiming institutions, therefore, institutions must submit audited subsidy claims annually for research outputs to the Department of Education, for the preceding year for each reporting year, on or before 15 May.

2.2.3 Conceptualization of research, research output and management of research at Walter Sisulu University

Initially, amongst its activities, the Directorate of Research Development at Walter Sisulu University to which I report aims to:

1. Promote research within and outside the university;
2. Encourage research development appropriate to the university's focus areas;
3. It must stimulate outputs by providing a research-friendly environment, attracting and keeping high quality staff and students and building research capacity;
4. Improve facilities that are enabling for effective research;
5. Foster collaboration with other institutions;
6. Assist staff and postgraduate students to access external funding; and
7. Be responsible for the claims of the subsidy from the Department of Higher Education and Training (DHET).

Fundamentally, the annual report on research outputs is firstly done for purposes of claiming the subsidy from the DHET and, secondly, for the research report of the university.

DHET evaluates each university's research output and produces an annual report which is: "The Ministerial Report on the Evaluation of each and every year Institutional Research Publications Outputs." Institutions of higher education are required to submit to the agency, audited claims of published journal articles, books and conference proceedings, along with the relevant supporting documentation. Books and conference proceedings are adjudicated by a panel of experts drawn from the higher education sector; for example, Table 2.1 below shows how institutions' annual research subsidy is based on the evaluations of books, conference proceedings and journals.

Table 2.1: Publication Research Output Units per Institution, 2012.

Institutions	Book Publications		Published Conference Proceedings		Publications in Journals		Total Units in 2012	% of Overall Sector Total
Actual Units	% of total publications		Actual Units	% of total publications	Actual Units	% of total publications	Actual Units	% of total publications
UKZN	64.63	4.5%	34.47	2.4%	1325.12	93.1%	**1424.22**	**11.5%**
UP	72.48	5.1%	74.28	5.2%	1277.35	89.7%	**1424.11**	**11.5%**
UCT	93.44	6.7%	106.12	7.6%	1191.33	85.7%	**1390.89**	**11.2%**
SU	91.56	6.9%	73.06	5.5%	1158.68	87.6%	**1323.3**	**10.7%**
WITS	54.13	4.9%	49.35	4.4%	1010.98	90.7%	**1114.46**	**9.0%**
UNISA	32.45	3.6%	47.64	5.3%	812.43	91.0%	**892.52**	**7.2%**
UJ	31.36	3.6%	103.91	11.9%	738.64	84.5%	**873.91**	**7.1%**
NWU	28.51	3.3%	50.08	5.8%	790.6	91.0%	**869.19**	**7.0%**
UFS	49.58	7.7%	28.28	4.4%	566.07	87.9%	**643.93**	**5.2%**
RU	35.46	8.7%	23.87	5.8%	350.6	85.5%	**409.93**	**3.3%**
UWC	12.44	3.4%	11.64	3.2%	342.8	93.4%	**366.88**	**3.0%**
NMMU	4.22	1.4%	38.79	12.5%	268.52	86.2%	**311.53**	**2.5%**
TUT	0.26	0.1%	39.83	17.3%	189.8	82.6%	**229.89**	**1.9%**
UL	0.37	0.2%	0.67	0.3%	218.19	99.5%	**219.23**	**1.8%**
UFH	2.24	1.1%	4.5	2.2%	201.83	96.8%	**208.57**	**1.7%**
CPUT	0.1	0.1%	20.29	12.1%	147.12	87.8%	**167.51**	**1.4%**
UV	7.1	5.6%	7.87	6.2%	112.88	88.3%	**127.85**	**1.0%**
DUT	0.47	0.6%	12.2	15.2%	67.77	84.2%	**80.44**	**0.7%**
VUT	0	0.0%	8.71	11.6%	66.59	88.4%	**75.3**	**0.6%**
UZ	0	0.0%	3.13	4.3%	69.78	95.7%	**72.91**	**0.6%**
WSU	**0**	**0.0%**	**3**	**4.9%**	**57.62**	**95.1%**	**60.62**	**0.5%**
CUT	0	0.0%	4.6	7.8%	54.33	92.2%	**58.93**	**0.5%**
MUT	0	0.0%	1	5.7%	16.69	94.3%	**17.69**	**0.1%**
Grand Total	**580.8**	**4.7%**	**747.29**	**6.0%**	**11035.72**	**89.3%**	**12363.81**	**100%**

Annually, the Department of Higher Education and Training notifies each institution in writing, how the agency calculated the university's research subsidy. This short report is meant to assist institutions with their own analysis of their research performance, as well as improve efficiency in furnishing the Department of Higher Education with the required information each year. DHET always hopes that this report will help institutions to determine the reasons behind the decline in research output and how they might ameliorate the situation in the future; for instance, according to DHET's 2009 reports, Walter Sisulu University experienced a decline from 33.32 publications in 2005 to 22.43 publications in 2006. In 2007, Walter Sisulu University was credited with producing 15.85 journal articles, 0.83 books and 1.83 sets of conference proceedings, or 18.51 publications. The university was credited with 14.15 publications in 2008. Overall, Walter Sisulu University experienced a research output decline by 25 percent over these five years. According to Table 2.1, which reflects the most recent evaluation done in 2012, Walter Sisulu University experienced an increase as compared to the previous calculations by DHET and was credited with having produced 60.62 total units. This rating however is still very low compared to other universities, as it is the third university from the bottom as compared to the other 22 universities. WSU, however, is not alone; academic research productivity at Central University of Technology (CUT) and Mangosuthu University of Technology (MUT) are rated lower than WSU. To cite one example, with regard to books, five universities from the bottom do not have any publications in books, including WSU. These figures are especially dismaying because the overall number of journal articles published in 2012 increased. Journal publications seem to be the largest contributor to the overall output, contributing 89%, followed by conference proceedings at 6% and 5% for book publications. The low percentage of academic book publications is a matter that is receiving attention to the extent that the Department of Higher Education is considering changing the policy so that the value placed on academic books is enhanced and, therefore, academics will be encouraged to publish more books.

For example, Table 2.2 shows the exact percentage of book publication output units per institutions in 2012, indicating that WSU is among five institutions which did not have any books published during this period.

Table 2.2: Percentage of book publication output units per institution, 2012.

HEIs	Units	% of books
UCT	93.44	16.1%
SU	91.56	15.8%
UP	72.48	12.5%
UKZN	64.63	11.1%
WITS	54.13	9.3%
UFS	49.58	8.5%
RU	35.46	6.1%
UNISA	32.45	5.6%
UJ	31.36	5.4%
NWU	28.51	4.9%
UWC	12.44	2.1%
UV	7.10	1.2%
NMMU	4.22	0.7%
UFH	2.24	0.4%
DUT	0.47	0.1%
UL	0.37	0.1%
TUT	0.26	0.0%
CPUT	0.10	0.0%
WSU	**0.00**	**0.0%**
CUT	0.00	0.0%
VUT	0.00	0.0%
UZ	0.00	0.0%
MUT	0.00	0.0%
Sub-total	**7.66**	**1.3%**

Some assessments of research productivity use applications for patents as an index; this is also not a useful gauge in assessing the state of research in South African institutions. In 2012 DHET noted, for example, that not all higher-education institutions are meant to be research-intensive; some universities are specifically geared towards teaching. This is also explicit in R&D expenditure per higher-education institution. In addition, the "Ten-Year Plan for [the] Department of Science and Technology" (DST, 2007) explicitly recognized the need to further develop research in institutions of higher learning because South Africa wants to progress to a knowledge-based economy. According to Cloete (2006), one of the reasons for the low patenting activity by South African scientists is that "research has not been carried out with commercialization in mind and has, therefore, lacked market focus." Another reason may be the low research capacity of South African universities. Patenting activity at most major established universities, with reasonable research capacity and substantial funding for research and development, essentially mirrors the publication rates of these institutions (Jacobs & Pichappan 2006), however, Walter Sisulu University is an exception as compared to the years before 2005. Besides the last five institutions shown in this table, the highest-rated institution, that is, University of Cape Town increased its percentage share of total research output in books to 16.1 percent. Looking at a comparison of 23 South African universities Walter Sisulu University is rated fifth from the bottom. Table 2.3 demonstrates percentage of the total output units produced by each institution from 2008 to 2012.

Table 2.3: Percentage of total output units produced by each institution (2008-2012), listed in descending order by Volume of Output Units in 2012.

Institution		2012	2011	2010	2009	2008
1.	UKZN	**11.5%**	11.2%	11.8%	12.2%	11.7%
2.	UP	**11.5%**	11.7%	12.2%	13.0%	14.2%
3.	UCT	**11.2%**	11.7%	12.9%	13.0%	13.0%

4.	SU	**10.7%**	10.3%	10.6%	11.5%	11.4%
5.	WITS	**9.0%**	9.3%	9.6%	10.1%	10.1%
Total		**54.0%**	54.2%	57.1%	59.8%	60.4%
6.	UNISA	**7.2%**	7.1%	7.5%	6.9%	7.8%
7.	UJ	**7.1%**	6.9%	6.3%	5.1%	4.7%
8.	NWU	**7.0%**	6.6%	6.0%	4.9%	6.0%
9.	UFS	**5.2%**	5.1%	5.1%	5.6%	5.3%
10.	RU	**3.3%**	3.2%	3.3%	3.9%	4.0%
11.	UWC	**3.0%**	3.1%	2.7%	3.1%	2.9%
12.	NMMU	**2.5%**	3.1%	2.6%	2.5%	2.2%
Total		**35.3%**	35.1%	33.5%	32.0%	32.9%
13.	TUT	**1.9%**	2.2%	1.9%	1.4%	1.7%
14.	UL	**1.8%**	1.3%	1.0%	0.8%	1.0%
15.	UFH	**1.7%**	1.6%	1.5%	1.5%	1.0%
16.	CPUT	**1.4%**	1.3%	1.6%	1.4%	1.0%
17.	UV	**1.0%**	1.2%	0.8%	0.6%	0.4%
18.	DUT	**0.7%**	0.8%	0.5%	0.5%	0.3%
19.	VUT	**0.6%**	0.7%	0.5%	0.4%	0.2%

From 2009 to 2014 academic years, DHET's reports express concern about the decline in publications at Walter Sisulu University and yet other institutions have been experiencing an overall increase in publications. South Africa's 23 universities, although often quite large in terms of student numbers, are "very small in terms of research capacity, especially the least rated five institutions," according to Pouris (2007), director of the Institute for Technological Innovation at the University of Pretoria. Pouris's research led him to conclude that South Africa is not providing effective support for fields of research in which it excels. That is because the government is not sufficiently focused on areas of established excellence, is not pumping enough money into university-based research, and is not properly implementing the research priorities that it identifies.

"We need to put our money where our mouth is," Pouris said.

This means then that the situation at Walter Sisulu University is a complex, challenging one, and therefore, essentially it needs a proactive approach to be adopted in conducting such an educational inquiry. As Stringer (1999) argues, if I, as a researcher using an action research methodology, do not improve the way I facilitate research capacity development at WSU, this university will remain low as compared to other universities. The question is: How can WSU attract good academics to the institution and retain them, especially those in disciplines that are experiencing scholarly shortages? Even when WSU is able to find and appoint high-caliber academic lecturers, there are unaddressed issues that challenges its ability to retain them and attract their desire to remain within the university.

This study, in honoring the objective of wanting change at WSU, set out to address the decline in research productivity at WSU by working towards an improved facilitation of research capacity development at WSU using action-research methodology. I find this study necessary and relevant, considering the research output at WSU, as indicated in the tables. This situation has placed considerable pressure on the Research Resource Centre that I manage, the Directorate of Research Development and the university. The Research Resource Centre's responsibility is to promote a research culture amongst its academics lecturers and research excellence within the university, under the supervision of the Directorate of Research Development. I believe that the action research method will provide a meaningful way regarding how I can improve the way I facilitate research capacity development.

In a nutshell, this background presents how I need to navigate a path through action my research process, hence the aim of this study is to provide a perspective on action research methodology currently advocated within the literature, and to relate theoretical and experiential observations to the application of action research within a professional practice, development research project, and also to highlight what is currently either missing or not well articulated.

In particular, this study's focus was directed to researcher relationships with other colleagues, with whom I interacted, and their authentic participation. As Cockburn and Trentham (2002, p. 29) claim, participatory action research provides a framework for new ways of conceptualizing relationships with the colleagues who use the Research Resource Centre for assistance for research-related questions and guidelines. Participatory action research in this study is therefore premised on research conducted with academic lecturers in their roles as research participants and who are encouraged to consider themselves as researchers, who ought to change their way of doing their work in order to improve their practices in order to change the research productivity status of Walter Sisulu University.

2.3 Theoretical Framework

I decided to conduct this study in order to make positive social change. While it could not be truly participatory, much of my action research was collaborative in nature. In part, this is because education is collaborative and never involves only one person. Indeed, this could be argued even in the case of Walter Sisulu University: that in true action research: there must always be collaboration as groups of academic lecturers with whom one works as research participants. The intention was to find out from them how I could improve my practice in order to change and improve my entire professional life and practices as a Research Associate.

Through collaboration action, researchers can be enabled, in the context of mutual participation, to consider such issues as what is comprehensible to them, what is acceptable in the light of knowledge, what joint commitment to understanding may offer and what can be judged prudent and appropriate to do, considering the circumstances in which academics find themselves at WSU. My action research process focused upon how working with the research participants I could consider action built upon new levels of awareness. My understanding of action research led me to the belief

that it does not sit neatly within one paradigm, but may be appropriately situated within the boundaries of a number of theories. Whatever the perspective, those theories that apply need to account adequately for and embrace the reframing and reconstruction of the individual academic's practices within an educational meaning-making process.

Fals-Borda (1991), Reason (1994) and Kidd and Kral (2005) all suggest that participatory action research is usually adopted because the participants request the chance to engage in a research project in the first instance. In reality, a community of participants is normally aware of problems to be addressed, and are then likely to be advised that participatory action research is an appropriate way forward. However, many descendants of early action research follow different schools of action research thought, including the American action research group, with its roots in the progressive education movement, particularly in the work of John Dewey (Noffke, 1994). According to Atkins and Wallace (2012, p.130), Participatory Action Research has its roots in the critical pedagogy developed by Paolo Freire in South America as a response to traditional forms of pedagogy in which, rather like Gradgrind in Dickens's *Hard Times*, teachers imparted information to passive students who were 'empty vessels' waiting to be filled.

Participatory action research developed from these ideas as a democratic means of initiating and implementing change and development in communities and groups. While used extensively by organizations such as international development agencies, participatory action research is also used in educational contexts, such as involving learners in change for school improvement. There were also efforts in the United Kingdom towards curriculum reform and greater professionalism in teaching (Elliott, 1991). Furthermore, Australian efforts located within a broad-ranging movement towards collaborative curriculum planning (Kemmis, 1988). Essentially, in participatory action research, the action research process of identifying a problem, imagining a solution was undertaken by all the relevant parties equally, including those who

intended to be helped by the research. This means that the group critically reflected on current action and the contexts in which it happened.

Locating my research within a theoretical background of Participatory Action Research (PAR) was important, and it was extremely useful to locate any of the theoretical views that underlie how to facilitate research capacity development within PAR. As the name suggests, PAR involves participation and action. As an evolving approach to human inquiry, a fundamental premise of Participation Action Research is that it embraced the concerns experienced by Walter Sisulu University (WSU) academic lecturers regarding research productivity (McTaggart, 1997; Stringer, 1999, 2007; Taylor *et al.*, 2004). According to Wimpenny cited in Savin-Baden and Major, 2010, p.91) PAR processes can be used to improve local situations across business, education, health, social care and community settings. The underlying intention is to value discourses from a range of intellectual origins (Savin-Baden and Wimpenny, 2007). PAR methodology challenges the notion that legitimate knowledge lies only with the privileged experts, and supports the premise that knowledge should be developed in collaboration with local experts.

According to Wimpenny (2010, p.93), authentic participation in research requires sharing the way in which research is conceptualized, practiced and brought to bear in light of the individual researcher's situation (McTaggart, 1997), however, research involves focusing on the production and generation of new knowledge which must also be a shared task. This is why I took the responsibility of undertaking a participatory action research process and sought to effect meaningful changes at WSU. Participatory action research required significant reflexive capacity in order for me, as a primary research facilitator, to continually question my research participants' responses towards situations as they arose, and I acknowledged that individual academic lecturers might as well think differently from one another, and, importantly, that they themselves did not always know what was best for the university. There are academics who think that they know best because they know more than their colleagues. This needs to be taken into account. According to Guba and Lincoln (1989), strategies in such cases are

required throughout to enable research participants to feel supported and respected, even though participants may not always pull in the same direction. This is why there ought to be someone responsible and willing to work collaboratively towards improving the way facilitation of research capacity development is implemented.

2.4 The Justification of Action Research

Action Research (AR), according to Stenhouse (1983) when writing about the field of education, states:

We shall only teach better if we learn intelligently from the experience of shortfall; both in our grasp of the knowledge we offer and our knowledge of how to offer it. That is the case for research as the basis for teaching.

Stenhouse (1983) wrote that 'research is systematic enquiry made public'. Action research lends a new dimension because it is about processes of improvement and making claims that something has improved. Stenhouse's idea may therefore be extended to: 'Action Research a systematic enquiry undertaken to improve an academic situation and then made public'. I collected data from the academic lecturers with whom I interacted when facilitating research capacity development and after analyzing the aspects of data, I went back to them to share the data collected. In addition, I sought their ideas so that these lecturers could either, in a conference presentation format or seminar, offer feedback and comment on the interpretation of the data that I collected from them, in order to validate the data. Although much action research is collaborative, some writers, such as Jack Whitehead, emphasize the individual nature of the process and individual outcomes such as personal change, as in living educational theory. Educational theory originates in the work of Jack Whitehead (2009) and has been developed by Whitehead and McNiff (2009) in this their latest work.

Following Stenhouse's work in the early 1980s, it was Carr and Kemmis (1986, p.162) who defined action research as 'simply a form of self-reflective enquiry undertaken by

participants in social situations' which is undertaken in order to achieve three possible outcomes:

- Improving practice;
- Improving understanding of practice; and
- Improving the situation in which the practice takes place.

This is why 'improvement' is amongst the key words of this study. Why? My belief is that, if given an opportunity to work in an environment where learning can be shared collaboratively and the researcher's experiences are valued, research participants can benefit as participants targeted for the purposes of this study, and may also be motivated to improve their teaching and learning practices, thereby learning through action research as a new and informed action. I viewed my role in this study as a professional researcher who could facilitate opportunities for colleagues through using their own voices (Glavey 2008) to express their experiences and understanding of what could be done to develop and improve research productivity at WSU. I also engaged in this research so as to explore and directly inform my practice for the purposes of improvement.

2.4.1 Self-reflection

Carr and Kemmis's (1986) approach has many parallels with notions of reflective practice, although, in action research, the commitment to social action and change implies personal development and growth as well as professional development and growth. Therefore, action research might more properly be described as self-reflexive, rather than self-reflective. Reflexivity is rather more than the self-examination which is implied in reflection.

According to Atkins and Wallace (2012, p.127), reflexivity demands that the researcher reflects on and evaluates not only his/her own impact on the research, but also how such aspects as personal values, past experiences, attitudes and assumptions might impact on the research. Of course, reflexivity can be supported by using the perspectives of others. In so doing, I used a critical reader. This reader, a colleague, was familiar with the situation and knew that I was working towards change. The role of the critical friend is to question rather than to criticize, to provide a different pair of spectacles through which to explore situations and contexts, and to interrogate values, beliefs and assumptions (Atkins & Wallace, 2012). This reader, critiqued my study on an ongoing basis and contributed to each and every step of my research study. Because the planned improvement and development of my practice as a Research Associate is something that researchers are supposed to be involved in, in a collaborative way, that I had to some extent already been involved in action research without being aware of this, albeit in an informal manner. Changes in educational environment are ongoing, and as a Research Associate I ought to continually respond to and implement change in a planned and reflective manner, making adjustments and changes in order to continually evaluate my working conditions as I facilitate research capacity development at WSU. A repeat process of one's practice is the basis of much action research.

Since action research is a development of reflective practice this assumes that action researchers are self-reflective and self-reflexive practitioners. Such self-reflectivity enabled me to be aware of what drives my life and work. Reflexivity enabled me to respond to methodological challenges and issues in a thoughtful and moral way. According to McNiff (2002), AR begins with the values of the researcher. Reflecting on my values in this way enabled me to have greater clarity about what I was doing, and more importantly, why I was doing it. This then guided my life and my practice regarding how I should improve the way I facilitated research capacity development.

Awareness of one's self is a precursor to work in action research, and requires of a degree of objectivity regarding our relative emotional intelligence (EI). Emotional Intelligence as defined by Goleman (2006), is a set of competencies and skills that

entwine four main positive human abilities: self-awareness, self-management, social awareness, and relationship management. Cunliffe (2005) makes a striking case for the fact that professionals who need to boost their professional skills (especially the soft skills of collaboration that are so necessary in modern work environments) requires both self and critical reflexivity. Cunliffe and others who support reflexive work, point out that merely working a regular reflective protocol into one's work can indeed help to drive new kinds of practice, but rarely touches personal elements that ultimately control whether and how much any change initiative will work (Cunliffe, 2005; Fletcher, Zuber-Skerrit, Bartlett, Albertyn, & Kearney, 2010; Jones, 2010).

Reflexivity required that I suspend the part that required working in collaboration as a group working towards an improved facilitation of research capacity development at Walter Sisulu University, especially, if using action research methodology. This may seem light and delicate in light of "bottom line thinking' but is actually urged as necessary in fields as diverse as education, social sciences and economics where self-reflexivity is often seen as a precursor to truly ethical and democratic action (Friere, 2000, Spiller, Erakovic, Henare, & Pio, 2011; Wiedow, & Konradt, 2011).

So, what did I really do to become self-reflexive? The starting base was to objectively look at my relative level of emotional intelligence across Goleman's four constructs:

1. Asking questions as to whether, in any given instance, I was acting from my highest consciousness in the best interests of everyone concerned, or merely reacting to outside circumstances at Walter Sisulu University as a Research Associate (self-awareness)?

2. Did I act in such a way as to positively influence a fair and equitable outcome (self-management)?

3. Does my behavior model what I would hope for as that which I hope will create positive norms of behavior on a societal, even global level (social awareness) and improving research productivity at WSU?

4. Would the academic lecturers, who are research participants that I intended to work with in this study be willing to voice their feelings so that their concerns are heard (relationship management)?

When the answer to all these questions was yes, then I could take my practice to what Cunliffe (2005) considers a critically reflexive level so that I could begin to ask some of these questions when collecting data:

1. What are the limits of my knowledge and the norms of practice in my organization, that is, at Walter Sisulu University?

2. Are there any norms within Walter Sisulu University that work to keep colleagues in power over others?

3. To what extent do researcher practitioners hold a different reality about the situation facing WSU (decline in research productivity) than I do as a research facilitator?

4. Are there any positions regarding ethnic or cultural ways of looking at the status of research at WSU which are disrespected as a result of any differences in terms of organizational practices?

5. Why do I assume I know about the university research output status and the issues that we are facing as a result of this status?

6. Who has more power in research than others? On what is that power based and to what extent does it shut down the potential for other researchers?

7. How do research participants respond when considering the possibility of power inequities or change in research status at WSU?

8. What causes defensiveness and what underlying assumptions drive that reaction?

9. What activities or rules are never questioned?

10. What assumptions am I making about the stakeholders or other research participants in my study, about myself as a Research Associate whose responsibility is to facilitate research capacity development or about the

outcomes that all university stakeholders desire for the university, in terms of its research output status?

Practical action research places more emphasis on the 'how-to' approach to the processes of action research, and, to some degree, and practically speaking 'I' ought to determine the nature of the investigation that will be undertaken. I needed to be committed to continued professional development as I was working towards improving facilitation of research development at Walter Sisulu University, so I therefore needed to systematically reflect on my practices.

According to Mills (2007, p.5), action research is any systematic inquiry conducted by teacher researchers, principals, school counselors, or other stakeholders in the teaching/learning environment to gather information about how well their students learn. This information for this study was gathered with the goal of gaining insight, developing reflective practice, effecting positive changes in the school environment (and on educational practice in general), and improving student outcomes and the lives of those involved. Action Research is research done by teachers for themselves; it is never imposed on them by anyone else. As is evident, the geographical locations and sociopolitical contexts in which action research efforts occur, continue to evolve vary greatly; however, the primary focus of all these efforts, regardless of the context, is on enhancing the lives of learners and their teachers or lecturers. As Noffke (1994) reminds us, reading the accounts of action research written by people housed in universities does little to illuminate the classroom experiences of teachers and what they hope to gain from participating in action research activities. Actually, action research, according to Geoffrey Mill (2007), has the potential to be a powerful agent of educational change. Action research helps to develop teachers and administrators with professional attitudes and who embrace action, progress and reform rather than stability and mediocrity. In addition, the action research process fosters a democratic approach to decision making while, at the same time, empowering individual teachers through participation in a collaborative, socially-responsive research activity. Action

research is an invitation to learn, a means to tackle tough questions that face us individually and collectively as teachers, and a method for questioning our daily taken for-granted assumptions as a way to find hope for the future. According to Atkins and Wallace (2012, p. 131), many students believe they are undertaking an action research project when what they are doing would more aptly be described as a case study.

2.4.2 Self-Study and Improvement

Through this study, I conducted practice-based, insider research and, indeed, a key feature of action research which was about 'myself' as a research practitioner trying to understand and improve my own practice on a day to day basis; however, there were aspects of action research which made it very difficult to consider Walter Sisulu University as my case study.

Firstly, in action research I am supposed to be the key actor participating in research, while case study research can be undertaken by someone who is not actively involved in the situation under investigation, but merely conducting research in that situation.

Secondly, the case study looks at a particular case in-depth at a moment in time in order to illuminate that case, while a key aspect of action research is that I, myself revise and develop my study in cycles, gathering data as I go, in order to make a positive change.

Developing research capacity helps to enhance both a greater sense of academic fulfillment and the possibility of advancement up the academic hierarchy. The Research Resource Centre at Walter Sisulu University is therefore, intended for both post-graduate students and young academic staff who are at the early stages of their research careers. Although the majority of research participants at Walter Sisulu University were not newly appointed academics, many participants had been in academia for several years but for a range of reasons had not been able to actualize their potential as researchers. At the outset the objective for some was the attainment

of post-graduate qualifications, for others it was to eventually become independent researchers or to increase research output.

Regardless of the starting point, career planning, mentorship, funding and skills development are core elements of the Research Resource Centre whilst the end goal of research output should never be forgotten. In line with the original vision for the university, the transfer of research skills remains central to the Research Resource Centre under my responsibility as a Research Associate. This means that interpersonal skills are of paramount importance for me as a Research Associate who coordinates the centre. Regarding many academic lecturers it is my responsibility to encourage and drive their passion towards research productivity by support that I ought to provide; or at least I should awaken their interest, set in motion and sustain their development as researchers, therefore, skills for working with people from widely varying disciplines are essential.

The assumption behind this initiative is that research support and, particularly, research capacity development must be client-centred. This means that intervention must begin by understanding the needs and aspirations of clients. Given that the intended clients are academics, the point of departure that I recognized was the need to understand the different phases in a university research career. Academic careers are unlike many other careers in that one is more likely to earn status and reward from work conducted outside of the times that many regard as 'office hours'. For many academics, most of one's office time is spent on teaching and teaching-related activities such as preparation for lectures, marking, administration and consultations with students. For many, this leads to a situation where there seems to be little time for research, yet research is an essential element of a successful career; for example, at Walter Sisulu University, conditions for research have been severely compromised as manifested by the generally poor remuneration, heavy teaching loads, inability to mentor young postgraduate students, inadequate infrastructure, and so on. As indicated earlier statistics show that Walter Sisulu University is amongst the universities that have the lowest research

output in the country. This is as a result of these challenges that the university finds itself facing.

The fundamental contention of this study was, eventually, to highlight the urgent need for the transfer of skills to enhance building of research capacity in a new generation of researchers at Walter Sisulu University; for example, if research is to be a true indicator of academic ability, if it is to inform teaching and make a contribution to the expansion of knowledge, then it has to arise out of a developing research consciousness and an expansion of research ability. I therefore intended to make this study essential for realizing the very mission of Walter Sisulu University which ought to claim to be research-led. This study therefore was rather like an 'incubator' for young researchers and those not so young but who have not been exposed to a culture of research; it gave them a non-threatening space to cut their teeth with the supportive of others with similar concerns and anxiety. Good research however requires the relevant technical skills. It also requires creativity, innovation and the growth of an individual as an academic researcher. My focus was therefore on nurturing both these aspects, which are, interdependent. The theme of this chapter reflects how I went about conducting this study, and this was directed towards guiding me on bringing about change or working towards an improved facilitation of research capacity development at Walter Sisulu University, using action research methodology. This study also addressed research questions which are topical and have theoretical or practical importance, as indicated earlier that the intention was to change or improve the way I facilitated research capacity development. Choosing an action research methodology required me to offer a justification for this choice, and this is discussed below.

Firstly, according to Jean McNiff and Jack Whitehead (2009, p.1), right from the introduction of their book: "*Doing and Writing Action Research"*, they cite professions such as chiropody (medical treatment of the feet). Chiropody involves the hands as well as the feet, and chiropodists are expected to engage in ongoing learning. Some professions, like teaching, aim to create an all-masters or, in higher education, an all-

doctorate profession. These aims however need to be placed in context, especially regarding issues of maintaining quality. If high quality of academic research is to be maintained at Walter Sisulu University, the aims can be realized only through the deep commitments to achieving quality by the academics in question, as well as through the provision of appropriate resources and support to help them be productive in research. It should be remembered that the aim of the 'action' in action research is to improve a personal or social situation; the aim of the 'research' is to offer explanations (generate theory) for the action; and then the aim of sharing research findings is to communicate the significance of the action research for public legitimation.

Although it is possible to analyze action and research separately, as I will describe in the next chapter, in reality taking action and doing research happens together, in the action. The theory is in the action, however, too often, action research is still seen only as a powerful means for professional development, but not as a means of knowledge-creation or theory-generation. This view is frequently promoted both by the professions themselves, and also by the still traditionalist academy, whose purposes are served by fostering a view of practitioners as capable of telling good stories but not of creating knowledge, and by not putting in place the means to enable practitioners to be recognized as competent theorists. Practitioners are encouraged to 'tell their stories' but are not required to offer explanations and critical analyses of those stories, which, in Foucault's (1979) analysis is a means of keeping them in their place as products of a power regime.

Doing action research is multi-layered: it is about improving the quality of practice in the workplace, and also about improving the quality of the practice of my work at the workplace, and about one's action with other colleagues. Furthermore, action research is not just about professional education, or about doing projects (which is a stance adopted in much of mainstream literature). Though these aspects are important. It is more a philosophical stance towards the world and an attitude of enquiry that enables people to question and improve taken-for-granted ways of thinking and acting.

Similarly, this is why there is also a self-study approach which according to Samaras (2011, xiii), is a scholarly inquiry in which educators systematically and critically examine their beliefs and actions as they undertake a pedagogical inquiry of colleagues to improve their teaching and professional practice.

2.5 Action Research: What makes it different from Self-study research?

In addressing action research as a form of practitioner research related to self-study, McNiff, Lomax, and Whitehead (2003, pp. 9-20) claim that action research "place(s) the 'I' at the centre of enquiry processes, as a form of self-study or first-person inquiry". They eloquently articulate their position in supporting such social research that fits the "I" in the research of action and influence:

The emphasis on the living person "I" shows how individuals can take responsibility for improving and sustaining themselves, and the world they are in. "I" have the capacity to influence the process of social change in this way, because "I" can influence others in my immediate context, who in turn can influence others in their contexts. The circles of influence are potentially without limit. Collectively, individuals can generate world-wide change.

This means that the field of self-study has grown dramatically and distinctively from other forms of practitioner research in the past decades. Educators are eager to better understand what self-study is and what value it holds for education.

Zeichner (1999, p.8) had earlier written that "the birth of the self-study in teacher education movement around 1990s was probably the single most significant development ever in the field of teacher education research". However, a major goal of self-study teacher research is for teachers like anyone, to gain a tacit knowledge about their teaching as they seek to improve and assess their teaching, its impact on their students' learning and its contribution to the knowledge base of teaching.

The work I intended to do by conducting this study at Walter Sisulu University to improve facilitation of research capacity development was an improvement for research participants as well as this is my effort to improve research productivity for WSU. This important work according to Anastasia Samaras (2011, p.21), was be accomplished with the support and critique from my colleagues. In that regard, I became an educational reformer, reforming in the first person and with others. Samaras (2011), clearly explains the collaborative nature and reform in self-study research as:

Self-study research is situated within the discourses of the social construction of knowledge, reflective practice and action for social change. The strong presence of collaboration in the practice of self-study of teacher education is a natural response to this ethical and theoretical location.

Self-study is individual and communal. Essential to my self-study is the collective work I did with a critical friend with mutual and communal benefits in receiving multiple levels of dialogue and points of view. Since, much of the early action research focused on classroom teachers, according to Samaras (2011, p.56), the action researchers who joined the self-study movement were beginning to question their own practice as teacher educators. Hamilton and Pinnegar (1998, p. 237), remark that many action researchers "have come to their interests in self-study through their work in action research". Some began to question why they were not practicing the action research that they were taught and generating theories based in their practice. Whitehead (1989) speaks of Living Educational Theory (LET) or the descriptions and explanations and personal theory making produced from practitioners' accounts of their learning and practice. Teaching is based not in propositional theories but in teachers' reconceptualization of practice and with practical implications.

One of the questions students often ask is:

"What are the differences between self-study and action research?"

Keeping in mind that numerous self-study scholars came to self-study research from action research, it makes sense that there are similarities and yet differences. Self-study, although related to action research, has distinguishing differences according to Feldman, Paugh, & Mills (2004) and distinctive methodological components as presented in this text and elsewhere (LaBoskey, 2004a). In both self-study and action research, the researcher investigates about problems related to one's practice to improve one's work (Feldman et al., 2004). However, as Feldman et al. (2004, p.971) explain, a major distinction in the research methodologies is in the change that occurs. In action research, the goal of the "action" is for a change in the classroom. In self-study research, the "self" is the focus of the study with the goal of leading to a reframed understanding of one's role in order to impact students' learning. Self-study researchers are a resource for their research and problematize their selves in their practice situations to improve their practice. And yet, self-study focuses on improvement on both the personal and the professional levels. Another defining difference between self-study and action research is that self-study researchers continuously reframe their understanding of practice through their research and knowledge production using and inventing multiple methods to arrive at new understandings, that is, there is no one way of conducting self-study research. Furthermore, the questions asked by self-study scholars are most often framed in an orientation and parallel to critical pedagogy, or as Kincheloe (2005, p.6) explains, the work of teachers "grounded on a social and educational vision of justice and quality". Self-study is designed to lead to social reconceptualization of the role of the teacher (Samaras & Freese, 2006, p. 29) despite, and within, the constraints of the politics and practices of schooling.

Basically, my study utilized action research more than self-study research because action research, as practitioner-research, is grounded in the question 'How do I improve my practice?' In this study, literature engaged in regarding action research is about

improvement of my own practice, in terms of how I facilitate research capacity development at Walter Sisulu University. In order to improve my practice I first needed to investigate a particular situation or phenomenon in order to understand exactly what is happening and why as I have stated earlier. Therefore, the first thing that I needed was a clear and simple focus or concern for my study, bearing in mind that improving practice is an incremental process, and that I was going to be able to change the situation at Walter Sisulu University overnight. Therefore, the focus for my action research study was small. Generally speaking, small means manageable. Hence I was aware of possible limitations that I could come across while conducting this study. As Whitehead (2011) has suggested, teachers in the UK have, in recent years, been subjected to oppressive statutory regulations that have not supported their creativity in improving their practices. In my case, the limitations that I anticipated to be faced with were that some individual research participants, that is, targeted academic lecturers might choose not to participate due to some different personal reasons. Some of these anticipated reasons could, for example, stem from a guilty conscience of qualified researchers, because they know that they have not being research productive as the university expect them to be, and so on. Such constraints meant that I was unable to implement all my ideas in full, but these also challenged me to be still more creative in my ideas and practice. This is why it was important to be clear about the participants' philosophy and values that were likely to impact my study, in advance, as well as about data-gathering and analytical methods and ethical concerns, and how they might be addressed. This meant ensuring that my research was rigorously planned and organized. This is why Jack Whitehead and McNiff (2002, p. 72) has produced a framework for planning action research which takes the form of the following questions:

- What is my concern?
- Why am I concerned?
- What do I think I can do about it?
- What will I do about it?
- How will I gather evidence to show that I am influencing the situation?

- How will I ensure that any judgments I make are fair and accurate?
- What will I do then?

These planning questions build on Whitehead's earlier work (1985, p.98), which emphasizes the individual nature of much action research. Since this study was well-conducted, it provided limitless opportunities to improve and develop my practice and my understanding of that practice. It also provided insight regarding intended change by improving the experience and opportunities of my practice and, of course, of my targeted research participants. As Lawrence Stenhouse (1981, cited by Rudduck, 1988, p. 35) said: "It is teachers who, in the end, will change the world of the school by understanding it". In my case, it is myself, a research associate who, in the end, would change or improve the way I facilitate research capacity development at WSU by understanding exactly what needs to be done.

2.6 Conclusion

Judging from the literature that I have read so far, action research recognizes explicitly that it is concerned with change. "I" who is personally responsible for conducting a study on research capacity development at Walter Sisulu University using action research methodology, should directly be involved in investigating the issues surrounding where the change is actually required. I acknowledged that the research questions that I asked when collecting data arose originally from the experience of my work and reflections on my work as a Research Associate. I saw reflection on my practice as a kind of an experiment in real-life setting, and I have noticed that in action research study, implementation of change, although it will done as guided by the research findings, was the real test. Action research was used as a method to help me find a solution to the problem that I identified at Walter Sisulu University. Eventually, I fully and responsibly owned a solution to the problem as the key actor and a participatory action researcher. The emphasis on participation is very similar to a development work approach. From the developmental point of view, direct participation

of I, as a researcher working with my research participants (colleagues) beyond the professional realm, is very important for the purposes of changing the situation at WSU, from their perspective. Earlier, I have shown that action research developed within education in the early 1930s and according to Carr and Kemmis (1986), in Europe and in the United States, as a practice of professionals who wanted to introduce new ways of improving their practices at work. As is evident in the geographical locations, sociopolitical and educational contexts in which action research efforts continue to evolve vary greatly, the primary focus of all these efforts, regardless of the context, is on enhancing their working lives. Therefore, in many ways, if anyone identifies a need for development at work, this can be seen as action research. Hence Kurt Lewin who is known as the father of Action Research (AR), around 1930s, found that people do change (take action) when they experience the need to change (reflect) and will adopt new behavior (new action) based on their values.

Much of the more specialized literature was accessed only as the study progressed and is reported according to the relevant thesis chapters. The latter part of this thesis then includes research findings that contributed to my new knowledge which demonstrated understanding of the context of my research study. Before that stage I first had to choose a methodology to be utilized to conduct this study and offer a justification for that choice. Will the methodology assist effective change? According to Kemmis and McTaggart (2000, p.595) theorizing in the world is of little use without the actual doing action, and indeed, action researchers are doers.

CHAPTER THREE: RESEARCH METHODOLOGY

3.1 Introduction

This chapter describes the way this action research study was carried out. The major components include description of action research methodology that further developed action research design. As a matter of fact, Koshy (2010, p.1) defines action research as a specific method of conducting research by professionals and practitioners with the ultimate aim of improving practice. The methodology engaged me into a method of action research which appears to be a form of disciplined inquiry which led to the generation of new knowledge.

The new knowledge that this study generated was derived from a range of approaches or research methodologies, such as: qualitative and quantitative methodologies. This chapter reflects on how action research works, and this includes a spiral cyclic diagram which shows how I planned, acted, observed and reflected on my previous experiences in order to be able to improve my own practice. It also shows who was my target and accessible research participants, what action research sampling procedures that I followed, what was my action research instrumentation, action research methods of collection of data, action research analysis of data and ethical considerations throughout the whole process are also discussed. I emphasized the importance of undertaking action research which prescribes a moral and ethical way of improving practice is emphasized. Initially, the motive behind the conduct of this study was to improve the way I facilitate research capacity development at Walter Sisulu University (WSU).

3.2 Research Methodology

Methodology refers to a theory regarding how I conduct my study in order to achieve a definite solution to the way I should facilitate research capacity development for better at WSU. According to McNiff and Whitehead (2006, p.29), the main methodological assumptions of action research include the following:

- Action research was done by me as an research practitioner;
- The methodology was in two ways, firstly I asked closed ended questions through a quantitative data collection and through action research, and in the cycles my inquiry had open-ended questions; and
- Fundamentally, the aim of my research was to improve my practice through self-reflection by my research participants.

As a research practitioner, my main responsibility was to ask questions, and not accept complacency or self-righteous justification of my own or anyone else's. For example, why has research productivity been declining at WSU since 2006 to date? Does the decline have anything to do with the way I do my work? How can I change or improve the way I do my work? This means, therefore, that I should change the way I facilitate research capacity development in order to improve my own practice.

I, therefore, needed to pursue a systematic inquiry into improving my practice which I intended to make it public as reflected in my research findings in chapter five. The findings would then be disseminated widely, to contribute to new thinking and practice.

The greatest value of adopting action research, as an approach to my thesis, was that it would enable me to monitor my learning and the learning of my research participants; this is because it would be an educative process being carried out in social situations that involved posing of questions and solving problems, thus resulting in a change intervention (Wilson, 2009, p.201). This means that this inquiry had to be collaborative. A collaborative action research is a form of participatory inquiry in which 'I' as a

researcher worked closely with my research participants to find solution(s) to a problematic situation.

In order for me to choose an appropriate methodology I began by asking myself the following important questions:

1. Will the methodology that I choose assist effective change? and
2. Will the data collection, analysis and interpretation be adequately assured by the methodology that I have used?

My methodology was important because it was aligned with what these questions wanted to achieve. The element of action research design will later state exactly which data I collected, and how collected it, and how I analyzed it. I see methodology as the rationale for collecting data in a particular order to get the results I wanted, that is to say, to be able to say eventually say, I have improved my own practice. Contrary to action research, traditional forms of research, empirical research, and researchers do research on other people. However, in action research, researchers do research on themselves (McNiff, 2002, p.5).

For example, I asked if academic lecturers could be my research participants to evaluate me, based on the way I facilitated research capacity development at WSU. Working together with them, I found collaborative action research as a suitable methodology which is being used by many research practitioners as their basis for practice improvement purposes. To me, methodology that I used was a rationale for collecting and analyzing data, in a particular order, to get the results that I wanted. However, according to McNiff (2002), I had to constantly check to ensure that what I was doing was really working; this increased the likelihood to lead to the results that I wanted, meaning that I needed to see the feasibility of changing and improving my own practice. In support of this move, both Whitehead and McNiff (2006, p.23) refer to methodology as a "theory of how we do things".

In order to obtain the desired results I therefore used quantitative and qualitative methodologies and also an action research self-reflective cyclic inquiry, as per the following discussions:

3.2.1 Quantitative methodology: is a scientific research which is often held up as a model of factual and disinterested objectivity, and is not necessarily as objective as it is claimed to be. According to Atkins and Wallace (2012, p. 21), when I undertook this research which measured, for example, a number of academic lecturers who had PhD's or Master's educational qualifications, their experiences in lecturing, what is it that they value most between teaching and research, and so on. In addition, I asked, if academics were aware whether or not there has been a decline of research output at WSU since 2006. The lecturer's responses became my research findings to these questions, and I treated this data as a numerical data. I call this **quantitative** research which measured quantity. This means that I collected facts and studied the relationship of one set of facts to another. I measured these using scientific techniques that produced quantified conclusions. Quantitative methodology can be regarded as more structured than qualitative research methodology, as it entails sampling, research design, questionnaires, statistical methods, etc. I largely determined these prior to my participant's completion of questionnaires.

3.2.2 Qualitative methodology: In adopting a qualitative perspective on the other hand, I was more interested in understanding my research participants' individual perceptions, for example, about the research productivity in terms of research output at WSU. I also sought their insight rather than statistical analysis. However, classifying an approach as quantitative or qualitative did not mean that once an approach has been selected I could not move from the quantitative method to a qualitative

method. For example, a qualitative research is sometimes subjected to criticism from the researchers who favor a quantitative or scientific model of research for being too subjective or too much based on feelings and personal responses. Feelings and personal responses are not accepted by such critics as being reliable data who firmly believe that numbers, or percentages or anything else measurable in figures is authentic.

In response to these methodological differences, Atkins and Wallace (2012, p. 20) advise researchers to set themselves standards, and I found this appropriate to my research, as follows:

- Systematic (meaning, I carefully planned the research that I wanted to carry out first);
- Credible (my research had to be realistic and believable);
- Verifiable (I based my research on evidence that can be checked and verified by anyone else);
- Justifiable (I believe I had a convincing case that I made for undertaking this study);
- Useful (I now believe that my research findings can be applied in practice);
- Valuable (I believe that this study will eventually enhance my current practice); and
- Trustworthy (my research has been an honest, genuine and based on sound research ethics).

All this means that, each method has its strengths and weaknesses and each is particularly suitable for a particular context, these will be explained later in this study. The method that I adopted and the method of data collection that I selected depended on the nature of my inquiry and the type of information that I required. All in all, after I identified a research problem that I needed to investigate about the requirement of

doing my research successfully included not only knowing the problem regarding the way I facilitated research capacity development, many interpersonal skills were needed too, for example, the way I interacted with academics whom I used as my research participants. This is why my research process included both quantitative and qualitative methodologies. My research did not only use two methodologies. I used also a self-reflective action research cyclic inquiry.

3.2.3 An action research self-reflective cyclic inquiry

It is necessary to restate the motivation for conducting this this research as an explanation of the guide to my third research question: 'How can I improve the way I facilitate research capacity development at WSU? According to McNiff and Whitehead (2006, p.7), action research is a form of inquiry that enables practitioners everywhere to investigate and evaluate their work. Therefore, my account of practice shows how I can try to improve my own learning, and influence the learning of others. My account comes to stand as my own practical theory of practice, from which I believe others can learn should they wish to do so. I found action research to be a powerful and liberating form of professional inquiry because it meant that 'I' was investigating about my own practice as I found ways of living more fully in the direction of my educational values. No one told me what to do, and I decided by myself what to do, in negotiation with others whom I used as my research participants. Like I said earlier, my study could only work in relation to individuals, and it was a collective inquiry. This is what makes my action research study distinctive, as it was done by me rather than about other people, as it is often the case in traditional forms of research. I am an insider researcher, as I am a part of the situation that I am investigating about. For example, in my inquiry, I identified a problem of my concern, I conducted this study, reflected on what was happening at my work, and in the light of my reflections, in three different cycles and new ways that eventually became more successful, after being revised, corrected and implemented. The process was, 'I would first plan, act, observe and reflect'.

This is why I refer to the third methodology as a self-reflective action research cyclic inquiry because this process tended to be cyclical. As soon as I reached a provisional point where I felt things were satisfactory; that point itself raised new questions where I had to repeat the process.

This methodology was a way of trying out ideas in action, understanding those actions, and then attempting to make some improvements or changes. According to McNiff (1988, p.1), action research encouraged me to be reflective of my own practice in order to enhance the quality of my facilitation of research capacity development at WSU. In addition, in accordance with Oja and Smulyan (1989, p.4), I became willing to change and improve my own practice from my own concern rather than reading on what someone else had discovered about my work. Furthermore, action research involving research participants was as scientifically valid as any other research (Lewin 1948, as quoted by Oja and Smulyan, 1989, p.3). McNiff (1988, p.125), goes a step further and states that the research design in action research is not only rigorously scientific, but it emphasizes the need for a public validation by individual researchers of their claim to know that they are improving the quality of education for themselves and for the people in their care. Action research contributed to my professional self-development which, undoubtedly, will eventually enhance the way I facilitate research capacity development at WSU, and this is exactly what this study is aimed to achieve.

Therefore, the use of these three methods to collect and analyze data was to validate, make my data reliable and trustworthy. This is popularly known as 'triangulation'. Triangulation means looking at my study from more than one perspective, that is to say, through quantitative first, secondly, through qualitative and through self-reflective action research inquiry. My study is a typical example of a triangulation which ensured that I was trying to change and improve my practice, using three different methodologies, that is, quantitative, qualitative and action research self-reflective cyclic inquiry. In action research, triangulation is achieved by collecting different types of data, using different data sources, collecting data at different times, and by having

other people to review my data by checking for accuracy and credibility in order to adjust my research findings. Triangulation that I used to conduct this study, in accordance with Cohen, Manion and Morrison (2000, p.112), is defined as the use of three methods of data collection in the study of some aspect of human behavior. The question is: Why so many methods?

Suter, (2006, p.412) argues that sometimes the procedure used to analyze the data "might not perfectly match researchers plan". As a result, I finally used action research self-reflective inquiry which was composed of spiral of cycles until I received an appropriate action research data. Using multiple data sources and methods led to the development of diverse perspectives on an issue or problem, asserts Samaras (2011, p.213). The use of multiple data sources such as closed-ended questionnaires, interviews which gave me open-ended answers, and eventually, a self-reflective action research cyclic inquiry enabled me to analyze my research questions from more than one perspective.

As an action researcher, according to McNiff and Whitehead (2006, p.26), I must accept full responsibility for exercising influence. This involved taking action and considering what influence I may be having by conducting this study. Therefore, when I ask, 'How can I improve my practice?' I raised questions about two related processes:

1. The first process referred to what was going on out there, that is, the decline of the research output at WSU is what concerned me and its consequences; and
2. The second process was about what is going on, in relation to my responsibility as a Research Associate who facilitates research capacity development at WSU. I had to ask critical questions about why things are as they are? How could I then improve the whole situation?

This means that the study that I conducted tended to show a cause and effect-relationship. It worked on the assumption that if academics at WSU were not research

productive, research output drops or declines. This means that the condition that WSU finds itself in is like a principle of cause and effect relationship. Academics are expected to ensure that specific input is invested to produce certain outputs, which often appears as targets. This is why many curricula are organized to generate learning outcomes consistent with official policy. The same applies to research within a university, organized to generate research output consistent with the Department of Higher Education and Training (DHET) official policy. This idea according to McNiff and Whitehead (2006), carries conditions.

For example, if I wish to improve research output as required by the DHET, I must accept and change the present way of research capacity development facilitation. This means generating my theories of practice to show whether or not the practice is consistent with my values. I, therefore, generated theories to explain how I could improve my own and other people's learning to improve practices with social intent. The idea is to subject these theories to stringent critique, before putting them into the public domain for further testing and wider consideration about how new practices can be developed and improved. I therefore began with the experience of a concern and followed through a developmental process which showed self-reflective cycles of action research inquiry. Otherwise, by practice improvement, I refer to the betterment of my work (the facilitation of research capacity development). As McNiff (2002, p.9) contended, the question, "How can I improve my work?" which contains a "social intent". The intention was to improve my practice which is the way I do my work, not only for my own benefit, but for the benefit of the university academics and post graduate students that I serve. As Schumacher (2007, p.29) points out, "in action research, the subject of the study is often thought to be the teachers or academics themselves, whose responsibility is also to improve the university research productivity, in order to improve the university research output.

3.3 Research Design

My research design was influenced by the methodology that I followed in answering my research question. I designed a plan through which to obtain reliable and valid answers to my research question: 'How can I improve the way I facilitate research capacity development at Walter Sisulu University using action research methodology?' I needed a feasible design that would work best for me. As Samaras (2011, p.24), refers to a research design as a self-study research project plan and writes: "a self-study research project plan helps to envision where a researcher is heading". A warning from her, however, is that a planner should only be used as a guideline.

I chose to integrate the different components of my study in a coherent and logical way, thereby, ensuring that I would effectively address my research problem: How can I improve the way I facilitate research capacity development at WSU? My research design constitutes the blueprint for the methodology, through cycle analysis, collection of data and analysis of this data.

Obviously, a research study needs a design or a structure before data collection or before the analysis of that data can commence thereafter. A research design is not just a work plan. A work plan details what I did to complete my research project but the work plan flows from my research design. When designing my research I asked myself this question: 'How can I improve the way I facilitate research capacity development at WSU using action research methodology? In answering this question I needed a type of evidence to test the theory and answer this question in a convincing way. According to Whitehead and McNiff (2006, p.63), the purpose of gathering data is to generate evidence to support and test a claim to knowledge (theory).

Therefore, my research design for my study was a detailed outline of how my investigation would take place. This typically included how I was going to collect data, what research instruments I used, and what were the intended means for analyzing the data that I collected were. However, data and evidence are two different things. From the beginning, it was important for me to gather data that gave me good quality

evidence, to identify the kind of data that I was looking for, and planned how I was going to obtain this data. It was also vital to address the issue of the kind of ethical framework appropriate in gathering such a data.

Analogically, before a builder or architect can develop a work plan or order material to use s/he must first establish the type of a building s/he requires, and the reasons for building the house as per his/her occupant's needs. The work plan therefore is supposed to flow from this practical information.

Similarly, in my research, the issues of sampling, method of data collection using questionnaires and interviews, and the actual designing of questions were all subsidiary to the matter of the evidence I needed to collect that data for. Without having a research design at the beginning, conclusions that would be drawn from my study would likely be inappropriate and not reliable and not valid. Otherwise, research design is different from the method by which I used to collect data. This is where I reflect the purpose of my inquiry, which is characterized as a descriptive study which is to provide an accurate and valid representation of the factors that pertain or are relevant towards explaining the decline of research productivity at Walter Sisulu University as this is my point of departure.

Fundamentally, my responsibility is to facilitate research capacity development so that academics and postgraduate students that I interact with may become aware of how important research is and how it can contribute in increasing research output in a university? Actually, my research design follows from a recent or the latest evidence which was tabled in Chapter two (Table 2.1: Publication Research Output Units per institution, 2012) as it shows how important research output and rating compared to other universities is. This table precisely proves how research productivity declined at WSU.

This is why I chose to use action research as a tool to change and improve the research productive situation at WSU. Action research is often called applied research and in some instances, classroom research. According to Curry (2005, p.1), it is so-called

because of its emphasis on "problem-solving through inquiry into human problems in a real context".

As per Taylor, my action research is a fundamental way in which to effect change in the way I facilitate research capacity development at WSU with the motive of promoting the importance of research productivity in a university, as per the DHET's requirements. My concern has been to effect change in the way I do my practice which will in turn effect change even in terms of promoting research productivity amongst academics and postgraduate students that I serve. Loughran and Northfield (1998, p.95) assert that "reflection is a personal process of thinking, refining, reframing and developing actions. In a reflective practitioner research, reflection is at the centre of professional practice where I question dilemmas inherent in my practice and from multiple perspectives (Ciriello, Valli & Taylor, 1992).

According to Kemmis and McTaggart (1988, p.12), reflection recalls action; this is deliberated further in the section discussing cycles that I undertook in order to improve my own practice. Reflection seeks to make sense of processes, problems, issues and constraints made manifest in strategic action. Reflection takes account of the variety of perspectives possible in the social situation and comprehends the issues and circumstances in which they arise. Action research is always research with, not research on people when solving problematic situations (McNiff & Whitehead, 2002; Cunningham, 2008; Wilson, 2009). Koshy (2005, p.10) submits that, "action-research involves researching my own practice". Action researchers do not do research on others, but do research on themselves, in collaboration with research participants.

Wilson (2009, p.189) also observes that action research "is always done by or with insiders within an organization or community and not by an external team". As determined by the evidence shown in chapter two the research methodology that I used to collect data provided me with appropriate answers in order to solve the problem after finding out what could be the cause of a decline towards research productivity at WSU. For example, employing collaborative action research approach enabled me to fulfil my need to improve what I wanted to do through reflection on my

practice by academics whom I used as my research participants. As McNiff (2002, p.10) contends, "action-research would help me formalize my learning and give a clear and justified account of my work, not on a once-off basis, but as a regular feature of my practice, that is to say, in spiral of cycles.

3.3.1 Three Phases of my Study

Phase One: My study is composed of three phases and every phase of my research study had potential ethical implications, from planning through to data collection, analysis and interpretation to writing up and presenting of the data, and these implications were considered and addressed in all three phases. For example, a questionnaire that I used to collect data was divided into three sections (Section A, B & C). Sections A and B of the questionnaire comprised closed-ended questions to collect first phase data. For example, the population that I targeted for the use of Statistical Products and Service Solutions (SPSS) software to capture, enter, edit and analyze a quantitative data, as a first phase of my data, comprised 120 academic lecturers. In each phase, I used three different research methodologies for my data collection and data analysis. The process of collecting the quantitative data from academic lecturers whom I used as my first phase research participants of my action research study was the basis of my action research study. As a Research Associate and whose responsibilities are: a) to facilitate research capacity development amongst postgraduate students and academic staff members and b) to promote research excellence within the university, I realized that change in terms of how I do my work is desirable. To quote an action researcher, Kurt Lewin (1946):

"*If I truly want to understand something I must try and change it*".

This type of work was not simply about changing, but also about improving the research environment at WSU. The problem statement is the decline of research

productivity and research output at Walter Sisulu University since the academic year 2006. Therefore, improving the way I do my practice would not only benefit me but also the university that I serve together with the academic lecturers that I used as my research participants whom I interact with when rendering my services as a Research Associate. I collected the data from these academic lecturers' perspectives on how I can improve my practice. This means then that my research participants were the academic lecturers that I interact with on a daily basis when serving as a Research Associate. I found academic lecturers to be the relevant respondents who would be able to give me a relevant information through their feedback experience and their evaluation of my practice through the questionnaires' section A & B (see APPENDIX A).

Phase Two: Section C in the questionnaire (which asked about 13 open-ended qualitative answers) was as phase two to collect data from 24 academic lecturers. The 24 research participants are the population targeted to conduct interviews where I used NVivo software to capture a transcribed qualitative data as a second phase. The 24 academic lecturers who responded to Section C (phase two) were not part of the first phase, wherein 120 lecturers answered a quantitative questionnaire. I needed this data, from separate academic lecturers to help me find out their perspectives regarding the way I interact and communicate with academics and postgraduate students at WSU. I collected this data for the purposes of my practice improvement. Conducting interviews enabled me to emphasize that the qualitative data that I collected was essentially meaningful; this showed great diversity and needed to be interpreted and analyzed, not just to reveal the way research productivity declined at WSU, but also to recognize and analyze the ways in which academic lecturers should understand generally the importance of linking their teaching and research.

The assumption in universities is that research informs teaching and, perhaps, to a lesser extent, teaching informs research (Jenkins, 2004). The precise character of the relationship between teaching and research is not well understood in most cases. The difficulty in articulating the relationship between teaching and research at universities is also partly the result of the division of the two activities at several levels. In a nutshell

teaching and research offer mutual benefit and that research-led or research-infused teaching and learning can benefit student learning. I, for one, see good teaching as intimately related to quality research. Through collecting qualitative data therefore, I wanted to find out through the conduct of 24 interviews, about the understanding of the relationship between teaching and research amongst the academic staff members at WSU. The five categories or concepts that these codes represent came from the Section C (with 13 questions) that I used as a guide when conducting interviews amongst 24 academic lecturers whom I used as my qualitative research participants. As mentioned before, through this qualitative research methodology, I collected data through conducting interviews with twenty four (24) academic lecturers whom were based at Nelson Mandela Drive campus.

Coding enabled me with the form of capturing of a qualitative data using NVivo software. I retrieved all the text coded with the same label to combine passages that were all examples of the same phenomenon, idea, explanation or activity. This form of retrieval was a very useful way of managing data and enabled me to examine the data in a structured way. Coding was easy to do when transcribing data, and it was even possible to code directly from an audio recording. This means that using NVivo software made it much easier to retrieve the sections of voices that I coded as text. Typically, I created five nodes which became free nodes that arranged captured data accordingly as retrievals. Initially, these themes came from Section C (open-ended questions) of the questionnaire that I used as a guide when interviewing the 24 academic lecturers whom I used as my interviewed research participants.

Phase Three: Thirdly, I targeted a group of seven (7) Trasformative Educational Studies (TES) project academics as my research participants for phase three. I opted to finally use this group for the purposes of my own practice improvement which focused on planning, acting, observing, and reflecting. This became a collaborative action research. Employing collaborative action research approach enabled me to fulfil my

need to improve my practice through reflection on my practice by the actual academics that I interact with when performing my duties as a Research Associate.

Because my study is about change, it meant, therefore, that the action that I needed to take as a responsible research associate, whose responsibility is to facilitate research capacity development, was to conduct a study for the purposes of my practice improvement. I, therefore, found the action research method necessary as an ongoing process. As Koshy (2010, p.1) states, this method is a specific method of conducting research by professionals and practitioners with the ultimate aim of improving their practice. Therefore, in practice, the process began with a general idea that some kind of improvement or change of the status of research productivity at WSU was desirable. Consequently, my action research cyclic model began in order to try and answer a question which says: "How can I improve the way I do my work at WSU?" Action research is a dynamic process in which these four steps (planning, action, observe, reflecting) are to be understood not as static steps, but rather as steps in the action research spiral of cycles. The main motive behind following these spiral of cycles was to improve my practice in stages.

My next action was then to explore the extent to which I would be able to change or improve my work through the use of action research methodology (Whitehead 1989; McNiff 2001, 10).

According to Kurt Lewin (1951), who popularized action research (AR) in the 1930s who is known as the father of the approach, argues that:

"People do change (take action) when they experience the need to change (reflect) and will adopt new behavior (new action) based on their values".

Action research cyclic model has previously proved especially effective in curriculum development (Elliot 1991; McKernan 1996; Zuber- Skerritt 1992).

In deciding just where to begin in making improvements at WSU during my third research methodology, I first planned to use exclusively seven reliable academic

lecturers as my research participants with whom I am a member of the Transformative Education/al Studies (TES) project team at WSU.

Basically, the Transformative Education/al Studies (TES) project aims to support academic staff members who are pursuing Master's and Doctoral Degree Studies using the 'self-study' and 'action research'. These are academics that I interact with weekly and they are the academics that I also interact with when facilitating research capacity development. In the beginning of August 2014, I decided to use the Transformative when conducting phase three of my study. Without knowing exactly the practical risks and consequences of doing action research cyclic model practically, I just planned whatever looked possible to me to bring about change into the way I do my practice. I had thought that a critically informed action should be chosen because it would allow me and my research participants to act more effectively over a greater range of circumstances, more wisely and more prudently. This is why I asked my research participants to be co-operative and more appropriate in the situation and more effectively as academics. I told them that this model would not benefit only myself but would also benefit them as well.

3.4 Population Targeted

The centre of my research was myself as 'I' am investigating myself from the group research participants who were the academic lecturers at WSU with whom I interact when rendering my services as a Research Associate. My responsibility is to facilitate research capacity development and promote a research culture amongst academics and postgraduate students within the university. This means that my research is about investigating about me and the practice that I do, not academics' practice. The question is, what is the quality of my influence through my practice in their learning? Through this study, I was checking how they are responding to me as they are familiar with the work that I do when interacting with them. Atkins & Wallace (2012, p.42), are of the view that researchers must take the steps necessary to ensure that all participants in the research understand the process in which they are to be engaged, including why

their participation was it necessary, how their participation was it going to be used and how and to whom it is to be reported.

Social networking and other online activities, including their video-based environments, present challenges for consideration of consent issues and the participants must be clearly informed that their participation and interactions are being monitored and analyzed for research. This is why I adhered to the ethical consideration in order to secure my research participant's voluntary informed consent, before my research got underway, and I considered this as a norm for the conduct of my research. For example, before my research participants could sign a consent form I informed them that whenever they feel like withdrawing participating in my study, they were allowed to do so.

3.5 Sampling

In 2010, when the idea of conducting this study was borne, the headcount of permanent academic staff members at WSU was about 608 in relation to the intake of about 26 772 overall students in WSU. Nelson Mandela Drive, where I conducted this study had about 297 academics, particularly academic lecturers with Master's degrees and PhD degree qualifications. Out of 297 academic staff members, I used 120 as my research participants. I used convenience sampling method in this study. Because, a convenience sampling according to Struwig & Stead (2003, p.111), can be chosen purely on the basis of availability of participants, I therefore selected participants who signed a consent form showing availability and willingness to participate in my study.

Judging from this number, indeed, it would be difficult to determine the opinions of all WSU campuses and every lecturer in all four campuses. In addition, it would take a long time to make contact with all those academics at WSU in order to collect and process the necessary information, precisely because not every academic knows about my

services as a Research Associate. Furthermore, time would be a limitation in such a research.

Drawing on the rich sample was one of the ways to achieve the aim of this research study. For example, if all academic lecturers had similar qualifications, were of the same age and has the same workload in the same department, I would then be able to use one common group of research participants. According to Koshy (2005, p.10), "my action-research involved researching about my own practice", and initially, action researchers do not do research on others, but do research on themselves, in collaboration with their research participants. The solution to this problem of not being able to access all the academics at WSU about the way I do my practice (self-reflection), was to select a few number of academics who had the characteristics in which I was interested in using as my research participants. Hence I targeted to use only 120 for quantitative data as the first phase of my data, then used 24 academics with whom I interviewed. I used the Transformative Educational Studies (TES) project group, for a phase three data, as discussed earlier. I needed a reliable group of people that I had interacted with for so long, whom I thought would know my services very well, and could be able to give me a reliable information about my work. I intended to choose such a group of research participants in such a way that this smaller group of academics was a representative of the greater group of academics from which I had chosen earlier. This means that the responses of the smaller group who were questioned were seen to be corresponding with the responses that the greater group of academics would have given if all of them were questioned. It should be clear that I could not just get any group of academics together and then make statements about all academics at WSU. They had differences in significant ways, for instance, from departments that they work in, faculties that they belong to, qualifications that they have obtained, experience and so on.

To select a number of research participants to use in my study was to ensure that I had a representative sample. Then, I would use the information to generalize because the sample was a representative of the greater group of academics. The sample would

have to reflect the characteristics of the group that I wanted to make statements about, if I wanted to be confident that my statements were valid. Only then could I say that the results of my study were not generalizable to the greater group of academics at WSU who made up the subject of my study. In my study this ideal was achieved by using sampling. The process of selecting part of a group of my research participants for my study is known as sampling. This means then that a sample was part of the greater group from which I drew my research participants for my study, that is, 120 for the first (quantitative data) phase, 24 for the second (qualitative data) phase, and finally, 7 Transformative Educational Studies project group members for the third and final (self-reflective action research cyclic inquiry) phase. The total number of research participants that I used to conduct my study was 151.

3.6 Research Instruments

The reliability and validity of my research depended to a large extent on the appropriateness of the instruments that I used to collect data for my study. This includes:

- Questionnaire is the first phase research instrument that I used to collect a quantitative research data from about 120 WSU academic lecturers whom I used as my phase one research participants. This questionnaire had closed-ended questions in both Section A & B (see Appendix A);
- Interviews are a form of collecting a qualitative research data tool that I used as my second phase, where I conducted interviews with about 24 academic lecturers whom I used as my phase two research participants. I used Section C of the questionnaire, which was specifically closed-ended questions to guide me when conducting interviews (see Appendix A); and
- Self-reflective action research cyclic evaluation questionnaire that I continuously revised as per the three cycles of the four stages for the sake of reflection from

which qualitative data were collected in an open-ended format. During the third phased of my study, I collected qualitative data from the TES group members whom I used as my third research participants for a personal feedback information which assisted me in planning for the next revised and corrected stages. I chose to use action research methodology because I believed that it would help me increase my professional development, an awareness of my working environment, and my motivation and need for my self-reflection in order to learn from such experiences and be able to improve, based on the feedback of my previous experience, from my research participant's perspectives (see Appendix F).

The above research instruments helped to determine how research capacity development can be improved and facilitated in such a manner that academics recognize the need to change their teaching and their research practices to enhance research productivity at Walter Sisulu University. For example, during phase one, I used a questionnaire as my research instrument (Appendix A). I used a questionnaire to collect data in order to be able to find out the links between the original questions that I set out to be answered and the information that academic lecturers gave me. Since quantitative and qualitative data have very different requirements in terms of methods of collecting data and data analysis as I mentioned earlier, and so these methods of analysis were dealt with in separate phases.

For example, the use of questionnaire construction used different types of response methods such as closed ended questions including, the Likert-type scales, which further informed the validity of my data collection using questionnaires. Furthermore, quantitative data also included *yes or no* types of questions and rating scales, with a pre-coded set of answers such as: *strongly agree, agree, neutral, disagree and strongly disagree*, for the purpose of receiving different kinds of information. For instance, about 120 research respondents who provided me with more precise information about the way I facilitate research capacity development at WSU.

Using action research also to conduct this study qualitatively during my second phase was like trying out a theory with colleagues in a real situation. This was done in order to gain feedback from other research participants through administering a questionnaire, in order to modify my practice as a result of their feedback from the answers that these research participants gave me, regarding my practice. I used interviews for my second phase qualitative data, in response to Section C questions, Finally, I used self-reflective action research as the basis of my practice improvement, based on other people's views (TES members) about myself and the way I do my work. Samaras (2011, p.10) argued that self-study draws directly from the people's personal experiences that I interact with regarding the way I need to change and improve the way I facilitate research capacity development.

3.6.1 The process employed when using a questionnaire as a research instrument

As stated previously, questionnaire was a research instrument that I used to collect quantitative data. Although I asked research participants to submit their questionnaires back to me by e-mail, I realized how slow and poor was their responses were. I knew that a poor response rate could introduce bias into the data, since research participants who failed to respond may have had definite opinions on the matter that was being investigated (decline of the research productivity at WSU and my facilitation of research capacity development) by the study (Dixon, 1989, p.20). However, according to Babbie & Mouton (1998, p.261) "…a response of 50 percent is adequate for analysis and reporting. A response of 60 percent is good and a response rate of 70% is very good". To overcome a poor response upon realizing that I was receiving few responses than expected by an e-mail, I decided to make a follow-up by collecting questionnaires from the targeted research participants personally, collecting them from their offices and door to door; this helped me receive enough questionnaires for my data analysis.

The same process was done when the conducting of interviews, where I first had to make appointments for conducting face-to-face interviews in academics' offices.

Generally speaking, a qualitative research is not easily defined, yet it does have certain characteristics that tend to distinguish it from quantitative research method. However, my research study utilizes two research types: quantitative (questionnaires) and qualitative (interviews).

As a qualitative researcher, I was very interested in understanding the issues regarding facilitation of research capacity development at Walter Sisulu University. I therefore decided to include action research methodology to collect data from other people, and from the perspectives of my research participants who were the academic lecturers at Nelson Mandela Drive campus implied that they had a reactive, inferior role in the research productivity as compared to other South African universities, as per the Department of Higher Education and Training 2009 annual report. It was important for me, as a researcher to collect, analyze and interpret their data by conducting this research.

In essence, qualitative research method demands an extra level of involvement on the part of the researcher. It can be both rewarding and exhilarating, and the end result offers even a glimpse of an experience that was not previously well understood. Hence, according to Mills (2007, p.4), qualitative research uses narrative, descriptive approaches to data collection to understand the way things are and what interpretations from the perspectives of the research participants.

As previously noted, in most cases it would not be possible to obtain data from all members of a specified population and, therefore, some kind of selection process, or sampling was performed. If sampling is done with care, the results from that sample should reflect closely those that would be obtained from the population as a whole. With a perfectly representative sample, it should begin to resemble the population of all academic staff members at Walter Sisulu University, Nelson Mandela Drive campus. This is a data from a relatively small number of cases that I obtained. When the sample size is large, questionnaires are found to be the most commonly employed instruments to

gather data (Verma & Beard, 1981; Cohen & Manion, 1989). Amongst the reasons for using questionnaires in this study is because are:

- Questionnaires are potentially quick and straightforward method of obtaining information;
- One other reason is that I have an access to the Statistical Products and Service Solution (SPSS) software available which I use often to capture and to analyze such a quantitative data;
- I have used questionnaires for the purpose of using SPSS to be able to see the significance of self-reflection in action research which also demonstrates a practical reflection of my own practice where I am being evaluated by participants who attend my previous research capacity development workshops and trainings;
- Findings can easily be able to give an idea on how 'I' should try and improve the way 'I' conduct my workshops and trainings in future from a feedback through questionnaires;
- Self-evaluation of my own practice examines whether 'I' am living up to the workshop participants' expectations or not;
- Questionnaires can help to constantly check whether or not I am doing the right thing, as expected by the participants or by the university that I serve; and
- Analysis and critique of my practice as this is required by the university self-evaluation program.

This is a major difference between a questionnaire that I used as a research instrument to collect quantitative data and a structured interviews scheduled with participants that I collected data from. Through conducting interviews, I was able to collect qualitative data. Clearly, there are positives and negatives with each approach as highlighted below:

- Questionnaires allowed me, for example, to collect large data in a relatively short amount of time compared to interviewing research participants, whereas interviews allowed me an opportunity to intimately know how each and every research participant feels about particular issues that we discussed about during interviews.

- An interview can be a time-consuming; and

- Clearly, one major assumption associated with the use of a questionnaire is that research participants were able to read and write without me being present, this is the reason I found questionnaire a solid and straightforward data collection instrument.

The following are the guidelines according to Geoffrey Mills (2007, p.67), that I followed when I developed my research questionnaires:

- I carefully proofread questionnaires before I issued them out, and a critical friend assisted with some comments for corrections before sending them out;

- I tried to avoid carelessness presentation by making this study attractive to my research participants as much as I could through self-delivery as a follow-up with an e-mail that I had sent earlier. This is how I personally participated by a personal verbal motivation;

- I avoided a lengthy questionnaire by designing it simpler and more straightforward and asking for very interesting research academic related questions;

- I also avoided asking unnecessary questions which I knew would be sensitive for academic lecturers to respond to;

- It is indeed, important to know the 'trustworthiness' of the questionnaire and interview responses. How would I know if participants are not simply telling me what they think I want to hear? What is my justification for treating their information as a source of knowledge?

- I explored structured items with a variety of possible responses as options suitable to choose from, such as Likert-type questions. Otherwise, my respondents would have interpreted the meaning of the terms that I used in quite different ways. The Likert-type tends to perform very well when it comes to reliability with regard to particular attitudes of the participants which is one of the main concerns with the type of data that I gathered (Oppenheim, 2001, p.195).

- Whenever possible, I allowed for an 'other comments" section. This provided respondents with an opportunity to respond openly to my questions. These comments have provided me with an excellent source of "discrepant" information that I never thought of and an opportunity to follow up with an informal interview to elicit more information from the respondent's as my time, energy, and inquisitiveness allow. Respondents through a qualitative research methodology were allowed to elaborate further on some questions that were open ended.

- In advance, I decided not to ask respondents' names as I found that unnecessary. Hence, I did not keep track of who were my respondents were; it is enough to know that I used academic lecturers as my research participants. In a way, I was protecting their confidentiality throughout the process of my study, as per the requirements of the ethical considerations. By this, I had to assure my research participants that they would not suffer negative consequences for anything that they might have shared with me. For example, from the ethical point of view, if I wanted honest responses from my research respondents and truth in their answers, I had to assure them that they would not be persecuted if they tell me something that I did not want to read or hear.

3.6.2 The process employed when using interviews as a research instrument

A qualitative approach that I used to conduct my research study included, for example, conducting face-to-face interviews and audio recording interactions between myself and 24 research participants. Conducting interviews was an action Research that I used to conduct this study as a second phase, that was unique in the way it associates research and practice, hence research informs practice and practice informs research synergistically (David *et al* (1999, pp. 94-97). In action research I combined theory and practice (a researcher and participants) through reflection in an immediate problematic situation within a mutually acceptable ethical framework in order to be able to answer a key question: "How can I improve my own practice?" This means that action research was an iterative process of acting together with other colleagues on a particular cycle of activities related to research development, including problem diagnosis, action intervention, and reflective learning. Using action research to conduct this study was like trying out a theory with colleagues in real situation, to gain feedback from their experiences through administering direct interviews, using a digital voice recorder, then modified the practice as a result of their feedback from the answers that they gave me.

As a Research Associate, it was my responsibility to come up with a plan to guide my study through the research process. The important question that I was faced with was: What steps should be taken in order to demonstrate that a particular hypothesis is true and that all other possible hypothesis must be rejected? And, according to Kemmis and McTaggart (2000, p. 595), theorizing in the world is of little use without the actual doing action. And indeed, action researchers are doers. This study was a participatory in nature. This means then that research that I had to do something about the problem that WSU was facing, that of a declining of research productivity at WSU. This is why I then conducted this study which gave me a chance to create new knowledge based on this inquiry within a specific and often practical context, that is, within my work place.

Conducting an interview is a frequently used method for collecting qualitative data in educational research. After I had decided whom to interview and why, I thought about what style of interviewing that would become most useful in helping me to answer my research question: "How can I improve the way I facilitate research capacity development at Walter Sisulu University using action research methodology?" I first explained the purpose of my research to my research participants clearly in order to ensure that they signed informed consent as a form of giving me a permission to interview them. I know that this is an important ethical consideration when planning a research strategy. My next step was to design an interview schedule. The purpose of the interview schedule, according to Atkins & Wallace (2012, p.91), is that it gives the researcher an opportunity to think carefully about how questions should be worded in such a way as to minimize the risk of them eliciting a biased response. In conducting this study I am trying to answer the above question: "How can I improve my work, from my research participant's perspectives when answering my self-reflective questions during an interview, I used interviews for the following reasons:

- I used interviews to allow myself to engage with my research participants individually face to face, in a way through questionnaires alone could not have been answered appropriately;
- Interviewees usually feel sufficiently at ease in answering the factual questions that they will be open and honest in their answers to interviews rather than more complex questions from questionnaires, and a researcher in absentia, for further clarity;
- Interview questions are usually open-ended, and this provides an opportunity to gather rich and illuminative data from either groups or individuals;
- Through voice recording, which I had first asked permission for, I was able to capture the entire interviews and this allowed me to carefully review the data and this made a complete transcription possible;
- Interviews are a very flexible research tool which I used to gather a range of different types of information, including factual data, views and opinions,

personal narratives and histories, which made interviews useful as a means of answering a wide range of research questions;

- Through interviews there is an opportunity for a dialogue which interviews provide which allowed me, as an interviewer to probe and clarify and check that my research participants understand correctly what I am asking;

- Encouraging participants (academic lecturers) to talk helped to provide me with an insight into their thought processes and their value judgements they carried; and

- This practice allowed me, as a researcher, to be able to evaluate my interview skills, and so on.

However, there were disadvantages too:

- For some reasons that I do not know whatsoever, few colleagues refused to participate in my study without any explanation;

- Of course, other colleagues did say that they have never interacted with me or have never been to the Research Resource Centre that I operate from. It would therefore be difficult for them to participate in my study or interviews;

- Transcribing and analyzing an interview for example, can be very difficult and lengthy task, though often a necessary method if a researcher wants to get the most required data;

- Also, the analysis of interview responses is also a complex and often very difficult process, despite the growing availability of software designed to help in the interrogation of qualitative data. For example, I had to first undergo training on how to use NVivo software to analyze qualitative data, as I was not familiar with how it works. Through such trainings I was able to see how to address the question of trustworthiness and reliability when using NVivo software. That is to say, to what extent can I know that what the interviewee is telling me is 'true'; and how certain can I be that a different interviewer asking the same question from the same interviewee would receive the same answers as I did;

- The use of recording equipment (digital voice recorder) may have scared the interviewees self-conscious and inhibit their responses;

- Voice recording, for example, does not capture body language (e.g. facial expression of anger) which could end up providing a more nuanced reading or deceiving expression of the interviewee's discourse, and so on;

- You will have noticed that I did not include in my study all Walter Sisulu University campuses academic lecturers as possible interviewees. This is because, Nelson Mandela Drive campus is where my work practice is more practical than any other campus;

- Also, Nelson Mandela Drive fully understands the implications of participating in the research output related study because they understand very well what I mean by a decline of research output and research productivity at Walter Sisulu University more than other campuses. I would have had to workshop colleagues from other campuses before I conduct interviews; and

- As Cohen et al. (2011) argues, it is always useful to begin with a question which will put your interviewee at ease and allow them to remain safely for the time being in their comfort zone. Yet, a questionnaire, with a researcher being absent, this could be difficult to achieve.

To make my interviews easy and straight forward, I had a pre-prepared list of questions which I fairly strictly adhered to and the interviewee's role was to respond to them, which were almost the same questions I had compiled for my questionnaires. The only questions that myself and my research participants, we looked into were questions that I had thought to ask. Although this sounds like a very structured and relatively rigid approach that I used but as I was conducting a participatory action research study I did allow interviewees room to contribute further than expected on their elaborations.

The purpose of this qualitative kind of data, I used these questions as open ended instead of giving participants my own options to choose their answers from. This means that their input was not confined only to responses to set questions, and therefore there was a potential for uncovering issues and questions which were relevant to the

research questions about which I had never thought of asking. And this type of interaction between myself and my research participants provided a scope for the participants to inform the research in ways I may have not anticipated. It also allowed me to gain some insight into the perceptions of particular individual academic lecturers within a situation, where they ended up taking the interview schedules beyond the gathering of facts and allowing participants authentic voices, as always expected by Powney and Watts, (1987, p.18). One important point to bear in mind is that the respondent interview can make the analysis and comparison of data more straightforward, as questions and responses will follow the same pattern and fall into the same potential categories over a series of interviews.

The interviews that I conducted were the voice recorded interviews which enabled me to engage in dialogues with my research participants in my inquiry. Since I was also interested in knowing exactly what are the academic lecturer's attitude towards research practices and research output at Walter Sisulu University. The use of voice recorder as a tool for recording their views and perception of the way research is facilitated by the Research Resource Centre at Walter Sisulu University was vital in capturing evidence for this inquiry. As for the voice recorded data, I have captured and transcribed it into the relevant information as fully as possible using Word, then I will use NVivo software to capture and analyze it.

Actually, tape recording data increased my awareness of my research participant's values and intentions in their professional life. As I said earlier, voice recorded interviews provided me with effective feedback, which I will also use later for self-reflection on my practice style when writing a chapter about recommendations, which will include quantitative method that I started with, qualitative method that I am now explaining, and finally the cycles that I have also conducted to collect more self-reflective data. I have to be prepared to acknowledge research participant's views even if they may conflict with my own perceptions. Whitehead (1993, p.70), believes that in viewing videotapes of our own educational practice, we can see our own 'I's existing as

living contradictions. He advocates that this revelation, through the visual record, is crucial for the reconstruction of educational theory. He reminds us that when we view ourselves on video, we can see and experience our 'I' containing content in itself, we see ourselves as a living contradiction, holding educational values whilst at the same time negating them. He maintains that integrating such contradictions in the presentations of our claims to know our educational practice, we can construct descriptions and explanations for the educational development of individuals. To cite just few examples, amongst the first questions in Section C that I asked (as qualitative research data), I asked research participants their perception of my own practice, regarding my activities as a Research Associate from the Research Resource Centre, as follows:

1.   Why do you feel there is a need for a better facilitation of research capacity development by the Research Associate at Walter Sisulu University?

2.   What do you think should be done to change or improve the way research capacity development is facilitated by the Research Associate?

3.   Do you feel that the research related services rendered by the Research Resource Centre are enough at WSU?

I must say, some participants were not comfortable expressing their views about me so openly, to myself. Therefore, an advantage with conducting an interview is that, I had to encourage participants to talk freely without fear as the study was about me, not them, their feedback would help me improve the way I do my work. Of course, such information indeed, provided me with an insight into their thought processes and their value judgements that they carried. For example, in response to the first three questions of Section C, two different research participant's answers, after their information is being transcribed into word, their answers are as follows:

The first research participants responded as follows:

1.   To improve research skills for academics;
2.   Employ more staff; and
3.   Not enough.

While the second research participant responded as follows:

1.   Yes, there is a need because indeed, at WSU, the tone of the pick of research is very low.
2.   The research directory must be restructured, and then the research directorate and finance must see eye to eye, if that is not done, the Research Associate will not be able to capacitate researchers; and
3.   No, they are handicapped.

I used open response interviews to allow my research participants to freely express their experiences of my facilitation of research capacity development in their own way of expressing themselves freely. The specific technique that I used to collect such a qualitative data is the transcription of recorded informal interviews, conversations, observations, and an open-ended questionnaire. I also chose this qualitative type because people would inform me directly about things that they would not have had, had it been through another research methodology (Briggs & Coleman, 2007, p.211). It is clear that, for example, these two answers are from two different academic lecturers from different perspectives, but responding similarly to the same question.

3.6.3 The process employed when using self-reflective action research evaluation questionnaires as an instrument

As mentioned previously, I used an action research self-reflective inquiry also for the purposes of my own practice improvement. Zuber-Skerritt (1992) maintains that the

process of action research is in fact a spiral of cycles of action and research consisting of four movements: *plan, act, observe and reflect*, as shown in table 3.1 below. The question that came to my mind was: 'how many cycles were enough for me to undergo before I could eventually be able to improve my practice?' This means then that action research self-reflective evaluation questionnaire was a third research instrument that I also used which reduced action research to this cyclical procedure. This method or procedure, that is, action research is 'a series of commitments' which involves observing and problematizing through professional practice 'a series of principles for conducting social inquiry'. As action research practitioner who is so committed to continually developing educational practice in a socially active context, observations and reflections on particular situations and stages was an ongoing process which eventually ended successfully (chapter five elaborates further on how I eventually completed three cycles). Acting with social intent, and affecting social change, means that action research is transformative, in that it made difference to the lives of both myself as a researcher and the researched, the research participants (Atkins & Wallace, 2012, p.133). Because it was about change, it means therefore that action research was an ongoing process. So, in practice, the process began with a general idea that some kind of improvement or changing of my own practice and changing of the status of research productivity at WSU are desirable.

As an action research practitioner, there is one popular model of action research which is being recognized by many researchers, and this is Kurt Lewin's model (McNiff, 1988, p. 22). Lewin's model is a spiral of steps or cycles with four stages. This is a dynamic complementarity which links these four aspects into a cycle, and ultimately into a spiral of such cycles. According to Kemmis & McTaggart (1988, p. 11), to do action research I then had to undertake the following procedure:

- Develop a **plan** of critically informed action to improve a practice;
- **Act** to implement the plan;

- **Observe** the effects of the critically informed action in the context in which it occurred; and

- **Reflect** on these effects as a basis for further planning, subsequent critically informed action and so on, through a succession of cycles.

Lewin (cited in McNiff, 1988) describes action research as proceeding in a spiral of steps, each of which is composed of planning, action and the evaluation of the result of the action.

According to Gray (2009, pp.318-322), action research cycles may best be understood by closely studying these basic steps. Action research is essentially research through action. It is usually a collaborative activity, involving input from people who are likely to be affected by the research, but this is not strictly necessary. Action research is about changing an environment, system, or practice, and learning about this context through changing it. To quote action research's instigator, Kurt Lewin: "if you want truly to understand something, try to change it". This kind of work is not simply about changing, but also about improving an environment. As John Elliott claims, action research is "the study of a social situation with a view to improving the quality of action within it" (Elliott, 1991, p. 69-70).

Skerritt (1992) maintains that the process of action research is in fact a spiral of cycles of action and research consisting of four movements: *plan, act, observe and reflect*, as shown in diagram 3.1 below.
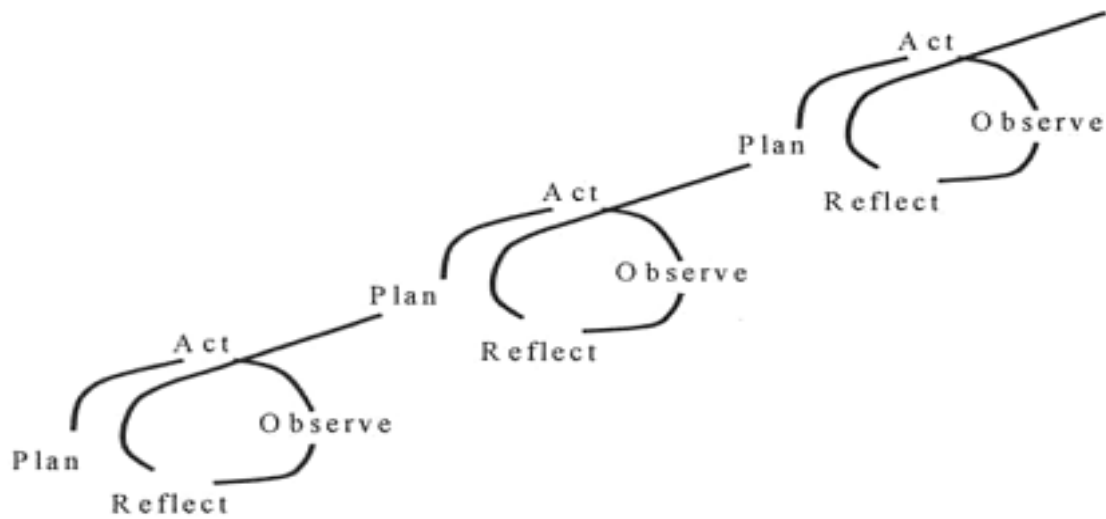
Diagram 3.1: A series of three-action research cycles with increasing knowledge as the process continues. (Source: adapted from Zuber-Skerritt, 1995).

The above diagram is a basic-research model which has its origins in the work of Kurt Lewin (1946). The question is: how many cycles are enough? This, however, reduces action research to this cyclical procedure. It is for this reason that McTaggart (1996, p. 248) warns against thinking that following a spiral necessarily constitutes action research. He argues that, rather than a method or procedure, action research is 'a series of commitments' which involve observing and problematizing through professional practice 'a series of principles for conducting social inquiry'. Otherwise, for action research practitioners, who are committed to continually developing educational practice in a socially active context, observations and reflections on particular situations are ongoing and never-ending. Acting with social intent, and affecting social change, means that action research is transformative, in that it makes a difference to the lives of both the researcher and the researched (Atkins & Wallace, 2012, p.133). Since it is about change, it means therefore that action research is an ongoing process. Therefore, in practice, the process begins with a general idea that some kind of improvement or changing of the status of research productivity at WSU is desirable.

This means that changes made in action research are specific about myself (as a researcher in the case of my study) and my research participants (with whom I interact with when facilitating research capacity development), and another feature of this approach is that it is about improving knowledge in this particular situation, and therefore this is not generalizable. For example, a key aspect of my action research is that I revise and develop my study in cycles. I also gather data as a process of inquiry, in order to make a positive change, and this new information has helped me improve my practice through the spiral of cycles. By practice improvement, I refer to the betterment of the way I facilitate research capacity development at Walter Sisulu University. As McNiff (2002, p. 9) contended, the question, "How can I improve my work?" contains a social intent. The intention was that I improve the way I facilitate research capacity development for my own benefit and for the benefit of the research participants who are the academic lecturers that I interact with when rendering my services and my responsibilities as a Research Associate.

3.7 Reliability and Validity

To successfully conduct the study, I had to decide on the specific questions that I needed to ask in order to receive data that could help me improve my practice. These questions were asked in questionnaires, interviews, and through action research self-reflective cyclic inquiry evaluation questionnaires.

The measurement of my study, in terms of its reliability and validity became the next step in my research process, during which I had to make a decision about the type of data that I needed to collect for specific reasons. Measurement enabled me to make comparisons in order to determine whether any changes or improvement in my practice inquiry had occurred; for example, quantitative research here refers to a method that I used to collect broad data that was presented in the form of numbers.

To illustrate reliability by means of an example from my study is reasonably easy: I used academic lecturers as my research participants from whom to collect data; for example, to measure their workload in teaching, most of them indicated that the workload for teaching was a problematic situation at WSU. Most academics complained about not having enough time in order to conduct research, as most departments were understaffed.

According to Gibbs's (2007, p.151) glossary, reliability is the degree to which different observers (such as research participants in my case) make the same observations or provide the researcher with the same data about the same question in the study; for instance, if the results are consistent across repeated investigations regarding: How can I improve my practice? This means that through quantitative, qualitative and action research self-reflective cyclic inquiry, although in different circumstances. This observation was also proved by the quantitative data that was analyzed through the use of SPSS.

There were several techniques that addressed the validity or accuracy of my research study that I undertook, not in the sense that the use of my research participants, for example, guarantees that my research was a true picture of reality, but rather as ways to eliminate obvious mistakes and to generate a richer set of explanations of my study and the data that I needed to validate. Validity refers to the degree to which the research provides a true picture of the situation and research participants being questioned were often referred to as internal validity. External validity refers to the extent to which data collected from the group or situation studied could be generalizable to a wider population. To cite from my study, in order to determine the reliability of the measuring instrument (in the case of a questionnaire), I had to determine whether different participants provided me with the same information that they would give in response to the same questionnaire, when being asked by someone else. If one gets the same results, it means that the measurement instrument is reliable and valid. Therefore, these considerations were essential in order to achieve believable

results in my research. This means then that the idea of validity means that something is true, and can be believed (McNiff & Whitehead, 2009, p.24). When people say, "That's a valid point,' they mean that the point is relevant, meaningful and believable. For example, when I make a claim to my new knowledge upon completion of this study, I claim that I know something new that has to be demonstrated as valid because it can be tested and be found valid and believable. In chapter five, the claim to my new knowledge is reported that I have changed and am able to improve my practice, and this is how and why I conducted this research study, in order to improve the way I do my practice.

3.8 Data Collection Procedure

The selection of data collection procedure was influenced by the type and purpose of my study. Making a decision on the type of information that I was looking for reminded me about what my research was about and specifically what my research topic is: "Working towards an improved facilitation of research capacity development at Walter Sisulu University using action research methodology". Therefore, the data that I was looking for would have to be in relation with this topic.

According to McNiff and Whitehead (2006, p.131), asking action research questions is rather complex. For example, firstly, my action research question involves the generic question, 'How can I improve my practice?' It is linked to the idea of my practice improvement. Secondly, practice improvement happens over time, so the data that I needed to look for regarding my study which is about my practice improvement was in episodes of practice for the development of my own practice over time. Thirdly, practice does not just happen, actions can just happen. Practices are always informed and intentional. They are informed by learning, and the intent is improvement of my own practice. Therefore, when I look at my practice I will be looking at the influence of my learning into reality. This is why my collection of data turned to be in three different phases (episodes), using three different methodologies as my data collection procedure, as discussed in greater detail below.

3.8.1 Quantitative Data from Questionnaires

I collected the quantitative data directly from academic lecturers whom I used as my research participants, and who answered closed-ended questions. These questions were pre-coded for the use of Statistical Products and Service Solution (SPSS) software to define, enter, edit and analyze. SPSS produces graphical charts or table formats to deduce the pattern of research participants' responses. The use of graphical charts improved the presentation and interpretation of my research participants' responses. Hence the purpose of this study was to help me understand my practical influence on academic lecturers that I interact with, and in the light of their perception, change or improve the way I facilitate research capacity development. My research participants' opinions were essential in meeting the purpose of this study. This is why I formulated questionnaires which were fairly straightforward to the kind of data that I was looking for.

Most questions in the questionnaire were of the structured type. Structured questions contain specific, mutually exclusive categories of responses, from which respondents were required to select one category that best suits their opinion, and this was less time-consuming to administer. Data processing and analysis was also facilitated by prior encoding as I knew in advance that I would use Statistical Products and Service Solutions (SPSS) software to code and analyze this data. For example, Section A of my questionnaire had dichotomous questions (respondents would have to choose from two or more answers provided as options to choose from, e.g. male/female; yes/no; poor/fair/good/excellent; teaching/research; etc.).

Prior to using the quantitative methodology, I had asked myself if the method I was going to use would assist with effective change that I would like to bring about at WSU to change or improve the situation, as already explained earlier. Was the data interpretation going to be adequate enough to produce validly and reliable conclusions. This meant that choosing a methodology to use to conduct a research study was so important because it had to align with what I needed to know to serve the purpose of

my study. As McNiff (2002) argues that I needed to constantly check that the use of action research methodology gave me appropriate answers. It was important that the questions that I asked my research participants were clear and meaningful both to me and to them as respondents. Ambiguity or lack of clarity in the way I phrased and asked the questions would have led to a risk of participants interpreting them in ways that I did not intend, and this would have led to unreliable data. According to Atkins and Wallace (2012, p.117), considering the implications and ramifications of each stage of action research method was essential before I began to collect data.

For example, I started by compiling an appropriate research instrument that I thought it would be able to assist me to collect relevant information regarding the way I have been rendering my services, that is to say, the way I have been previously facilitating research capacity development. I thought the best way to get this information would be better through using a questionnaire for the quantitative data. I had to align my methodology precisely with what I intended to ask my research participants. The element of the action research design stated earlier exactly the kind of data that I needed to collect, how to collect it, and how to analyze it. McNiff (2002) argues that the methodology of action research means that I need to check constantly that what I am doing really is working. Therefore, self-reflective action research was the best strategy for me to conduct this study. For example, I was able to draw directly from the 120 research participants personal experiences, whom I basically used to receive a quantitative data.

For examples, question (1) on gender and question (2) on age, question (3) is asking about academic lecturer's qualifications.

For example, the quantitative research study of what is needed to develop knowledge, skills, and research capacity at Walter Sisulu University found that only 38 percent of 120 academic staff members (39 percent of whom are women, 60 percent are men) who hold PhDs, whereas most universities in the world consider this degree the minimum qualification for a university teaching position. To identify this important information, I used a questionnaire to collect this quantitative data.

Academic qualifications

(chart values: Honours Degree 9.402, Masters Degree 49.57, Doctoral or PhD Degree 38.46, Post-Doctoral Degree 2.564)
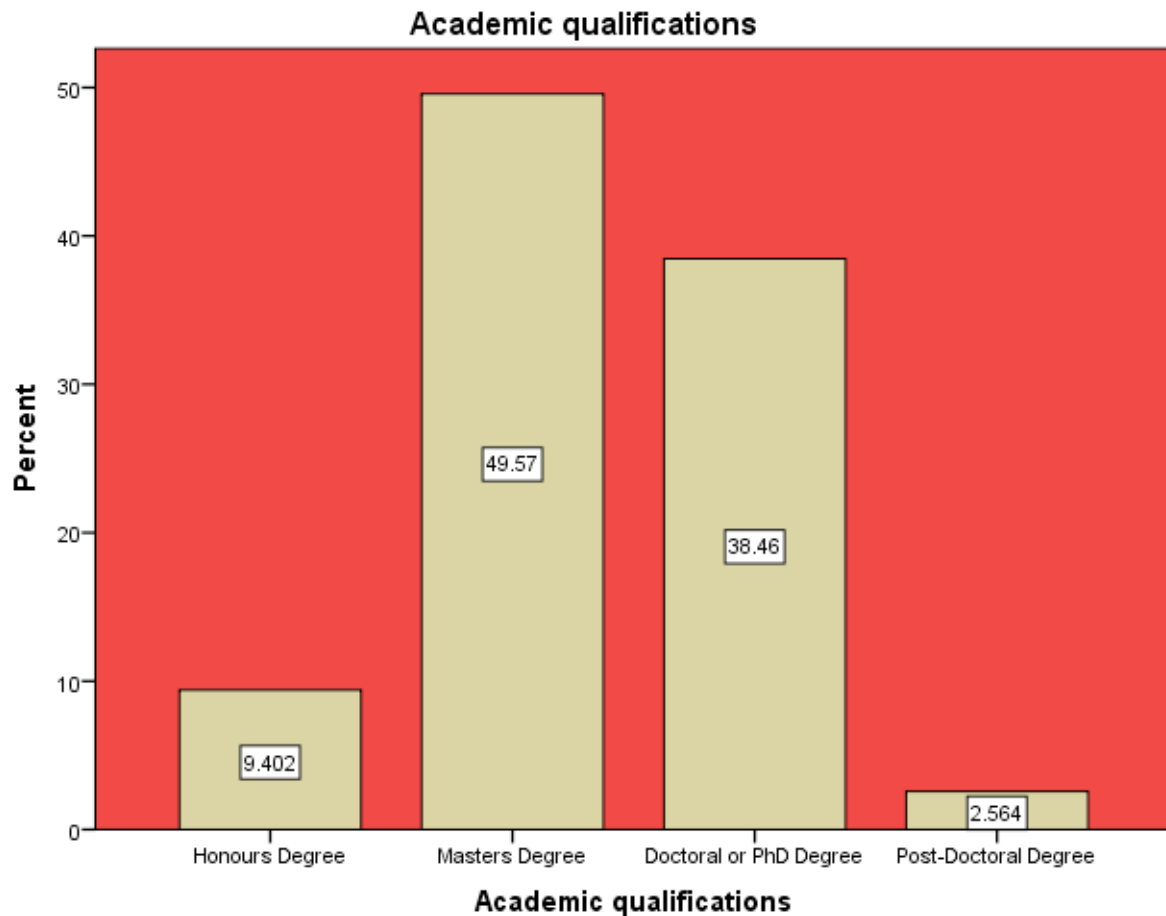
Diagram 3.2: My research participant's academic qualifications at Walter Sisulu University, Nelson Mandela Drive in 2012 academic year.

Diagram 3.2 demonstrates that an urgent effort should be made to encourage academics to further with their studies after attaining a Master's degree so that they attain doctoral degrees as a minimum qualification for a university teaching position. While expanding access to the underserved universities in Africa, but eligible population is commendable, but the pressure of the enrolment growth of the capacity of universities to provide quality education is a serious problem, especially as it has not been met by an adequate expansion in academic staff (SASRUA Leadership Dialogue

Series, Volume 4, Number 1, 2012, pp. 7). From early 2000s, universities have resumed regular staff recruitment, and this created the additional problem of badly skewed age profiles of university staff. The majority of staff members were either at the lowest level of tutorial assistants and assistant lecturers, or at the highest level of professors and associate professors. This situation according to Mukandala (2012, p.7), is exacerbated by poor capacity of most universities in the region to offer postgraduate training to their staff, or to facilitate their training elsewhere. Together, the two problems of general staff shortages and the skewed age distribution put in jeopardy the very foundations and basic reproductive capacity of universities in the Southern African region, let alone the quality of their scholarly outputs. The situation calls for concerted efforts in capacity-building, especially in the area of staff training and retention.

Another challenge is that, most young academics, after finishing their doctoral qualifications leave WSU for greener pastures, that is to say, for better high paying positions outside academia or they leave for other universities with different working conditions from WSU. How to obtain the necessary resources for the achievement of these objectives is a challenge that requires innovation and increased collaboration between universities, government, private sector and the communities that the university serves. In trying to determine how can the university can counter this trend, I examined several key issues, including whether more professors would undertake research if they received extra money as an incentive for doing more research. Through this information I was trying to prove that, very often, action research needs qualitative information, but I needed some sense of the scale of numerical information, that is, some element of quantification just to show how important was the level of qualifications was at WSU.

Other questions were as follows:

(6) Please, rate research training practical services being rendered by the Research Associate at the Research Resource Centre;

(7) Are there any promotional activities regarding the importance of research by academic lecturers being organized by the Research Resource Centre throughout the academic year? and

(8) Do you find doing research as one of the priorities amongst academic activities being promoted and supported by the Research Associate at Walter Sisulu University, and so on.

What I had in my mind at the time I compiled my questionnaire is that the methodology that I chose would be able to assist me in establishing effective ways of changing the way I do my work, from my research participants' perspectives. For example, as far as question (7) above is concerned, this is how it is answered:

Out of 120 participants, there were only about 80 academic lecturers whose responses were: 'yes' there are promotional activities regarding the importance of doing research by academic lecturers that are being organized by me as a Research Associate (whose responsibility is to facilitate exactly such activities). On the other hand, 32 academic lecturers said: 'no', meaning that, as far as they are concerned, there were no promotional activities regarding the importance of doing research by them. Surprisingly, another 8 academic lecturers could not answer this question. It therefore means then that, out of 120 candidates, 40 did not have any idea of such activities regarding the importance of doing research as academic lecturers. It goes without saying, that indeed, improvement in terms of how I facilitate research capacity development needed practice improvement. By practice improvement, I refer to the betterment of my work. As McNiff (2002, p.9) asks the question, "How can I improve my practice?"

Table 3.3: Frequency table that demonstrates the number of research participants who confirm the availability of promotional activities being organized by the Research Resource Centre.

Are there any promotional activities regarding the importance of doing research by academic lecturers being organized by the Research Associate at the RRC throughout the academic year?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	80	66.7	71.4	71.4
	No	32	26.7	28.6	100.0
	Total	112	93.3	100.0	
Missing	System	8	6.7		
Total		120	100.0		

All techniques that I used to collect data are equally important albeit different. I also used the semi-structured interviews, which is a common technique, typically used to collect qualitative data, but Leedy (1997), however, counsels that avoiding statistics or hating mathematical calculations is not a good reason for choosing a qualitative study. Equally, fearing the complexity of the answers that I would have received is not a good reason to avoid qualitative work. My own research skills came into place as to why I needed to undertake such a research study myself about myself first (self-reflective practice), and what type of help I needed to buy in, but this did not restrict the kind of information that I was able to collect from academic lecturers while undertaking the self-reflective action research model.

Initially, my intention for undertaking this study at Nelson Mandela Drive campus was to measure academic staff members' responses, a number of research participants in which I will, in the next chapter fully present research findings in terms of numerical

data, and I call this 'quantitative research' as it measured quantity of responses from Walter Sisulu University. Quantitative research is generally formalized. It is usually based on some form of 'logical positivism', which assumes there are stable, social facts with a single reality, separated from the feelings and beliefs of individuals. Quantitative research seeks to present statistical results represented with numbers (McMillan & Schumacher, 2001, p.15). To do this, I manipulated and controlled certain 'variables' (the factors that have affected the outcomes of this study) to test a 'hypothesis' (a statement that I made which predicted what would happen or explain what the outcome of this study was). For example, question (8) of my questionnaire asked research participants if they find doing research (the independent variable) as one of the priorities amongst their academic activities being promoted and supported by the Research Associate (the dependent variable) at Walter Sisulu University?

To confirm or reject this hypothesis, research participants in their responses were asked to indicate if they prioritize doing research by choosing 'yes' as their answer to this variable or they would choose 'no' if they do not take research as their priority. From the research findings of the above question, I was able to determine and compare the number of academic lecturers who confirmed that they do research (73%) as against those who reject doing research as their priority (26%). The emphasis is on precise measurement, the testing of hypotheses based on random sampling which I used Statistical Products and Service Solution (SPSS) to analyze this data. By random (sample) I mean a representative sample chosen from a population in such a way that every unit (few academic lecturers) in that population was equally likely to be selected. As an action researcher, I am committed to taking action and effecting positive educational change based on my findings, which is why I am concerned with the status of research productivity at Walter Sisulu University as compared to other South African Universities research outputs. This is why my main objective of this study is to examine what might have caused the decline in research activities and productivity and how it could be reversed through an action research intervention, more especially if the research findings show a high number of lecturers who are prioritizing on research.

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Therefore, the quantitative research focused on controlling a small number of variables to determine cause-effect relationships and the strength of those relationships. This type of research used numbers to quantify the cause-effect relationship. According to Mills (2007, p.4), quantitative researchers generally have little personal interaction with the participants they study, since most data is gathered using paper-and-pencil and non-interactive instruments.

The validity or the truth or trustworthiness of the research findings in quantitative research includes the application of statistics to questionnaire constructions as well as the use of statistical hypothesis testing. This is the reason for using Statistical Products and Service Solutions (SPSS) software to capture, edit and analyze my data for validity purposes.

Finally, Section C was an open-ended section wherein questions that respondents were free to answer in their own words and could express any ideas they thought to the questions. No choices or alternatives were offered in this section. These questions are appropriate for opening questions since they are in line with how research capacity development was facilitated; from the respondent's point of views, how they wanted research to be facilitated at Walter Sisulu University by the Research Resource Centre. Furthermore, these types of questions in this section influenced the respondents less than the multiple-choice or dichotomous questions. Some of the major drawbacks of open-ended questions are that, according to Struwig & Stead (2003, p.92), they allow for considerable degree of bias on the part of the interviewer and that they may demand a difficult and time-consuming tabulation of responses.

3.8.2 Qualitative Data from Interviews

As previously noted, in most cases it would not be possible to obtain data from all members of a specified population and therefore, some kind of selection process, or sampling was performed. If sampling is done with care, the results from that sample should reflect closely those that would be obtained from the population as a whole.

With a perfectly representative sample, it should begin to resemble the population of all academic staff members at Walter Sisulu University, Nelson Mandela Drive campus. This is a data from a relatively small number of cases that I obtained. When the sample size is large, generally speaking, questionnaires are found to be the most commonly employed instruments to gather data (Verma & Beard, 1981; Cohen & Manion, 1989). However, I preferred to use both questionnaires and interviews hence I used both quantitative and qualitative research methodologies.

According to Brydon-Miller (2003, p. 14), action research entails empathy and listening while working with the colleagues, this study is a commitment to basic values like human creativity and democratic participation which is based on the perception of social reality as a continuing process with individual academics being subjects of their history and the social contexts they are dependent on. In this study, I have predominantly worked within both quantitative and qualitative paradigms as the data was more in the form of questionnaires and interviews. The use of both interviews and questionnaires within a qualitative and quantitative study often provided me with ideas for further exploration after the data was transcribed for the purposes of using N'Vivo and SPSS softwares to capture and analyze it. I must stress that qualitative data is not inferior in status and, in action research, it can illuminate human feelings and provide rich insights into actions and their consequences. What was important was to first come up with relevant questions to ask, as my key research questions in a form of a questionnaire, as attached in Appendix A.

By using qualitative research method, I presumed I was able to understand the environment in which I work, I could then develop subjective meanings of my experiences. The goal of the research capacity development is to rely as much as possible on the participant's views of the situation being studied. As Cohen et al (2007, p.166) justification of the use of qualitative method also provides support for the action research in educational context. To understand the situation that Walter Sisulu University finds itself in, I needed to understand the context because situations affect behavior and perspectives and vice versa.

Interviews are a frequently used method for collecting qualitative data in educational research. Questionnaires are a frequently used method for collecting quantitative data in educational research. There are several good reasons for having used both interviews and questionnaires.

Firstly, unlike questionnaires, interviews allowed me to engage with my research participants individually face to face.

Secondly, interviews are also a very flexible research tool which I used to gather a range of different types of information, including factual data, views and opinions, personal academic narratives and histories, which make interviews useful as a means of answering a wide range of research questions. The opportunity for a dialogue, which interviews provided me with, allowed me to probe, and clarify and check whether my interviewees understood correctly what was being asked. This is why Jean McNiff (2002, pp.3-4) describes action research as an approach that encourages practitioners to be in control of their own lives and contexts. McNiff and Whitehead pointed out that action research is based on 'the deep need to experience truth and beauty in our personal and professional lives'. Referring to 'I' as the first person, Reason and Bradbury (2001, p.386) also argue that 'the first person research practice brings inquiry into more and more of our moments of action, not as outside researchers but in the whole range of everyday activities.' This action research study addressed the ability of 'me' as a Researcher Associate to foster an enquiring approach to my own working life to create my own living educational theory' (Whitehead, 1993, p. 68).

This is why Barret and Whitehead (1985) propose an action research framework, which focuses on a process of reflection to promote change and enhance professional learning. This framework which is outlined below was later adopted by McNiff (2002):

1. What is my concern?
2. Why am I concerned?

3. What do I think I can do about it?
4. What kind of data can I collect to help me make some judgement about what is happening?
5. How would I collect such evidence?
6. How would I check that my judgement about what is happening is reasonable, fair and accurate?

Having identified my responsibilities as the concerned Research Associate who facilitates research capacity development at Walter Sisulu University, I will, from now on, follow the above framework throughout my inquiry.

Fundamentally, the quality of research experiences provided to novice research practitioners at the university depends on my ability as a research associate to stand back, question and reflect on my previous practices and experiences, and continue striving to make the necessary changes needed for a better research capacity development. Hence, according to Coghlan & Brannick (2005, p.35) reflection is the process of stepping back from experience to process what the experience means, with a view to planning further action. This is true of any research practitioner. This process of reflection and self-evaluation does not happen by accident and I believe that carrying out action research has provided me with an opportunity to be engaged in research capacity development in a meaningful way. With this attitude in mind, hence I now better understand action research as an inquiry, undertaken with rigor and understanding so as to constantly refine my own practice, so that the emerging evidence-based outcomes could then contribute to the process of improving my work.

According to Koshy (2005. p.1), the reason why I chose to use action research methodology to conduct this study is because this method is a specific method of conducting research by professionals and practitioners with the ultimate aim of improving my practice. In the context of this study, action research will guided me as a practitioner to seek ways in which I could facilitate research capacity development by

transforming the quality of research related activities, thereby enhancing institutional research productivity and the production of high level skills needed to advance the objectives of the university. However, according to Lewin (1951), a key value shared by action researchers, is this abiding respect for colleagues' knowledge and for their ability to understand and address the issues confronting them and the community that we all serve. Struwig & Stead (2003) argue that:

> *Knowledge does not start from perceptions or observations or the collection of data or facts; it starts, rather, from problems. One might say: No knowledge without problems; but also, no problems without knowledge. But this means that knowledge starts from the tension between knowledge and ignorance: No problems without knowledge – no problems without ignorance.* Karl Popper (1902–1994), in search of a better world.

I work with academic staff members for whom I organize workshops, trainings, and so on, and some have become close-knit teams of staff members because of the highly needed value of some information that these academic related activities provide to them. For the past seven years, I firmly believed I have, through my values, personality and professionalism influenced a friendly, highly motivated group of dedicated team members who are equally passionate about research productivity. I now understand that academic lecturers, at all different levels within a team or within an institution, whether working individually or collaboratively can make a difference and influence the interest of other colleagues. In this action research inquiry, I examined different aspects of my responsibilities or practices and analyzed my influence on them, how I have performed through academic related activities that I have organized and coordinated or worked jointly with them. Joint activities could have been in form of lesson observation feedback or performance review of individual team members, etc. in my effort to raise achievements within the Research Resource Centre operations.

As a result of this study I believe through the use of both quantitative and qualitative research methodologies to collect data and finally through conducting self-reflective cycles, once completed, I am able to find a better way of changing the way I ought to do my work for better.

However, according to Denzin and Lincoln (1994), the qualitative and quantitative research strategies differ in their conceptions of reality. The quantitative approach has its origins in positivism which sees reality as existing. For example, the object being researched is assumed to be independent from the investigator, that is, the researcher can investigate a phenomenon without influencing it or being influenced by it. Such a philosophy leads to reductionism, in which phenomena can best be understood by examining their fundamental or basic aspects, and determinism that subscribes to the belief that all events have causes. There was a cause indeed that triggered me to conduct this study, and I am directly and indirectly affected by the problem that I am researched on. This is why I started this study by analysis of my own practice inquiry as a self-reflection from academic lecturers that I interact with when doing my work. This is why I still have to conduct self-reflective cycles which I ought to go back to them, as this is an action research method or requirement.

From the qualitative perspective, on the other hand, such as constructivism does not view reality as external to the researcher. 'I', the researcher, personally, is part of that reality, and research cannot be completely objective and value free without my concern as a research associate. Indeed, it is considered that multiple realities exist that are dependent in content to individuals exist as personal reality. Knowledge is therefore based on consensus, as far as this is possible, but can vary according to contextual, that is, academic or educational factors. Therefore, more emphasis of this study is placed on the research participant's perspective (academic lecturers) and their description of events, beliefs and behaviors regarding why there has been a decline of research productivity at Walter Sisulu University since 2006 to date.

Validity in qualitative research is considered unnecessary by some, but failure to validate findings can result in anecdotal reports (Silverman, 1993) that are not adequately analyzed and interpreted. Other researchers, including me, believe that the plausibility and credibility of research findings are essential. This is why Bassey (2002) defined qualitative study as an empirical inquiry conducted within a localized boundary of space and time into interesting aspects of an educational system in order to inform the judgments and decisions of myself as a research practitioner, who will at the end, after a sufficient data has been collected and analyzed, generate valid and trustworthy findings. This is why I considered interviews as one useful tool or instrument in conducting a qualitative research.

The next useful step was to draw up questions for my questionnaire that I used as pre-prepared questions for conducting interviews as well. A list of questions or topics that were included in my interviews which is also attached as Appendix A. The purpose of formulating such a clear schedule of questions helped me to minimize bias by ensuring that all interviewees were asked the same questions about the same issues. Listening to or watching a voice recording of my conducting of interviews was very useful in developing my research skills as this was my first time conducting voice recorded interviews. Listening allowed me to hear whether I was asking questions clearly; whether I was giving my interviewees time to answer and time to think; whether I was doing too much of the talking or interrupting the interviewees with my verbal mannerism or body language; and so on. For this reason, I conducted an action research study, and it was a very good idea to treat my first two interviews that I conducted in the course of my research as my practice interview.

This helped me spot my mistakes, and to review and improve my technique for conducting interviews which followed afterwards. Whilst conducting this research study, the motive behind was to collect some data or information, and according to Jean Baudrillard, 1929 in Struwig & Stead (2003, p.40), information can tell us everything as it has all the answers. Information is:

- Needed to solve the problem;
- Needed to assist in the interpretation of a problem; and
- Required to confirm or refute a specific hypothesis.

These examples specify exactly the type of information, source, nature and form of the information through interviews that I needed to collect for my research participants through interviews. Type of data refers to whether I consider the research data to be numeric or non-numeric in order to determine whether to use SPSS to capture and analyze quantitative data or N'Vivo to capture and analyze qualitative data. Actually, the data that I collected through questionnaires was, firstly, in a form of non-verbal data, and to acquire or verbal data that I used interviews to acquire.

This means therefore, that my study sought one source of data, that is, primary data through questionnaires and interviews. Secondary data is the information that has been collected already by someone other than the researcher. As Schnetler (1989, p.47) puts it, there are two basic question formats that are used in survey research, namely the closed questions (also known as structured questions) and the open questions (also known as the free response or unstructured questions). As attached, Appendix A, has the various types of responses to all three different sections.

3.8.3 Qualitative Data from the Self-reflective Action Research Cyclic Inquiry

In order to determine how can research capacity development could be improved and facilitated in such a manner that academics recognize the need to change teaching and research practices to enhance research productivity at WSU, I used self-reflective action research as the final procedure for my practice improvement. Skerritt (1992) maintains that the process of action research is in fact a spiral of cycles of action and research consisting of four movements: plan, act, observe and reflect, as shown in diagram 3.1 above. This diagram is a basic-research model which has its origins in the work of Kurt Lewin (1946). According to (Atkins & Wallace, 2012, p.133), action research is

transformative, in that it made a difference to my way of doing my work, and I believe it also made a difference to the working conditions of the research participants whom I used to conduct a self-reflective inquiry. I used a reliable group of seven Transformative Educational Studies (TES) project group members in which I am also a member. Basically, the TES project aims to support academics staff members who are pursuing Master's and Doctoral studies using the 'self-study' and 'action research'. These are academics that I interact with weekly and they are the academics that I also interact with when facilitating research capacity development. According to the action research methodology, collecting data once is never enough for the purposes of practice improvement, and because action research is about change, it is supposed to be an ongoing process. I, therefore, evaluated the data that I collected through self-reflective action research cyclic inquiry from my research participants about the way I facilitate research capacity development. This data helped me plan in a spiral of three cycles, that is to say, repeatedly in order to implement changes which I discovered through the conduct of such cyclic inquiry, having been suggested by my research participants. This means that changes made in action research were indeed, specific about myself from my research participants. Another feature of this approach is that it was about improving knowledge in this particular situation, and therefore this was not generalizable. For example, a key aspect of my action research is that I revised and developed my study in cycles, gathering data as a process of inquiry, in order to make a positive change and this new information helped me improve my practice through the spiral of cycles. By practice improvement, I refer to the betterment of the way I facilitate research capacity development, as per the following spiral of cycles:

3.8.3.1 Cycle One: Planning

According to Kemmis & McTaggart (1988, p. 11), the first requirement and a procedure of action research method is:

- Developed a **_plan_** of critically informed action to improve my practice.

For example, as part of my plan, on the 11 of August 2015, I wrote an official letter to the reliable TES group members asking for their permission if they could participate in my study as research participants. I asked if they could reply in writing when agreeing to participate in my study, and indeed, seven candidates responded positively. Soon after I received the seven (7) responses where they were confirming their willingness and acceptance to interact with me during the conduct of my self-reflective cycles of action research inquiry; I then called them into a meeting.

My main objective of this meeting was to take up the first step of my spiral, that is to say, my first step of my first cycle was to plan with them collaboratively on how we were going to work together and what I expected of them. The transformative educational studies project is all about how we can collaboratively improve our own individual practices through helping each other. Firstly, I explained the whole process of self-reflective action research inquiry that I intended to follow with them which included activities that we were going to do together such as: planning, action, observation and reflection. We then set up time frames for the actual actions that I was going to do as a facilitator of the research capacity development in order for them to evaluate me for the purposes of my practice improvement. For example, during this time we discussed the topics that we had agreed upon to be covered by my three self-reflection action research presentations. The topics that they chose for me to present was because they lacked knowledge on them.

In implementing my plan through action research, the research participants found it necessary for me to provide training in these three topics. What does research integrity in academia entail? Of course, participation in such activities was going to be when they are free to participate, so that I do not interfere with their own different work schedules. After agreeing upon the dates for the actual action (1st; 5th & 19th of September 2014), we all diarized these available dates and we agreed that we would start around 10:00, a time we all found it suitable to all of us. We also planned to get

this action research model of cycles over and done within a month period on Fridays except the first presentation which could not be possible on Friday the 29th of August. Initially, our planning included the themes or topics that my research participants wanted me to explore and address, as a research associate. In our plan, we had also included the fact that while doing my three presentations, I would be voice recording them, and this would be dealt with confidentiality, and their anonymity would be protected throughout our interactions. I planned to collect data through the cyclic model of three stages from different themes or topics in a structured and systematic manner to establish what they needed to learn. In our planning we also included time for discussion and evaluation after my presentations so as to find out from them if they did receive the information that they were actually expecting from my presentations. For example, we planned to cover three different presentations on topics that I agreed upon with my research participants which took place on different dates, as agreed in advance as follows:

1. On Monday 1st September 2014, my first self-reflection presentation was on: **Research Integrity in Academia**;
2. On Friday 5th September 2014, my second self-reflection presentation was on: **How to Design a Questionnaire**? and
3. On the 19th of September 2014, my last hands-on training was on: "**Defining, entering and editing data using Statistical Products and Service Solutions (SPSS)**"

After each and every presentation which took place, within three hours, discussions and question and answer session took place before I could be evaluated in a form of a questionnaire that I had designed myself based on every research capacity development presentation. My research participants' personal feedback information would assist me in planning for the next stage, which was an implementation stage of action. I make changes in the light of their evaluations and conclusions for the sake of improving my next presentation, which was cyclically acted upon, observed and re-

evaluated in order to be able to make further changes in the way I facilitated my presentations. Changes that I made informed further planning for a further data-gathering as I continued in cycles in trying to make ongoing changes for the purposes of my practice improvement.

3.8.3.2 Cycle One: Action

After having planned my first action then I started acting upon it to implement my planned action. This meant that action, at this stage, was being guided by my planning in the sense that action looks back to planning for its rationale.

- *Act* to implement the plan,

As per the agreed upon dates from our planning then my main objective of the second step in my first cycle was to implement exactly the first action step in the overall plan. My action involved myself as a person who does the action to my research participants whom I used as an audience listening to my presentation. For example, according to my plan we had agreed that my first presentation would be on the first topic on: "**Research Integrity in Academia**" on Monday 1st of September 2014 from 14:30 to 17:30. We had planned to hold a first presentation on Monday because this was the first date that we found suitable. Although in our meeting we had agreed upon using Fridays, we then planned to hold the first presentation on a Monday instead of waiting for the next Friday the 5th. We had planned to use the Research Resource Centre as it is big enough to take an audience of nine candidates. In breaking up the plan into achievable steps, firstly I planned or devised a way of monitoring the effects of the first action step which was based on my plan on how I would do my first presentation, and indeed, according to my plan, the first topic was going to be on: "Research Integrity in Academia**"**. This means that from the basic cycle, I then spiralled into developing the second action step, where I implemented the first planning step. My other responsibilities are as follows:

- I identify 'best practices' needed that are related to the promotion of the research culture amongst academics and postgraduate students, and implement them;
- Promote research culture within and outside the university;
- Encourage research development appropriate to the university focus areas;
- Stimulate research output by providing a research-friendly environment, attracting and keeping high quality staff and students and building research capacity amongst both academics and postgraduate students;
- Improve facilities that are enabling effective research; and
- Foster collaborations amongst colleagues and with other institutions; etc.

In implementing my plan through action the research participants had found it necessary for me to provide training in this topic. For example, this is what research integrity in academia entails:

A research being undertaken by any researcher must comply with the highest standards of ethics and integrity in the conduct of academic research, terms and conditions that are relating to the research project and allows for proper governance and transparency.

This means that the value and benefits of research are vitally dependent on the integrity of research. While there can be and are national and disciplinary differences in the way research is organized and conducted, there are also principles and professional responsibilities that are fundamental to the integrity of research wherever it is undertaken. For instance, principles of research ought to be as follows:

Honesty: in all aspects of research;
Accountability: in the conduct of research;
Professionalism and openness: in working with others; and
Good research management: of research on behalf of others.

As I presented my first topic on research integrity, which was a straightforward process, the new data started coming out in a discussion (question and answer format) after the actual presentation. In advance, I had planned and asked for their permission if I could record the presentation together with its questions and answers session for data collection purposes, and we had agreed upon this. I also asked if they could evaluate my presentation through a questionnaire so that I knew exactly where to improve my presentations, if necessary. In all the steps and presentations, I was subjected to critical reflection by my research participants. I must say I was a bit nervous during my first presentation, and I did not allow for any questions during the presentation until the end, then I allowed time, as planned, to engage my audience in a question and answer session. During the question and answer session, I was able to figure out that my research participants understood very well the importance of my presentation, and from the questions that they asked.

In a nutshell, action in the sense intended at this stage was deliberate and controlled by the first step of having been planned in advance. Action was, therefore, a careful and thoughtful variation of practice that had been planned. This step of action recognized practice as ideas-in-action and used actions as a platform for the further development of the later implementation, which was action with a critically informed educational intent, which indeed also had to be observed.

3.8.3.3 Cycle One: Observation

From the action stage of making the actual action into practice, the general plan was revised in the light of new information based on the presentation which was the second action step which was built from the implementation of the plan through the actual action by a presentation along with appropriate monitoring procedure which was followed by an evaluation thereafter.

- ***Observe*** the effects of the critically informed action in the context in which it occurred.

One of the ways in which my action became a different step is that the actual presentation that I made in front of my research participants as an action was now being observed. Practically speaking, observation took place during discussion time soon after my action of presentation. Hence I am saying during this time I was able to know from their presentation that what I presented was understood very well. Therefore, my objective, during this stage, was to determine if there are problems that needed to be revised in my second presentation as per my research participants' observations as well.

Judging from their questions and responses, I observed the fact that our interaction was so fruitful and very interesting. Moreover, through the evaluation questionnaire I was able to figure out the mistakes that I needed to improve on in my next topic presentation. Through my observation I was also able to tell how good and bad my presentation was. In actual fact, in order to be able to evaluate myself and also be evaluated by the research participants based on my presentation, it could only be through putting an action into practice and be observed. For example, as I made my first presentation, I had anticipated the questions that I was likely to be asked during the discussion and through evaluation forms or through a questionnaire. I actually drafted the evaluation questions for after my presentation. As a matter of fact, observation has the function of documenting the effects of critically informed action. In actual fact, observation looks forward to providing the basis for reflection. As adopted by Kemmis & McTaggart (1988, p.12), observation is, on its own, different from reflection; it is a step after action has been completed and just before reflection step can be done. In a way, observation is almost the same as reflection for me to be able to revise my plan for a revised action. I am, therefore, presenting observation as a step in a cycle on its own as observed from Kemmis and McTaggart.

Careful observation is always necessary because action that I took was likely to be limited by constraints of reality, and all of these constraints, like during the planning

stage, would never be clear in advance. Only when I came to this to this observation stage was I able to identify some problems with the previous steps. For example, through my observation, I was able to see if my presentation was good or bad, and if I needed to revise my action, it could only be through my observation.

This is why I could only see the effects of my observation from the context in which it occurred so that there would be a documentary basis for subsequent reflection. Furthermore, I made it clear that observation plans must be flexible and open to record the unexpected. This is why my questionnaire had open-ended questions so that my research participants were not limited to questions asked but were free to elaborate further on their answers. This was because these questions could be biased, especially, having been drafted by me.

I also made it clear to my research participants that during discussion they were allowed to ask questions as much as they could about the topic and the way it was presented. However, this is something that I observed as being unfair to my research participants, and indeed, I planned to change this so that in my next presentation, I could engage my research participants from the beginning of my presentation. I was not the only one who was observing, I was also being observed by my research participants or audience during my presentation. For example, while observing their attitudes towards my presentation and the effects of my presentation to them (intended and unintended) the outcome helped me to re-plan my next presentation for better. Initially, all of my presentations were about my practice improvement in cycles. This means that observation somehow contributed to the improvement of my practice through greater understanding of one another, that is, between me and my research participants and through open discussion. However, observation subject matter will always be through action, its effects, and the context of the situation in which the action was taken.

In this first cycle observation, I realized that what I presented on was not being known by most of my research participants. Few candidates knew about the importance of research integrity in academia. Probably, this is because of a lack of research

productivity at WSU. As a matter of fact, I do not remember hearing about any workshop on research integrity at WSU. Even I had attended, for the first time a training on research integrity in August 2014, just a month before I conducted the same training at WSU to my research participants.

3.8.3.4 Cycle One: Reflection

The evaluation, following the observation stage, based on the action stage of the 'Research Integrity in Academia' presentation amounted to a fresh inspection (reconnaissance) which prepared the way for new planning, but of a new different topic in which I, together with the research participants had earlier planned. Actually, reflection stage took place in a form of an evaluation questionnaire that my research participants were given just after observation to reflect on me and the presentation that I had just done. This reflection was to give me a kind of guide on how I can improve my practice as a Research Associate, whose responsibility is to facilitate research capacity development. I must confess that repeating one topic three times for the sake of correcting mistakes in one cycle would have been a waste of time. However, testing three different cycles on three different topics, was practically of my research participants' benefit, and this helped them understand the action research model practically. Somehow, the action research cycle model has, in itself, capacitated them on more than just one initial idea. Instead, we collaboratively identified three different research related skills or ideas that they needed to be trained on or exposed on. This was like killing three different birds by one stone. Meaning that, all research practitioners gained a lot at the expense of just one Kurt Lewin's action research cyclic model that I followed.

The reflection process was conducted as follows: reflection recalls action as it has been recorded in observation, but it is also active to be judged, and the whole process needed to be repeated for the practice improvement purposes. The main objective of the self-reflection by the research participants was to make sense out of this process,

through problems that I encountered. This also ensured that issues and constraints exhibited during previous stages are identified, that is, during planning, action and observation, so that in the next cycle, they could be corrected and avoided. For example, my reflection was guided by the discussion among research participants and a feedback from their listening to my presentation. Their views helped to improve my action, that is, through observation of my presentation, which is the way I facilitate research capacity development. Through the discussion of the topic, group reflection led to the reconstruction of the meaning of running the spiral of cycles and this situation provided the basis for the revised plan for the second cycle.

- ***Reflect*** on these effects as a basis for further planning, subsequent critically informed action and so on, through a succession of cycles.

Reflection of the way I facilitated research capacity development through my first presentation had an evaluative aspect. Somehow, reflection required me to weigh my experience to judge whether or not effects of my presentation about Research Integrity in Academia was necessary and desirable or not, and suggested ways of proceeding to the cycle 2 with tips on how to improve my practice. For instance, the outcome of my first reflection was that having such a presentation on a Monday afternoon was, in itself, not convenient. Usually, people are too exhausted in the afternoon to listen to involved topics such as research integrity in academia. What is good about reflection though is that: it is descriptive as it allows reconnaissance, builds a more vivid picture of life and work situations, constraints on action and more importantly, of what might be possible for my research participants. Furthermore, it is beneficial for them as individual academics who ought to be committed to the university goals that are being promoted in my presentations and my facilitation of research capacity development. The questionnaire that I devised for the sake of self-reflection from which qualitative data was collected in an open-ended format, and had the following questions:

Questions:

I believe a feedback from the following questions will lead to the improvement of the way I do my practice as well as suggest thoughtful ways to improve in different ways, and make instructional improvements during my facilitation of research capacity development at Walter Sisulu University.

1. Do you feel there is a need for a better facilitation of research capacity development at WSU, judging from Nkosinathi Sotshangane's presentation on Research Integrity in Academia?

2. What do you think should be done to improve the way research capacity development is facilitated by Nkosinathi Sotshangane, based on this particular presentation?

3. Generally speaking, what are the current responsibilities and duties that according to you the services that Nkosinathi Sotshangane is rendering as a Research Associate must include?

4. What do you think is the cause of a decline on research productivity at WSU?

5. What would you suggest that Nkosinathi Sotshangane should do to motivate both academics and postgraduate students in order to prevent decline of research productivity at WSU in future?

6. Do you think research related activities as organized by the Research Resource Centre at WSU should be more regular, or how many times should we hold such activities in a year?

7. Do you think your current job, other than teaching has explored your potential to do research to the fullest? What are the changes that you would like to see in your current work situation, or you would like to point out?

8. Would you encourage collaboration or team work in your area of studies or department, for the purposes of improving research output in terms of publications by WSU, as this is being encouraged by the Department of Higher Education and Training (DHET)?

9. How would you define success in your work environment, teaching or doing research? What would you consider to be essential to the training program of your choice to be organized by Nkosinathi Sotshangane?

10. What are the benefits that you would expect to gain from any training and development program facilitated by the Nkosinathi Sotshangane?

11. Please, share a word of advice from your experience that has a research related significance during the time you have been serving in this university and the time that you have interacted with your colleagues, whether positive or negative towards research.

During the whole process of cycle one, I was at the same time collecting data from my research participants in a form of spiral. Through reflection, I was able to learn that my presentation was too long and not suitable to be run during afternoon. This means that my first plan could not go exactly as I planned; I then needed to revise the general plan and go back to the first stage of planning again, that is, act, observe, and reflect again in cycle two. I also noted that in my second cycle, I have to avoid asking too many questions unnecessarily. This meant that from the basic cycle, I would then spiral into developing the second step which is to re-plan my action research and then implement the second action research step, reconnaissance, evaluate, develop the third action

step, implement the third action step, reconnaissance, evaluate, and so on, whenever necessary due to identified problems until I eventually got my action research model right.

In a nutshell, I learnt, throughout the first action research cyclic process that plans for action must always have a tentative and provisional quality; they must be flexible and open to change in the light of circumstances. Sometimes, actions may require instant decisions about what is to be done immediately, inclusive of the exercise of practical judgement.

3.8.3. 5 Cycle Two: Planning

Planning in every cycle was necessary and it helped to improve my first practice and avoid mistakes committed during the first cycle. For example, the day in which my first presentation took place on Monday afternoon, was so awkward and all seven research participants who participated complained about the time the presentation took. They said on Monday afternoon, people are usually tired and cannot concentrate in the afternoon. Secondly, the presentation was too long and could not be finished in three hours, and it ended up taking longer time than it was scheduled for. Thirdly, during my first day of presentation all members of the Transformative Education/al Studies (TES) group whose consent forms I received were able to attend but they preferred Friday mornings. Following from these three identified problems that I encountered, the second time around, I planned to be flexible and open to change in setting up a suitable date for the second cycle. We decided to set up the dates and diarize them in advance so that we worked according to the planned schedule.

What is good about the cyclic model is that, even when I had to do the second cycle, I still had to first revise my planning again. This time around, it was easy because my plan was only to revise whatever I had experienced as problems.

During cycle two, I again planned to include my research participants in my planning so that we could collaboratively plan in advance and to avoid unintended disruptions. My main objective was to avoid unintended disruptions. This time around, research participants asked if I could share with them all the presentations so that they could refer to them whenever necessary, therefore, the topic that we all agreed upon was important as they were expected to know such information.

We then collaboratively planned to hold the second presentation on Friday, 5th September 2014 from 10am to 1pm. On Friday afternoons, most academic staff members are usually not very busy in their offices, so they made time to attend the presentations as per their commitment. They also expected to benefit to benefit from these presentations, as they were the ones who chose them. I realized that the first evaluation questionnaire that I issued after the first presentation had eleven questions and found these to be too many. Therefore, during the second cycle I reduced them to eight questions in order to avoid unnecessary questions. I must admit I planned the number of questions all by myself without involving the participants; the study is about me, and I am the one who knows exactly the kind of data that I needed for the purposes of my own practice improvement. However, this was in agreement with my research participants. In a nutshell, collaborative planning made things easier, structured and systematic in advance.

3.8.3.6 Cycle Two: Action

An implementation of an action step is not always easy, and I could not just proceed to the observing step and evaluate the effects of my second action until I had monitored the extent to which my previous action was implemented. I, together with my research participants, had planned (during the first cycle planning stage) the topics that I was going to present during my action step, and we had agreed on how different the three topics were going to be. Therefore, my action for the cycle two was completely different

as it was based on a new and completely different topic. For example, the second action as my presentation of the second topic was going to be on: "**How to Design a Questionnaire?**" This is where I had to implement my revised plan before I monitored and evaluated it again. The main objective in this cycle was to make sure that monitoring, evaluation and re-planning continued. Lewin's (1946) deliberate overlapping of action, observance and reflection was designed to allow changes in plans for the second action as I learned from my previous experience. We therefore agreed together with my research participants on a revised plan which included a new different topic for cycle two because they wanted to learn new information as much as they could from all three cyclic actions. My action for the cycle two stage was based on why is it so important to know how to design a questionnaire and its purpose. My action was guided by a revised planning as elaborated by the refined diagram 3.1 in chapter three of action research cyclic model by Zuber-Skerrit (1995).

I reflected on my second planning in the sense that I wanted to avoid mistakes committed as a result of the first cycle planning. The second cycle action step model allows for flexibility so that there was a practical improvement in terms of putting my practice into action. My action in this cycle was to share some information on how to design a questionnaire that my research participants needed to know, based on the first planning stage.

A typical revised example of my action was to teach my research participants about how to design questionnaires when doing a research. In order to avoid mistakes committed earlier, I made my presentation shorter than the first presentation so that we could finish on time. For example, a summary of what this topic was about is a content of my presentation which is as follows:

When doing a research, researchers from all fields have to answer the same questions. In short, these questions entail:

What do you want to research about?
Why is it so important to you or anyone else?

How are you going to do your research?

When are you going to do the research? and

What resources will you need to complete your research?

Each stage of research deals with one or more of these questions. However, a good researcher is not someone who knows the right answers, but someone who is struggling to find out what would be the right questions to ask research participants in order to get reliable and valid information?

I found it important to be self-reflective when constructing my evaluation questionnaire through writing down my own reasons for choosing such a research instrument (questionnaire) to conduct my study in particular, and even for my evaluation purposes of my presentation. Fundamentally, every questionnaire must have a purpose, that is, it must draw from some underlying hypothesis about what are the important facts or opinions and even make some predictions about which facts may be much more relevant than others.

I also believe in the fact that if I could not come up with a good rationale and a good justification to show the significance of my action which was to tell my research participants about the importance of the purpose of using a questionnaire when conducting my study, as a research instrument, then there would be no use for me to conduct my triangulation research study. In the first place, doing research is about getting data. The term 'data' simply refers to the items of information that is produced through research. Using my research participants I needed data from them to evaluate and be able to change the way I do my practice. What is important in research is transforming data into information for knowledge purposes. Once I classified and processed the data that I received from them through action, I then needed to observe this data and evaluate and interpret its results for the purposes of practice improvement.

To put this simply, it means that action research is the way that I, as a researcher can organize the conditions under which I can learn from my own experiences, and make this experience accessible to others, that is, to the research participants.

3.8.3.7 Cycle Two: Observation

In each cycle, careful observation was always necessary because action is always limited by constraints of reality of the subject or topic, and all these constraints would never be clear in advance until proven during the time when I put action into practice. My observation was therefore necessary again so that there would be a documentary basis for my subsequent reflection, which is open-eyed and open minded. The second topic on which I based my observation on was much common but important as well, compared to the first cycle presentation. I made my second topic presentation was more structured and shortened so that I would be able to cover and discuss satisfactorily most information satisfactorily within three hours. After I finished my presentation, the first question (self-evaluation) that I posed to the research participants during discussion was: "How important and necessary was today's presentation? The objective of my question was to see if my research participants were happy with the information that I provided through my presentations and how important or valuable these presentations were.

Although responses were not in the same wording but I was able to conclude and infer that all five candidates who participated this time around said it was good, informative and important for them as they would be soon be required to collect data for their own studies. There was nothing much from my second cycle observation, except the fact that I had collaboratively planned to have a different presentation for my third and the last topic which in itself, needed to be observed. I decided to structure my last (third) cycle presentation so that it had a hands-on session where participants would be required to put into practice what I was going to present.

In a nutshell, my observation was always based on my action that I had earlier taken, as per the spiral of cycles, whether successfully or not, but my action is the one that resulted into observation from which I would be able to determine if I needed further action and more reflection. Of course, I would do observation for the purposes of my practice improvement during the next cycle. The context in which the action must be

taken also played a role, and the observation did not actually end with cycle two. My next cycle (three) also needed to be observed just before reflection.

3.8.3.8 Cycle Two: Reflection

Initially, reflection cyclic model is a step based on observation made from the previous action for knowledge purposes in order to improve the next action. To me, reflection came after an observation stage through a questionnaire that I had designed to help me collect data from my research participants' perspectives as a feedback to help me improve my practice. Without reflection my action would never be considered complete and genuine action research. Reflection was, therefore, a critical component of my action research. As a matter of fact, changing my action would not come about as a result of spontaneous action, but through reflection on an understanding of specific problems that came out of my presentation. I was told by my research participants that my action or presentation did not have citations, and my attention was drawn to the importance of using references. From these problems, I then learnt that there is therefore interplay between understanding and changing my action. Understanding of my presentations to me was motivated by my interest in knowing the purpose of changing. Of course, changing would lead to a clearer understanding of a particular situation for the purposes of improvement. Therefore, reflection was a tool for promoting my action, meaning that action research is intended to lead to actions which promote improved practice. For example, the questionnaire that I revised for the purposes of reflection from which qualitative data was collected in an open-ended format, and is reflects below:

1. *How important and necessary was today's presentation by Nkosinathi Sotshangane?*
2. *Did you find any value in today's presentation by Nkosinathi Sotshangane, for whose benefit?*

3. *What did you like about today's presentation by Nkosinathi Sotshangane?*

4. *What is it that you did not like about today's presentation?*

5. *Would you encourage your colleagues or postgraduate students to attend Nkosinathi Sotshangane's presentation on Questionnaire Design?*

6. *What do you suggest Nkosinathi Sotshangane should consider for when this presentation is done again?*

7. *What would you consider to be the most essential aspect from today's training program by Nkosinathi Sotshangane?*

8. *What other benefits would you expect to gain from another training and development program facilitated by Nkosinathi Sotshangane in future?*

The TES group that I collaboratively interacted with during the self-reflective evaluation questionnaire, five research participants participated and the other two excused themselves due to other commitments. Their responses show that my second presentation was so important to them; they liked it, valued it, and agreed that they would encourage their colleagues to attend it, and so forth. Actually, a detailed analysis of this data is done in the next chapter four. However, I was able to identify few mistakes from the reflection of cycle two. My research participants cautioned me on having left out references in my presentations and the fact that the other two TES members could not make it during my cycle two. This means that I still needed to spiral into developing the last cycle in which I implemented the third action research step.

3.8.3.9 Cycle Three: Planning

Planning on improvement of my last cycle (three) was based on research participants' feedback which was that I would have to include referencing and citations. My objective for the third cycle, therefore, was to structure the third cycle's action, observation and reflection steps. This was done so that my research participants would have a practical session to as to be able to test their understanding of my two previous presentations. We collaboratively planned to also correct few mistakes that I had committed

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previously. Cycle three initially was in the form of training which was to put into practice what I had taught them in the previous cycles. I knew in advance that a hands-on session would be so interesting to my research participants, and they learned a lot from this cycle. Most of them had indicated earlier that they had never been exposed to the Statistical Products and Service Solutions (SPSS) before. During cycle three, six TES members attended and participated in this training.

This cycle in particular, included a hands-on practical session, and I asked if participants could take one more hour for the practice after the actual presentation. No-one complained about time as I had discussed and planned the dates with them in advance. For their understanding as well, they needed to master a hands-on practice as I was observing them after my presentation and they themselves reflected on their understanding and the way this new hands-on session was so interesting to them. I had earlier been able to cover all the information in three hours (especially in cycle two) because of my research participants' cycle one's observation which I corrected in cycle two. Indeed, they agreed on allocating four hours to our (collaborative) action, observation and reflection process. The main purpose was to engage my research participants fully in the understanding of the third topic that they themselves had chosen. The topic that we had earlier agreed upon collaboratively was on: "Defining, entering and editing data using Statistical Products and Service Solutions (SPSS)".

In order to be successful in the conduct of my action research study, I had to plan and re-plan and re-planned in such a way that I was able to draw from my research participants' understanding into the arena of my actions and my observation together with their observations and finally from their reflections of my actions. My goal in the first planning consistently all my activities was to work towards a better understanding of my research participants' situation in order to effect a positive personal and social change and improvement. Changing social relationships usually requires that others also change their perspectives on the way I relate to my research participants, and how my relationship with them fit into broader fabric of relationship which structure society.

3.8.3.10 Cycle Three: Action

In the third cycle the general idea was to finally implement the revised planning of my action which was going to be through the presentation of a third topic on: "Defining, entering and editing data using Statistical Products and Service Solutions (SPSS)". During the third cycle action, I first made a short presentation first which was followed by a practical hands-on session. As confirmed during our planning, I included references in my presentation, for the six TES members (research participants who were available on the 19th of September 20140 to attend cycle three. As per our planning for implementation during this step, I first explained what SPSS is meant for. Initially, my presentation was about what research participants are required to put into practice in order to understand how SPSS works. Then, during practice sessions, I had to go to each and every participant during the session in order to guide them on what exactly they were required do to define, enter, and edit data using SPSS.

For starters, some participants were not sure what SPSS stood for as it is an abbreviation for: Statistical Products and Service Solutions.

The summary of my action (presentation) which also entailed practical session was as follows:

The main question that researchers who are to do research should be asking themselves right at the beginning, before they actually start with their research is: What methodology will I use to conduct my research? Different styles, traditions or approaches use different methods of collecting data, but no approach prescribes nor automatically rejects any particular method. For example, quantitative researchers collect facts and study the relationship of one set of facts to another. They measure, using scientific techniques that are likely to produce quantified and if possible, generalizable conclusions.

Researchers adopting a qualitative perspective, on the other hand are more concerned with understanding the individual's perceptions of the world. They seek insight rather than statistical analysis. However, classifying an approach as quantitative or qualitative

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does not mean that once an approach has been selected the researcher may not move from the method normally associated with that style. Researchers would probably find that the research goals will only lend themselves to one particular form of research, although there are cases where more than one technique may be used.

Whenever researchers gather data, they are collecting information or observing some phenomena. Many statistical techniques are only appropriate for data measured at particular levels, or combinations of levels; if they wish to conduct certain tests, it is important that they measure the information in a manner appropriate for those tests. Therefore, whatever possible, they should aim to determine the analyses they would be using before deciding on the level of measurement for each of their variables or questions that they wanted to be answered by their targeted group or research participants.

Through my action, that is, a presentation which was observed and reflected upon by my research participants, cycle action was followed by a practical session. I, thereafter, issued out a questionnaire in order to evaluate my presentation by the six TES group members who were participated in this training as my research participants.

3.8.3.11 Cycle Three: Observation

Basically, in cycle three, my mission was to correct problems or mistakes that had been committed earlier during my observation of cycle two action. From this feedback, I was then able to correct problems identified in cycle three's action. What I observed is that, a practical session always has an advantage of identifying problems, but I fixed these there immediately after I had identified misunderstanding, for example. Actually, the main purpose for my observation in this cycle was to sort out problems immediately, and I asked the participants if they had understood what I had just explained. The challenge with the SPSS training is that, if you do not practice it, you tend to forget its

instructions. Therefore, my observation was based on a revised planning for cycle three which was kind of innovative because cycle three was structured in a way that it had a practical session where I would be able to observe my research participants' use of computers and assisted them with how to define, enter, edit, and analyze data using the statistical products and service solutions, practically.

I did not only observe my research participants doing practical work soon after my presentation, but assisted them whenever they needed guidance and assistance them immediately. What was good about the SPSS training was that we would not stop until all six of my research participants had understood everything before I could go on to the next step. I would ask questions based on my presentation and address misunderstandings immediately, once I realized necessity to do so. As a result, from my observation all six participants enjoyed this session and confessed that they have always wanted to learn how to use SPSS. What was left of them, when we came to an end of the session, was to put all that knowledge into practice alone by themselves on how to define, enter and analyze their own data. Indeed, I continued helping them with some steps that they had already forgotten. This is why I am saying SPSS is usually forgotten so easily if not being used or practiced thoroughly, soon after the training.

3.8.3.12 Cycle Three: Reflection

Reflection is that moment where my research participants examined, constructed, evaluated and reconstructed their concerns regarding my third presentation on SPSS. Evaluation questionnaires following my presentation were made up of seven questions, and this was an improvement from the reflection of cycle two, which had eight questions. The good thing about the reflection based on my action and observation of cycle three is that this cycle did not need any more planning. This is because at this stage, I had dealt with my research participants' misunderstandings and misconceptions of information immediately after we collaboratively realized them, either during my

presentation or practical training session. Therefore, reflection during my third presentation was based on my pre-emptive discussion of my research participants where they previously identified a shared concerns and problems on SPSS as a software package.

Ideally, my action research as conceived by Kurt Lewin, was indeed an ongoing process of reflection of my action which was revised three different times. Kemmis and McTaggart (1988) reiterate that action research involves a self-reflective spiral of activities: planning; action; observation; reflection; re-planning; and more action in three cycles. Hence my action research approach placed much greater demands on me being responsible for most actions in my research. However, I fully involved my research participants in the critical reflection process, where our responsibilities for our different actions that we did were separated. For example, I was being observed while presenting, and I also observed their reaction and understanding during my presentation. As a result of this interaction between us, my action research approach was generally very collaborative. My role was to facilitate research capacity development practically with the TES group members for the purposes of my own practice improvement. I also used SPSS training in my third cycle for practical purposes, and my research participants' role was to evaluate and reflect on my action (presentations) so that I could use their feedback to revise and implement corrections in the following cycle. The last questionnaire was to evaluate a hands-on session similar to the previous cycles, as follows:

1. *Did you learn anything interesting from today's research capacity development presentation on Statistical Products and Service Solutions (SPSS)?*

2. *Generally speaking, did you note any significance of all these three research capacity development presentations that I have conducted on Research Integrity; Questionnaire Design; and Defining, entering and editing quantitative data using SPSS, and why?*

3. *How does the decline of research productivity or research output at WSU affect you, and why?*

4. *What do you suggest I should do in future to promote research culture amongst academics and postgraduate students at WSU?*

5. *What does collaboration mean to you, in terms of research productivity?*

6. *Would you encourage collaboration or team work in your area of studies or department, for the purposes of improving research productivity?*

7. *Based on all research capacity development presentations that I have conducted, how can I improve my practice in such a way that my services at the Research Resource Centre are consistent so that they continue having a positive influence in you, if there was any?*

In short, to do action research is to plan, act, observe and reflect more carefully, more systematically, and more rigorously than one usually does in everyday life, and to use the relationship between these moments in the process as a source of both improvement of my own practice and gain new knowledge. I carried out these four activities collaboratively, involving my research participants who were affected by the action in my action research process, as it was a requirement that I interact with them, not only for my benefit as I was conducting a study, but as well as for the benefit of the TES group that I used as my research participants.

3.9 The objectives achieved during my self-reflective action research cyclic inquiry

As a research associate who facilitates research capacity development at WSU, I had to plan, act, observe and reflect for the purpose of my practice improvement, but I could not do this alone. Change is usually easier to achieve when those affected by the change are involved. Indeed, this process of reflectively evaluating the results over the whole action research process has helped me know exactly what to do and where to improve my way of facilitating research capacity development. Research participants have highlighted the following reflections:

The main point that the six participants attended remarked on was: the third practical training was more useful, and gave them skills to be able to do research on their own. These skills would also enable them to analyze data that they will collect on their own and write their research findings on their own, and in this way, they would be able to contribute to their research productivity and the university research productivity. This contribution that I made towards my research participants means I have achieved my objective of my conducting this study. The final stage of reflection on each cycle was, perhaps, the most critical part in the process as it allowed for continual refinements. In this process, there was a continuous improvement of practice and extension of personal knowledge.

However, there is a general word of caution from Koshy (2005, p.5): "Excessive reliance on a particular model, or following the stages or cycle of a particular model too rigidly, could adversely (contrarily) affect the unique opportunity offered the emerging nature and flexibility which are the hallmarks of action research". Schumacher (2007, p.31) on the other hand concludes that, action research is a highly collaborative and reflexive process, and indeed, I could not conduct this study all by myself, but with my research participants. With this study, I was fulfilling something that is my responsibility and has been my responsibility to do, and through the conduct of my study, I have also created opportunities for others to be able to learn how they could also develop themselves and their own practices. I, therefore, took an action, after having planned, acted upon it, observed and finally reflected on it; which involved not only me but together with my research participants enabled me to realize the values that 'I' hold as a Research Associate.

In addition, doing research individually would destroy the critical dynamic of the group, and my work would not be regarded as action research. Initially, the identification of the topics to cover during my presentations were all related to the way I facilitate research capacity development which eventually engaged my research participants in all four fundamental aspects of the action research.

Throughout the two month process of conducting cycles using the TES group as my research participants, I was seeking to learn more and more from all the actions that I facilitated. The subject of action research was the action taken, the change, and the theory of change that was held by me who finally enacted these changes in the above cycles. While the design of action research originated with me as an individual, social action taken without the collaborative participation of my research participants would have been less effective.

This whole process of action research was an iterative, cyclical process of reflecting on my practice, taking an action, observing to oversee my action, reflected, and re-planned again in order to take further action to implement my revised actions. This is why my action research study took a shape as it was being performed and improved in cycles. My understanding, from each cycle, pointed out the way to improve my actions further and further. It was not possible to evaluate the effects of my actions until my research participants had monitored the extent to which I had implemented them through my different presentations. It was only then that I could plan alternative strategies and implemented them eventually in the next cycle. In cycle one, an idea originated from a discussion between me and my research participants around a scope of my operation and a plan on how I was going to deliver information on ideas (three different topics) that they identified, as presented as actions in all three cycles. Then the general idea in cycle two was revised so that more information needed would be further investigated and was eventually implemented successfully in cycle three.

3.10 Triangulation

How can I improve my own practice at Walter Sisulu University as a Research Associate whose responsibility is to facilitate research capacity development and promotes research excellence amongst academics and postgraduate students at WSU? In answering this question, I had to plan, act, observe, and reflect on myself for this study to be systematic, credible, verifiable, justifiable, useful, valuable, reliable, valid or

trustworthy. Throughout this chapter, I have proven that this study is systematic, credible, verifiable, justifiable, useful, valuable, reliable and valid or trustworthy. A key means of achieving this was by ensuring that this study is effectively triangulated, and I have used three different methodologies to collect and analyze data (through the use of quantitative, qualitative approaches and self-reflective action research cyclic inquiry). This was just more than using mixed methods. Hence triangulation can be described as "qualitative cross-validation among multiple data sources, data collection strategies, time periods and theoretical schemes" (McMillan & Schumacher, 2001, p.603).

Denzin (1989) also refers to the triangulation strategy as a combination of multiple methods of observation, which directed me, as a researcher, to utilize several different tools in the observational process for the purposes of my own practice improvement. The rationale for the use of multiple methods is that a method on its own cannot adequately treat all problems of discovery and testing. This is because the success of an action research study does not only concern me, but the entire university that I serve. On the other hand, the study is about me, a researcher concerned about improving the way I do my work. Since each method has restrictions, by combining several methods in the same study, the restrictions of one tool are often the strengths of another. I, therefore, used triangulation to find regularities in the data by comparing different academic lecturers, from different faculties or situations using different methods (questionnaires, interviews and an action research spiral of cycle's model) to see if the same pattern kept recurring at Walter Sisulu University. By regularities, I refer to the evidence that was shown by most academic lecturers regarding the declining of research productivity amongst them, as they all seemed to be complaining about the huge workload that they have which takes them more time to accomplish. This is why they do not have time in order to do research as well that would contribute to uplift the status of research productivity of the university. This is why concern was to conduct this study so that I could be bale to improve the way I do my work, for the purpose of my own practice improvement and my three different research participant's own practices.

According to Polit & Beck (2004, p.431), triangulation refers to the use of multiple referents to draw conclusions about what constitutes truth.

The aim of triangulation in this study was, therefore, to overcome the intrinsic bias that comes from single-method, single observer, and single theory studies. According to Atkins & Wallace (2012, p.61), alternatively, someone could use the same method on different occasions, which is known as 'within method triangulation'. There are, however, other forms of triangulation as well, all of which have contributed to ensuring that my study becomes verifiable and trustworthy (valid), as proven earlier in this chapter. These include using the same methods over time, using different research participants (academic lecturers at first, and then seven Transformative Education/al Studies (TES) project team for the same investigation, collecting data from more than one (usually competing) theoretical frameworks or undertaking comparative studies amongst three different approaches of my study but for the same purpose.

Hence, Denzin (1978, p. 101), proposes "the greater the triangulation in a research design, the greater the confidence of research findings". Glaser & Strauss (1967), as cited by Ferreira (1988, p.111), similarly argue that different people in different positions may offer very different information about the same subject as what exists in reality. Cohen, Manion & Morrison (2000, p.112), state that triangulation is a powerful way of demonstrating concurrent validity, particularly in qualitative research. Many people use triangulation as a means of confirming that all the data is telling the same story, and this is indeed a primary function of triangulation since it generates more confidence that the story is credible and trustworthy. This is why I define triangulation as the use of three methods of data collection in my study about the way I could improve the way I facilitate research capacity development at Walter Sisulu University. Chapter five discusses in details how the use of triangulation has assisted me to obtain the information that I really wanted for my own practice improvement purposes which has become my new knowledge that could be of assistance and be able to be tested by other research practitioners out there.

3.11 Ethical Considerations

From the beginning of this study, I learnt that an ethical approach should pervade the whole of my study. Conducting research is an ethical enterprise (Struwig & Stead, 2003, p.66). Chambers Concise Dictionary (Schwarz, 1991) refers to ethics as 'a system of morals, rules of behaviour'. Research ethics provide researchers with a code of moral guidelines on how to conduct research in a morally acceptable way. Such guidelines have prevented me from engaging in ethical misconduct, such as distorting and inventing data, plagiarizing the work of other; republishing other's data as an original contribution without proper acknowledgement; failing to maintain the confidentiality and privacy of my research participants and clients; forcing academic lecturers against their will to be involved in my research study; not executing the study properly, deceiving research participants; falsely reporting results; and assigning authors publication credit when they have provided minor contributions to the study or only made their data available to me as a researcher. Ethics are not merely recognition of the need for anonymity or consent form only, but should inform every aspect of my study from the initial planning stages, through the data collection and analysis to the final reporting. For example, I have enclosed all ethical related documents that I had to prepare and abide by them even before I commenced with this study as follows:

Permission: Before I interacted with my research participants, I asked for their permission in writing or through e-mail. For example, before I could voice-record them during interviews, I explained the process that I was going to take so that I first received their permission for accurate transcripts and interpretations to be made. For the questionnaire (**Appendix A**, I wrote a covering letter requesting my research participants' permission, explaining the purpose of the research study and the relevant ethical issues relating to protecting individual rights and preserving their anonymity. The transcripts and interpretations were made available to participants and the report will be made available to both management and academic lecturers to whom this study targeted once the study is completed, in a form of publication. It was important that

research participants know what I will be doing from the outset. I needed to gain their full cooperation, and they needed to gain my trust before they could agree to participate in my study. As mentioned earlier, I worked with a close-knit team and later with the TES team of seven, and there was already a good relationship established between my research participants and myself as a researcher.

Ethical clearance (Appendix C): is a form that I received from the Research Ethics Committee granting me ethical clearance for conducting my study dated the 25th May 2011. This form was completed by me as a research practitioner since I intended using university academic lecturers as my research participants and as sources of information for research project.

My application was only considered after the approval was granted by the Faculty of Education Ethics Committee and all required documentation had been submitted and approved before I could begin conducting my actual study.

Appendix D is consent application letter for conducting research study within Walter Sisulu University particularly, amongst Nelson Mandela Drive campus academic staff members which was directed by the then University Registrar, who approved and granted me a permission to conduct my study as requested on the 7th of March 2011, as follows:

I hereby wish to request your permission to allow me to conduct research within Walter Sisulu University amongst the Nelson Mandela Drive Campus academic staff members. As a part-time Doctoral student in Education, I have just completed a research proposal under the supervision of Prof. Thenjiwe Meyiwa on: "Working towards an improved facilitation of research capacity development at Walter Sisulu University using Action Research (AR) methodology".

I am currently employed at Walter Sisulu University as a Senior Research Associate, managing the Research Resource Centre, under the Directorate of Research Development, etc.

An informed consent (Appendix B): is a form which explains the purpose of the study and the extent to which I, as a research practitioner was going to be involved with the targeted research participants in a language which they would understand. Before research participants actually participated in my study they unreservedly had to agree to take part in my study voluntarily with the understanding that they were free to withdraw from the study at any time, at any stage and at their own will. I made them aware, in advance, that they may not directly benefit from this study. I also made them aware that their responses would be recorded anonymously and that I would audio or voice-record them for the purpose of this study, more especially during the conduct of interviews.

Through all these appendices, at each and every stage, I was constantly asking myself: is the study that I am conducting as action research study ethical? Is it honest and moral to the affected research participants? Is it respectful of my research participants and other colleagues and of key values? This type of an approach went far beyond a brief discussion that I have given above of the actions I have taken to preserve anonymity and reference to the guidance I followed, as mentioned in the ethics clearance. For example, I first received permission to conduct this study from the Registrar's office and a letter of approval is attached as **Appendix D**.

This means then that the purpose of this study was explained in writing to the university management and to the academic lecturers in advance, and indeed, their participation was so voluntary.

Confidentiality: Participants were assured that their names were not going to be revealed in the research reports that were likely to emanate from this study. As Cohen et al. (2000, p.62), observe, 'the essence of anonymity is that information provided by participants would no way reveal their identity'. As a researcher, I had a responsibility

to protect particular individuals because insensitive handling of their attitudes and observations of my leadership would damage the trust they had put in me. Being a Research Associate, this responsibility is even more significant. This is the reason, before I collected data, I had to first ask for their permission and assistance in the conduct of my research study in all stages that I was going to undertake.

Trust and confidence: By adhering to good ethical practices, I maintained a good relationships and a sense of rapport between me and my research participants. Cohen at al. (2000, p. 66), reminds us that this will further increase the, "… feeling of trust and confidence." Throughout this inquiry, I intended to keep participants fully informed of the research progress. It was also important that they were fully aware that their responses were solely going to be used for the purposes of my study inquiry.

Additional to this, according to Atkins and Wallace (2012, p.30), giving consideration to issues such as 'How will I respond to any unexpected ethical issues?' is important. There were almost always unexpected ethical issues, some of which could be life-changing concerned and which thus placed me in a position of great moral responsibility. Hence, Wellington (2000, p.54) argues that all educational research should be 'ETHICAL', using capitalization to emphasize the significance of ethics in my study.

Care & respect for my research participants: I believe that an ethical approach to educational research study is essential not only in the context of undertaking ethical research, but because it is part of being a researcher dealing with academic lecturers, which might have demanded a similar moral approach from me. For example, research integrity in academia, which I presented as my topic for the first action research cycle in chapter four, is an ethical requirement for the conduct of research. For example, practice of a lectureship and research are both grounded in a particular code of professionalism and ethics, much of it is unwritten and demands certain standards of behaviour and is founded on principles of care and respect for other people. This is why I considered the welfare of other colleagues as my major concern. I tried, by all means,

to avoid or minimize any 'harm' befalling my research participants as a result of my interaction with them. Instead, my intention was and was always towards benefiting Walter Sisulu University. This was through my contribution towards research productivity and research output, through the conduct of a morally and ethically considered study. Action research emphasizes moral and ethical issues and considering these in both the practical learning and research contexts as well as in the context of working place values and beliefs. Examples of values in this study which is conducted at the university was a respect for research participants, honesty of myself as a researcher and the research participants or integrity.

3.12 Conclusion

My intentions, from the beginning of this study were to conduct this study through values, such as: honesty and respect for my research participants which was important to the entire university community as I have interacted with them in many situations as colleagues. These are the academic lecturers whom I interacted with and used as my research participants. I have expressed earlier and in our different working conditions that we have almost through them, as per the phases of my study, that I could not have succeeded in conducting this study alone without have used them as they are the employees of the university whom I interact with when rendering my services. The values that we all hold, as a research practitioner together with my research participants are embodied not only in what we have done already, but in how we do our own practice as educational professionals. What is of importance to me is the improvement of my own practice which is being examined by my research participants, through reflection for revision and improvement of my own practice.

In a nutshell, in this chapter, I have tried to show my concern based on my professional experience with the intention of creating a new knowledge base based from my own previous experience from which other colleagues could make decisions about their own practice, that is, how they could improve their own individual or collaborative practices and why. While this may seem to be both arrogant and self-indulgent, I would argue

that there is only a small amount of documented research evidence written by academics or researchers about their own self-practice. I have confidence that, this study has achieved its purpose and what I can be able to pass onto other colleagues in teaching, learning and research profession. The purpose of this study was to highlight the urgent need for the transfer of skills and building of research capacity in a new generation of researchers of WSU. The motive behind this study was that in future, there should never be a decline in research productivity at WSU, and my own practice would have to be changed and improved for better at WSU.

CHAPTER FOUR: DATA ANALYSIS AND DISCUSSION

4.1 Introduction

This chapter describes data analysis. According to Johnson (2002, p.71), analysis refers to breaking something down into its component parts so that it can be understood. In action research, data is analyzed and organized into categories so that other research practitioners might come to understand what is being presented. Three research methodologies related to my data collection and data analysis are presented in this chapter they are:

Firstly, I used Statistical Products and Service Solutions (SPSS) software to capture, enter, edit and analyze quantitative data, as the first phase of my data.

Secondly, I used NVivo software to capture transcribed qualitative data as a second phase of my data;

Finally, I used a reflexive action research cyclic model for the purposes of my practice improvement which focused on planning, acting, observing, and reflecting.

"The analysis of my data involves the process of breaking data down into smaller units to reveal their characteristic elements and structure", writes Gray (2009, p.499), however, once data is collected as raw data it is sometimes difficult to make sense out of it, according to Struwig & Stead (2003, p.150). My database was very large and it was not easy to make connections between the various pieces of information that I received, but I believe I made sense of it all in that I realized that it would be necessary for me to first summarize the data. While the terms 'qualitative', 'quantitative' and 'action research cyclic model' research methodologies distinguish between three different forms of research, the dichotomy of the three contrasting groups, was not quite as clear-cut as some would have thought. I noted that a method that exists to analyze quantitative data generally differs from the method I used for qualitative and a self-reflective, action-research cycle, model. As I have shown in chapter three, quantitative data included counts, numbers and measures, yet qualitative and self-

reflective, action-research, cyclic model data were essentially more meaningful. apart from that, they all showed great diversity.

4.2 The three analytical methods followed

As mentioned earlier, I used three different methods to make my data more meaningful for knowledge purposes. Methodology is important as it must be accurate and credible. According to Johnson (2002, p.71), accuracy in action research means that the data collected should create a fairly true picture of the part of reality that anyone can observe. Credibility in action research means trustworthiness or capability of being believed. This means then that the following analytic methods that I used to collect, analyze and interpret my data in three Sections (A, B & C) and which were differentiated as phases 1, 2 & 3, enabled me to actually obtain the results that I wanted as a concerned research associate who wanted to change and improve my own practice. Since the questionnaire that I used for quantitative data was too long (with Section A comprising 10 questions and Section B comprising 14 questions), I interpreted and discussed their meaning with the participants.

4.2.1 SECTION A: QUANTITATIVE DATA

According to Laws, Harper & Marcus (2009, p.381), data analysis is a process of taking things apart and putting them together again. The process of analyzing the quantitative data that I collected from academic lecturers as my research respondents made up phase 1 of my action research study which was the basis of my action research model of the spiral of cycles, this is dealt with in the last section of this chapter four. I found academic lecturers to be the relevant respondents who would be able to give me relevant information through their feedback experience and their evaluation of my practice through my questionnaire, as follows:

4.2.1.1 Research participants' gender

Most of my focus regarding the quantitative research data that I collected from WSU, particularly from the Nelson Mandela Drive campus, was to examine the factors that demonstrated the need for the improvement in knowledge, skills and research capacity development. Out of a total of 120 academic staff members of only 39% were females and 61% were males. See table 4.1. Research participants who actually participated in my study reflect the sample that I aimed to include in my study. The emphasis is on precise measurement, the testing of a hypothesis based on random sampling for which I used SPSS to analyze the data. A random sample is a representative sample chosen from a population in such a way that the number of academics selected was a representative of the academic lecturers at WSU for validity and reliability purposes.
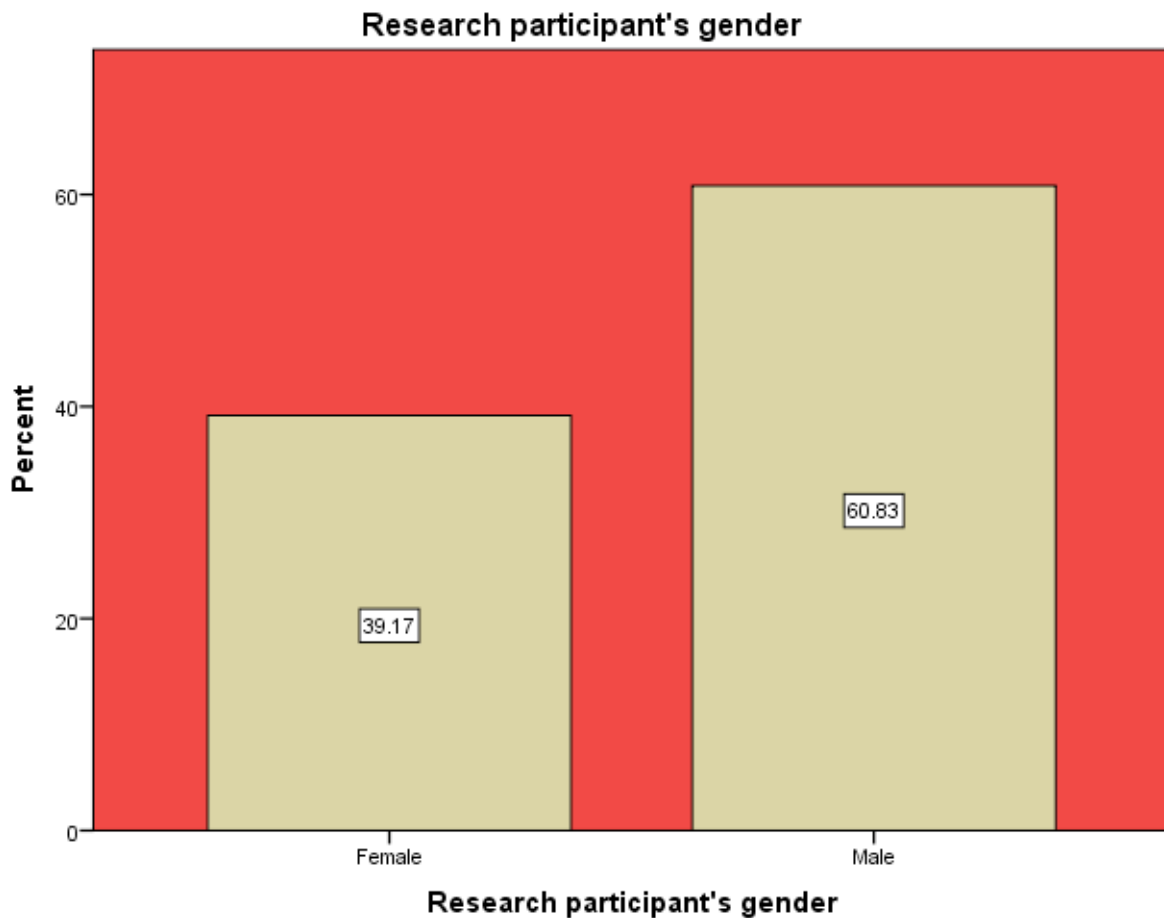
Figure 4.1: Participants' gender.

4.2.2 Research participants' age

Judging from figure 4.2 of the academics who participated in my study as research participants, 53% were aged between 40 and 60 years of age and only about 6% were below the age of 30 years. Interestingly, about 20% of the research participants were more than 60 years of age. Academics who are more than 60 years of age are likely to have the highest academic qualifications, that is, PhDs, and this means that they are likely to have more academic experience and qualify to be research productive. Out of 120 research participants, one candidate chose not to confirm his/her age. Unanswered questions are recognized as the missing data as per the. In advance, through coding, I assigned numbers of options that participants could choose answers from for different questions asked. It is also important to recognize missing answers because there is a difference between participants who have not responded to questions, for whatever reason, and those who would say they do not know the answer. This is why I made it clear, in advance, that I included a category for missing data in my coding scheme so that I would be able to recognize such missing information.
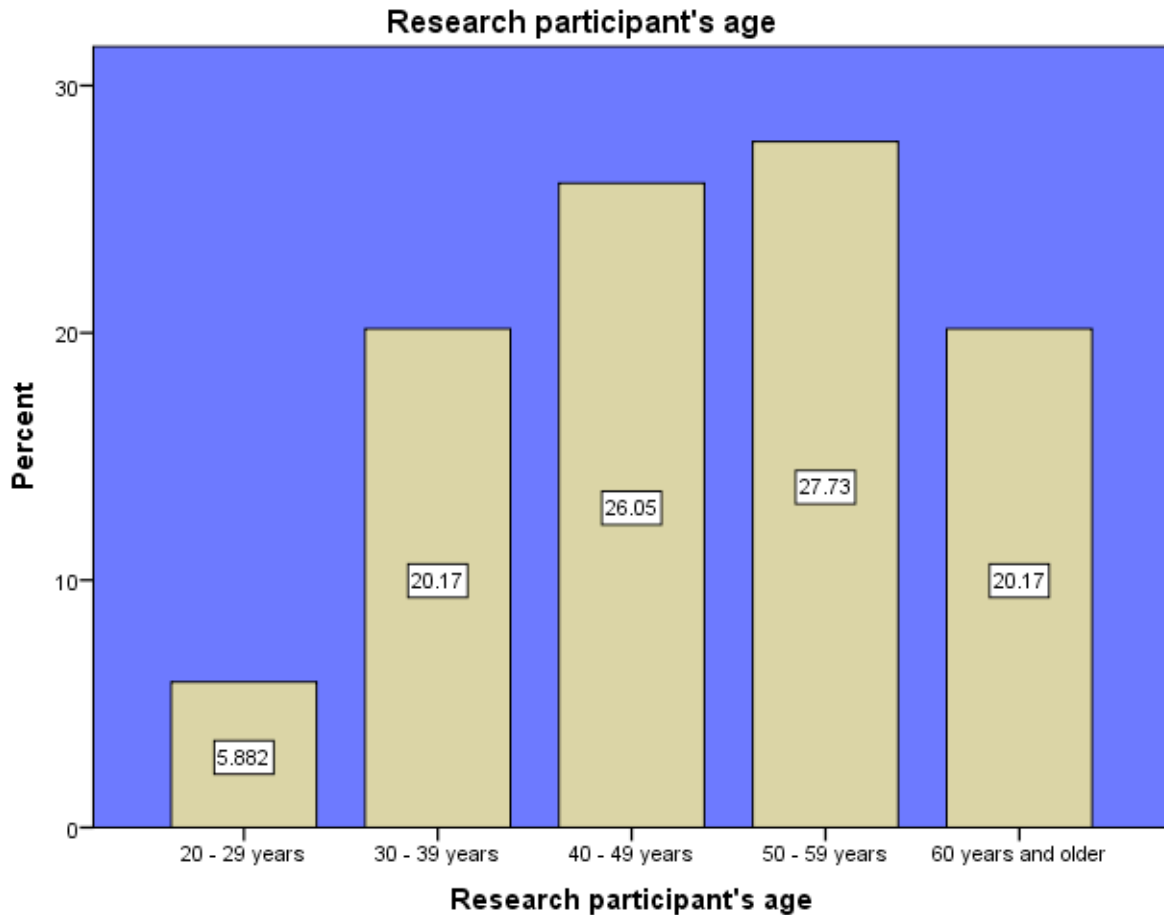
Figure 4.2: Research participants ages.

Figure 4.2 demonstrates the ages of my 120 research respondents and to which groups they belonged.

4.2.3 Academic qualifications

Amongst the academics who participated in this study, only 38% held PhD degrees which in most universities elsewhere in the world is now becoming the minimum qualification for university teaching. This means that unless an urgent effort is made there will be very few PhDs at WSU. Such a situation cannot be allowed to continue. Out of the questions that I asked to determine the complexities of developing a strong research base and how best to develop research capacity at WSU, I examined several key issues such as the one on 'academic qualifications'. When looking at academic

qualifications as shown in figure 4.3, it is evident that the average ratio for WSU is a challenge. According to the annual report on evaluation of the 2009 institutional research publications output, the Department of Higher Education and Training (DHET) informs every university about the outcome of the evaluation of each year's research output. In 2010, at WSU the headcount of permanent academic staff members was 608, the research publication units accrued was 51.85, and per capita output was 0.09. The overall student number intake was 26772 for the staff student ratio of about 44.03; 188 academic staff members had Master's degrees as their highest qualifications, and only 66 academic staff members had PhDs as their highest qualifications. My study however focused only on Nelson Mandela Drive campus, and this is why I used valid and reliable information from a random sample of 120 academic lecturers as my research respondents.
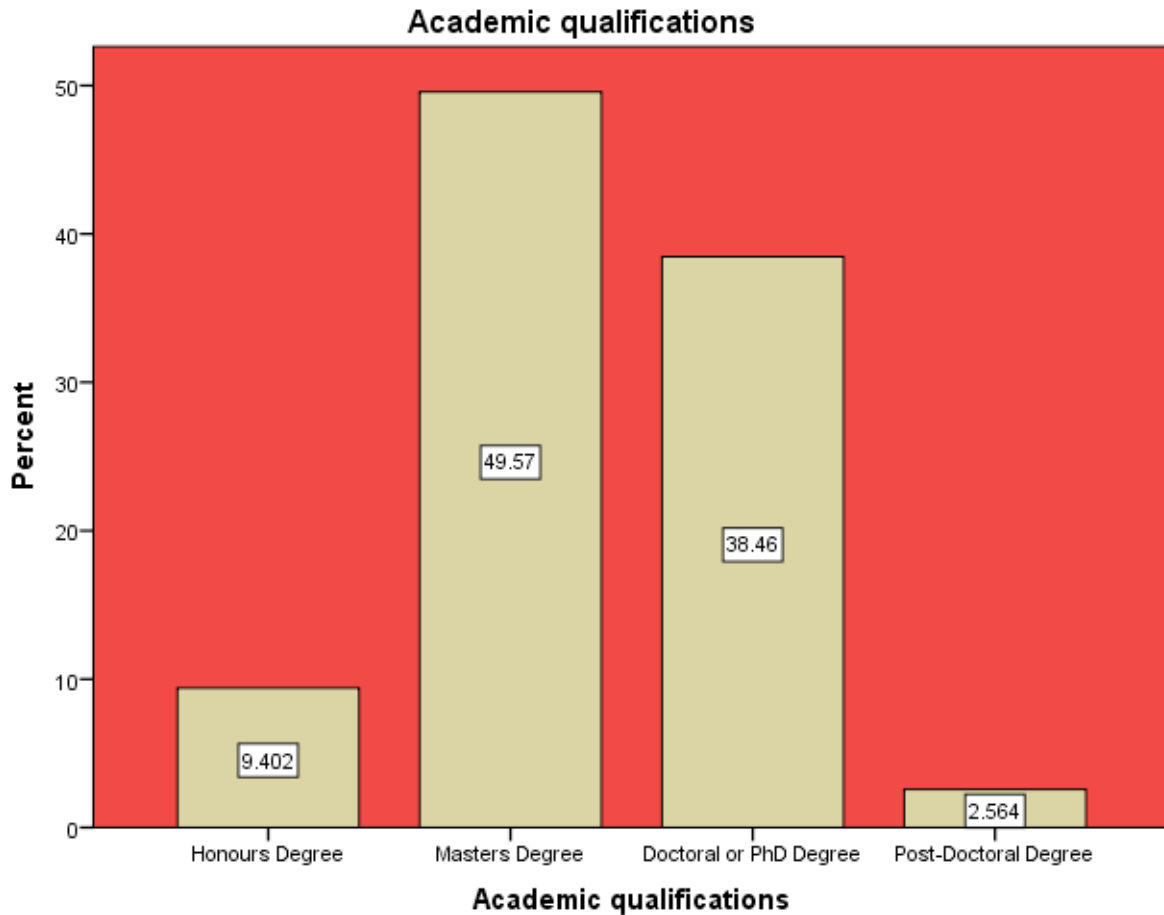
Figure 4.3: Research participants' academic qualifications.

Calculations in figure 4.13 prove that for the academic staff numbers and student enrolment numbers there is heavy teaching load per academic lecturer at WSU. This has an impact on their research productivity, and of course, the heavier teaching load contributes to the decline in research productivity and research output at WSU. I am concerned about the decline of research productivity and research output at WSU which has been a challenge since 2006. Considering the situation at this university, one can conclude that the teaching load also has an impact on the quality of teaching and throughput rates as well. These figures show that currently WSU focuses more on undergraduate teaching and less on research. Having a different focus or (mission) regarding research productivity is important as it draws attention to the question of lecturer's lack of research. This means that changing my way of conducting my practice can encourage help academic lecturers to improve their practices as well. Ascertaining

academic staff qualifications is also an important factor in determining research capacity as it is generally staff with PhDs or Masters who drive the research in most universities. From this data the percentage of staff with PhDs at WSU is 38%. This drop from earlier figures is also reflected in the lower per capita output figures for this university. The percentage of academic staff members with Masters degree's, as their highest qualifications is the highest percentage 49%. Decline in research output can therefore be expected, considering the low number of staff with PhDs. Staff qualifications clearly play an important role in research productivity, especially as those with PhD qualifications, are the ones who would be likely to guide potential researchers.

According to the Malawian Research Service Centre model, in most African research institutions, major research has traditionally been driven by expatriate researchers who have come as part of capacity-strengthening efforts. This is evident from the few publications in which African researchers are the lead authors. Inevitably the foreign researchers dominate the local research agenda, have more skills and experience to attract international funding, and as principal investigators, exercise intellectual ownership (Journal of Research Administration, 2011, p. 44). Such an initiative may be similarly welcomed by WSU which has a comparable problem.

To be a serious competitor in the global knowledge economy and to achieve standards that are nationally and internationally comparable, both the quality and quantity of PhDs in South Africa need to be expanded dramatically. According to Benson's view about development of research and researchers in South Africa, from the University of Free State, the higher education sector in South Africa does not have the required numbers of adequately qualified staff, because only a third of instructional research and technical staff employed at higher education institutions are in possession of PhD qualifications. It is crucial to increase this number for local higher education institutions and research organizations significantly in order to be globally competitive in all areas of research and scholarship (Emerging Researchers Network, 2012). This is an initiative of the National Research Foundation (NRF), and its objective is to build critical mass of

highly educated and skilled South Africans who can contribute to the country's economic growth and global competitiveness.

4.2.4 Faculty in which participants were employed

According to figure 4.4 all faculties at WSU were represented in the sample of my study. The Faculty of Education appears to be the faculty with the highest number of research participants in this study (38% of the participants). The faculty which seemed to have the lowest number of research participants was the Faculty of Business Management Science and Law (with only about 13% of the research participants).

Figure 4.4: Research participants' faculties in which academic members are employed. As a Research Associate whose responsibility is to facilitate research capacity development at WSU amongst post graduate students and academic staff members and

to promote research excellence within the university, it was heartening to discover that every faculty was represented when conducting this study. For reliability and validity, every academic lecturer who volunteered as my research participants had an opportunity to voice their opinions as far as the facilitation of research capacity development at WSU was concerned.

4.2.5 Teaching experience: How long have you been employed at WSU as a lecturer?

The practical teaching experience of the academics at WSU ranged from one year to eleven years and above. Table 4.5 indicates that, out of all 120 academics, 44% had eleven years of experience and above of practical teaching experience, 6% had the lowest number of years of teaching experience which was between 7 and 8 years.

Table 4.5: Participants' teaching experience at WSU as lecturers.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1 to 2 years	13	10.8	11.3	11.3
	3 to 4 years	19	15.8	16.5	27.8
	5 to 6 years	13	10.8	11.3	39.1
	7 to 8 years	7	5.8	6.1	45.2
	9 to 10 years	12	10.0	10.4	55.7
	11 years and above	51	42.5	44.3	100.0
	Total	115	95.8	100.0	
Missing	System	5	4.2		
Total		120	100.0		

As indicated in Table 4.5, 5 research participants chose not to reveal information about the number of years they had served as lecturers at WSU. Before an academic staff

member is appointed, the Human Resources Department always emphasizes the importance of research productivity in a university amongst academics. As far as a strategic plan for research-capacity development and the staff development plan are concerned, academic members at WSU with more than 10 years of practical teaching experience were, at least, expected to have attained PhD qualifications.

In order to survive, a university has to make research a pivot around which all academic activities revolve. Quality teaching and learning are informed by research, just as responsive and relevant community partnerships are based on research. In addition, sustainable income-generation for academic activities depends on research. This is why the National Research Foundation (NRF) created an enabling environment for emerging researchers. Moreover, an initiative regarding academic research-related programmes, such as the Thuthuka programme, which is part of most South African universities, is of particular importance in promoting the attainment of both Master's degrees and PhDs. Within the university, the Directorate of Research Development has a mandate to invite applications from WSU staff who are studying for postgraduate qualifications (interdisciplinary) to submit applications for research funding on an annual basis; however, in July 2012, the Department of Higher Education and Training (DHET) circulated to universities the new criteria for the use and allocation of the Research Development Grant for the year 2012/13. Walter Sisulu University fell into **cluster C** and therefore funding was used as follows:

- Staff development at cluster C institutions had to focus on assisting academic staff towards attainment of Masters, PhD and Post-Doctoral programmes. Academic staff would need to be enrolled in Masters and Doctoral programmes at Cluster A or B institutions which specialized in their fields of expertise; and
- Collaborative projects among institutions in Cluster A and B were encouraged. This collaboration would take the form of research projects (short and long term) that were linked to staff development at the Cluster C institutions, or linked to academic exchanges with Cluster A or B institutions.

Universities were and still are expected to operate according to the (DHET) requirements which are annually distributed to all universities in South Africa, in the form of a Report on the Evaluation of the Institutional Research Publications Output, Policy and Procedures for the Measurement of Research Output of Public Higher Education Institutions. As a result of these requirements, my Doctoral Study Degree with Walter Sisulu University falls under Cluster C which is in collaboration with the University of Kwazulu-Natal (UKZN) which falls under Cluster A together with Durban University of Technology (DUT) which, in turn, also falls under Cluster C, through the Transformative Education/al Studies (TES) project that all these universities are involved in. Since the beginning of the 2011 academic year these three universities, i.e. UKZN, DUT and WSU collaborated to establish the Transformative Education/al Studies (TES) project which raised concerns regarding their individual practices as academics. Such concerns were in terms of how they could execute their duties as teacher/teachers educators/lecturers and the role that action research and self-study or self-reflection could play in improving their individual experiences of teaching and learning, with a view to achieving better results for their students in all these institutions. TES exists to continuously help academics and non-academics to pursue and obtain their Master's or PhD qualifications; TES is in line with the objectives of the South African Master's and PhD qualifications staff development projects, which are to increase the number of qualified South Africans, across disciplines. Upon attaining their PhD degrees, these staff members are able to establish themselves as academics or as whatever they want to become after they attain their qualifications. Further studies mean they would be better equipped in the mentoring, guidance, coaching, supervising, etc. of future students and production of research outputs and so forth.

4.2.6 Assessment of how research-training practical, services are being rendered by the Research Associate at the Research Resource Centre at WSU.

This question is about the services that I, as a Research Associate am rendering from my office, which is the Research Resource Centre that I manage. Am I doing enough? The focus on the 'I' was not accidental, but a considered response to the methodology employed.
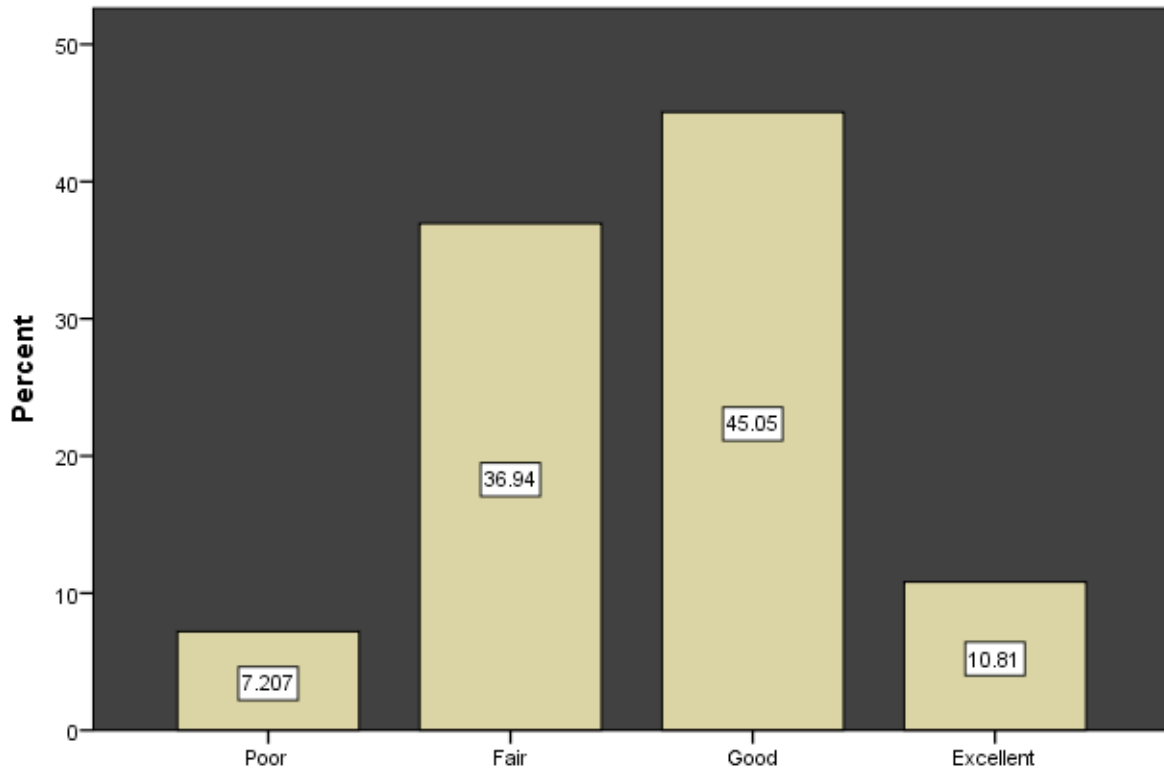
Figure 4.6: Rating, by the research participants of h practical services in research being rendered by the Research Associate.

According to figure 4.6 above, my research respondents rated my services as follows: 45% rated them as good, 36% rated my services as fair, 10% rated my services as excellent, and only 7% of research participants rated my services as poor. Initially, the

justification for is that 'I' as the research practitioner, am central to the study as I explore my own learning in my practice improvement conduct of this study. For example, there are three forms of 'I', as illustrated in this study: (a) 'I' the employee of the university as a Research Associate whose responsibility is to facilitate research capacity development at WSU. (b) 'I' who is concerned about my own practice improvement, and (c) 'I' the researcher who collaboratively works with academic lecturers as my research participants in order to find out from them how I can change the situation at WSU, if I can. In order to be able to do all this through the conduct of this study successfully, I have used Action Research approach that uses 'self' as the focus. To succeed I have, therefore, used a synthesis of ideas from other action researchers and their choice of paradigms, and also used academic lecturers to create their own working conditions whilst, in turn, acknowledging and integrating insights from their fields of practices through their reflection. In a nutshell, Hitchcock and Hughes (1989a, p.209) support Schön's (1983) idea of the '*reflective practitioner'* and the Stenhouse's (1975) 'self-reflective teacher' in 'empowering professionals and generating critically effective emancipatory activities that feed into effective practice'. This means that this study was involved deeply in the concept of the reflective practitioner which I have also explained in chapter three where I dwelt much on the necessity of the Action Research Cyclic Model as one of the methodologies that I have used during the conduct of this study.

4.2.7 Teaching should be supported by ongoing research. From your background, which one is more important than the other?

The purpose of asking this particular question was to determine the successes and shortcomings of considering research as a priority by academics in an academic environment. My understanding is that the quality of education at higher education institution is mostly determined by the qualifications of its academic staff. The academic status and integrity of a university, world over, is determined by the quality and quantity of its research output. When a reference is made to academic excellence of an

institution the focus is never exclusively on learning and teaching, but on a comprehensive and integrated services provided by a university. Initially these services, called the core business, consist of teaching and learning, research, and community partnerships. However, the current trend isolates research as a value-adding activity that supports the other two core services. Therefore, in view of this fundamental significance of research productivity for measuring academic excellence and ensuring sustainability, universities can no longer afford to relegate research. In order to survive, a university has to make research a pivot around which all academic activities resolve. This is why according to Craik and Rappolt (2006, p.162) academics are encouraged to reflect upon their current practice portfolios, establish personal learning plans, and seek out professional activities that balance their practice portfolios to enhance their capacity for research utilization. For many academics, most of their office time is spent on teaching and teaching-related activities such as preparation for lectures, marking, administration and consultations with students. For many academics, this leads to a situation where there seems to be little time for research, yet research is an essential element of a successful academic career.

All Universities are expected to engage in quality teaching, quality research and community service, but for many institutions the focus is always on teaching. In recent years, however, the policy seems to have impacted on the interpretation of the mission of universities and most are now engaging in both teaching and research, and figure 4.7 below, illustrates the situation at WSU.

Teaching should be suppported by ongoing research. From your background, which one is more important than the other?
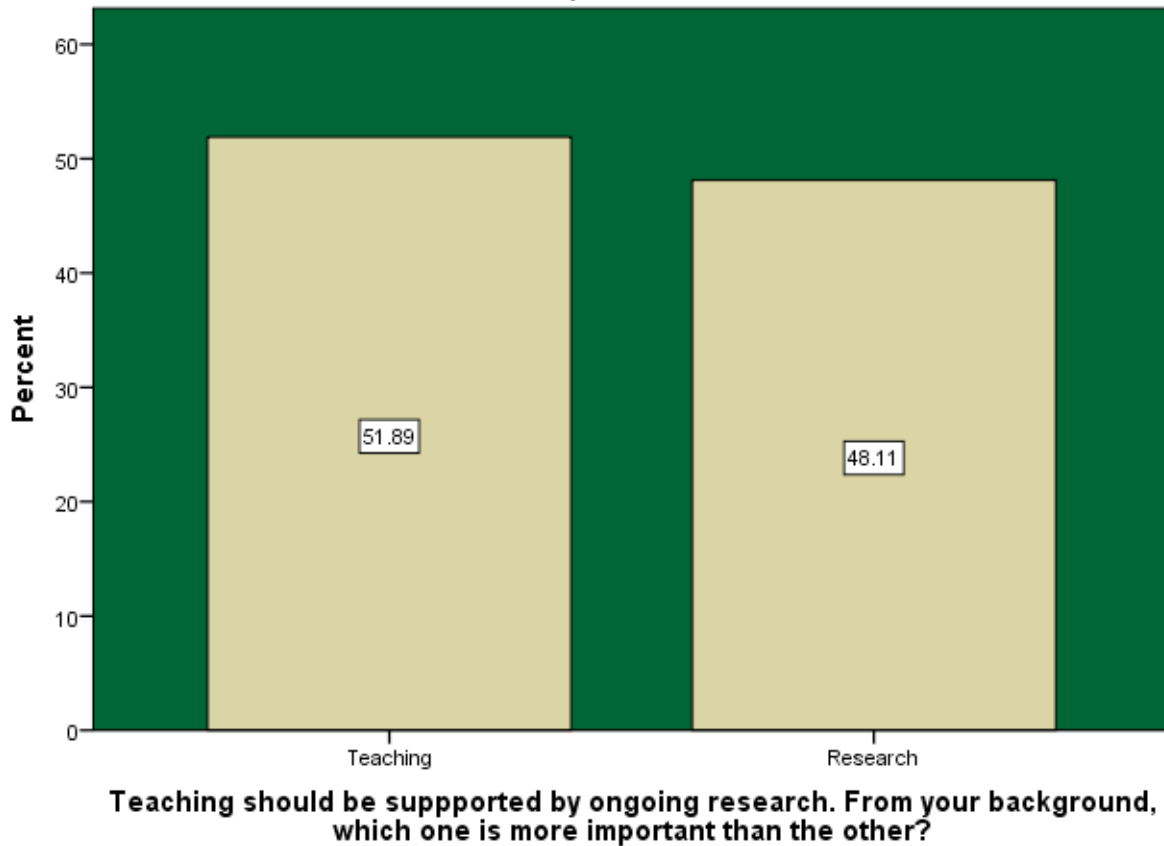
Figure 4.7: provides information regarding rating by the research participants of research practical services being rendered by the Research Associate.

Teaching should be supported by ongoing research, and this means ongoing growth in research output. This is a positive development (prioritizing both teaching and research). From 2006 to date, however the statistics show that WSU is amongst the universities that have been having the lowest research outputs in the country. This is because WSU prioritizes teaching; for example, according to figure 4.7, out of 120 academic lecturers 55 lecturers considered teaching as their first priority as compared to 51 who claimed to prioritize doing research; 14 lecturers reserved their comments regarding this question. Many academics see good teaching as intimately related to quality research. It is important that institutions do not allow for research to be developed at the expense of quality teaching and that institutions must also focus on

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quality research. It is only when all the factors negatively affecting research production at a specific institution are taken into account that solutions to these problems can be determined. Were it not for this study, I would not have been aware of problem such as being understaffed and lack of time to do research as contributing to the decline in research productivity at WSU.

4.3 SECTION B: QUANTITATIVE DATA

Using an Action Research framework, I have been afforded a good understanding of the concepts of validity, reliability and triangulation of data gathered to support my working towards an improved facilitation of research capacity development at Walter Sisulu University. The quality of my research is depended upon the method that I used to collect data to inform my inquiry.

Section B of my questionnaire relates to my research participants' perceptions and feelings with regard to the way I perform my services as a Research Associate who manages the Research Resource Centre. This study was undertaken among academics for a sample randomly selected from lecturers at WSU, Nelson Mandela Drive campus. Based on respondents' perceptions a measure was formulated and put across academics who were to respond by indicating the extent to which they agree or disagree with the following statements as applicable to them. They indicated their choices by means of ticking what was applicable to (questions that I found most important to analyze) as follows: 1. Strongly agree; 2. Agree; 3. Neutral; 4. Disagree; 5. Strongly disagree.

4.3.1 As far as I am concerned, good teaching and good research belong together.

This statement is a follow-up to an earlier question that I had put across in Section A where I wanted to determine if WSU academics lecturers do understand the importance of the research productivity and how it contributes to the research output. As the researcher who was fully involved in formulating a questionnaire and data collection, there was a possibility of being biased when setting up some questions. I am aware that I was supposed to reflect on my personal knowledge of the work that I do, my professional experience as a Research Associate and the importance of promoting research culture and research productivity or research output amongst academics and postgraduate students with whom I interact, as this was my responsibility. Why I asked

this question is because, it was also for the benefit of the university that I serve, based on the Department of Higher Education and Teaching (DHE&T) requirements.

Table 4.8 below presents responses on whether or not good teaching is related to good research. As shown in this table, 70% of academic lecturers strongly agreed with the statement, and about 27% of my research participants agreed with this statement. Surprisingly, out of 120 participants, only one lecturer who reserved his or her comment by not answering, and only 2 candidates who stated that they are neutral as far as this statement is concerned.

Table 4.8: provides information regarding academic lecturers' understanding of the importance of research for teaching purposes.

As far as I am concerned, good teaching and good research belong together.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly agree	84	70.0	70.6	70.6
	Agree	33	27.5	27.7	98.3
	Neutral	2	1.7	1.7	100.0
	Total	119	99.2	100.0	
Missing	System	1	.8		
Total		120	100.0		

The kind of questions that I asked illustrated the fact that I wanted to be judged by people whom I work with because I was avoiding being biased. Throughout this study, I have been fully aware of my focus and the criterion that I needed to follow in order to be precise when collecting data about myself. The action research model has taught me to first plan, act, observe and reflect on how I can improve the way I facilitate research capacity development at WSU. Conducting this study was not to benefit myself only but the academic lecturers as research participants that I worked with and the university

that we all serve. To cite one example, to benefit academic lecturers I have already learnt to maintain an effective team work through Transformative Education/al Studies project that I am involved with. As a result, I have used this reliable TES team to collect data through action research model of spiral of cycles. A team according to Jack Whitehead (1993) can work together, share good practice and resources, explore problems and solve difficulties. To this team I have already provided an environment that has created the right condition for me to collect data that is also analyzed later in this chapter.

4.3.2 Much depends on the Research Associate who is responsible for the operational services of the Research Resource Centre at WSU.

The decline of research productivity since 2006 academic year has been one of the most critical challenges confronting WSU. To name a few examples, conditions for research have been severely compromised as manifested by general complaints from academic lecturers over heavy teaching loads and the decreasing number of academic members with PhD qualifications, inadequate infrastructure such as funding and policies to support the growth in quality research, etc. Amongst challenges facing academic lecturers and researchers at WSU, these are unique challenges hence, improving the quality and the number of researchers is an issue at this university. Walter Sisulu University not only seeks to increase the number of researchers, it is simultaneously trying to transform academic lecturers' educational practices. From 2006 to 2012, as per the DHET 2013 report, WSU has been unable to fulfill the mandate of producing high quality research due to such multiple constraints. My focus therefore, as a Research Associate who facilitates research capacity development was to examine the factors that demonstrate the need for the improvement in knowledge, skills and research capacity development, and this is why I asked this question. I hoped the outcome of this study would help me find a way, from the academic lecturers' point of view, in order to change the way I do my work as a Research Associate. The purpose of this research study is to inquire about how I can improve my own practice, and how

academic lecturers could improve their own practice. This question, therefore, sets out to determine the complexities of developing a strong research base and how best to develop research capacity at WSU, by examining several key issues from my research participants' perspectives.

Much depends on the Research Associate who is responsible for the operational services of the Research Resource Centre at WSU.
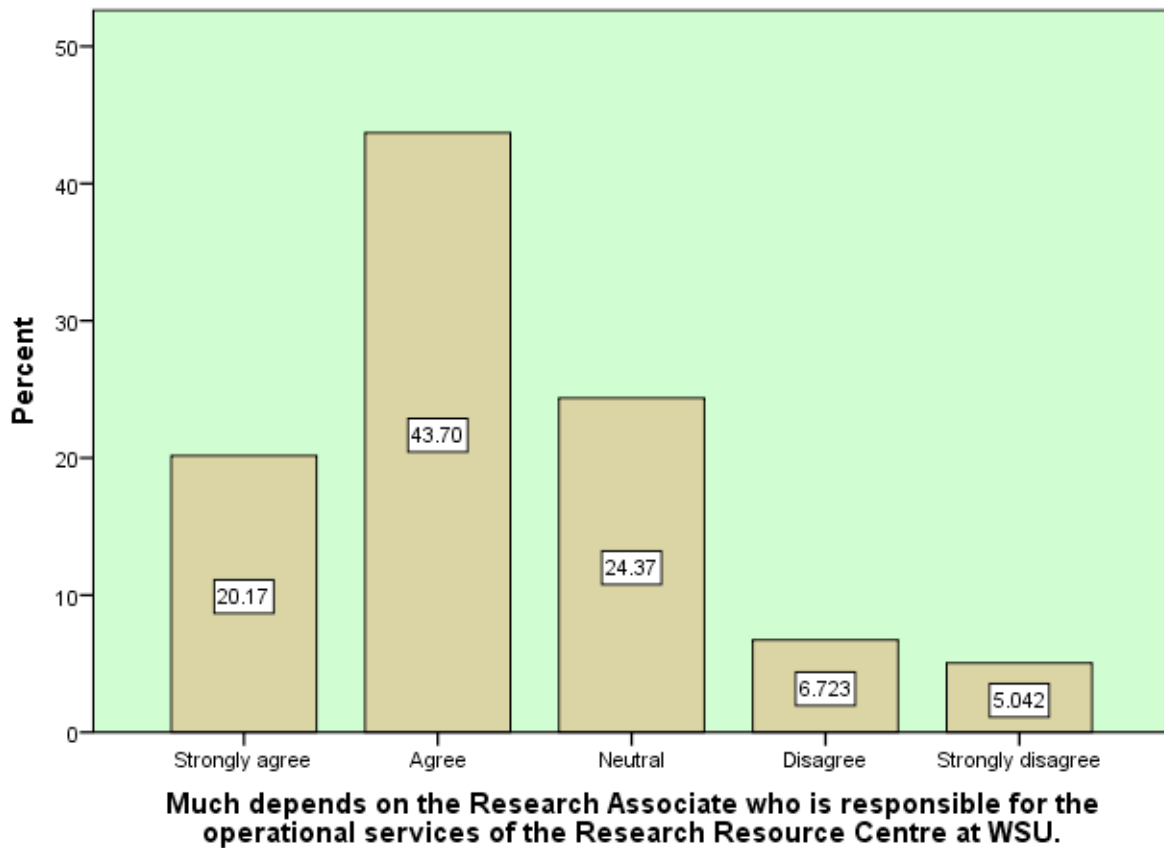
Figure 4.9: Is the decline of research productivity at WSU since 2006 academic year Research Associate's fault?

If I were to phrase this question differently, it would have to read as follows: Can the decline of research productivity at WSU since the 2006 academic year be attributed to the Research Associate? Responses were: 43% of my research participants agreed and 20% strongly agreed with this statement that much depends on the research associate.

About 24% of candidates were neutral about this statement, and in contrast, about 6% disagreed and only 5% strongly disagreed with the view that the university research productivity depended on the Research Associate. Figure 4.9 illustrates perceptions. As far as I am concerned, I am employed to facilitate research capacity development, but it does not mean that challenges that WSU face, such as lecturers' lack of academic qualifications, heavy work load, prioritization on teaching more than research, have anything to do with my responsibilities. From what I know, these are management or university governance-related issues. Such statements had to be asked in order to be able to determine if academics knew exactly the Research Resource Centre's operations and Research Associate's responsibilities were. From their responses I can infer that, some of my research respondents, and generally speaking, academics lecturers at WSU do not know exactly what is expected of them as academics in connection with the DHET's expectations from individual universities requirements. Apparently, what it means to be productive in research has to be emphasized amongst academic lecturers at WSU.

4.3.3 The Research Resource Centre ought to always aim at aligning teaching with research interests in such a way that they both become mutually supportive.

The relationship between teaching and staff research is a long-standing and controversial issue. The difficulty in articulating the relationship between teaching and research at universities is partly the result of the division of the two activities at several levels, as illustrated earlier in table 4.6. A starting point then would be a view that teaching and research offer mutual benefit and that 'research-led' or 'research-infused' teaching and learning can benefit student learning. There are multiple links between teaching and research, some of which are highly intangible and cannot be precisely measured, and yet teaching and research are simply part of the fabric of universities. Some of the teaching-research links are highly concrete, can be measured, and can be actively constructed. According to Consulting, JM (2000, p.36), in view of the central

nature of research and teaching in Higher Education, and the almost universal belief that research benefits teaching, it is perhaps surprising how relatively few institutions have specific policies in place to maximize these beneficial synergies. For example, 55% of the research participants strongly agreed, and 36% agreed with the statement that the Research Resource Centre ought to always aim at aligning teaching with research interests in such a way that they both become mutually supportive. Only 6% out of 120 research participants who were neutral about this statement. Two respondents, that is, one disagreed and one strongly disagreed with this statement. Judging from the way respondents have responded to this statement, research still needs to be promoted further amongst academics and this would help increase research productivity status of WSU. As I have gathered earlier, the university ought to make some means that work load over teaching must be reduced so that there is also time allocated for research. The common belief that teaching and research were inextricably intertwined is an enduring myth (Hattie & Marsh, 1996, p.529).
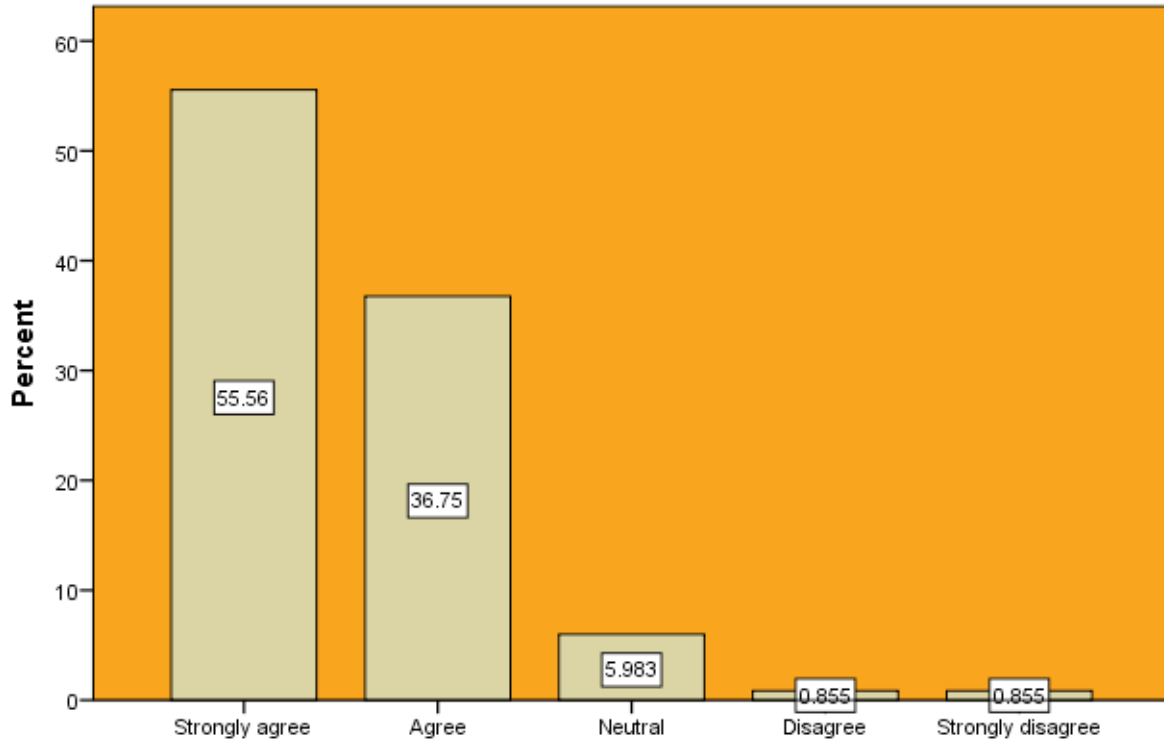
Figure 4.10: Teaching and research interests ought to become mutually supportive of one another.

At best, teaching and research are very loosely coupled at WSU, as a result of the decline in research productivity, and this has also been proven by the 2009, 2010, 2011, and 2012 reports. Diagram 4.10 shows exactly how research participants have indicated the extent to which they strongly agreed and agreed with this statement.

4.3.4 Would you recommend to your colleagues attendance of research capacity development workshops, seminars, trainings, etc. organized by the Research Resource Centre to your colleagues?

As far as Action Research Methodology is concerned my action inquiry for this study actually began with the question, 'How can I improve the way I facilitate research

capacity development at Walter Sisulu University?' There are states of affairs which a person can link with actions needed but remain unsure about the extent to which how to do such actions. For example, if DHET is dissatisfied with the way a certain university performs as compared to other universities, as per the DHET's assessment, this obviously affects the person whose responsibility it is to facilitate research capacity development in the university. In order to survive, a university has to make research a pivot around which all academic activities revolves. Thus, quality research and teaching is informed by research, just as responsive and relevant community partnerships are based on research. Moreover, sustainable income generation for academic activities depends on research.

Therefore, research administration has to change on many levels, most markedly in the types of work that the Directorate of Research Development do to meet university responsibilities and how collaborative academic staff ought to be. Otherwise, research productivity profoundly influences the status of the entire university. However, systems, processes, and policies of the university, more often than not, still reflect what services that the university formulated many years ago. Therefore, the Research Resource Centre should ideally start reviewing continually the use of limited resources to best support the research missions of the university. This general idea is essentially a statement which linked my idea to action research. According to Koshy (2010, p.1), action research is a specific method of conducting research by professionals and practitioners with the ultimate aim of improving practice. In other words, the general idea refers to a state of affairs or situation where the university needs to change or improve the way it capacitates research development. However, if academic staff members do not make time to attend research related workshops, how would we expect research productivity to grow at WSU? This question or statement was to address a problem where research related activities are being organized and yet there are few colleagues who attend such activities, whereas attending such academic related activities would not only benefit themselves but also the university that they serve.

The table below provides information regarding academic lecturers' understanding of the importance of attending research-related workshops at WSU organized by the Research Resource Centre at WSU.

Table 4.11: Academic lecturers' understanding of the importance of participating in research related activities, previously organized by the Research Resource Centre.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly agree	75	62.5	62.5	62.5
	Agree	38	31.7	31.7	94.2
	Neutral	6	5.0	5.0	99.2
	Disagree	1	.8	.8	100.0
	Total	120	100.0	100.0	

As per this table 4.11 ABOVE, only one candidate disagreed with the statement that academics should be permitted to attend research capacity development workshops, seminars, and trainings organized by the Research Resource Centre. Six candidates felt neutral instead. In contrast, 62% of candidates strongly agreed and 31% also agreed with this statement.

If someone asked me why I organize educational research workshops, seminars, trainings, I would probably come up with an answer along the lines of:

"I carry out research into education in order to help academic lecturers and novice researchers to a better understanding of what constitutes effective teaching and learning, including research" (Atkins & Wallace, 2012, p.12).

In the end, the purpose of this inquiry, which is the use to which Research Resource Centre's operations are put, was to improve the effectiveness of academics' professional practice and the systems within which I operate to support researchers in their

research. From the beginning of this study I have been and shall be arguing throughout this study that teaching, both into academic own professional practice and into the impact which policies have upon its context and content, is central to the concept of research as a profession.

4.3.5 Research productivity/output is being promoted amongst academic lecturers by the Research Associate not only for the benefit of university in terms of its research output, but also for the benefit of individual academic lecturer.

The problem that is currently faced by WSU is the decline of research productivity in terms of research output and the motive is to increase research productivity and the production of high level skills needed by the academic staff members to advance the objectives of this university. Therefore, the extent to which one is able to change or improve on research is a question which this study seeks to address using Action Research Methodology, as recommended by Whitehead (1989) and Jane McNiff (2001, p.10). This means therefore, that research capacity development by the Research Associate is indeed essential for realizing the university academic status of producing excellence in research and teaching as this contributes not only to sustaining development of the university but also the development of an individual academic lecturer. When reference is made to academic excellence of an institution the focus is never exclusively on teaching and learning, but also on a comprehensive and integrated service provided by the university which should also recognize the contribution made by the individual academic lecturers involved. Of course, for any university to survive, it has to make a research a pivot around which all academic activities revolves.

Reflect on myself and the way I grew academically to the point where I am today with regards to conducting a study about my practice improvement as an undergraduate student I got fascinated by my former lecturer, Prof. Keith Dowling (former HOD in Philosophy) while I was studying Philosophy. My interest developed in Philosophy to such an extent that, I majored in it up to a Master's Degree level. The way he recruited

me and the encouragement he gave me during the departmental presentations, inspired me more. He motivated me through his lectureship skills, and informed me of the various opportunities for students who major in Philosophical studies. Eventually, he supported me in attending local academic conferences and he employed me to assist in the department as a tutor at first. Upon completing my Honors degree he encouraged me to register further for a Master's degree and thus when I was employed temporarily as a Junior Lecturer at the then University of Transkei from 1996 to 1998. Once I became a Junior Lecturer, I began writing papers for conference attendance and I would review them for publication purposes thereafter. This marked the beginning of my research career from teaching … I was fortunate to progress from being a Junior Lecturer and an emerging researcher to becoming a Research Associate at Walter Sisulu University in 2004. I have also contributed towards research productivity of the university through few publications that I have produced, to set an example as a Research Associate.

Along this way, I have learnt some lessons. Some of these lessons shaped my own understanding of what research was and will always be and what it means to be a rated researcher. Yes, I have known research as a lonely job, and I know it takes time to complete an article for publication. Now, I know what it means to work as a team collaboratively. In addition, I am now familiar with all the challenges associated with doing research. I have, however, admitted that research is not about challenges only, but also about personal interests. It is indeed about achievement and victory. If there is no achievement or victory, I have learned that own practice improvement must be desirable. Hence, I asked research participants if they are aware of how beneficial research is to individual academic lecturers for the contribution (research productivity) that they are required to make to the university. Diagram 4.12 below demonstrates the proof of how 120 academic lecturers responded to this statement:
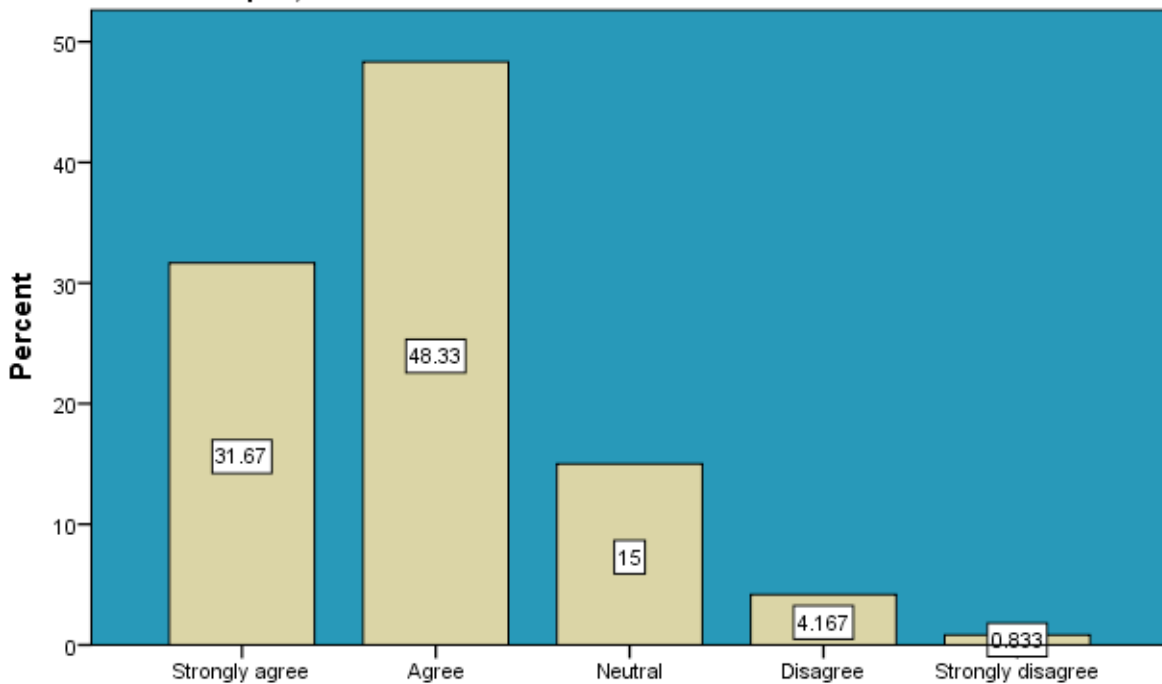
Figure 4.12: How can academic lecturers benefit themselves before benefitting the university that they serve academically?

48% of research respondents agreed that they understood terms of personal benefits, 31% strongly agreed, and 15% were neutral regarding this statement. On the other hand, 4% disagreed and only one candidate strongly disagreed with such a statement. It goes without saying that 80% of research participants in this study were aware of the outcome of being research-productive and how beneficial doing research was to them as individuals.

WSU conditions for research have been severely compromised as manifested by generally poor remuneration, inadequate infrastructure, heavy teaching loads, inability to mentor and supervise postgraduate students and novice researchers, etc. The university's progress depends on capacity to generate, acquire, adapt, and apply

modern knowledge into services and products that directly respond to the needs of immediate communities that the university serves. However, this university had been, for a long time, as it is a historically disadvantaged institution, lacked adequate resources to generate, acquire, adapt and apply such modern knowledge, and this is why there is a need for innovative participatory approach to better facilitate research capacity development at WSU.

4.3.6 Would you acknowledge the fact that most lecturers at WSU find themselves trapped in a victim mentality of generally complaining about having 'no time', 'too much teaching load', 'too much administration work', etc. for them to be able to do research?

According to Craik and Rappolt (2006, p.162), academics are encouraged to reflect upon their current practice portfolios, establish personal learning plans, and seek out professional activities that balance their practice portfolios to enhance their capacity for research utilization. The Research Resource Centre is, therefore, meant to assist those who want to build their capacity. For example, many academics at WSU spent most of their time on teaching and teaching-related activities such as preparation for lectures, marking, administration and consultations with students. For many academics this leads to a situation where there is little time for research, yet research is an essential element of a successful academic career. All universities are expected to engage in quality teaching, quality research and community service, but for many institutions, the focus is always on teaching. This is the situation at WSU. However, this policy seems to have impacted on the interpretation of the mission of universities and most are now engaging in both teaching and research. However, at WSU, most lecturers agreed with the statement that there is 'no time dedicated to research' due to 'too much teaching load', 'too much administration work', etc. for academic lecturers. For example, 74% as per the table 4.13 below indicates the extent to which research participants agreed with this statement as applicable to them, and 14% of research participants were neutral. Contrary to this statement only about 11% research participants who disagreed with

this statement. This table provides a graphic illustration of the present situation at WSU.

Table 4.13: The illustration of Walter Sisulu University's general complaint about having 'no time', 'too much teaching load', 'too much administration work', etc. for them to be able to do research.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly agree	48	40.0	40.0	40.0
	Agree	41	34.2	34.2	74.2
	Neutral	17	14.2	14.2	88.3
	Disagree	8	6.7	6.7	95.0
	Strongly disagree	6	5.0	5.0	100.0
	Total	120	100.0	100.0	

Therefore, developing research capacity would help to enhance both a greater sense of academic fulfillment and the possibility of advancement up the academic hierarchy. Generally speaking, South Africa's 23 universities, although often very large in terms of student numbers, are "very small in terms of research capacity", according to Professor Anastassios Pouris, Director of the Institute for Technological Innovation at the University of Pretoria. The research that Prof. Pouris' (2007) conducted led him to conclude that South Africa is not effectively supporting fields of research in which it excels. This is because the South African government does not sufficiently focus on areas of established excellence, and it is not pumping enough funding into university-based research and is not properly implementing the research priorities that universities have identified.

"Yet, we need to put our money where our mouth is," Prof. Pouris said (South Africa universities set priorities for research, Karen Macgregor, November 11, 2007, Issue No. 5).

This means therefore, that research capacity development is indeed essential for realizing the university academic status of producing excellence in research and teaching. This would contribute not only towards sustaining development of the university, but also to the development of individual academic lecturers. When reference is made to academic excellence of an institution, the focus is never exclusively on teaching and learning, but also on comprehensive and integrated services provided by the university.

4.3.7 If I could somehow help implement a policy where a form of incentive is emphasized through a financial gain to encourage academics to do research, this would be another motive for undertaking research.

The fact that the introduction of research output was an incentivized driver by the South African Post-Secondary Education (SAPSE) subsidy formula which cannot be denied and this is still a current funding formula which leads to an increase in research output in South African universities. Because of the high unit value per research output, the funding framework is biased towards rewarding research output at the expense of teaching. This has resulted in a very high increase of research output by advantaged institutions that have means and capacity to 'chase' research (Department of Higher Education & Training, 2012, p. 46).

Another way to incentivize education at universities by way of formula funding would be to include the percentage of permanent academic staff with Doctoral degree's qualifications as a driver in the formula. Clearly, this would enhance the drive to renew the academic profession. In South Africa, the Green Paper of 2012 states that provision will be made for addressing staffing shortages at universities, engaging academics in Master's and Doctoral degree programmes locally and abroad, upgrading teaching

qualifications, and improving the overall quality of academics. According to Kotecha (2012), investment in research is intended to improve South Africa's international research and innovation competitiveness while responding to the social and economic challenges of the country (Southern African Regional Universities Association (SARUA), Leadership Dialogue Series Volume 4, Number 1, 2012, p.58). Without the necessary financial incentives, some of the best young brains are flowing out of the academic profession each year. However, incentives to retain academics differ from university to university and mostly depend on each university's capacity to increase and utilize additional third-stream income for this purpose.

The lack of incentives, specifically for doing research is one of the critical factors that contributed to the decline in research productivity and research output at WSU. The Directorate of Research Development needs to consider including certain monetary incentives towards researchers for being research productive through a publication, as this is recognized by the WSU Intellectual Property Policy which came into place in 2011.
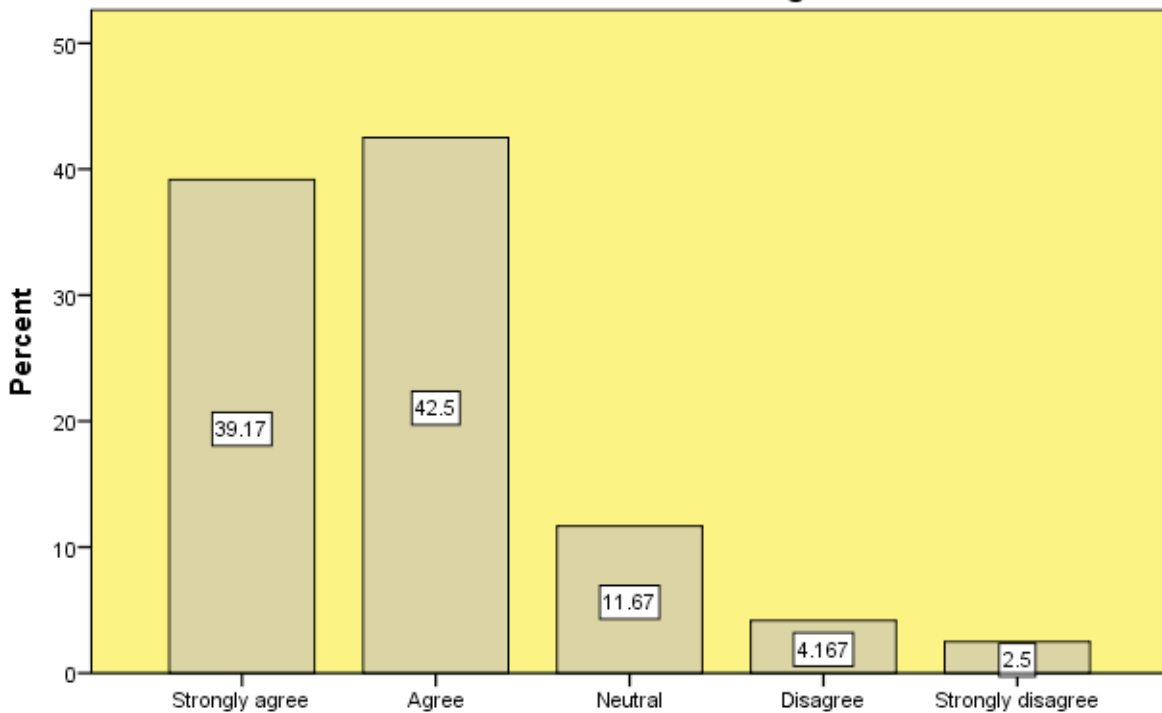
If I could somehow help implement a policy where a form of incentive is emphasized through a financial gain to encourage academics to do research this would be another motive for undertaking research.

Figure 4.14: Research participants indicated their opinion regarding incentives for doing research.

For example, 39% of the research participants strongly agreed that if a form of incentive would be emphasized through a financial gain to encourage academics to do research this would be another motive for undertaking research by academics at WSU. About 42% of respondents agreed with this statement, and 6% disagreed with this statement, and 11% of respondents were neutral.

In a nutshell, this diagram highlights the awareness of the advantages of incentives in order to encourage more academics to do research. The more funds available in the R&D at WSU as an incentive, the higher the research productivity and output is likely to be.

4.3.8 Ethical issues permeate every human activity, and this applies no less to the research capacity development by the Research Associate. Ethical decisions and constraints ought to always be involved.

My ethical approach has been recognized throughout the whole study. According to Struwig and Stead, (2001, p.66), conducting a research is an ethical enterprise. However, ethical and moral debates have no clear answers, and instead hold different meanings to different people. This means therefore, that I was placed under a considerable moral responsibility to conduct my research in the best possible interests of everyone concerned. This is why I informed my research participants about every aspect of my phase 1 study from the initial planning stages, through data collection and analysis, and I intend to maintain this until the final reporting stage of my research findings. For instance, I began this through utilizing the consent form in my research proposal and in chapter three (see APPENDIX B). This means I gave consideration to issues such as: "How will I respond to any unexpected ethical issues during the conduct of my study?" When conducting any study, there are always unexpected ethical issues, some of which can be life-changing for the individuals concerned and which thus had placed me in a position of great moral responsibility.

According to Wellington (2000 p.54), all educational research should be 'ethical'. My practice as a Research Associate is grounded in a particular code of professionalism and ethics, even if much of the codes of ethics at WSU are unwritten. Being an academic, likewise, demands certain standards of behavior and is founded on principles of care and respect for others (Atkins & Wallace, 2012, p.30). As my study is Action Research study, one of the reasons that an ethical framework needs to be reflexive is the potential of unethical issues among academics whom I used as my research participants. This means that where, for example, I prepared myself in advance for any unanticipated ethical issue if it arises, I would respond to such an issue in a thoughtful and reflective way, and try to ensure that my response is moral and in the best

interests of all concerned, in other words, construct, apply and practice ethics in the context of my research.

In short, research ethics that permeated me throughout the whole study provided me with a code of moral guidelines on how to conduct research in a morally acceptable way. Such guidelines prevented me, as a researcher from engaging in research misconduct. These was attained through the following: my research participants gave me a meaningful informed consent for participation, confidentiality; distorting and inventing data was never committed; plagiarizing the work of other colleagues was never committed; republishing colleagues' data as my original contribution without proper acknowledgement was never done; failing to maintain my research participants' confidentiality did not occur; privacy of my research participants was never committed; I executed this study properly and never deceived participants from the beginning to the end of my study. As a researcher I cannot foresee in advance what harm may occur as a result of my work. At a practical level diagram 4.15 below reflects research participants' opinions and responses regarding their understanding of ethical issues in research.
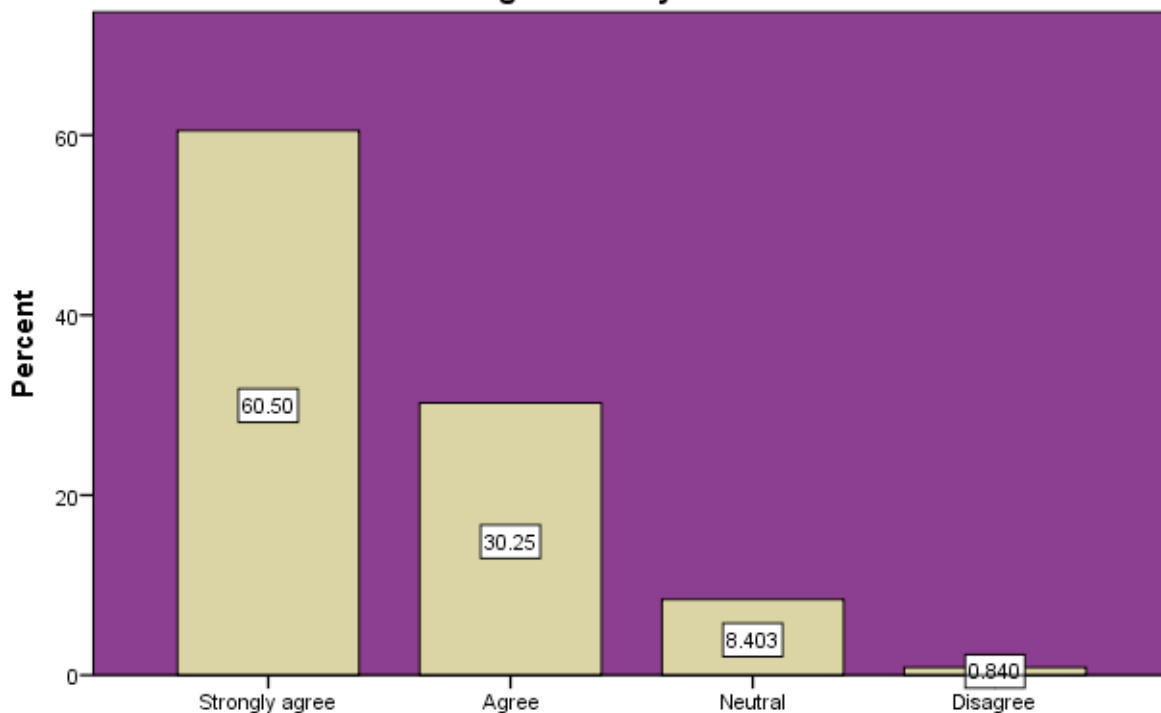
Figure 4.15: WSU Research participants' opinions regarding their understanding of ethical issues in research.

As a result of my interaction with my research participants during the time I was collecting data through questionnaires, 60% of them strongly agreed and 30% agreed with the statement that 'ethical decisions and constraints ought always to be involved when conducting research. About 8% of research participants were neutral about the issue of ethics and one participant disagreed with the statement. I suspect their response reflected lack of knowledge about ethics.

I can confirm that most research participants were well informed about ethics. They understood what this study was about, and what their participation meant to me and my study. As a matter of fact, according to Laws, Harper and Marcus (2009, p.245), research for development work is often very much a team effort. This is why I had to

treat all those involved with respect, and I made efforts to ensure that less experienced academics gained the maximum possible skills from their participation in this study.

Data interpretation was my attempt to find meaning in the data in terms of the implications of my study's findings. This simply means that data analysis involved summarized what was in the data, whereas interpretation involved making sense of the data and finding meaning in that data.

> *The plain fact is that music per se means nothing; it is sheer sound, and the interpreter can do no more with it than his own capacities, mental and spiritual, will allow, and the same applies to the listener* [Thomas Beecham, 1879-1961].

After analyzing my data I was faced with the task of trying to understand it. According to Struwig & Stead (2003, p.150), it was important to note that data analysis is a specialized area of research procedure that requires experts, hence this process would eventually lead to the improvement of my practice. The claim I am making is on how my facilitation of research capacity development style at Walter Sisulu University influences academic lecturers that I interact with since the purpose of this research study was to inquire about how I could improve my own practice.

4.4 Quantitative Data Interpretation

In my interpretation of my quantitative data the question that I had to answer was: 'Have I actually measured what I intended to measure and did I get accurate results?' At the end of every methodology that I have used to collect and analyze data, I intended to be able to answer this question. Methodology is a rationale for collecting and analyzing data in order to get the results that I want. At the same time, according to McNiff (2002), I must check constantly that what I am doing is working or likely to give me the results that I want, that is, being able to improve my own practice. Contrary to this, the statistics has been continuously showing that Walter Sisulu University is amongst the universities who, since 2006 is still having the lowest research

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output in the country as compared to other South African universities. This means that WSU is still prioritizing on teaching more than research, as this is illustrated in table 4.6. Considering the situation at WSU, one can conclude that teaching loads do have a negative impact on the quality as well as throughput rates. Since academic staff and student averages clearly show heavy teaching loads per academic lecturer in this university, this does have an impact on their research productivity. The theme for the phase one data collection and analysis was therefore on: "the impact of heavy teaching load at WSU".

Be that as it may, for any university to survive, it has to make research a pivot around which all academic activities revolve. Thus, quality teaching and learning which are also informed by research, should be just as responsive and relevant as community partnerships that are based on research. However, at WSU, many academics spend most of their time on teaching and teaching related activities. In order to find out what can I do to improve my practice I had no other option but to continue conducting more research for validity and reliability purposes. I then used a qualitative research methodology through conducting interviews with 24 academic lecturers as my research participants. Koshy, (2010) believes that action research is a specific method of conducting research by professionals and practitioners with the ultimate aim of improving practice. Therefore, my next phase explains precisely how I conducted the qualitative research methodology in trying to see how I can change and improve my practice.

4.5 SECTION C: THE QUALITATIVE DATA FROM INTERVIEWS

The idea of analysis implies some kind of transformation at WSU. I, therefore, transformed the audio data that I received through conducting of interviews into text that I analyzed using NVivo software. The reason for this, according to Gibbs (2007, p.3), is that text is an easy form of recording that can be dealt with using the 'office' technique which is NVivo software, in my study. Firstly, I had to do a training on how to use a qualitative research method related software which provided me with a powerful and structured way of managing all the aspects related to a qualitative analysis. Attending NVivo training was a prerequisite for an effective qualitative analysis consistent and systematic data management. Training in NVivo enabled me to analyze qualitative data that I collected through conducting interviews. Thereafter, I was able to transcribe the data into a document that was analyzable and explained thereafter. Through qualitative research, I learnt that data analysis requires considerable preparation and planning. As a result of this training, the use of this technology (NVivo) transformed my qualitative data analysis in many ways.

Firstly, the introduction of digital voice recording equipment changed not just how qualitative data was collected but made possible new ways of analyzing my data.

Secondly, interviews, conversational and discourse analysis would all be extremely hard to understand, if not almost impossible, without having recorded them. In a nutshell, carrying out a qualitative analysis requires careful and complex management of large amounts of texts codes, notes, and so on. Coding in qualitative analysis is a way of organizing or managing large volumes of data such as interviews that I conducted.

Thirdly, transcription, especially of interviews, is a change of medium, and that introduced to me issues of accuracy, fidelity and interpretation. For example, it was easy to go back to the recording to check my interpretations based on the transcript, whenever there was misunderstanding. I would find out that hearing the voice again

makes the meaning clearer and even suggest different interpretations. Careful listening to voice recordings and double-checking of my transcript familiarized me with the content. Inevitably, I started to generate new ideas about my data. Digital voice recording and using NVivo software to capture and analyze was a technology or machine that made this facility superior compared to other facilities like a cassette player. For example, a digital voice recorder allowed me to pause the recording any time and be able to resume from where I left. I was able to control the audio speed as I was typing. The advantage of digitizing is that the pause is instantaneous and no words were be lost when I restarted the playing, and there was very little need for rewinding.

Fourthly, I found it essential that my data collection method be consistent with the ethical principles presented in my research proposal. For example, the academics being studied at WSU knew the nature of the study and were willing research participants of this study as they had signed informed consent. One other ethical consideration was that, any data collected from my research participants would never be traceable back to particular individual academics, hence the need to maintain my participants' right to privacy. According to Leedy and Ormrod (2013, p.151), one common way of keeping personal data confidential is to assign various pseudonyms to different participants and to use those pseudonyms both during data collection and in the final research report. In my case, I did not assign any name to any research participant.

Finally, I ensured anonymity regarding my transcripts although these are still available for possible re-analysis. For example, a second user of this data is obliged to maintain anonymity as I have done. All in all, I prepared my data for an archive so that it could be reused for further analysis.

4.5.1 Introducing new transcribed documents into the NVivo Program

NVivo program is a qualitative data analysis (QDA) computer software package produced by QSR International (www.qsrinternational.com). It has been designed for qualitative researchers working with very rich text-based and/or multimedia information, where deep levels of analysis on small or large volumes of data are required. According to Gibbs (2007, p.105), since mid-1980s the technology that has had the most impact on qualitative research has been the personal computer, initially in the development of computer-assisted qualitative data analysis software (CAQDAS) and more recently in the introduction of digital technologies such as digital cameras, digital audio and video. NVivo is intended to help users organize and analyze non-numerical or unstructured data. NVivo supported me with storing and manipulation of texts or documents and it supported with the creation and manipulation of codes that I linked to sounds or voices that was a data that I received through interviewing 24 academic lecturers that I used as my research respondents from WSU, Nelson Mandela Drive campus. However, using NVivo (a computer software tool) was not to make my data look interesting. Rather, I used this tool to make sense of my data. For example, I used this tool that works best for me to help me see my data. A tool was just a tool and it was me who did the interpretation (Samaras, 2011, p.210). Yet, according to Gibbs (2007, p.54) coding is a fundamental analytic process for many types of qualitative research.

Qualitative research is a method of inquiry employed in many different academic disciplines, traditionally in the social sciences, but also in market research and further contexts. Qualitative researchers aim to gather an in-depth understanding of human behavior and the reasons that govern such behavior. The qualitative method investigates the why and how of decision making, not just what, where, and when. Hence, smaller but focused samples are more often used than large samples. It consists of identifying one or more passages of text that exemplify some thematic idea and linking them with a code, which is a shorthand reference to the thematic idea. It

involved identifying and recording one or more passages of text or voices that exemplified my research respondent's responses to open-ended questions that I asked. Usually, several passages that I identified and then linked them to my respondent's responses as themes. Then, coding is the way of indexing or categorizing the text in order to establish a framework of thematic ideas about text received. In this way, coding enabled me with this form of analysis of a qualitative data. For example, I retrieved all the text coded with the same label to combine passages that were all examples of the same phenomenon, idea, explanation or activity. This form of retrieval was a very useful way of managing data and enabled me to examine the data in a structured way. For example, coding was easy to do when transcribing data. Data was even possible to code directly from an audio recording. This means then that using NVivo software made it much easier to retrieve the sections of voices that I coded as text. NVivo calls codes as 'nodes' and distinguishes them as free nodes. Typically, I created five nodes which became free nodes that arranged captured data accordingly as retrievals. Initially, these themes came from Section C (open-ended questions) of the questionnaire that I used as a guide when interviewing these 24 academic lecturers that I used as my interviewed research participants. The very same questionnaire is the one that I used during my phase one through which I collected a quantitative research data from 120 research participants, as in APPENDIX A. The five categories or concepts that these codes represent came from the Section C (with 13 questionnaires) that I used as a guide when conducting interviews amongst 24 academic lecturers that I used as my qualitative research participants, as follows:

SECTION C

1. Why do you feel there is a need for a better facilitation of research capacity development by the Research Associate at Walter Sisulu University (WSU)?
2. What do you think should be done to change or improve the way research capacity development is facilitated by the Research Associate at WSU?
3. Do you feel that the research related services rendered by the Research Resource Centre are enough at WSU?

1. Do you like the way research is currently conducted and facilitated by the Research Associate, and what is it that you feel need to be considered as well?

2. What are the current responsibilities and duties that according to you the services that I am rendering as a Research Associate must include?

3. What do you think is the cause of a decline on research productivity at WSU? Does it have anything to do with the way I render my services at the Research Resource Centre?

4. What would you suggest that I should do to prevent such a decline from happening in future at WSU?

5. Do you think research related activities as organized by the Research Resource Centre at WSU should be more regular, or how many times should we hold such activities in a year?

6. Do you think your current job, other than teaching has explored your potential to do research to the fullest? What are the changes that you would like to see in your current work situation, or you would like to point out or discuss with the Research Associate?

7. Would you encourage collaboration or team work in your area of studies for the purposes of improving publications, as this is being encouraged by the Research Associate?

8. How would you define success in your work environment, teaching or doing research, or both? What would you consider to be essential to the training program of your choice organized by the Research Associate?

9. What are the benefits that you would expect to gain from any training and development program organized by the Research Associate from the Research Resource Centre?

10. Please, share a word of advice from your experience that has a research related significance during the time you have been serving in this university and the time that you have interacted with your colleagues and the Research Associate, whether positive or negative towards research related activities.

I grouped and shortened these questions into five main themes as contents of my data, which indicates matters of interest to me, for analysis purposes, as follows:

1. Research development (**represents questions like: 1 & 2**);
2. Research services rendered (**represents questions like: 3, 4 & 5**);
3. Research productivity in terms of output (**represents questions like: 6, 7 & 8**);
4. Benefits of practice improvement or change (**represents questions like: 9, 10, 11 & 12)**; and
5. Academic's perspectives (**represents question 13**).

These coding categories helped me sort descriptive data by topic. The purpose of reducing questions into topical categories to the essential minimum was to serve the ultimate goal of data analysis by identifying themes. The above qualitative research questions drew me towards focusing on particular types of codes. According to Chang, Ngunjiri and Hernandez (2013, p.106), a theme refers to "a phrase or sentence that identifies what a unit of data is about and what it means? A theme 'at a maximum describes and organizes possible observations or at the maximum interprets aspects of the phenomenon' (Saldana, 2009, p. 138). For example, all the information that I received from my research participants, as per these systematic and thematic codes, based on Section C 13 questions, was linked to each and every theme as codes. Making such a thematic observation required a comprehensive understanding of my data. This helped me apply all the information in a categorized and consistent way according to the content of my data. These codes represent some concepts, themes or ideas that I had in my mind for an organized analysis of my data. Without having to confuse the text, I would just decide where new text really fits in, as per these codes. According to Gibbs (2007, p.73), codes that are similar kinds of things or are about the same thing gathered together under the same branch of the hierarchy, as siblings of the same parent. Rearranging codes into a hierarchy involves thinking about what kinds of things are being coded and what questions are being answered. Therefore, coding guided me

to retrieve similarly text and compared how it varies across cases and with text coded in these five different nodes, as follows:

Figure 4.5.1: A thematic coding and categorizing of text

Nodes clustered by coding similarity
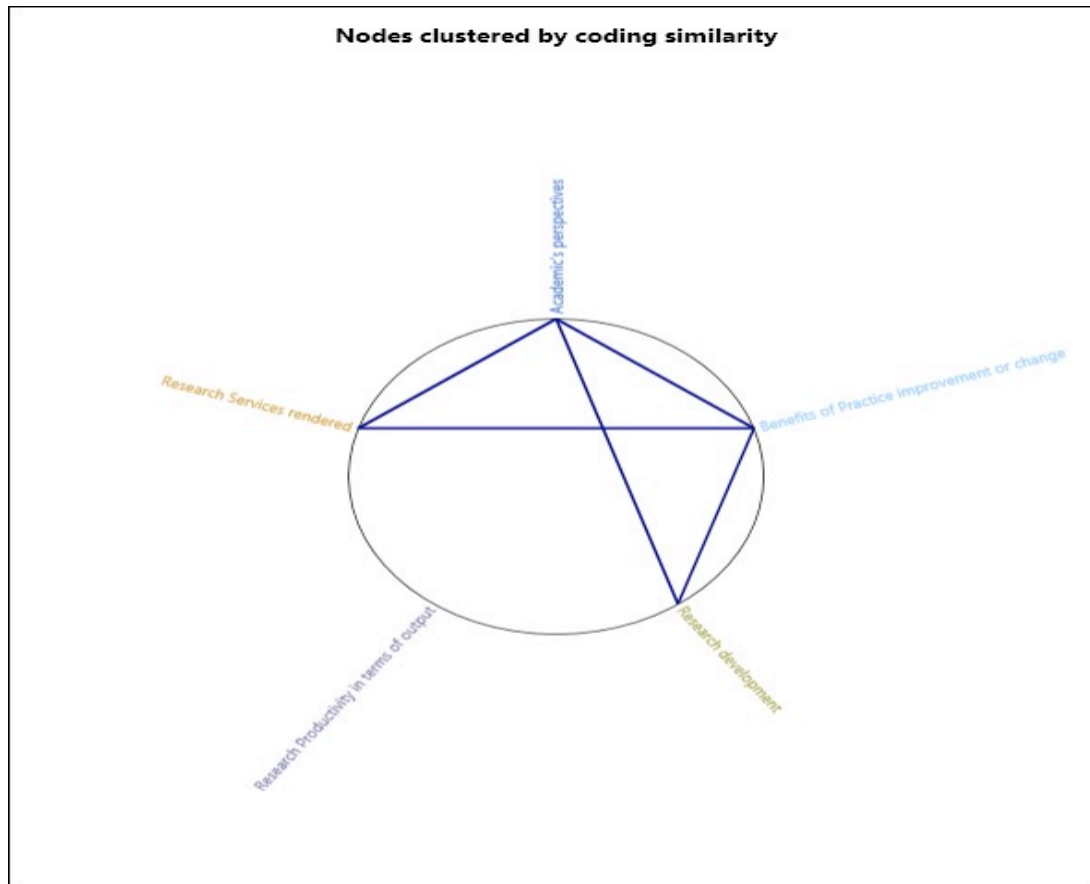
All the information or text linked to these codes could be retrieved and captured accordingly as passages which I viewed in the context of these themes into which this information belonged. Another advantage with coding is that it helped with the date when the coding was done and changed. Through these five codes a reader can be able to detect the content of the text that I am looking for. For example, in this chapter four I organized this thematic structure in particular, in order to bring together all my disparate (essentially different in kind) information from my research participants into a coherent 'meaningful open-ended answers'. Such a thematic structure appears as case-

by-case account, where each theme discusses all respondent's responses. The following is a qualitative data that I received based on the above categorical themes:

1. A thematic presentation of the findings using different individual answers to illustrate each of the main themes; and
2. A set of individual answers followed by a discussion of differences and similarities between cases.

Initially, my qualitative research involves interpretation and that I needed to be reflective about the implications of my action research method for the knowledge of how can I improve the way I facilitate research capacity development at WSU. Therefore, reflexivity is the awareness and acknowledgement of my role in the construction of how can I improve my practice knowledge, from my research participants' perspectives. This is why I need to produce a report after analysis about my research and be able to recommend based on my research participant's answers to my problem based questions. This includes many of the ideas and examples that I recorded during the conduct of interviews. This is why I needed core ideas or themes which are central in explaining the situation about the decline of research productivity at WSU and other phenomena that my recommendations will address and discuss in the next chapter.

4.5.2 NVivo Program (Software) which assisted me with the qualitative data analysis

The use of technology, that is, NVivo program transformed qualitative data analysis of my study in many ways:

Firstly, the introduction of digital voice recording equipment changed not just how qualitative data was collected but made possible new ways of analyzing it. Narrative conversation and the discourse analysis would all be extremely hard, if not almost impossible, without voice recording. However, I attended training on how to capture

and analyze data using NVivo software which is version 10 at WSU. The software provides a powerful and structured way of managing data analysis.

Secondly, the easy ability to get what seems like a complete record of interviews, conversations (between myself and the 24 research participants or academic lecturers that I interviewed at Nelson Mandela Drive campus) made possible a much closer examination of what was being said and how it was expressed.

Thirdly, this software enabled me to keep good records of interviews and analyses and gave me access to data so that it could be examined and analyzed (as shown in the next pages). However, Nvivo could not write meaningful text for me, but made the process of capturing a transcribed data into word for analysis a lot easier. Having used NVivo made qualitative analysis easier, more accurate, more reliable and more transparent, but the program could not do the reading, thinking and interpretation for me. The coding and retrieving of text did not only make it easy for me to select large amount of text and apply codes to them, but made it easy for me to retrieve all similar coded text without decontextualization, that is, without losing any information about where such and such a text came from and to which code it belonged.

All in all, my coding remained grounded from the data that I transcribed from the interview's extracts showing line-by-line coding, as per the above five themes in response to the Section C questionnaire that I used as a guide during the conduct of the interviews. Likewise, Gray (2009) observed that the use of a questionnaire is valid for discovering information that cannot be ascertained in any other way, or for evaluating the effect of an action research intervention. The questionnaire, in particular is open-ended which afforded my research participants an opportunity to express freely their views and experiences of their academic working conditions and what they think is continuously causing a decline of research productivity at WSU. In the true sense of the terms, during interviews open-ended questions have no definite responses and they contain answers that I recorded in full, allowing research participant's free expression of

their views and ideas. As a matter of fact, according to Koshy (2005, p.89), designing a questionnaire needs great skills, especially when someone uses open-ended questions which are designed to make a thorough investigation.

As my collection of data progressed I noticed that the volume of my data was growing quickly. This is why data organization and management precedes analysis and interpretation. In reality, organizing data and the initial steps in analysis often happened as I collected the data. According to Chang, Ngunjiri & Hernandez (2013, p.96), when collecting a data researchers need to be organized. This is not a gift that some people have and others don't. Organization is a set of disciplined skills that can be learned and cultivated as habits (Saldana (2009, p.28). Hence my data organization began simply by filing away what I collected for my study, whether it was material from my personal memory or a physical project. Through NVivo program, I stored my data in a logical place where I could easily retrieve for my use later. NVivo is a computer software tool that allowed me to sort, organize, store, analyze, and access large amounts of data and was only useful as the information I entered into this program and appended as APPENDIX E. This data are the answers that I received from the 24 research participants answering 13 questions as per the Section C questionnaire, and I stored this data as per the above five thematic codes.

4.5.3 Data Analysis

The purpose of data analysis is to discover what is going on in the data which is a prerequisite for interpretation (Chang, Ngunjiri & Hernandez, 2013, p.101). Similarly, Glesne (2011, p.184) observed that the goal of data analysis is to "describe, compare, and create explanation". The ultimate goal of action research is to use my findings to make effective changes or choices. By the way, this study is a form of self-reflective inquiry that I decided to use in my work environment for the practice improvement purpose. According to Oja & Smulyan (1989, p.4), educators become willing to change and improve their own practices from their own consequences rather than reading

about what other people have discovered. This is why the purpose of this study is an action inquiry which begins with the question, 'How can I improve the way I facilitate research capacity development at WSU using action research methodology?" Action research, according to Koshy (2010), is a specific method of conducting research by professionals and practitioners with the ultimate aim of improving practice. Hence the research vision for WSU is to create an enabling environment that empowers staff and postgraduate students to conduct research. As an action researcher, I have identified the following characteristics:

- Action research is directly carried out by a researcher (myself) who is directly concerned with the problem that I am investigating about, which was about the decline of the research productivity at WSU since 2006;

- This study was practically about the work that I do (facilitation of research capacity development at WSU) and the colleagues that I interacted with whom I used as my research participants;

- The investigation took place in my working environment (Nelson Mandela Drive campus) where I am employed as a Research Associate, for the purposes of my practice improvement, as the decline of my university research productivity is my concern;

- My research findings will definitely help change and improve the status of research productivity at WSU, from my research participants' perspectives (action research is viewed as a highly collaborative and reflexive process whereby I examine my own practices (Schumacher, 2007, p.31)). This means then that, my study was grounded in the culture and values of the social group whose members were participants in my study; and

- The ultimate aim of this study was to improve practice in some way or another, not only to benefit myself, but also to benefit the university that I serve as a research Associate.

To this end, the collection and analysis of data was accurate and credible. Accuracy in action research means that the data that I collected must create a fairly true picture of the bit of reality of the problem statement that I identified, observed and ultimately became concerned about, hence I ended up conducting an action research study about it. The idea of conducting such a study came as a result of my concern over the declining of research productivity at WSU. So, as a Research Associate whose responsibility is to facilitate research capacity development amongst postgraduate students and academics, the initial question was: "How can I improve the way I do my work?" Therefore, accurate and credible information that I collected will help me make decisions that are best to help change and improve the situation at WSU, from my research participant's perspectives. Credibility in action research means trustworthy or capable of being believed (Johnson, 2002, p.71). Of course, accurate and credible information would enable me and other researchers to use my data with confidence. Hence, reliability is the degree to which my study can be repeated with similar results. Therefore, my action research findings will not be generalized instead my action research findings will be used to help change and improve similar situations that are faced by similar problem.

In short, data analysis is a process of understanding and interpreting data. Through data analysis I will therefore try and make out the meaning of coded information, what does it tell me about my questions and my interpretation of the data within the context of my practice improvement? However, I did not know that data analysis takes time, but the time and effort has helped me understand what is happening with my data. Narration is one of the fundamental ways that I organized my data. According to Whitehead (2009, p.2), narrative enquiry is a specific type of qualitative design in which "narrative is understood as a spoken or written text giving an account of an event/action or series of events/actions, chronologically connected". Through the narrative enquiry method I was able to receive information from my research participants about their academic working experience and their understanding of research productivity and research development in a university and they willingly shared

their personal experiences with me. In avoiding repetition of the same facts in the received data caused fluctuation of the number of responses from 24 research participants.

Figure 4.5.2: Research participant's overall thematic work frequency.

My research participant's narration provided me with evidence for the general points that I will later infer from their particular different responses to the questions that I asked them. Narration actually gave my research participants voices that my next chapter will encourage and recommend what I, as a research associate and the

university that I serve ought to do and take into consideration seriously with immediate effect. I hope my research findings will be more convincing and persuasive than generalization. The following are carefully selected significant research participant's responses to the questions that guided my interviews, according to the five themes that describe the main objectives of my study, as follows:

4.5.3.1 Theme 1: Research Development

The Research Resource Centre that 'I' manage at WSU as a Research Associate is intended for the use of all senior post-graduate students and academic members of staff of the university. One of my responsibilities is to implement a strategy to facilitate the transfer of research skills to emerging researchers. In terms of the original mandate such a strategy includes organizing seminars, specific discipline workshops, trainings, viz. programmes to address research-related issues like the Statistical Products and Service Solutions (SPSS), NVivo, etc. as well as the linking, where appropriate, of individual emerging researchers to one-on-one interaction for assistance with particular research projects. Analogically, being a researcher is a once-off opportunity to sow the seed that, through various dimensions of the research programmes hopefully germinates and grows into a strong, fruit-bearing plant. This analogy is not intended to be patronizing towards emerging researchers but a motivational and encouraging expression of a way of life and an addictive one too, more especially to novice researchers and postgraduate students. However, WSU's conditions for research have been severely compromised as manifest by the generally poor remuneration, continuous resignations of many qualified academics, continuous students and employee's strikes at WSU, heavy teaching loads, inability to mentor and promote young postgraduate students in order to obtain postgraduate qualifications, inadequate infrastructure, etc.

According to DHET 2012 evaluation, a statistics shows that WSU is amongst the universities who have the lowest research outputs in the country. As a Research

Associate whose responsibility is to promote research culture amongst academics and postgraduate students at WSU, I became so concerned about this challenge that WSU is facing and find it necessary that questions like these must be included in my questionnaire when conducting my study for the purposes of my practice improvement:

Question one: Why do you feel there is a need for a better facilitation of research capacity development by the Research Associate at Walter Sisulu University?

Question two: What do you think should be done to change or improve the way research capacity development is facilitated by the Research Associate at WSU?

According to the following research participant's responses to the Section C questions, the research development is poor at WSU. And as far as the theme on Research Development is concerned, the following Verbatim responses proves the fact that something ought to be done:

1. There are lot of lecturers who were not trained in research, I believe the research in WSU can play a role in capacitating them;

2. Because most of us don't come from the research background;

3. Well we have few PhD's most of our staff have Honours degree qualifications, therefore they need facilitation of research capacity development;

4. You see it is a bit late for a research associate in this department, because the demand on him is so much, however, we appreciate the fact that he is involved in the training and the support given to postgraduate students with their projects. To me it is an over load on one person;

5. When you do research you need company, it is difficult when you are alone, having no funds, and there is no time set aside for research. Really, facilitation by Research Associate would help;

6. Yes there is because you found out at WSU the tone of the pick of research is very low;

7. Maybe the research associate may consider appointing specialist in several fields, like SPSS. It's basically supporting research, forge ties with the research champions, it may be nice to invite them to offer the workshops;

8. Involve everyone to do research. Make sure that you involve everyone in research, and show them how important it is;

9. The facilitation of research would give stimulus to potential researchers to be able to face the challenge;

10. Most staff members especially at lecture level they lack the skills of conducting research they really need support to be able to understand some of the things that are needed in a research and therefore a person who is a sort of specialist need to support them and maybe that could also lead them to being interested in research;

11. It is because currently we need more research exposure as well as capacity development most of us we do not do research, because of the issue of workload, but there should be time to do research;

12. As an institution it is very important to develop the research capacity;

13. Better facilities or better facilitation of research capacity development, it has to be improved because it has found that there is a need to improve; and

14. Just to encourage people to be involved in research. By keep encouraging people in change of perception and to minimize complaining about insufficient time.

4.5.3.2 Theme 2: Research Services Rendered

The research services that I am rendering as a Research Associate to promote research excellence within the university are proven to be poor. Whitehead and McNiff (2006) are of the opinion that action research practitioners should ask other people to observe and monitor them. The importance of critiquing action research studies has been captured by McNiff (2002, p.22) when she writes, "so that my judgement of my work is not held to be only my opinion, I need to make the work available to the critical scrutiny of others, such as my critical friend and my validation group". According to Koshy (2005, p.40), the role of a critical friend is helpful in maintaining rigour, that is, accuracy and strictness and the quality of my research findings. This is why I set up questions like these, to subject myself to scrutiny and critique for the purposes of maintaining rigour and quality of my research findings in order to help me see where I

should improve the way I do my work. Responses to these questions would help me do the right thing:

Question three: Do you feel that the research related services rendered by the Research Resource Centre are enough at WSU?

Question four: Do you like the way research is currently conducted and facilitated by the Research Associate and what is it that you feel need to be considered as well?

Question five: What are the current responsibilities and duties that according to you the services that I am rendering as a Research Associate must include? The following are the responses that I received to these questions:

1. *Yes, there should be more workshops and seminars, the research associate must provide us with resources for research like laptops or computers;*

2. *Yes, there must be on going workshops which will target all faculties. More workshops and seminars related to how to conduct research how to analyze data, so I feel there are more activities that need to be organized, some of them include mentoring of junior researchers, like I said equipping academics with skills to conduct research even in class, in order to do more action research;*

3. *Yes, you know they are very welcoming and they are very eager to help so I think they are doing a good job. Market yourselves more and just at the beginning of any body's research make sure you tell everybody not to go anywhere because you are here to help us. My problem has been that of writing, the experience I had when writing a proposal was not nice it was like I was drowning in the swimming pool and couldn't swim, but after interacting with you I became positive and that has put me in chapter five of my PhD.*

4. *I don't think they are enough, I have already answered this question, but if we could know that what is your role, introduce yourself well to the academics, so that we know what you are responsible for;*

5. *I think the research associate is doing his best what he may need is some support, he does a lot of running around on his own and research needs a team we need to build more manpower at WSU;*

6. *I don't know how the resource center can assist me;*

7. *I don't know much what you are doing;*

8. *I think we need to have more workshops, and encourage people to do research;*

9. *I know that you are active in promoting research, enough is a strong word, services are never enough, I would just say they are good but not enough. I am happy with the service, even if I have not used your services I know when I want to I will be able to use it and you will assist;*

10. *If the resources can be made available, for example, in our department there are no computers for research and you can't do research without funds because we have to visit the sites. There is the issue of software packages, for data analysis in my department;*

11. *I'm not quite sure what's going on today, but the resource centre has really tried to put in things and being innovative, there was no SPSS at WSU previously. There has been a lot done by Research Associate. I think I will firstly congratulate a research unit for what is doing for this university because as I said earlier on because of the teaching load and because of the ups and downs of the university research could have been easily ignored but the persistence sometimes classified by other people as irritating but I think it was helpful otherwise the research would not have been done if you were not doing that, If I would give advice I think be persistent, be tolerant understand that people it's not that they are ignoring research it's because they are overwhelmed with other issues also I would advise is to look at the workload policy of the university;*

12. *No, they are handicapped. The research resource centre is not given enough power to operate; if it can be given enough power I see a lot of potential in that office. We must always have an update of research in the university; there should be a newsletter from your office updating us about people who have*

attended conferences, students that have performed excellently. Yes, I think there is a need for meetings to be organized and seminars;

13. *For the staff member who still has the motivation to do the research, do as much as you can to keep them motivated, keep the activities coming, make sure we have the facilities, organize mentoring arrangements. As I have noted the researchers should be encouraged to make most of the opportunities, the researchers need to be assured they are not alone;*

14. *No, they are not enough, they need to do more, there is something missing here. Data analysis, because you can collect data and do all these things, here in this university they only talk about SPSS as if this is the only way of analyzing data there must be another way, other means of analyzing data other than SPSS. Yes, I know there are but people they think SPSS is the only way, Qualitative way of analyzing data other than the software ones and also the other software means of analyzing data we need that one. And also how to publish publications working with publishers, peer review whatever, I am not saying you do not do that;*

15. *No, I don't think they are enough but there is a room for improvement so we need to improve it. Yes, I think the way research is conducted but it needs improvement and also resources. Informing every academic about the services that are rendered by Research Associate. To encourage academics to do research;*

16. *I'm not informed sufficiently about the services of a research associate.*

17. *Well, it is that of cause being more aware of the services offered by research resource centre should be adequately equipped, with equipment and staffing;*

18. *I believe they are doing enough. I would suggest that the scope of their function should be extended to the student level, if it could engage students at 1st to 3rd year levels it could be better. Include more students;*

19. *Yes, they are at some extent. Yes I do, because at least, there are things you gain when you attend the workshops.*

Judging from this data it appears that about 50% of academics do believe that the services that are being rendered by the Research Associate are enough. On the other hand, almost 50% of them do not even know what where the centre is and what does it do, as much as they do know if I have assisted them with anything. This is why they are expecting the centre to provide them with material such laptops and computers so that they could be able to do research, when they have time. Finding time to do research appears to be a problem with other academics. It means therefore that I still have to market myself within the university, as some of them suggested.

4.5.3.3 Theme 3: Research Productivity in terms of output

In view of the fundamental significance of research productivity for measuring academic excellence and ensuring sustainability, universities can no longer afford to relegate research. Poor research productivity at WSU resulted in the decline of research productivity which triggered my concern and as a result I conducted this study. My understanding is, in order to survive, a university has to make research a pivot around which all academic activities revolves. Thus, quality research and teaching is informed by research, just as responsive and relevant community partnerships are based on research. Also, sustainable income generation for academic activities depends on research. This means then that research and knowledge creation are defining characteristics of a 'university' and absence of severe diminution of this aspect in a higher learning institution spells an imminent loss of its university status, and this is the situation in some few universities in South Africa, including Walter Sisulu University (WSU).

Every year, there are annual letters which serves to inform universities about how much units have been allocated for journals, books and for conference proceedings, which amounts to the total units for that years publications. According to the allocation of research output units for WSU, there has been a decline since 2005 when it received 22.43 units compared to 2005 academic year where it received 33.32 units. In 2007,

WSU was allocated 15.85 units for journals, 0.83 for books and 1.83 for conference proceedings, which amounts to a total of 18.51 units for its 2007 publications. The university was awarded 14.15 units for its 2008 research publications outputs compared to 18.51 units for its 2007. Over these four years research output has decreased by 25% at WSU. Judging from this data, I therefore decided to ask for academic's opinion, regarding the continuous declining of research productivity and research output at WSU, as follows:

Question six: What do you think is the cause of a decline on research productivity at WSU? Does it have anything to do with the way I render my services at the Research Resource Centre?

Question seven: What would you suggest that I should do to prevent such a decline from happening in future at WSU?

Question eight: Do you think research related activities as organized by the Research Resource Centre at WSU should be more regular, or how many times should we hold such activities in a year?

In response to the above questions regarding research productivity at WSU, this is how the research participants responded:

1. *I don't think the decline of research productivity at WSU has anything to do with you, because we have more workload as lecturers. I am laughing at this because what is the decline whereas there has never been any rise, you do not have to take this to yourself, it needs all of us working together;*

2. *Again the question is presumptuous, I may not think there is a decline there may never have been any link line, so what you are saying just an improvement from zero. I have been here for ten years and what I see is mostly teaching;*

3. *We do need more research output for WSU;*

4. *There is no research culture, research directorate is not helping with such issues at all, most of the things in research office should be electrical not hardcopy. Create an awareness that the research resource centre office is there;*

5. *The problem at WSU workload is too much, so there is no time to do research;*

6. *You know to answer this question when I was on study leave at UFH I had a paper published after completing doing my research but here in our institution I have written so many papers in my degrees not even a single paper that was published under my name, but I have seen my paper under one of the professors publications. So, what I am saying here our senior colleagues they exploit young academics, they exploit students for their own benefit they encourage students to do research and then after finishing they rework around those papers and never inform students that they are publishing them as their own papers;*

7. *Well, I am assuming that there is a decline and if there is a decline I will generalize and say that perhaps unlike other institutions the importance of being productive as a lecture has not been emphasized sufficiently at Walter Sisulu University. I do not want to venture an opinion I have not made an honest assessment what is being offered and to what extent it produces desired results;*

8. *No, I think it's the general demotivation of staff members, firstly I'll say because of some aspects of the merger and because staff members especially, the lectures do not see the importance of conducting research hence they only see the importance of conducting research when they are studying but conducting research for the purpose of increasing research output they are not skilled, they do not have interest and they do not see the importance of doing that. I think the policy that we have which says a lecture must produce one article in a year given the support by research associate that one article can be increased even at lecture level if they get the support;*

9. *No, I don't think the decline on research productivity has anything to do with you, it's the responsibility of the whole institution. I don't think you can do this alone you have to engage the whole institution. I would like to have less work and more time for research, it has but it's the issue of time;*

10. *I think at WSU research is not made a priority it has to be made compulsory for academics to publish a paper every year. And also sufficient workload. So far I*

don't feel obligated to do research, if it could be made compulsory that academics should publish yes, if we could check the quality. With me research informs my teaching, my teaching informs my throughput;

11. *No, the decline on research is not about the resource center, but the university as a whole.*

To summarize research participant's views regarding the declining of the research productivity at WSU, most argue that, indeed, this has got nothing to do with the Research Associate. Otherwise the university must have a policy and implement it on academics so that they know the importance of publications. Apparently, the teaching workload has resulted in a lack of interest in doing research by the academics. Therefore, a policy which requires every lecturer to produce, at least, one article in a year would definitely change and improve the situation at WSU. If needs be, this policy could even be made compulsory.

3.5.3.4 Theme 4: Benefits of practice improvement or change

Initially, the research question that guides my study is, "How can I improve the way I facilitate research capacity development at Walter Sisulu University. By practice improvement, I refer to the betterment of my facilitation of research capacity development for the purposes of promoting research productivity and research output amongst academics and postgraduate students at WSU. McNiff (2002, p.9) believes that this question: "How can I improve my work?' contains a 'social intent'. The intention is that, due to the decline of research productivity amongst academics at WSU since 2006 academic year, probably it is because of the way I facilitate research capacity development amongst them. Fundamentally, the idea of conducting this study originated from this question for the purposes of my practice improvement. This is why I used a self-reflection action research as the basis of my practice improvement. Action research, according to Koshy (2010), is a specific method of conducting research by professionals and practitioners with the ultimate aim of improving practice. I take it that

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the following questions that I asked my research participants are in line with the theme on benefits of practice improvement or change.

Question nine: Do you think your current job, other than teaching has explored your potential to do research to the fullest? What are the changes that you would like to see in your current work situation, or you would like to point out or discuss with the Research Associate?

Question ten: Would you encourage collaboration or team work in your area of studies for the purposes of improving publications, as this is being encouraged by the Research Associate?

Question eleven: How would you define success in your work environment, teaching or doing research, or both? What would you consider to be essential to the training program of your choice being organized by the Research Associate?

Question twelve: What are the benefits that you would expect to gain from any training and development program organized by the Research Associate from the Research Resource Centre?

Honestly, these are so many questions to be fitted in one theme. However, they are all around the issue of what academics at WSU think they can do to change their academic lives for better and how can the research associate assist them. Here is what they believe could benefit themselves and the university that they serve:

1. *Writing skills;*
2. *I expect to be able to first conduct action research, be able to analyze data myself, to be equipped with skills required in SPSS;*
3. *I think the benefits are that one get to understand, because most of us are not from education and we do not know the methodology to do research if that kind of training was done more and cost effective, one would know that we have gained quite lot of skills;*

4. *Yes, definitely, for instance, right now, I am working with a colleague from anthropology and colleague from English. That is supposed to be happening throughout;*

5. *Anything can be done better, and definitely, there is always a room for improvement. I may not feel there is a need for better facilitation but whatever you are doing I strongly feel it can be done better. Whatever you are doing now continue with it, because there is a bit of research output coming through whatever you are feeling in that process should be continued, consider of cause whatever other weakness we have talked about earlier. Yes definitely, collaboration should be across faculties, and interdisciplinary research is the way to go;*

6. *I won't succeed in my work environment because we cannot do research;*

7. *Be able to write article and to peruse further studies, something that is pushing me to completion;*

8. *The main one if the research office could identify niche areas because it is important for research to be done by groups, and bring along people who have been alone;*

9. *Improve the way I do my work;*

10. *I think the research unit is doing what it can to improve itself, it needs more visibility, raise more funds, fight for people who have published to get their benefit due to them. I think if you stick into basics, firstly protect what is ring fenced for research that will encourage people to do research. Secondly, effect the promotions which have been put aside, people had been told to do research to get promotions. And also try and do what you mentioned earlier integrate more;*

11. *Create a kind of an amendment where these academics can be motivated in terms of time, workload and incentives;*

12. *Encourage young academics to write their own papers;*

13. *Definitely yes, I would encourage collaboration. It's a positive experience, because when you interact with other researchers you gain experience;*

14. *My general problem is when it comes to researchers, understanding the kind of change they want to bring to the society or in their environment, we turn to be fairly traditional to our approach we are not activist for change. Make people to see themselves as activists in the field where research is concerned about, not just capacity building but also bringing change in society in that way more especially in an environment of transformation it becomes necessary that people should not see research as simply enabling them to acquire a qualification but enable them to bring change in society and our society is still going through stress of challenges of various kinds, incapacity, the historical background, poverty and inability to rise above the ordinary level of thinking which a transformational society requires;*

15. *The benefit is that strengthening my skills, research, changes there are different approaches that come through. I like using qualitative research methodology, I would want to get the information from other people on how they tackle certain aspects in the qualitative research methodology;*

16. *No, it cannot explore my potential to the fullest at all, the changes, yes there should be changes in that if for instance the faculty would be able to employ more people, if you look on our work loads and so on we could have a space to do research, e.g. at UWC there are research days;*

17. *If you would have this writing for publications workshop, and do a follow-up until their papers get published;*

18. *Empowerment, whenever I go to a workshop I expect to come back with something new;*

19. *It would be kind of acquiring knowledge, and have a qualification, and movement from one point to another;*

20. *We have gained information in our association with resource center, like Intellectual property that we didn't know about it before.*

To summarize this theme on the benefits of practice improvement or change I found it necessary to ask academics themselves, more especially that they are being affected by

the poor performance of WSU as compared to other universities in South Africa, in order to find their perspectives on this issue. The impression that I got is that, most of the do encourage collaboration, more especially the one kind that would help in improving their lacking research skills and they are willing to avail themselves to work with other colleagues for their own improvement.

3.5.3.5 Theme 5: Academic's perspectives

Generally speaking, individual learning and social context are not separate, says Samaras (2011, p.75). Learning does not occur in isolation and is dependent upon interactions with critical friends. Like the self-study, the term "critical friend" may seem paradoxical, but critique I find it necessary, more especially by trusted colleagues whom I have used as my research participant that I also interacted with. Now that these trusted colleagues of mine are familiar with my study's concern based on the work that I do and the actual questions that I asked them to answer and the outcome that I am working towards, that is, my own practice improvement, I find this question much more relevant to ask their opinion, as their own concluding remark based on their experiences of our interaction, as far as they are concerned, if they are at all:

Question thirteen: Please, share a word of advice from your experience that has a research related significance during the time you have been serving in this university and the time that you have interacted with your colleagues and the Research Associate, whether positive or negative towards research related activities.

By this question, I was provoking new ideas from my research participants that they find relevant as an honest feedback to my study and their critical thinking kind of. According to Leedy and Ormrod (2013, p.17), a critical thinking involves evaluating the accuracy, credibility, and worth of information and lines of reasoning. Most importantly, critical thinking is reflective, logical, and evidence-based. It also has a purposeful quality to it, that is, I had to ask my research participants perspectives in order to be

able to achieve a particular goal of improving my practice. I take it their personal experiences whether negative or positive could help me achieve my goals for conducting this study. The following data is what I received from them as their responses:

1. *We need more funding. The research associate must provide us with resources for research like laptops or computers. At least, we should attend more local and international conferences. Since I started working here so far I have only attended one conference and its demotivating, and discouraging;*

2. *Maybe because of funding related issues some of the things may not be done, for instance, assisting academics with funds to conduct research so I think more needs to be done. Like I said there's a need to do more intervention activities and monitoring to ensure that research associate knows what people don't have and what they need. This definitely needs to be implemented, especially in an institution with a very low culture of research;*

3. *I think Research Resource Centre should come out and market themselves because most of the time some of us do not know they exist. You know they are very welcoming and they are very eager to help so I think they are doing a good job. Since your office is an important one, suggest to the DVC to at least, open up the moritorium on employing new academic staff. you see my current job has just made me aware that one need to do more research on the language issues, but then what I would like you to do is to hold more workshops, because I found more problems when I was doing my research proposal;*

4. *For me research associate needs to be visible, the activities needs to be properly communicated not only through email because most of us we don't access them, sometimes we find that we missed activities we should have attended so all these innovations that you are doing let us also have them, but remember that we don't have these experiences because of our situation of not having resources;*

5. *The first part, teaching hasn't explored my potential at all because there is no opportunity to pay attention to research related activities. I have got pile and pile of things to do either to analyze from students, there is no time to concentrate on that, research is always lacking behind, for me these need to hang hand in hand, research needs to be feeding teaching and teaching feeds research but there is always one leg behind. So there is a gap there. I even applied for sabbatical but I was told that there is nothing like that here, there is no policy, there is nothing about sabbatical;*

6. *Definitely one thing you can look at is better communication, better way to distribute your information, sometimes your notices are too close to a deadline, sometimes are too far away from a deadline you need to find a better way to communicate. You must have a better link to the library services, more especially you should feed a lot more into what's coming from the library, especially in terms of research journals and what's being published, there is no link between you and the library;*

7. *Well yes I enjoy teaching, but not in the fullest because of the workload, and students are rising and we are decreasing;*

8. *I think there should be a dedicated time for research present, you find the research swallowed up by other core business of the universities like teaching, if time is dedicated for research that time has to be honored and we need more time, because we have lost a lot of time, in terms of research development capacity. Yes, I know we are limited by resources, but the need for research capacity in this university is much, even some weekly activities, would do a lot of positive for the university, but of cause, the challenge here is that you have to go to every campus. Again it bows down to HR capacity. But you would know what is achievable in your office;*

9. *Because of the background of the institution as an HDI, many people come from a background where they are not exposed in research. The basic problem is resources, I don't think the number of resources is equal the number of people;*

10. *I think most of the time in terms of budgeting for time, there is no enough time for research, some activities clash with other duties, so we need some budgeting of time;*

11. *With some of dissemination of information, the research resource centre should work with faculties, there has been lack of discussions of where to meet for seminars, people do research in their little corners;*

12. *I wouldn't say the potential has been that much export, it could be meters outside our control that affect the contribution in research. Sometimes when you start working on your research for some reason you have a break because of other commitments, for me the resource centre could communicate with faculties and departments and to find out what is being done to the department, even including postgraduate students, they can also be encouraged. The positive part is the importance of seminars, but from negative experience to me I don't know how can the resource centre assist me, also the financial problem, conference attendance has been limited;*

13. *From a number of issues like funding, there is always an in issue in funding, it is important for us to be mentored, but I think most importantly you mentioned something about mindset that as academics we have a victim mentality that is true its either we too lazy to research and we don't want to give our time for research;*

14. *My experience had been the problem with finances I get lots of them, I have not done research for two years now because of the hell you have to go through to get money for applications. If research office could identify niche areas because it is important for research to be done by groups, and bring along people who have been alone;*

15. *Study the problem, why is it happening, then you prevent it. I think you need a research facility of the kind that you are working, bring in the new comers so they know that kind of assistant is available, we can always do better, there is always a room for improvement;*

16. *Also the statistical package like prima software for zoology related studies. If I would have time without practical then I would be able to do research;*

17. *It's difficult for me because in my line of work it is difficult to do research, because it is not in my job description. I think I will firstly congratulate a research unit for what is doing for this university because as I said earlier on because of the teaching load and because of the ups and downs of the university research could have been easily ignored but the persistence sometimes classified by other people as irritating but I think it helped, otherwise the research would not have been done if you were not doing that, If I would give advice I think be persistent, be tolerant, understand that people it's not that they are ignoring research it's because of they are overwhelmed with other issues also what I would advise is to look at the workload policy of the university;*

18. *I am a man who believe in the future, so I like being positive. The research is part of the academic institution;*

19. *It's basically supporting research, forge tie with the research champions, it may be nice to invite them to offer the workshops. As I have noted the researchers should be encouraged to make most of the opportunities, the researcher need to be assured they are not alone;*

20. *You know to answer this question when I was on study leave in UFH I had a paper published, but here in our institution I have written so many papers in my degrees not even a single paper that was published under my name, but I have seen my paper under one of the professors publications so what I am saying here our senior colleagues they exploit young academics, they exploit students for their own benefit, they encourage students to do research and then after finishing they rework around those papers and never inform students that I have used their papers;*

21. *I think during the holidays we can organize workshops. Skills on how to go about research. It's a positive experience, because when you interact with other researchers you gain experience;*

22. *Make people to see themselves as activist in the field where research is concerned about, not just capacity building but also bringing change in society in that way more especially in an environment of transformation it becomes necessary that people should not see research as simply enabling them to acquire a qualification but enable them to bring change in society and our society is still going through stress of challenges of various kinds, incapacity, the historical background, poverty and inability to rise above the ordinary level of thinking which a transformational society requires;*

23. *The research associate would probably find it difficult to operate in an environment where people do not see themselves as activists and therefore it's not just a question of transforming the institution of research but also transforming the institution generally in that way will then begin to see what real challenges we face are as opposed to selfish interest looking for opportunities to climb up the ladder. Though I do have a problem with this one, except that I could generalize in terms of what I call a greedy institution, the greedy institution include the greedy individuals, greedy parties, communication with anybody at any level whether this be the interviewer or the interviewee has to be informed by understanding how the greed affects both the interviewee and interviewer, by which I mean it's important to consider the motives that an interviewee would have and the interviewer would have and how the culture of communication may in actual fact not be an honest one because of this concern;*

24. *Both aspects are very important, but for teaching there is very little that research associate can do because we we're using tutorials system in our faculty but as senior stuff member we have to support the staff to stick to the model of teaching that we have decided and I will have to support them in research. Three of them had registered in another university they did not progress for the past three years now we have asked them to come back and register with us so that as a team we are three with PhD's we can assist them to progress in their studies;*

25. *Research resource centre need to run things business like, efficiency;*

26. *I would encourage institution to support researchers as much as possible, to do research by giving them time, and financial assistance;*

27. *I think at WSU a research is not made a priority it has to be made compulsory for academics to publish a paper every year. And also sufficient workload. I would suggest that the scope of their function should be extended to the student's level. If it could engage students at 1st to 3rd year levels it could be better. It would be nice if we could have a research week. This could be taken as hearsay but it is happening, certain supervisors make it hard for students to achieve, if whoever supervises the students could do their job and assist the students and not make it hard for them; and*

28. *You must also include the awareness of the importance of the ideas of the people that put forward some people. It is not about the resource centre.*

If I may summarize the very last theme, I completely agree with one participant who is of the view that, 'basically, in order to support research, we must forge tie with the research champions (WSU once had such experienced researchers who were employed to promote or supervise staff and postgraduate students within a certain period of time), but for some reasons that I do not know, only in the faculty of Health Sciences who completed a five years contract). Indeed it would be nice to invite such people with research skills to offer some workshops to other novice researchers. At the same time, researchers should be encouraged to make most of the opportunities that they have. WSU need to learn to dedicate time to do research to academics. Also, researchers need to be assured they are not alone. Because other people's stories present their inner reality to the outside world and often this also makes things clear to themselves. We know or discover ourselves and reveal ourselves to others by the stories we tell. As McAdams puts it:

> *If you want to know me, then you must know my story, for my story defines who I am. And if I want to know myself, to gain insight into the meaning of my own life, then I too must come to know my own story* (McAdams, 1993, p. 11).

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This means that the analysis of these narratives is adding a new dimension to my qualitative research. It focuses not just on what academic lecturers said and the things and events they describe but on how they say them, why they say them and what they feel and experience. Narratives thus allow me to share the meaning of their experiences and gives them a voice so that I come to understand how they experience academic life at WSU and why there has been a decline in terms of research productivity that has affected WSU's research output since 2006 up to date. I find it important to compare case by case academic lecturer's different narratives for the purpose of getting exactly different academic perspectives for the purpose of practice improvement, not only of my work that I do, but also the work that my research participants do likewise. Thus the reason I chose action research as a mode of my work inquiry because, according to Koshy (2005, p.21), "Action research involves continuous evaluation and modifications can be made as the project progresses". Action research did not only enable me to modify my ideas during the course of my study, but also to develop my qualitative research methodology. I find it necessary that I conducted such an inquiry that afforded me an opportunity to experiment new ideas and describe what I need to do, from now on, to change the situation at WSU and why I have to do exactly that. Hence the main question says: How can I improve the way I do my work and why?

4.6 The Interpretation of Qualitative Data

All qualitative data involves writing. Having done all the work of collecting data and analyzing it, and of course, given the effort that was put in by my research participants in providing me with data, it makes a lot of sense to write up the results. What is left of me therefore is to conclude and make recommendations of my findings in the next chapter. Writing about my data is both a form of record-keeping and also a creative process in which I developed ideas about my project. Writing up is to provide evidence from my notes and memos through which I will generate ideas that will form part of my analysis for recommendation purposes. Strauss and Corbin (2008, p.117) defines

memos as "a specialized type of written records, those that contain the products of my analyses". As a result, through writing memos, I captured my initial understanding and mini-analysis of the data as a whole. For instance, writing about the process that I took during my data collection and data analysis using NVivo, has helped me become reflexive about my work and made me aware of how can I improve the way I do my work, from my research participant's perspectives, as this was my motive behind the conduct of this study. The more I familiarized myself with the data that I collected, the more thoroughly I was able to understand what WSU need to do in order to become research productive and avoid the decline of research productivity in future and this has helped with a meaningful interpretation of my data within the larger context. Reflexivity in a broad sense refers to the view that 'I' inevitably, in some way or another, reflect the views and interests of my research participants about the way I have been doing my work and how I can now improve it. Doing this study conscientiously, comprehensively and exhaustively has helped to ensure that my analysis is not only good quality because it is found reliable and valid, but ultimately that it is interesting, persuasive and significant not only to me but to Walter Sisulu University that I serve and to the outside world. However, according to McNiff and Whitehead (2009, p.149), evidence is in those pieces of data that directly show the processes involved in transforming a research question into knowledge claim. Indeed, to display the data is certainly important, but as I have said earlier, the interpretation of data is the essence of my research.

4.6.1 Discussion of the key findings from Section C

Without presentation of the meaning of my actual data, there is no evidence of a resolution of my research problem. For example, the lessons that I have learned throughout my reflexive journey and from my data analysis from all the themes, constitute the following key findings of my thesis:

- Firstly, it appears to me that some academic lecturers are not research orientated. This means then that, research capacity development, indeed, ought to be improved. The claim by most research participants is that, most academics at WSU do not have a research background.

- Secondly, unlike other universities, WSU as a Historically Disadvantaged Institution (HDI) used to employ people with honors degree qualifications for a lectureship positions. Therefore, research culture ought to be promoted more amongst such lecturers. The university cannot expect such people to know exactly what is expected of them as academics, in terms of academic research productivity. Instead, they need to be capacitated. Capacitation means more exposure to academic related duties and a continuous mentoring and guidance. More exposure is likely to develop interest in doing research by junior lecturers. This could be done through short courses, workshops, seminars, conferences, etc. As a result, this is a challenge that has also contributed to the decline of research productivity and output at WSU.

- Thirdly, it is suggested that research development must apply to every academic member, whether new or old. Collaboration would be the best think for academics who lack knowledge of how to conduct research. For example, to quote just one research participant in his or her exact words:

"The facilitation of research would give stimulus to potential researchers to be able to face the challenge".

I think I like the word used here, 'potential researchers', which means WSU needs to recruit young academics who still have a potential of becoming researchers in future, given a chance.

- Fourthly, a work load appears to be a big cry amongst many research participants at WSU, due to being understaffed. This is why most of them are complaining about not having time all together for doing research. And, of course, if the university could balance work and the number of students that it

- enrolls in order to change this situation, would help minimize complaints about insufficient time to do research.

- By the time this data was collected, the university had not provided university academic staff members with resources like laptops or computers. Some respondents mentioned the fact that the Research Resource Centre that I manage must provide them with such material in order for them to do research. The Research Resource Centre does not provide with laptops and computers.

- Other participants are of the view that there must be on going workshops which are targeting all faculties. More workshops and seminars related to how to conduct research, how to analyze data, including mentoring of junior researchers who need to be equipped with skills to conduct research.

- Amongst the facts raised under the theme on Research Services Rendered, one participant responded as follows:

You know they are very welcoming and they are very eager to help so I think they are doing a good job. Market your selves more and just at the beginning of any body's research make sure you tell everybody not to go anywhere because you are here to help us. My problem has been that of writing, the experience I had when writing a proposal was not nice it was like I was drowning in the swimming pool and couldn't swim, but after interacting with you I became positive and that has put me in chapter five of my PhD.

I take these comments as a compliment, meaning that some academics are aware of the Research Resource Centre and my responsibilities as a Research Associate who manages this center which is meant to facilitate research capacity development. As a matter of fact, another comment that I received is as follows:

'I'm not quite sure what's going on today, but the resource centre has really tried to put in things and be innovative, there was no SPSS at WSU previously. There has been lot done by Research Associate. I think I will firstly congratulate a research unit for what is

doing for this University because as I said earlier on because of the teaching load and because of the ups and downs the university research could have been easily ignored but the persistence sometimes classified by other people as irritating but I think it was helpful otherwise the research would not have been done if you were not doing that, If I would give advice I think be persistent, be tolerant, understand that people it's not that they are ignoring research it's because they are overwhelmed with other issues. I would also advise you to look at the workload policy of the university'.

- Finally, to cite one last participant who is suggesting that WSU must also forge ties with research champions in order to bring back research productivity amongst its academics. This would help change and improve the situation at WSU.

On the other side, I must say, I was surprised by other academics whom I noticed the fact that they do not even know where the Research Resource Centre is and what are the services that it renders. This means therefore that I still have a task of making the Research Resource Centre known to the entire WSU academics. Good enough, few participants also noticed the fact that I operate alone from the Research Resource Centre, and of course this point proves the fact that WSU is understaffed. He or she suggested that I get more manpower. I wish this could be so easy to organize. How can I therefore be expected to improve my practice under such conditions?

- 'I don't know how the resource center can assist me' and 'I don't know much what you are doing'. This means that, amongst academic staff members that we ought to serve at WSU have no interest at all in research related issues
- The research resource centre is not given enough power to operate; if it can be given enough power I see a lot of potential in that office. We must always have an update of research in the university; there should be a newsletter from your office updating us about people who have attended conferences, students that have performed excellently.
- For the staff member who still has the motivation to do the research, do as much as you can to keep them motivated, keep the activities coming, make sure we

have the facilities, organize mentoring arrangements. As I have noted the researchers should be encouraged to make most of the opportunities, the researcher need to be assured they are not alone;

By these interpretations of my data and the responses that I received from my research participants, I do not believe that the advices put forward by research participants are enough in order for me to change and improve my practice completely. However, I must say, the action research approach is less concerned with the universality of research findings, more value is placed on action that I have taken collaboratively with my research participants. Hence Koshy (2005, p.221) argues that, 'the intention of the action research is not to make generalizable claims, but to tell a story which is of interest to other practitioners who may want to learn from this study, or repeat it or apply these research findings to their situations as a model.

According to Leedy and Ormrod (2013, p.158), no matter how I intend to proceed with this study for resolution purposes, the data analysis for a qualitative study is a complex and time consuming process. I went through a great deal of information, some of which was useful and some of which was not. However, action research cannot be conducted on once-off basis, but is rather a continuous process. This is why I now confidentially feeling like going on with this study, in cycles which are spiral in nature for purposes of practice improvement. Instead of a linear model, my action research will, from now on, advance through cycles, 'starting' with planning, action, observation and reflection on action, and proceed round to a new action which will then further researched. The protocol for action research is iterative and cyclical in nature. My intention is to cultivate a deeper understanding of a particular situation, starting with the conceptualization of a problem and progress through several interventions and self-evaluations in cycles. For example, I learned from Kemmis and McTaggart (1988) who provides a diagrammatic representation of an action research protocol with each cycle comprising four steps: plan, act, observe, and reflect. This is the protocol that I will use in my self-reflection action research cyclic model inquiry.

4.7 THE PROCESS OF QUALITATIVE DATA ANALYSIS: ACTION RESEARCH CYCLES OF INQUIRY

In order to be as effective as possible in terms of how I facilitate research capacity development in such a manner that academics can as well recognize the need to change their teaching and research practices so that we can all collaboratively enhance research productivity at Walter Sisulu University, I also used a self-reflective action research spiral of cycles of inquiry. My concern was that, are the two methodologies that I have already used to obtain two different types of data, that is, quantitative data that I used SPSS to analyze and qualitative data that I used NVivo program to analyze, able to assist with effective change and effective improvement of my practice? McNiff (2002) argues that the methodology of action research means that I need to check constantly that what I am doing is feasibly working. According to Kemmis and McTaggart (1988, p.11), to do action research a researcher undertakes the following procedure:

- Develop a **plan** of critically informed action to improve a practice,
- **Act** to implement the plan,
- **Observe** the effects of the critically informed action in the context in which it occurred, and
- **Reflect** on these effects as a basis for further planning, subsequent critically informed action and so on, through a succession of cycles.

In support of the action research cyclic model, Gray (2009, pp.318-322), argues that action research cycles may best be understood by closely studying these basic steps. Action research is essentially research through taking the actual action. My use of this methodology was a collaborative activity, involving input from the reliable academic lecturers with whom I interact with as colleagues and at the same time, we are all members of the Transformative Education/al Studies (TES) project at WSU. Fundamentally, the Transformative Education/al Studies (TES) project aims to support

academic staff members who are pursuing Master's and Doctoral Degree studies using the 'self-study' and 'action research'. Collaboratively, we interact as colleagues who hold TES meetings during lunch time every Thursdays. In this project, educators/postgraduate students in Higher Education reflect critically on their learning, teaching, assessment, curriculum and educational professional practice in a variety of ways with the multiple benefits of improving the quality of their practice, earning the award of a senior degree and earning research outputs in the form of publications. This simultaneously impacts positively on the quality and rate of under and post-graduate throughput and research outputs.

Why I decided to use TES members as my research participants particularly for the cyclic model? Because they are the reliable colleagues whom I interact with often and I share with them ideas on how I can improve the way I facilitate research capacity development. The main motive behind following the spiral of cycles was to improve my practice in four stages. As Johnson (2002, p.73) supports triangulation that I seem to have completed by the use of the action research cyclic model methodology, which means looking at something from more than one perspective. The application of triangulation was to ensure that I was able to see all sides of the problem of statement of my study effectively resolved. In action research, triangulation is achieved by collecting different types of data, using different sources, collecting data at different times, and by having other people review my data to check for accuracy and adjust my findings. It is now clear that action research is about changing an environment, system, or practice, and I learned about this context through actually changing my practice, being guided by a feedback from the interviews that I conducted during my qualitative research methodology (second phase). To quote action research's instigator, Kurt Lewin:

> *If you want truly to understand something, try to change it". This kind of work is not simply about changing, but also about improving an environment.*

In supporting this argument John Elliott says, action research is "the study of a social situation with a view to improving the quality of action within it (Elliott, 1991, p.69-70).

The information about the reflective action research spiral of cycle's model means that the analytic function of research is always crucial in terms of making sound inferences and judgements more especially towards practice improvement. After having agreed upon participating in my study, nine members of the TES group signed the informed consent form as is APPENDIX B. Thereafter, the question was: what do I do next? This is one popular model of action research being recognized by many researchers as Kurt Lewin's model (McNiff, 1988, p.22). Lewin's model is a spiral of cycles with four stages. This is a dynamic complementarity which links these four aspects into a cycle, and ultimately into a spiral of such cycles. Skerritt (1992) also maintains that the actual process of action research is in fact a spiral of cycles of action and research consisting of four movements: plan, act, observe and reflect. Therefore, the whole process of my action research was an iterative, cyclical process of reflecting on my practice, from the way I first planned the way I can improve my practice, and then took an action, which I had to observe to oversee this action being implemented, and thereafter reflected on it, and I find it necessary to re-plan my action again due to some identified mistakes that required revision, in order to take further action to implement and revise action, and so on. This is why my action research study took a shape as it was being performed and improved in cycles. My understanding, each and every cycle pointed out the way to improve my actions further and further. It was not possible to evaluate the effects of my actions until my research participants had monitored the extent to which I had implemented them through three different actions in cycles of three exclusive different topic presentations regarding my facilitation of research capacity development. It was only through the self-reflective action research cyclic model that I could plan alternative strategies and implement them eventually in spiral of cycles. The ultimate goal of my action research is to use my findings to make effective changes that will lead towards practice improvement with effective facilitation of research capacity development. For

the effective practice improvement to be possible, I needed to first analyze the data that I collected as per the questions that I set up and described in the previous Chapter Three and APPENDIX F. My data analysis means breaking up three different presentations as the procedure of my actions that I made to the Transformative Education/al Studies (TES) project members, whom I used as my research participants so that my actions can be seen as evidence. According to Kurt Lewin (1951) who popularized action research in the 1930s, who is known as the father of this approach, says:

> *People do change (take action) when they experience the need to change (reflect) and will adopt new behavior (new action) based on their values.*

The explanation of the procedure that I was going to follow when using the reflective action research cyclic model to collect data is in any other collaborative action research. By being reflective throughout cycles enabled me to make collaborative decisions together with my research participants. Very importantly, my actions in all the cycles had two related motives behind, that is, to improve my actions (presentations for better understanding and results) to improve the method that I use to facilitate research capacity development at WSU. The interpretation of my self-reflective action research data from cycle to cycle is a continuation from the data analysis that I conducted in Chapter Three, which was as follows:

4.6 Cycle One

4.6.1 Cycle One: Planning

In the first cycle an idea originated beginning of August 2014 from a discussion between myself and my supervisor around using a reliable Transformative Education/al Studies (TES) project group members as my action research participants. This is a TES project group that I interact with on a weekly basis as we meet every Thursdays during lunch time. Indeed, on the 11 of August 2014 I wrote an official letter (as in APPENDIX G) inviting nine TES members, asking for their permission if they could participate in my study as my research participants. Within the same week, before Friday the 15th of August 2014 seven members replied in writing, agreeing to participate in my study. I asked if they could also reply in writing for evidence purposes.

We, immediately set up a meeting where we collaboratively planned our schedule for the conduct of my self-reflective cycles of action research model of inquiry. The transformative education/al studies (TES) project is all about how we can collaboratively improve our own individual practices, helping each other collaboratively. In our first meeting, my aim was to explain the purpose of their participation and duration in my action research cyclic study, and to allow them to ask questions and further elaboration on issue that they could not understand. After I explained to the members the objectives of conducting the action research cyclic model of inquiry:

Firstly, we planned the actual dates of action where we agreed upon the fact that I would conduct three different presentations on topics that they find necessary and very important for them to attend on the following dates: 1st, 5th & 19th of September 2014.

Secondly, we all planned to diarize these dates and we agreed that we would start around 10:00 except the first date which was going to be on Monday 1st of September in the afternoon from 14h30 to 17h30.

Thirdly, we planned to get this action research model of cycles over and done within a month period on Fridays except the first presentation which could not be possible for everyone to attend, and it was supposed to have started on Friday the 29th of August.

Fourthly, our planning included the themes or topics that my research participants wanted me to explore and address, as a research associate.

Fifthly, in our plan we had also included the fact that while doing my three presentations I would be voice recording them and this would be dealt with confidentiality, and their anonymity would be protected throughout our interactions.

Sixthly, I had earlier planned to collect data through the cyclic model of three stages from different themes or topics in a structured and systematic manner to establish what they needed to learn.

Finally, in our planning we also included time for discussion and evaluation after each and every presentation so as to find out from them if they did receive the information that they were actually expecting from my presentations/actions. The three different activities in terms of presentations were on the following topics as planned and agreed upon with my seven TES research participants:

1.   On Monday 1st September 2014, my first self-reflective presentation was on: Research Integrity in Academia;
2.   On Friday 5th September 2014, my second self-reflection presentation was on: How to Design a Questionnaire? and
3.   On the 19th of September 2014, my last hands-on training was on: "Defining, entering, editing and analyzing data using Statistical Products and Service Solutions (SPSS)"

After each and every presentation which took place within three hours, we had also agreed in our planning that I would include time for discussion and question and answer session before they evaluated me in a form of a questionnaire that I had earlier designed myself, based on every presentations/actions. For example, after my first presentation which was non-collaborative I was able to observe that I dominated the presentation and it took longer time than we all had expected, as a result, there were few questions asked afterwards. However, what was good about this first presentation is that amongst seven research participants there was also a critical friend (who is also a TES member) whom I had invited to attend and participate in the action research cyclic presentation for evaluation and for guidance purposes.

4.6.2 Cycle One: Action

After having planned my first action then I started acting upon it to implement my planned action. This means that action at this stage is being guided by my first planning in the sense that action looks back to planning for its rationale.

- ***Act*** to implement the plan,

As per the agreed upon dates from my planning then I implemented exactly the first action step in the overall plan. My action involved myself as a person who did the action towards my research participants whom I used as an audience who were listening to my presentation. According to our plan we had agreed that my first presentation would be on the first topic: "**Research Integrity in Academia**" on Monday 1st of September 2014 from 14:30 to 17:30. We had planned to hold a first presentation on Monday because this was the first date that we find it suitable because Friday the 29th of August 2014 was never suitable to many of my research participants. Although in our meeting we had agreed upon using Fridays, we then planned to hold the first presentation on a Monday instead of waiting for the next Friday the 5th which was to far. We had planned to use the Research Resource Centre as a venue suitable to conduct my action. In breaking up the plan into achievable steps, firstly I planned or

devised a way of monitoring the effects of the first action step which was based on my plan on how I would do my first presentation, and indeed, according to my plan, the first topic was going on: "Research Integrity in Academia". This means that from the basic cycle I then spiral into developing the second action step, where I implemented the first planning step.

As I presented my first topic on research integrity, which was a straightforward process, the new data started coming out in a discussion (question and answer format) after the actual presentation. Remember, I had planned and asked for their permission if I could record the presentation together with its questions and answers session for data collection purposes, and we had agreed upon this. I also asked if they could evaluate my presentation in a form of a questionnaire so that I know exactly where to improve my presentations, if necessary. In all the steps and presentations I was subjected to critical reflection by my research participants. I must say I was a bit nervous during my first presentation and I did not allow for any questions during the presentation until the end, then I allowed time, as planned, to engage my audience in a question and answer session. During the question and answer session I could see that my research participants understood very well the importance of my presentation, and from the questions that they asked. Although I did not engage them from the beginning of my presenting, but my research participants did confirm how important this topic was and they confessed that they did nod not know that research has got rules and regulations that need to be followed to guide a conduct of a good research, and what to do to address an identified misconduct in research. For example, they said, it is indeed, good to know even in advance what to do when something is going alright when conducting a research, with whom to report it.

In short, my action in the sense intended at this stage was deliberate and controlled by the first step of having been planned in advance. However, action research promotes collaboration. This is why I had to correct this in the second cycle. Action was therefore a careful and thoughtful variation of practice that had been planned. This step of action recognized practice as ideas-in-action and used actions as a platform for further

development of the later implementation, which was action with a critically informed educational intent, which indeed also had to be observed. Through observation which is the next step, I realized some more corrections that I needed to take into consideration.

4.6.3 Cycle One: Observation

From the action stage of making the actual action into practice, the general plan was revised in the light of new information based on the presentation which was the second action step which emanated from the implementation of the plan through the actual action with appropriate monitoring procedure which again would be followed by an evaluation thereafter. Actually, this is a series of three action research cycles with increasing knowledge as the process continues (Zuber-Skerritt, 1995):

- **Observe** the effects of the critically informed action in the context in which it occurred.

One of the ways in which my action became a different step is because my actual presentation that I made in front of my research participants as an action was being observed. Practically speaking, observation took place during discussion time soon after my presentation. Hence I am saying during this time I was able to know from my research participants that it was good but too long without engaging them through presentation. Also, judging from their questions and responses that they gave me when asking questions I did observe the fact that our interaction was so fruitful. One participant asked if I have ever presented this topic to other researchers or academics at WSU. They actually recommended the fact that the university ought to be taught such information that research need to be transparent. Also through the evaluation

questionnaire I was able to see the mistakes that I needed to improve on in my next topic presentation. Through my observation I was also able to tell how good and bad my presentation was. In actual fact, in order to be able to evaluate myself and also be evaluated by the research participants based on my presentation it could only be through putting an action into practice and be observed.

As I was making my first presentation, I had anticipated the questions that I was likely to be asked during the discussion and through evaluation forms or through a questionnaire. I actually drafted the evaluation questions for after my presentation. As a matter of fact, observation has the function of documenting the effects of critically informed action. In actual fact, observation provided me with the basis for reflection. However, the way I see observation, it has the same function as reflection but as adopted by Kemmis and McTaggart (1988, p.12) observation is on its own a step after action has been done and just before reflection step can be done. In a way, observation is almost the same as reflection for me to be able to revise my plan for a revised action. I am therefore presenting observation as a step in a cycle on its own that I have also observed from Kemmis and McTaggart. Otherwise, a careful observation is always necessary because action that I took was likely to be limited by constraints of reality, and all of these constraints would never be clear in advance, like during the planning stage, until I came to this observation stage that I could be able to identify some problems with the previous steps. Through my observation I was able to see that my presentation needed a revision. Revision of my action could only be through my observation. This is why I could only see the effects of my observation from the context in which it occurred so that there would be a documentary basis for subsequent reflection. I made it clear that observation plans must be flexible and open to record the unexpected. This is why my questionnaire had open-ended questions so that my research participants are not limited to questions asked with options to choose from as answers, as this could have been biased.

Actually, having planned alone every step that I was going to take was not collaborative and undemocratic. As a matter of fact, I made it clear with my research participants that during discussion they were allowed to ask questions as much as they could about the topic and the way it was presented. Yet, this is something that I observed as being unfair to my research participants, and I indeed, changed during the time we collaboratively planned again to correct such mistakes. Also, the evaluation questions that I asked after my presentation, although general about research capacity development at WSU, but were too many (eleven questions). This is why in the next cycle I engaged my research participants from the beginning. And I also decreased the number of questions that I asked to eight questions.

What I like about the cyclic model is that I was not the only one who was observing my research participants, I was also being observed by my research participants or audience during all my presentations. While observing their attitudes towards my presentation and the effects of my presentation to them (intended and unintended) the outcome helped me to re-plan my next presentation for better. When doing a presentation you can tell when your audience does not understand you, maybe from their facial expression and when you saying something exciting. Initially, all of my presentations were about my practice improvement in cycles. This means that observation contributed to the improvement of my practice through greater understanding of one another, that is, between myself and my research participants and through open discussion that we had afterwards. I did all this in the presence of my critical friend whom I had asked to raise his hand for anything that he may notice immediately. However, observation subject matter will always be through action, its effects, and the context of the situation in which the action is being taken. I can also be scrutinized through observation.

4.6.4 Cycle One: Reflection

An evaluation after observation stage based on action stage of the topic presentation on: 'Research Integrity in Academia' amounted to a fresh inspection (reconnaissance) which prepared the way for new planning of the next cycle, but using a new different topic in which I together with the research participants had earlier decided upon. Actually reflection stage took place in a form of evaluation questionnaire that my research participants were given just after observation to reflect on me and the way I just did my presentation. The questions that I asked about myself during the time I made my presentation was to evaluate exactly the way I presented the topic and how important and necessary it was. Research participant's responses would be interpreted most in the next cycle which is meant to make corrections of the first cycle committed mistakes. Initially, being reflected on the first topic presentation was to give me guidance on how I can improve my practice as a Research Associate, whose responsibility is to facilitate research capacity development. I must confess, instead of repeating one topic three times for the sake of correcting mistakes in one cycle would have been a waste of time. Yet, testing three different cycles on three different topics, was practically of my research participant's benefit and this helped them understand the action research model more clearly. Somehow, the action research cycle model has in itself capacitated them on more than just one initial idea. Instead, we collaboratively identified three different research related skills or ideas that they needed to be trained on or get exposed to. This was like killing three different birds with one stone. Meaning that, all research practitioners would gain a lot of information at the expense of just one action research cyclic model.

The reflection process was conducted as follows: Reflection recalls action as it has been recorded in observation, but it is also active to be judged and the whole process needed to be repeated for the practice improvement purposes. Self-reflection by the research participants was seeking to make sense out of this process, through problems that I encountered and identified issues and constraints exhibited during previous stages, that

is to say, during planning, action and observation, so that in the next cycle it could be corrected. As stated above, my reflection was guided by the discussion among research participants and a feedback from their listening to my presentation and their views helped to improve my action through observation of my presentation, which is the way I facilitate research capacity development. For instance, my research participants suggested that I should structure my presentation so that it is finished within the duration of my presentation and I should also allow enough time for question and answer session. Through the discussion of the topic, group reflection led to the reconstruction of the meaning of the running the spiral of cycles and this situation provided the basis for the revised plan for the second cycle.

- **_Reflect_** on these effects as a basis for further planning, subsequent critically informed action and so on, through a succession of cycles.

Reflection of the way I facilitated research capacity development through my first presentation had an evaluative aspect. My reflection asked me to weigh my experience to judge whether effects of my presentation about Research Integrity in Academia was necessary and desirable or not, and suggested ways of proceeding to the cycle 2 with tips on how I could improve my presentation. For instance, the outcome of my first reflection was that having such a presentation on a Monday afternoon was not convenient for almost all of my research participants. Usually, people are exhausted in the afternoon to listen seriously to interesting topics like research integrity in academia. I also noted that in my second cycle I will avoid asking so many questions unnecessarily as in the evaluation questionnaire. This means that from the basic cycle I will then spiral into developing the second step which is to re-plan my action research and then implement the second action research step, reconnaissance, evaluate, develop the third action step, implement the third action step, reconnaissance, evaluate, and so on, whenever necessary due to identified problems until I get my action research model right eventually. There is one thing that I learned throughout the first action research cyclic process, plans for action must always have a tentative and provisional quality;

they must be flexible and open to change in the light of circumstances. Sometimes actions may require instant decisions about what is to be done immediately, and the exercise of practical judgement.

What was good about my reflection is that it was descriptive as it allowed reconnaissance, building a more vivid picture of life and work in the situation, constraints on action and more importantly, of what might now be possible, for my research participants, and for them as individual academics who ought to be committed to the university goals that are being promoted in my presentations and my facilitation of research capacity development. I decided to ask similar questions to the ones that I used while collecting the qualitative research data for the NVivo program. I believed that a feedback from the following questions would lead to the improvement of the way I do my practice as well as suggest thoughtful ways to improve in different ways, and make instructional improvements during my facilitation of research capacity development at Walter Sisulu University. The questions that I asked are as follows:

1. Do you feel there is a need for a better facilitation of research capacity development at WSU, judging from Nkosinathi Sotshangane's presentation on Research Integrity in Academia?
2. What do you think should be done to improve the way research capacity development is facilitated by Nkosinathi Sotshangane, based on this particular presentation?
3. Generally speaking, what are the current responsibilities and duties that according to you the services that Nkosinathi Sotshangane is rendering as a Research Associate must include?
4. What do you think is the cause of a decline on research productivity at WSU?
5. What would you suggest that Nkosinathi Sotshangane should do to motivate both academics and postgraduate students in order to prevent decline of research productivity at WSU in future?

6. Do you think research related activities as organized by the Research Resource Centre at WSU should be more regular, or how many times should we hold such activities in a year?

7. Do you think your current job, other than teaching has explored your potential to do research to the fullest? What are the changes that you would like to see in your current work situation, or you would like to point out?

8. Would you encourage collaboration or team work in your area of studies or department, for the purposes of improving research output in terms of publications by WSU, as this is being encouraged by the Department of Higher Education and Training (DHET)?

9. How would you define success in your work environment, teaching or doing research? What would you consider to be essential to the training program of your choice to be organized by Nkosinathi Sotshangane?

10. What are the benefits that you would expect to gain from any training and development program facilitated by the Nkosinathi Sotshangane?

11. Please, share a word of advice from your experience that has a research related significance during the time you have been serving in this university and the time that you have interacted with your colleagues, whether positive or negative towards research.

My research participant's personal feedback information assisted me in planning for the next revised and corrected stage which was an implementation stage of a revised action. I had to make changes in the light of my research participant's responses and my critical friend's words of advice. Their evaluations and input were for the sake of improving my next presentation which I cyclically acted upon, observed and evaluated again in order to be able to make further changes in the way I facilitated my presentations. Changes that I made would inform a further planning for a further data-gathering as I continued in cycles in trying to make ongoing changes for the purposes of my practice improvement. This is how the seven TES members responded to the above questions:

1. Two respondents said that there is no need for the facilitation of research because Mr. Nkosinathi Sotshangane presented it very well and clearly. The other four respondents believe that there is an urgent need for a better facilitation of research capacity development at WSU. One respondent says it must be part of staff development and included in their KPAs of staff.

2. Smaller, regular chunks of presentations would give time to interact with content understanding better. Regular small workshop should be conducted targeting postgraduate students and academics. Facilitate workshops with 2-3 Depts. at a time. Institution must give incentives to individual researchers. Study visits to other institutions for purposes of benchmarking. Add sources of information for evidence. Time for presentation should be improved.

3. Such presentations must be organized throughout a year. Nkosinathi Sotshangane knows his KPAs. I am not sure I know such services. Services must include an on-going process of dissemination of information and feedback sessions. Update information on software for both Qualitative and Quantitative Methods. Being available on site, lab to the students to guide and assist students to reduce the dependence of students on supervisors. Monitoring of staff doing research for support.

4. Staff empowerment through workshops and merger has increased teaching load to staff. Academics are overloaded by teaching and unavailability of support by senior researchers. Demotivation, no senior staff, poor incentives, lack of resources, few postgraduate students and lack of insight. Lack of motivation to publish papers as there have been almost no promotions over the last 10 years. Teaching load in some instances and challenges encountered by some staff members who have conducted research when accessing accrued benefits. Lack of funding and heavy workload. Follow-up on researcher's work and studies is needed.

5. Must have workshops regularly to motivate them. Must visit Departments, Schools, Faculty's meeting to preach Publication. Need more information sharing

on resources and programmes. There are no incentives for doing research. Find ways for immediate rewards and encourage collaboration or team work. Organize a core of very experienced academics to co-publish with young experienced ones. Promote collaboration to all sites of WSU.

6. One per quarter. Four times or more. More regular (6 to 8 times). Only interested in TES. Not aware. More regular and widely communicated. Two per quarter each year.

7. To be able to identify and explore about any problem that exist in my work. Recruitment of more staff would reduce teaching load to allow time for research. Teaching and community outreach provide with opportunity for research. Not at all, too much time is devoted to teaching at the expense of research. Workload. Have no admin assistant and this means reduction on the time available for research. Lessening teaching load would greatly enhance and motivate development.

8. Yes, no man is an island. Yes, this would keep those who have not published to gain recognition and confidence. Yes, definitely, but departments must have senior staff. Yes, collaboration is very important in all areas of study. Yes. Yes, of course. Yes.

9. Yes. Both teaching and research but more of research and NVivo. Real success in this environment would be to balance teaching and doing research. Quality of research output. Being involved in teaching research and community engagement, working with motivated staff and postgraduate students. Both, but the university seems to put more value on research for promotion purposes. Doing research and teaching so as to improve practice and results and self-study.

10. Empowerment to research, presentations and publish. Support to publish. Increased publications, good quality postgraduate supervision. Training in both SPSS & NVivo usage. Development and improvement of research skills. Training programs always come with benefits. Gain more on research in preparation for his or her studies.

11. We need to do research about the problems that we are experiencing. Teaching students findings or information emanating from my research. Collaborative research, and learn from experienced researchers and support one another. There is little academic stimulation among colleagues at departmental level and yet colleagues should be more willing to share their research activities and interests. Encourage conference attendance which should lead to a higher rate of publications. My experience is that experienced researchers become reluctant to co-publish with inexperienced ones (assessment of professors must be based on proof that they have helped some colleagues to publish with them. Opportunity to present in a conference, lessen work load, and must be given study leaves.

Initially, these questions are for a long-term basis practice improvement purposes. I found them so important to ask the TES members whom I used as my research participants. I wanted to prove that the work that I do is continuously subjected to critical reflection by my colleagues, not only on the presentation on "Research Integrity in Academia" but also on how I generally facilitate research capacity development at WSU. For example, my research participants raised the following points that I needed to take into consideration in order to improve my actions/presentations during cycle two:

Firstly, I was a bit nervous during my first presentation and I did not allow for any questions during the presentation until the end.

Secondly, although they said the presentation was good and necessary, but complained about the time that I took, it was longer than they expected.

Thirdly, I also realized that I did not engage them during my first presentation.

Finally, one other major complaint was that the questions that I asked them had little to do with the actual presentation, instead they were general about my KPAs.

My data analysis of my first action observed that I needed to correct four mistakes that I committed during my first action and implement them in my second action of cycle two. Of course, revision or correction of such mistakes enabled me to plan realistic strategy for my presentation improvement. My action in the sense was therefore a careful and thoughtful variation of practice that had been planned for further development which needed further observation.

4.7.1 Cycle Two: Planning

I have identified few mistakes that I should have included in my firs planning for cycle one, then it became necessary that I plan again in order to improve my first planning to avoid mistakes committed in my first cycle.

Firstly, the day in which myself and research participants planned to have my first presentation which was the Monday afternoon, was so awkward and not suitable to all research participants.

Secondly, the presentation was too long and the time allocated for questions and answers was too short.

Thirdly, the evaluation questionnaire that I asked my research participants to fill had many unnecessary questions after a long presentation, meaning that the whole exercise was tiresome.

Finally, my actions during the first cycle, particularly planning was not collaborative at all and I also did not engage them in my first planning, instead I imposed on them.

Following from these five identified problems that I encountered, this second time around I planned to be flexible and open to change in setting up a suitable date for the second cycle. We decided to set up the dates and diarize them in advance so we could meet according to our planned schedule. As a result of the identified mistakes I needed to revise my planning again in order to be able to avoid them in my second planning. This time around, it was easy because my plan was only to revise wherever I had experienced problems. Thirdly, the second plan for my actions was to change a schedule for my presentation from 14h30 in the afternoon to 10h00 in the morning on a

Friday. Friday was most preferred by my research participants as it usually not a busy day. Also, during the second planning for the second cycle, we collaboratively planned to adjust my presentation within three hours including time for question and answer session. Fourthly, I engaged my research participants from the planning session and also during my actual action/presentation. Finally, I decreased the number of question in the evaluation form from eleven to eight relevant and necessary questions based on the presentation made.

I did the best I could during the second cycle to avoid unintended disruptions. For example, this time around, research participants asked if I could share with them all the presentations so that they could refer to them whenever necessary hence the topic that we all agreed upon are so important and they are expected to know such information as research practitioners. Indeed, I shared with them all the presentations that I made for future reference. Having included my research participants from the beginning of the second cycle brought about understanding between us. As a result, we hold the second presentation on Friday, 5th September 2014 from 10hours to 13 hours. As per their proposal, usually on Friday's midday most academic staff members are not very busy. So, they could try and find time to attend just two more presentations for the purpose of supporting me in my study, as they committed themselves and they also expected to benefit from these actions/presentations, as they were the ones who chose them in the first place.

In short, through a collaborative planning between myself and my research participants illustrates the fact that monitoring of the way I conducted my first cycle helped me improve understanding between us and as a result I was able to come up with a structured and systematic action research in cycles for a better improved action. Therefore, the theme for this cycle and informed about the next cycle was assessment for the development of my action

4.7.2 Cycle Two: Action

An implementation of an action step is not always easy, and I could not just proceed to observing stage and evaluate the effects of my second action until I have monitored the extent to which my previous action was practically implemented. At this stage, my intention was to implement a revised action plan. So, collaboration between myself and my research participants is something that we had agreed upon. We had agreed on how different the three topics that I was going to present would be. Therefore, my action for the cycle two was completely different as it was based on a new and completely different topic. The second action step of my action was a presentation of the second topic which was on: "**How to Design a Questionnaire?**" Actually, this is where I had to implement my revised plan before it could be monitored and evaluated again. This means then that the spiral of action, monitoring, evaluation and re-planning continued. Lewin's (1946) deliberate overlapping of action, observance and reflection was designed to allow changes in plans for the second action as I learned from my previous experience. We therefore agreed together with my research participants on a revised plan which included a new different topic for cycle two because they wanted to learn as much as they could from my spiral of cycles of action research stages. My action for the cycle two stage was based on why is it so important to know how to design a questionnaire and for what good purpose? I looked back to my second planning in the sense that I wanted to avoid mistakes committed as a result of the first cycle observation. Actually, the second cycle action step model allowed for flexibility so that there was a practical improvement in terms of putting my practice into action. My action in this case was to share some information on how to design a questionnaire that my research participants needed to know about, as collaboratively planned earlier. A typical revised example of my action was to teach my research participants about how to design questionnaires. This time around, my presentation was much more structured and straightforward into the point, and not time consuming as compared to the first cycle action. Hence the study is about myself and what my work is about, I found it worth being self-reflective when beginning to construct my own questionnaire for my

evaluation, by writing down my own reasons for choosing such a research instrument (questionnaire) to conduct my study in particular, and even for my evaluation purposes of my presentation. Fundamentally, every questionnaire must have a purpose, i.e. it must draw from some underlying hypotheses about what are the important facts or opinions and even make some predictions about which facts may be much more relevant than others.

I also believe in the fact that if I could not come up with a good rationale and a good justification to show the significance of my action which was to tell my research participants about the importance of the purpose of using a questionnaire when conducting my study, as a research instrument, then there would be no use for me to conduct my triangulation research study. According to Johnson (2002, p.71), triangulation means looking at something from more than one perspective. In action research, triangulation is achieved by collecting different types of data, using different data sources, collecting data at different times, and by having other people review my data to check for accuracy and adjust my findings. The term 'data' simply refers to the items of information that is produced through research. Using my research participants I needed data from them to evaluate and be able to change the way I do my practice. What is important in research is transforming data into information for knowledge purposes. Once I classified and processed the data that I received from them through action, then I needed to observe this data and evaluate and interpret its results for the purposes of my practice improvement. To put this simply, it means that action research is the way that I, as a researcher can organize the conditions under which I can learn from my own experiences, and make this experience accessible to other researchers and to my research participants.

The general idea in cycle two was revised so that more information needed would be further investigated and was eventually implemented successfully in cycle three. A great understanding from each cycle pointed the way to improved action. This is how I

describe the model as appropriate process that I carried out as action to realize my practice improvement. McNiff (2002, p.12) submits that:

> *The process can be shown as a spiral of cycles, where one issue forms the basis of another and as one question is addressed, the answer to it generates new questions.*

This is why I ended up having to continue to improve my actions until I got them right during cycle three.

4.7. 3 Cycle Two: Observation

There is a saying which says: "action speaks louder than words" which means putting action into practice. On each and every cycle a careful observation is always necessary because action is always limited by constraints of reality of the subject or topic, and all these constraints would never be clear until proven practically. My observation was therefore necessary again so that there would be a documentary basis for my subsequent reflection, which is open-eyed and open minded. In my first cycle observation I realized that what I presented about was not being known by most of my research participants. Few candidates knew about the importance of research integrity in academia. Maybe it is because of a lack of research productivity at WSU. As a matter of fact, I do not remember hearing about any workshop on research integrity at WSU. Myself, I attended for the first time, a training on research integrity in August 2014, just a month before I conducted the same training at WSU to my research participants on the same topic. "Each one teach one" is an educational slogan that I personally applied at WSU.

The second topic in which I based my observation on was much common but also important as well as compared to the first cycle presentation. As I observed from the

first cycle action that my presentation was too long without allocated time for questions and answer session, then during the second cycle I had to correct this mistake. I therefore structured and shortened my presentation so that I would be able to cover most crucial information on time and also allow questions and discussion session enough time as well. After I finished my presentation the first question (self-evaluation) that I asked to the research participants during discussion was: "How important and necessary was today's presentation to you?

Although answers from my research participants were not in the same wording but I was able to conclude and infer that all five candidates who participated, this time around, said it was good and so informative and important for them, and they said the information that they received from my presentation would prepare them for the conduct of their own research. They also noticed that the two presentations that I had already presented to them as my cyclic actions were informative and inter-related to one another. Amongst them, one claimed that he/she would soon be able to start collecting data of his/her own studies.

Initially, the Transformative Education/al Studies (TES) project aims to support academic staff members who are pursuing Master's and Doctoral Degree studies using the 'self-study' and 'action research'. Collaboratively, we interact as colleagues who hold meetings during lunch time every Thursdays. From the second cycle action my research participants collaboratively observed the fact that it would be necessary to have a third action while they still remember the information that I had just shared it with them. Through observation I was also able to determine that I needed further action and more reflection for the purposes of my practice improvement in the next cycle. The context in which my action was taken played a role and my observation and their observation did not actually end with cycle two. My next action research cycle three also needed to be observed for confirmation that we did not need any further cycle after the third one.

4.7.4 Cycle Two: Reflection

A self-reflection action research cyclic model is a step based on observation made from the previous action for knowledge purposes in order to improve the next action. To me reflection comes after an observation stage through a questionnaire that I had designed to help me collect data from my research participant's perspectives as a feedback to help me improve my practice. For example, participants were of the view that the two presentations from two different cycles ought to have been included in staff development key performance areas (KPA's). This is why they asked if they could have copies of my presentations for future reference. To them, this idea of facilitating research capacity development in cycles would help academics understand and develop them for their own practices. This is why, without reflection my action would never be considered complete and genuine action research. Reflection is therefore a critical component of my action research. As a matter of fact, changing my action would not come about as a result of spontaneous action, but through reflection on an understanding of specific problems that came out of my presentation. I was told by my research participants that my action or presentation did not have citations of sources.

My attention was drawn to the importance of using references and being fully academic when conducting my research development facilitation process. From these problems that were identified I then learned that there was therefore interplay between understanding the people that I deal with and changing my action, not for my own benefit, but for their benefit as well. Understanding to me was motivated by interest in knowing what is changing and improvement of practice for? And, of course, changing my action led to clearer understanding of the situation at WSU for the purposes of improvement. Therefore, reflection was a tool for promoting my action, and my action research study which is intended to lead to actions which will promote the improvement of my practice generally. It goes without saying that from the conduct of these action research cycles would enable my research participants to improve their own practices

as well. For example, the questionnaire that I revised for the sake of reflection from which qualitative data was collected in an open-ended format, was as follows:

1. *How important and necessary was today's presentation by Nkosinathi Sotshangane?*
2. *Did you find any value in today's presentation by Nkosinathi Sotshangane, for whose benefit?*
3. *What did you like about today's presentation by Nkosinathi Sotshangane?*
4. *What is it that you did not like about today's presentation?*
5. *Would you encourage your colleagues or postgraduate students to attend Nkosinathi Sotshangane's presentation on Questionnaire Design?*
6. *What do you suggest Nkosinathi Sotshangane should consider for when this presentation is done again?*
7. *What would you consider to be the most essential aspect from today's training program by Nkosinathi Sotshangane?*
8. *What are the other benefits that you would expect to gain from another training and development program facilitated by Nkosinathi Sotshangane in future?*

My research participant's personal feedback information, as far as the second presentation or action is concerned, assisted me in planning for the next revised and corrected stage which was an implementation stage of a revised action. Again, I had to make changes in the light of my research participant's responses for the last cycle. These evaluations and their input were for the improvement of my last action in cycle three. By the way, due to other work related commitments, on Friday the 5th of September only four research participants attended my self-reflective action research cyclic planning, action, observation and reflection process and we collaboratively agreed to continue with cycle two presentation, and this is how they responded to the evaluation questionnaire that I later supplied them with for reflection purposes:

1. To equip me with the best methods in designing a questionnaire. I found it important as we also shared views to clarify cloudy issues. It was good and informative. Very important to me as he explained how related this to the first presentation on research integrity;

2. Yes, he alleviated my fears and look forward to the other presentation. Yes, researchers. Yes, for me and for my study too and also for my students. For the benefit of getting valid and reliable responses from respondents;

3. The style he presented using Power point and discussing clearly and responding to questions asked. That he explained more than expected value-added, he reminded us about issues to bear in mind in order to have a good questionnaire. The five w's and research design. To learn about the validity of the questions you have to design in order to get realistic results;

4. Not really, but he has to use references in his presentations. Nothing. There were not enough examples of types of questions, he focused on questions. None;

5. Could not see Question 5/Missing data. Yes, I would – he is an aware presenter and able to notice hands that are up during the presentation. Yes. Did not notice question 5/Missing data;

6. To use references, especially current information. Citations should be included. More of a variety of questions both for Quantitative and Qualitative methods. To assist other fellow researchers to be able to present valuable and informative presentations;

7. How to be more attentive or best way to prepare or design the questionnaire. The presentation was a definite improvement the last time. Everything was good. To be honest when formulating a questionnaire; and

8. To spell it out differences between the action research and traditional style. SPSS & NVivo. Make people look at their research questions and draft questions they feel could be included in their questions, warn them beforehand so that they come with them ready. More information on how to succeed in doing research, so as to be able to produce new information.

In a nutshell my observation was always based on my action that I have taken, as per the spiral of cycles, whether successfully or not, but my actions (in terms of my presentations) were the ones that resulted into observation from which I would be able to determine if I needed any further action and more reflection for the purposes of my practice improvement during the next cycle. After our observations and reflections of cycle two we collaboratively felt that, indeed a third cycle was needed in order to correct the mistakes having been committed and identified:

Firstly, one of my research participants reemphasized the fact that I should learn to include references in my presentations.

Secondly, I ought to cite or use many examples in my further elaborations.

Thirdly, from four participants, two of them could see question five (not intentionally) of my evaluation form based on my presentation, because it overlapped to another page, and somehow they missed it and I treated it as a missing data.

Based on these identified corrections that needed to be taken into consideration we therefore needed to give the process of my action research cyclic model one more last re-planning, action, which needed observation and a final reflection thereafter to determine if I finally got my action research cycle model right. The context in which the action must be taken also plays a role and observation did not actually end with cycle two. My next cycle three also needed to be observed before the final reflection.

4.8 Cycle Three
4.8.1 Cycle Three: Planning

The cycle two reflections from the research participants, as a feedback, enabled me to plan to improve the third and the last cycle as follows:

Firstly, I was advised by the research participants to use references and citations in my presentations.

Secondly, they told me that the examples of types of questions that I used to refer to were not enough. They wanted me to ask them and apply their examples for a better understanding to them.

Thirdly, they wanted me to explain to them clearly, the differences between action research and traditional style.

Fourthly, amongst my research participants, there is one who did not know exactly the difference between SPSS & NVivo.

Finally, I was asked if I could allow my research participants to use their own questions for practice purposes if future trainings.

Based on this feedback from the cycle two reflection, I therefore planned to structure the third cycle action so that I would be able to revise my third cycle. Fortunately, myself and my research participants had agreed upon having my third presentation or action as a hands-on computer session where participants would put their understanding into practice there and then, of what is being taught practically. I took their comments for revision purposes into consideration as follows:

Firstly, using references and citations in my presentation was actually a minor that I corrected immediately.

Secondly, the differences between action research and traditional research means that they are different in terms of:

1. In my research, what I am studying is my claim to knowledge, claim to know my own practice. The purpose is to test the validity of my claim; and

2. In traditional research, is when my study makes claims about what is out there, separate from me. What people are saying out there, without my proof?

Thirdly, explaining differences between SPSS and NVivo was so easy. The Statistical Products and Service Solutions (SPSS) is a software that is being used to define, enter, edit, and analyze quantitative data and on the other hand, NVivo is also a software that is being used to analyze a transcribed coded or categorized qualitative data.

Fourthly, during my last cycle and a three presentation I made it a hands-on or practical session. I organized this session deliberately so that my research participants could use quite a number of their own examples in order to understand what I was training them on.

Finally, as matter of fact, TES is aiming at supporting each other (as Master's & Doctoral studies staff students), either in action research or self-study methodologies that we all use to conduct our studies, so that it is easy to improve the way we conduct our studies. This action promotes collaboration amongst each other studies. This is why we planned our last actions, observations and reflections stages so that we all understand exactly how we can improve own collective practices. For example, a hands-on session was more interesting to most of my research participants even from planning it. Most of them had indicated earlier that they have never been exposed to the Statistical Products and Service Solutions (SPSS) before. Learning it practically drew their curiosity. Only six candidates who participated in this last practical action or presentation. I included a hands-on practical computer session and asked if they could spare one more hour for a practice on their own. No-one complained about time as I had discussed and planned the dates with them in advance. The main purpose was to engage my research participants fully in the understanding of the third topic that they themselves had chosen. The topic that we had earlier agreed upon was indeed, on: "**Defining, entering, editing, and analyzing data using Statistical Products and Service Solutions (SPSS)**".

In order to be successful in the conduct of my action research study, I had to plan, re-plan and re-planned in such a way as to draw my research participant's understanding into the arena of my actions and my observation and their observations and finally their reflections. My goal in the first planning of our activities was to work towards a better understanding of my research participant's situation in order to effect a positive personal and social change. Changing social relationships usually requires that others also change their perspectives on the way I relate to them as my research participants.

4.8.2 Cycle Three: Action

In the third cycle the general idea was to finally implement revised planning of my action which was about a third topic on: "**Defining, entering and editing data using Statistical Products and Service Solutions (SPSS)**". There was nothing much to revise during this action as it was completely new kind of an action with hands-on session. At this stage in my third cycle my short presentation which was followed by a practical session was an interesting session where I was able to observe how research participants performed their practical session and as it was a hands-on computer session. This computer session was attended by only five research participants who were available on the 19th of September 2014. Firstly, I had to explain what SPSS was meant for, initially my presentation was about what research participants were required to put into practice in order to understand how SPSS works. Then, during practice I visited each and every participant during the hands-on computer session in order to guide them on what exactly I taught them to do to define, enter, edit, and analyze quantitative data using SPSS.

My third presentation, as practical as it was, I used questionnaires that my research participants had used to evaluate my presentations as data collected by a researcher who needs to prepare the data for analysis, using the coding scheme for each of the variables or questions asked and systematically enter data into an appropriate software

(SPSS package). SPSS is a software package that is more common and is used to define, enter, edit and analyze data that has been received through the use of a quantitative research methodology. The difference between the questionnaires that I used for my reflections is that they were qualitative and yes SPSS is used only for a quantitative data. For the practice purpose I gave my research participants a questionnaire that I used in my first phase of my action research model, the one that I had earlier given to 120 academic lecturers at WSU, also being analyzed at the beginning of chapter four. Initially, quantitative methodology can be regarded as more structured than qualitative research methodology, in that sampling, research design, questionnaires, statistical methods, etc. are issues that my research participants learned that they ought to be largely determined prior to the participant's completing of questionnaires. Due to the lack of complaints about this cycle, this is why I had only three cycles, it is because practice improvement had finally worked practically. Even judging from my research participant's responses to the evaluation questions of the second cycle, there were minor corrections that I had to revise in my third cycle. For example, as per their requests in our planning, I allowed them to use and ask questions regarding their own examples which were different from mine, as much as I could, for the purposes of their understanding. What is good about practical is that you guide them on the computer and they ask me practical related questions that I would practically answer them immediately. It is only a word of advice that they asked if I could take into consideration as a Research Associate: "ensure that senior professors must learn to work with them as they are less developed in research, as their mentors". Secondly, they suggested that I should continue organizing workshops and trainings such as SPPS related and organize outside guest speakers sometimes, so that I am not the only one that they would have to deal with. An expert from outside the university would be much appreciated sometimes.

4.8.3 Cycle Three: Observation

In cycle three, the mission was to correct problems or mistakes that had been earlier committed during my observation of cycle two action and from this feedback I was able

to correct them in cycle three action, as shown in the above cycle three planning stage. Actually, the main purpose for my observation in this cycle was to verify the fact that there was no problem committed and this proved that going further to cycle four was not necessary, and the mission had been completed, that is to say, it was proved not by me, but by the research participants that my practice had been practically improved. So, my observation was based on a revised planning for cycle three which was kind of innovative because in cycle three I structured my action or my last presentation so that it had a practical computer session where I would be able to observe my research participant's use of computers as instructed and assist them immediately with how to define, enter, edit, and analyze data using the statistical products and service solutions (SPSS). I did not only observe them doing this practical work, but assisted them whenever they needed a guide and assistance. What was good about the SPSS training, we would not stop until all five of my research participants that day, have understood everything before I could go on to the next step. Questions were asked and I would address them immediately. As a result, from my observation they all enjoyed this session and confessed that they have always wanted to learn how to use SPSS practically. What was left of them when we came to an end was to put all their knowledge into practice when they are to define, enter and analyze their own data, as most confirmed that they would be starting with their own studies soon. However, SPSS is usually forgotten so easily if not being used or practiced often, after having undergone its training.

Finally, I observed that the proof of mastering the hands-on session was demonstrated by their responses to the evaluation form that they filled after the training which is illustrated in the following last cycle three reflection stage.

4.8.4 Cycle Three: Reflection

Reflection was that moment where my research participants examined and constructed, then evaluated and reconstructed their concerns regarding my third presentation on SPSS. Except only evaluation questionnaires after my presentation, this last cycle three

stage did not need any more planning as I practically dealt with my research participant's misunderstandings immediately after we practically realized them. So, reflection during my third presentation could have only been based on my pre-emptive discussion of my research participants where they previously identified a shared concerns and problems on SPSS as a software package. As a result of this interaction between myself and my research participants, my action research approach was generally very collaborative. For example, my role was to conduct presentations on topics having been chosen by my research participants, such as the very last which was about SPSS training, and the research participant's role that they played most was to evaluate and reflect on my action (presentation). For example, my last questionnaire had only seven questions than the previous evaluations (the first had eleven and the second had eight). Evaluation question got minimized because problems that had earlier been identified, were revised and eventually corrected in cycle three. Finally, a hands-on computer session by my research participants was the practical of my last presentation on SPSS training, and of course, a very crucial training. It was indeed, a must that each and every cycle must end up by being evaluated so as to double check if there was anything to be further revised and corrected. I designed the following evaluation questions for the purposes of final practice improvement which did not need any more cycle thereafter, as adapted by Zuber-Skerritt, (1995):

1. *Did you learn anything interesting from today's research capacity development presentation on Statistical Products and Service Solutions (SPSS)?*
2. *Generally speaking, did you see any significance of all these three research capacity development presentations that I have conducted on Research Integrity; Questionnaire Design; and Defining, entering and editing quantitative data using SPSS, and why?*
3. *How does the decline of research productivity or research output at WSU affects you, and why?*
4. *What do you suggest I should do in future to promote research culture amongst academics and postgraduate students at WSU?*

5. *What does collaboration mean to you, in terms of research productivity?*

6. *Would you encourage collaboration or team work in your area of studies or department, for the purposes of improving research productivity?*

7. *Based on all research capacity development presentations that I have conducted, how can I improve my practice in such a way that my services at the Research Resource Centre are consistent so that they continue having a positive influence in you, if there was any?*

In a nutshell, to do action research is to plan, act, observe and reflect more carefully, more systematically, and more rigorously than one usually does in everyday life, and to use the relationship between these moments in the process as a source of both improvement and knowledge. I carried out these four activities collaboratively, involving my research participants who were affected by the action in my action research process, as it was a must that I interact with them, but not only for my benefit, but as well as my research participant's benefit, as they are also research practitioners at Walter Sisulu University. Ideally, my action research as conceived by Kurt Lewin (1946) was indeed an ongoing process of reflection of my action which got revised three different times. Kemmis and McTaggart (1988) reiterate that action research involves a self-reflective spiral of activities: planning; action; observation; reflection; re-planning; and more action in three cycles. Hence my action research approach placed much greater demands on me being responsible for most actions in my research. However, I fully involved my research participants in the critical reflection process, where our responsibilities for our different actions to do were separated. I was reflected on being a presenter and I was observed and reflected through evaluation on being the research participants. As a research associate who facilitates research capacity development at WSU I planned, acted, observed and reflected for the purpose of my practice improvement, but I could not do this alone. I collaboratively did all this work together with my research participants and also with the help of my critical friend. Change is usually easier to achieve when those affected by the change are involved. The extent to which one is able to change or improve on research is a question which this study seeks

to address using action research methodology, as recommended by Jack Whitehead (1989) and Jean McNiff (2001, p.10). This means that research capacity development at WSU is indeed essential for realizing the university academic status of producing excellence in research and teaching and this would contribute not only to sustain development of the university but also development of an individual academic lecturers whom I used as my research participants. Indeed, this process of reflectively evaluating of the results over the whole action research process has helped me know exactly what to do and where to improve the way I facilitate research capacity development. In response to the above cycle three evaluation questions, only five research participants participated in the last cycle action or presentation which was on: "Defining, entering, editing and analyzing data using SPSS" as follows:

1. Yes, I learned something about entering data using SPSS. Yes, that the software has to be updated all the time and space to be available in my laptop. Yes, it helped me revise what I learned 5 years ago. Yes, I learned a great deal. Yes;

2. Yes. Yes, sometimes there is a time gap between one research project and another, there are also new things that one learns. Of, course I did, these are features that have to do with research, and as a researcher and supervisor, they all are important. I attended the first and third, but missed the second, for me, the third was more useful and practical. Significant because I can be able to exercise or work on my own when preparing or writing my own research, I can have references;

3. There is a lack of experienced researchers to act as mentor. It brings down one's morale to be associated with WSU especially in gatherings with well-performed institutions. It leads to a drop in confidence level, there is no competition among individuals. It makes me feel sad because as an academic my No. 1 concern should be the creation or dissemination of new knowledge, not just teach. No new information or knowledge is disseminated to the university community;

4. Ensure that senior professors work with (mentor) other less developed researchers. Keep reminding academics about research output as WSU, attend

faculty boards, departmental meetings and senate, a policy to require publishing at least two articles in a year by academics (compulsory). Continue with such mini workshops, get others involved, including postgraduate students. Continue doing what you've started, i.e. training WSU academics/postgraduates in innovative research paradigms, my fear is that there might emerge soon a paranoia attitude in favor of action research at the expense of other types of research. Did not see this question;

5. The collaboration means I must work with other researchers in TES. It means 2 or more academics working together on a research pace to help each other. One learns from others, division of labour and increased research output. It is key to improving research output and to mentor others, especially young academics. It means a lot, collaboration may lead to a multi-disciplinary approach and more vibrant research impetus;

6. Yes, I would encourage it. Yes. Yes because it promotes sharing of ideas and experiences. Of course. I want to promote it within the faculty as Dean and with my postgraduate students;

7. Get experienced staff as guest speakers, try to make it hands-on like the SPSS, conduct summer or winter schools with one or two experts from other universities, and organize mentor-mentee teams if departments are not doing this. Presentations have yielded good results, I think these can be done again in future. You should organize hands-on tasks or tutorial to enable individual researchers to put in practice the theory/procedures involved in SPSS. Being available and having a list of mentors available to give support and guidance on all aspects of research such as designing a topic, what to include in each aspect of the background to the study, how to approach analysis of data, etc. Marker or sell yourself at the beginning of the year to departments and attend first meetings or lectures of postgraduate students to inform them about your office and its role.

4.9 Conclusion

The final stage of reflecting was perhaps the most critical part in the process as it allows for continual refinements. In this process there was a continuous improvement of practice and extension of personal knowledge. As Schumacher (2007, p.31) argues, action research is a highly collaborative and reflexive process whereby I examined my own practice and realized that I needed to conduct a study to help me change and improve my practice as a Research Associate. As a matter of fact, with this study I have fulfilled something that is my responsibility and I took a responsibility to do it, and through the conduct of this study I created opportunities for others to be able to learn how they could also develop themselves and their own practices. I therefore took an action, after having planned it, acted upon it, observed and finally reflected on it, which involved not only me but together with my research participants who enabled me realize the values that 'I' hold as a Research Associate and how important is the key work that I do at WSU.

To cite an example from my research participant's comments from the third and the final cycle's evaluation, the third practical training was more useful and very interesting, to such an extent that they got motivated towards using SPSS to define, enter, edit, and analyze their data on their own, and through my practical actions in cycles, the way would be able to contribute towards research productivity that is expected of them. Otherwise, doing research individually would destroy the critical dynamic of the group and my work would not be regarded as action research. Initially, the identification of the topics to cover during my presentations were all related to the way I facilitate research capacity development which eventually engaged my research participants in all four fundamental aspects of the action research. Throughout this two months process I was seeking to learn more and more from all the actions that I took. The subject of action research was the action taken, the change, and the theory of change that was held by me who finally enacted these changes in cycles. While the design of action research originated with me as an individual, social action taken without the

collaborative participation of my research participants in my study would have been less effective. This whole process of action research was an iterative, cyclical process of reflecting on my practice, taking an action, observing to oversee my action, reflected, and re-planned again in order to take further action to implement my revised actions. This is why my action research study took a shape as it was being performed and improved in cycles.

My understanding from each and every cycle pointed out the way to improve my actions further and further. It was not possible to evaluate the effects of my actions until my research participants had monitored the extent to which I had implemented them through three different presentations. It was only then that I could plan alternative strategies and implement them eventually. For example, in cycle one an idea originated from a discussion between myself and my research participants around a scope of my operation and a plan on how I intended to deliver information on ideas (through three different topics) that they identified for me to present as my action which was observed, reflected and evaluated. Then the general idea in cycle two was revised and corrected so that more information needed would be further investigated, found and eventually was implemented successfully in cycle three. This means then that my study became reliable and valid enough after this third cycle hence it resulted in the actual practice improvement eventually. Reliability according to Johnson (2002, p.73), is the degree to which my study could be repeated with similar results in a similar situation. Now that my study is deemed reliable, this means that my results will have to be generalizable to similar situations. Validity is the degree or an assessment to which I measure my claim for my own new knowledge for my practice and produce fairly accurate results that could be used to make comparisons to similar situations.

CHAPTER FIVE: CONCLUSION & RECOMMENDATIONS

5.1 Introduction

In chapter four the results of the data analysis of this research study were discussed in detail. In this chapter I provide the conclusions and implications of the study. Evidence is not the same as data. Data refers to the different pieces of information that I have put together and presented in the last chapter. I am turning some of this information as evidence of a claim to my knowledge, a claim to know my own practice. According to McNiff and Whitehead (2006, p.149), when I make a claim to knowledge I confirm that I now know something new (because it seems to be happening) and that I did not know before (because it wasn't happening). This knowledge is being put into the public domain for the first time and is adding to the public body of knowledge. Knowledge generated through action research is about both practice and theory; for example, in this chapter I am offering an explanation of the study that I conducted, and explain also why I did this study; for instance, as a Research Associate, whose responsibility is to facilitate research capacity development amongst academics and postgraduate students at Walter Sisulu University, I realized that there has been a decline in research productivity at WSU since 2005 to 2010. I became concerned because this was and still is contrary to the services that I should be rendering as a research associate. This is why I formulated a research question in relation to the identified concern as follows: "How can I improve the way I do my practice in order to enhance research productivity at WSU using action research methodology"? McNiff and Whitehead (2006) state that my description and explanation together became my theory of practice. This means that when I decided to conduct this study I had developed an understanding of the need for an improvement of my practice. This is why I knew from the beginning what I had to do and how and why I had to do it. I now claim that I developed my own theory of practice. My theory of practice is my theory, not anyone else's, and can therefore be seen as my original contribution to knowledge of my own practice.

5.2 Conclusion of the study

As I am employed by Walter Sisulu University as a Research Associate whose responsibility is to facilitate research capacity development and promote a research culture amongst both academic lecturers and postgraduate students, my work values are manifested in how well I am doing my work; for instance, I became concerned about the continuous declining of research productivity at WSU since 2005 to 2010, in terms of research output. I asked myself how I could improve the way I facilitate research capacity development, in order to enhance research productivity at WSU? This became my value of wanting to change and improve my practice. According to McNiff and Whitehead (2009, p.59), my value became my living practice, and it did not remain just at the level of words. My value inspired me and provided the reasons and purpose for conducting a Doctoral degree study, using action research methodology, for the purpose of my own practice improvement. This value also acted as the basis for my conceptual framework for conducting a participatory action research study. The idea of conducting a self-reflective action research study, in collaboration with my research participants stem from this value. According to Johnson (2002, p.71), the ultimate goal of action research was to use my findings in order to make effective changes at WSU.

By conducting such a significant action research inquiry, I was able to generate and test my living theory of improving learning, in relation to my own learning, the learning of others in my workplace and the education of social formations. According to Koshy (2005, p.123), "the intention of action research was not to make generalizable claims, but to tell a story which is of interest to other research practitioners who may want to learn from it, or to replicate the study or apply my findings to their situations." Initially, this is how I intended to re-conceptualize my facilitation of research capacity development at WSU, in a way that would ensure an improved life experience for academic lecturers, as I intended to engage with the university academics knowledge in order for them to change their practices as well. Change is usually easier to achieve when those affected by the change are involved.

When academics see that I have accomplished my inquiry, it is hoped they will understand what it takes for them to do the same regarding their practices so that WSU's research productivity is enhanced. Gray (2009) emphasizes that an individual action researcher is not in a position to say whether his or her actions have an impact, it is for research participants (academics) at WSU to judge for themselves. My strength as a researcher lies in how I changed the rules of my context by eventually changing my practice. It means that I deconstructed old ways and established new ones that can be recognized by others as an improvement of my own practice. Therefore, by accessing my account, other people can see that they can improve their practices too. According to McNiff and Whitehead (2006, p.169), by producing my account of practice I would be able to help other practitioners to see how they can help themselves but also contribute to the public evidence base of practice, and to the public knowledge base of theory. Gray (2009, p.323) also argues that, "successful action research projects are not just about bringing about change in organizations, communities or networks, but about changing and empowering."

Conducting this study in this sense was therefore a careful and thoughtful variation of practice that I planned for further development of my facilitation of research capacity which needed further observation for further corrections. Without doubt, other people either in my workplace or outside my professional context can see how they can do something similar in their own context. Stringer (2004, p.11), supports the fact that, if action research is not able to be generalizable in order to create changes then it has failed to achieve its objectives.

5.3 Evidenced-based practice improvement study and validity of my knowledge

When I began this research I had little understanding of how to put my 'I' in the centre of my inquiry. First of all, I had to understand the context of my inquiry in respect of the objectives of my study. My focus of attention from the early stage was:

"How can I improve the way I facilitate research capacity development at WSU?"

Learning to put myself at the centre of inquiry involved becoming a reflective practitioner. To become a reflective practitioner is a process of personal and professional development that required a commitment to change my ways of doing my practice for improvement purposes in cycles of planning, action, observation and reflection. These activities, as can be seen in both chapter four and five, shaped my personal and professional inquiry that meant:

Looking back and learning through my experience and finding ways to improve my practice from my research participants' perspectives.

In terms of my own action inquiry into the nature and use of action research, I have proven how I validated my knowledge of my own practice improvement. I now have legitimacy for my account. Validity refers to establishing the truth value of my claim, its authenticity or trustworthiness (reliability). Legitimacy refers to getting the account accepted in the public sphere, by getting other people to listen to me and see the importance of my work, in the hope that they have learnt from it or they can now try out something similar for themselves. Both aspects were inseparable in my thesis. As a result my conclusion and recommendations that I have come to are reasonably fair and accurate. McNiff and Whitehead (2006, p.154) believe that to produce evidence to support my claim that my work or practice has improved I have to provide evidence from my study and explain how does it prove my capacity to realize my values in practice and also my capacity to articulate and communicate my specific standards of judgement to others and the validity of my contribution to this new knowledge of my own practice. This means then that by producing authenticated evidence, I have satisfactorily demonstrated to myself the internal validity of my claim to knowledge of my own practice. For example, when I worked closer or collaboratively with my research participants through three different methodologies (quantitative, qualitative and action research cyclic inquiry) that I went through to collect three different types of data, I needed to get other people to agree that my claim to validity was credible, and they were welcome to test it against their critical assessment.

5.4 The significance of my practice improvement as a Research Associate and new knowledge contributed by my study to the existing knowledge in the field of my study

Throughout the course of conducting this study, I learned quite extensively about myself from my research participants' perspectives. My self-reflective capabilities grew and I was able to reflect on my role as a researcher and as a Research Associate. The process of my inquiry and the descriptions and explanations contained in this thesis as my study was initially a response to the core question of my inquiry, "How can I improve my practice?" The success of my practice improvement inquiry enabled me to communicate my process of practice improvement to other research practitioners so that they could learn from this experience as my own new knowledge of my own practice improvement. My new knowledge is in respect of how I created a collaborative practice at Walter Sisulu University which is a Historically Disadvantaged Institution (HDI) and a higher education institution that was forced to merge in the year 2005 with the two former technikons. Some of my research participants blamed the merger issue, which they felt, affected research negatively at WSU. The staff members from these former technikons (Eastern Cape Technikon & Border Technikon) which merged with the former University of Transkei (Unitra) to become Walter Sisulu University (WSU) were geared more towards teaching and did not take research into consideration whatsoever. According to some of my research participants, WSU conditions for research were severely compromised as manifested by generally poor remuneration, inadequate infrastructure, heavy teaching loads, inability to mentor and supervise postgraduate students and novice researchers, and so on. According to Sawyer (2004, p. 213), the university's progress depends on capacity to generate, acquire, adapt, and apply modern knowledge into services and products that directly respond to the needs of immediate communities that the university serves. As a Historically Disadvantaged Institution (HDI), for a long time, WSU lacked adequate resources to generate, acquire, adapt and apply such modern knowledge, and this is why, out of my concern, I felt that

there was a need for me to conduct an innovative self-reflective action research participatory approach as my new knowledge of my own practice improvement which enabled me to better facilitate research capacity development, embraced the following ideas:

- Research capacity building;
- Action learning;
- Self-reflection;
- Collaboration; and
- Responsibility for the learning of self and others.

These ideas formulated a process which had a transformative effect on the reconstruction of my personal and professional model, and this is exactly what other practitioners could learn by doing something similar in their own context. This is why I therefore proposed Nkosinathi Sotshangane's cyclic practice improvement model which brings together action and reflection, theory and practice, in participation with other colleagues, in a pursuit of practical solution to issues of pressing concern. According to Reason and Bradbury (2001, pp.1-2), action research is about working towards practical outcomes, and also about creating new forms of understanding, since action without reflection and understanding is blind, just as theory without action is meaningless.

Figure 5.1: Nkosinathi Sotshangane's Cyclic Practice Improvement Model
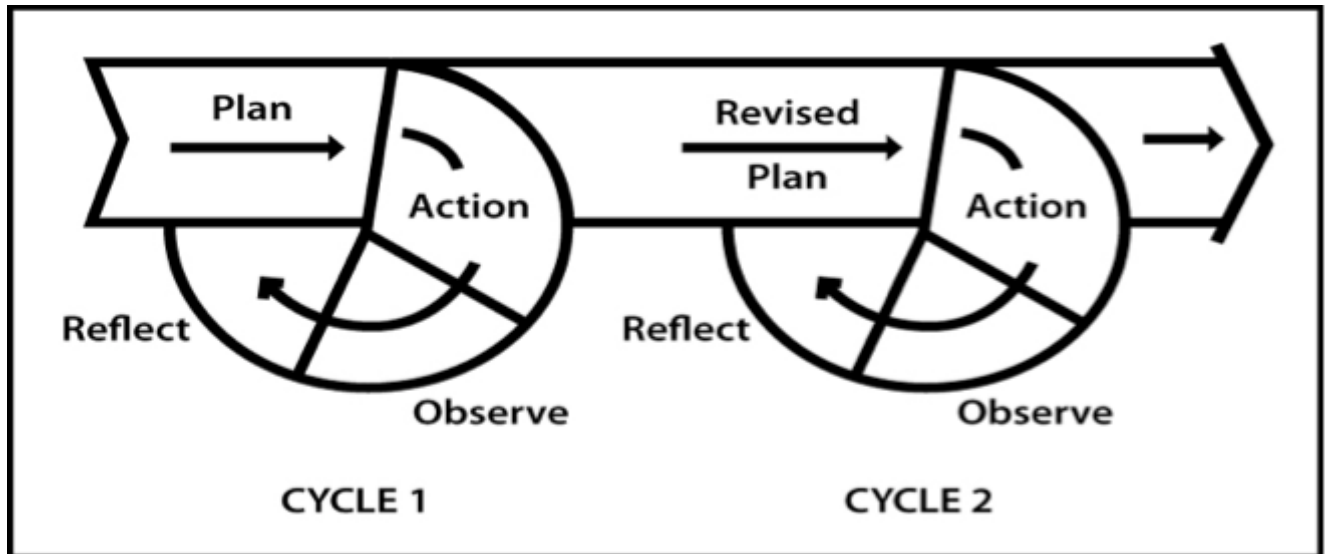
My model, illustrated above, reflects the significance of my learning which encourages other practitioners to learn from it. This model basically leads to an action that implies a locomotive movement which is composed of two main cycles, the rear and the front. It is in this context that I hope to make a continuing contribution to academia as an educational action researcher committed to the improvement of my practice and to education and change of social formation. This model will influence and enable some people to make a real difference in their professional and institutional sphere through their intervention.

Cycle one: This starts with the initial planning of activities to do; the second step is action, whereby I look at the challenges that I have come across during the implementation of my planned actions; then I observe the pros and cons, that is to say, the advantages and disadvantages of my actions that I encountered during the implementation of my plans; and finally, I reflect through evaluation – what were my weaknesses and what were my strengths in order to sustain and eliminate my weaknesses. I am now able to say, why I did this and not that; what is it that I need to improve, and for what good purpose.

Cycle two: This commences with a revised plan, based on the corrections that I have identified for revision purposes. Through action, I now put into practice what needed to be corrected practically. I still have to observe again in order to confirm if there are still anymore corrections needed, is it necessary to go on to the third cycle? By the way, I still have to reflect after my observation for the purposes of evaluating my action. Did I do what I needed to do correctly or, should I go on to the third cycle? If necessary I would still go to the third cycle for, as long as improvement is still necessary.

Each of the cycles, in turn generates new learning from implementation and the outcome of my new implementation. This means therefore that, my model is an ongoing process, with advantages and disadvantages which need to be taken into consideration. My model, for example, as compared to Kurt Lewin's is that, Lewin's is vertical in shape and my model is horizontal in shape. This means that Nkosinathi Sotshangane's cyclic practice improvement model can respond to the means of the society, from the grassroots level, in order to change or improve any challenging situation, embracing societal needs.

The weakness of Nkosinathi Sotshangane's cyclic practice improvement model is that it depends on the personality and attitudes and commitment of the people and professional esteem of academics (as explained below in 5.7 on limitations).

I must confess that this models is based on one popular model of action research which is being recognized by many researchers, and this is Kurt Lewin's model (McNiff, 1988, p. 22). Lewin's model is a spiral of steps or cycles with four stages. This is a dynamic complementarity which links these four aspects into a cycle, and ultimately into a spiral of such cycles. However, my model, on the other hand, is not a theory in action, but a practical workplace oriented model. For example, my model represents a motor vehicle with two wheels, which refers to an element of collaboration, working together equally, towards achieving certain goals. As McNiff & Whitehead (2009, p.58) puts it, action research means working with others at all stages of the process. A clockwise arrow direction symbolizes a vision of an institution that needs to be improved when

necessary, towards a direction for the purpose of reaching or achieving certain goals. These wheels can also represent a steering wheel which is used to move a vehicle towards a certain direction. This means that my model is a moving process, until the new knowledge has been achieved.

The publication of my thesis will help take my proposed model of practice improvement into the public domain, and show what I, a Research Associate, have contributed with, as a new knowledge to other practitioners.

Initially, the aim of this model is to present a process account of my inquiry, in which one can explore what it means to live his or her values in practice. Through descriptions and explanations of this model that this thesis will unveil, a process of planning, acting, acting and reflection, including moments where someone fails and revise his or her actions efficiently and effectively.

5.5 The transformative potentials of my action research for new epistemology of educational inquiry at WSU

By producing authenticated evidence of practice improvement, in terms of the model that I proposed at the end of my study, means I have satisfactorily demonstrated to myself the internal validity of my claim to my new knowledge. For example, there is little doubt that people working together can influence organizational and social change. In fact, according to Hazel Henderson (1996), there is no other way, communities of action researchers need to learn to come together because they are all willing to participate and hold themselves accountable. If WSU academic lecturers, for example, could collectively come together in a collaborative spirit, research productivity may increase instead of declining. From what I know, academics will not participate in any collaboration for the sake of improving their own practice because Nkosinathi Sotshangane's cyclic practice improvement model has succeeded, but because they decide to become involved in their own learning in order to take control of their own academic lives. It is up to each academic to decide what he or she wants to do, whether to stay on the sideline and watch others, or become actively involved as a

participant. I know that this is possible to do collaboratively and I know also that life does have limitations. For example, what can be done today does not mean it can still be done tomorrow, and vice versa. For example, there is a general word of caution from Koshy (2005, p.5):

> *Excessive reliance on a particular model, or following the stages or cycle of a particular model too rigidly, could adversely affect the unique opportunity offered the emerging nature and flexibility which are the hallmarks of action research.*

Limitations could also be due to time factor and ethics. I am aware of the fact that ethical problems in collaborative studies may result from one member acting without due consideration of the other member's views. Hence, in South Africa, people must have a freedom of choice and privacy.

In contrast, these limitations could be overcome, I grew up knowing a saying which says: "If so and so … can do it, why not me?" To me this saying is so motivational and competitive and usually taken up by people who are determined towards achieving something. You need guts to be able to do anything in life successfully. For example, the emphasis of my study was on the development of the research capacity at WSU. Therefore, my proposed model, that is, Nkosinathi Sotshangane's cyclic practice improvement model is indeed, a self-reflective action research model which is about my own practice improvement related engagement. In this model I am demonstrating the transformative potential of action research and self-study approaches for a new epistemology of educational inquiry that I practically and successfully conducted. Epistemology according to McNiff and Whitehead (2006) glossary, is a theory of knowledge (what is now made known by Nkosinathi Sotshangane), incorporating a theory of knowledge acquisition (how it came to be known). Of course, I base my explanation and my motivation on my study as a successful evidence on how I improved my learning and how do I intend to transfer my knowledge to other colleagues and other research practitioners out there. Accepting responsibility for my

influence towards academic lecturers' learning on how to work collaboratively in order to achieve their practice improvement, as per my model, will enable them to develop a form of individual and collective practice that my model has demonstrated, the highest quality of scholarly activity, as a new knowledge. By making my account public I believe I am setting precedence for a form of professional learning and institutional pedagogy from which others can learn how to improve their own practice and learning in all contexts of their professional lives. My vision with my model is in the idea that I can influence the education of social formations. This means aiming to exercise my educative influence to persuade different practitioners that they can learn something from me, primarily that they can learn how to do things for themselves, and can change their own established practices for the better, using Nkosinathi Sotshangane's cyclic practice improvement model.

5.6 Recommendations

I found it necessary for me to share my study's findings with the relevant stakeholders (academics and postgraduate students) at WSU and also with the other research practitioners. Considering the status of research productivity at WSU, it would be worthwhile to undertake a follow-up with academics for the purposes of long-term effects of this study and the impact this could have on them.

It has been raised by several research respondents throughout the questions that I asked when collecting my data using three different research methodologies (quantitative, qualitative and self-reflective action research cyclic inquiry) regarding building research capacity at Walter Sisulu University, most respondents believed that the Research Resource Centre at WSU must involve more academics when promoting the research culture amongst its responsibilities.

The research Resource Centre must include, programs that focus directly on active participation in research in order to increase the capacity of individual researchers and build a critical mass of competent researchers, perhaps including 'incentives' as a reward for prioritizing research.

Amongst the measures that WSU should consider for improving its research productivity include funding of postgraduate studies (Masters and Doctoral studies), the strengthening of postgraduate studies, staff development in certain areas of strength, and encouraging collaboration among colleagues, interdisciplinary, for example, building of networks for development purposes and mentoring of junior academic staff members, is a must to promote.

The university should also consider a mentee and mentor relationship, even with outside universities who are more established, developed and who are rating better as compared to WSU regarding research productivity. This means therefore that WSU, like other highly recognized universities in South Africa (UCT, WITS, Stellenbosch, etc.) must develop a culture of sustained good research practice by adopting both national and international research standards.

The university ought to make available to its researchers and postgraduate students the resources to permit them travel to other institutions for further training if similar internal sources are not available within the university. Adding to this element of recruiting for the highest qualifications programs like PhDs, hiring academics with good academic records, and retention of all of them and excellent completion rates. In order to retain new researchers and build capacity, the Human Resources (HR), which to me does not cared about retention, need to understand what attracts academics to potential careers in academic research and teaching. The HR also needs to know what entices academics to remain or leave for alternative careers, and what impact does losing good academics has on research productivity.

I was able to learn also that the Research Resource Centre needs to extend to all its researchers various trainings and skills development activities as well as specific forums in which all stakeholders can participate and meet collectively. Therefore, I need to encourage and promote networking and communication among researchers and emphasize the importance of continuing research capacity development for all those who ought to be involved in research.

Another valuable approach the university should consider is the establishment of a mentoring scheme between post-doctoral researchers and postgraduate students that encourages a virtual relationship supported by occasional face-to-face meetings and interactions. This may serve as an important role in encouraging experienced researchers to be aware of the support and training needs of junior researchers and the importance of the roles of experienced researchers within the university.

In short, every academic institution ought to have the capacity to generate, acquire, adapt and apply modern knowledge if it is to take advantage of the opportunities and reduce the risks posed by the decline of research productivity. My responsibility therefore should be thoughtfully engage in such a practice to help create desired changes in cycles for the purposes of improving the way research capacity development ought to be facilitated. As a matter of fact, Nkosinathi Sotshangane's cyclic practice improvement model is the right approach to if someone wants to improve his or her own practice. For example, I have learned from my practical experiences, and this is exactly what other practitioners could learn by doing something similar in their own context.

For the purpose of changing and improving the way I facilitate research capacity development at Walter Sisulu University, Reason and Bradbury (2001, p.1) advise that acting collectively with academics that I used as my research participants, in getting my own new knowledge may offer possibilities for improvement in terms of academic research productivity at WSU. As Professor Anastassios Pouris says: "We need to put our money where our mouth is."

We also need to know in advance, how can I sustain all these activities for the purpose of a continuous improved practice? And, all this depends on how I manage a research process in order that the necessary changes that ought to happen at WSU continue to promote sustainable capacity research development. However, from what I know academics will not participate in any collaboration for the sake of improving their own

practice because Nkosinathi Sotshangane's model advises so, but because they decide on their own to become involved in their own learning in order to take control of their own academic lives. It is up to each academic to decide what he or she wants to do, whether to stay on the sidelines and watch, or become actively involved as a research practitioner.

If other universities can be productive when it comes to research, why not WSU as well? Otherwise, my thesis is an account of the way in which I have improved my practice, and this is how I created more opportunities for other practitioners to improve their own practices through continual learning and problem-solving. I am also aware of the fact that ethical problems in collaborative studies may result from one member acting without due consideration of the other member's views. However, Gray (2009) argues that, a collaborative action research seeks to develop and maintain non-exploitative social and personal relationships and in order to enhance the spirit of working together.

5.7   Limitations Encountered Through the Conduct of this Study

As an action researcher, this study was more about to change and improve my own practice, that is to say, the way I facilitate research capacity development at WSU. The problem of declining of research output in a university requires a collaborative effort from me, whose responsibility is to facilitate research capacity development and promotes research excellence amongst academics and postgraduate students, but the question is: WSU is a type of university which is more geared towards teaching more than research intensive. Through this study I have learned that it does not matter how concerned and responsible I was by conducting this study, some academic lecturers may not necessarily agree with my values, of wanting to change and improve their own practices for the benefit of the university that they serve. How can I therefore test the validity of my own new knowledge (Nkosinathi Sosthangane's cyclic practice improvement model) to such ignorant and irresponsible people? For example, from my

study I realized that it is possible to change and improve my own practice through a self-reflective action research collaborative inquiry. However, I know that life has limitations. For instance, what can be done today does not mean it could still be done tomorrow, and vice versa. I am aware of the fact that some people, more especially those in authority, may judge me to be mistaken, knowing for sure that I am in fact correct. This means then that I may have less control over legitimation process, because I may have to present my claim within the socio-political context of other people's interests, including their personal and professional ambitions. This can be tricky, because those people may or may not agree that my thesis is valuable in the sense that my study came up with the new knowledge and a model that other research practitioners could use for their own practice improvement purposes, depending on how it suits their needs. This remains unresolved, therefore, a further research is desirable.

My next step therefore would be to determine what is most valuable to each and every academic lecturers at WSU that I could use to develop and arouse common understanding amongst them. For instance, if I could conduct further research this is what I would further do in future in relation to my field of my study, that is, Education: Research in Higher Learning Institution. If I could study other people's personality, I would be in a better position to understand their behaviour and be able to help them transform and learn to do new valuable things. In this way I would be able to establish and recognize common values that academics need to learn to do.

5.8   Conclusion

From this study, it became clear that research productivity is dependent on the way it is promoted, motivation of individual or collaboration amongst colleagues and according to their areas of professional interest. Of course, this does not dismiss the need for good facilities, good management, and appropriate incentives that reward high-caliber research and teaching and learning. This is also why the Department of Higher Education and Training is so committed to increasing the amount of research produced

by South African universities and urges all institutions to continue working towards this goal. As far as my research findings are, much work remains to be done at WSU, where developing and training of researchers still does not receive the emphasis and funding that it should, from my research participant's perspectives. However, having conducted this study, I believe the way I facilitate research capacity development has changed and improved. The next step is to watch and see the university research production status in future. I will put into practice what I have learned and obtained as a claim of my new knowledge, that is to say, the possibilities of applying Nkosinathi Sosthangane's cyclic practice improvement model, in order for everyone to try change and improve their own professional practices. Furthermore, I need also to encourage experienced researchers to mentor junior researchers and undertake training that would support the ability to mentor them whenever necessary.

Failing to take these steps would mean that high-quality research will not be sustainable at WSU. However, to show that I know the study that I conducted and why I did this study in the first place, and how it likely to influence my future life and learning, I want to hold to what I have learned through this study. I need to keep in mind that for the purposes of my own practice improvement, as an action researcher, I will, in cycles, plan first, act, observe, and reflect in order to improve any practice. And by returning, by reworking, by thinking through my action research journey within a community of practitioners on similar expeditions, I hope to continue to reform myself and thus improve what I intend to do with them on similar expeditions. Educationally, my study shows that I couldn't have done my study successfully alone. McNiff and Whitehead (2006) also believe that voices in community usually have a much stronger influence than a lonely voice. Koshy (2005, p.123) reminds us that, "The intention of the action research is not to make generalizable claims, but to tell a story which is of interest to other practitioners who may want to learn from it, or to replicate the study or apply findings to their situations". However, I agree with McNiff and Whitehead (2009, p.166) when they say: "Through my capacity for knowledge creation, I enabled academic lecturers whom I used as my research participants at WSU to learn to think

for themselves". As a matter of fact, I hope that other research practitioners can learn from my account as they debate my claim to new knowledge, to self-reflect in their practices so as to improve their own professions using action research collaborative approach.

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APPENDIX A

Research Resource Centre

Directorate of Research Development

Nelson Mandela Drive

Private Bag X 1

Mthatha

Tel. 047 502 2958

The Research Participants

Walter Sisulu University

Nelson Mandela Drive

Mthatha

10 November 2011

Dear Colleagues

THE ATTACHED RESEARCH QUESTIONNAIRE

This letter serves as an invitation to participate in a research study that I am conducting at Walter Sisulu University, Nelson Mandela Drive campus. As part-time Doctor of Education (D.Ed) candidate at Walter Sisulu University, I am currently conducting research under the Supervision of Professor Thenjiwe Meyiwa and Professor Theresa Chisanga on: "***Working Towards an Improved Facilitation of Research Capacity Development at Walter Sisulu University (WSU) Using Action Research (AR)***

Methodology". I am also employed as a Senior Research Associate under the Directorate of Research Development.

The attached questionnaire relates to your perceptions and feelings with regard to the way I perform my services as a Research Associate who is managing the Research Resource Centre. The present project is being undertaken among academics for a sample randomly selected from lecturers at Walter Sisulu University, Nelson Mandela Drive.

Please, spare few minutes to respond to all questions in this questionnaire. Respond frankly in the manner as indicated in the questionnaire. There are no right or wrong responses. Your name is not required in any of the questionnaire. The results of the study will be dealt with confidentially, and your anonymity will be protected throughout, both during the analysis of the data and in any reports or publication that may ensue.

Kindly complete the questionnaire within a week of receiving it, and you may send it back to me by an e-mail: sotsha@wsu.ac.za

Thanking you in advance for your participation.

Yours Sincerely

Nkosinathi Owen Sotshangane
(Research Associate)

SECTION A

1. Gender

Female	1	Male	2

2. Age

20 - 29 years	1	40 - 49 years	3	60 years and older	5
30 - 39 years	2	50 - 59 years	4		

3. Academic qualifications

Honour's Degree	1	PhD	3	Other (please specify):	5
Master's Degree	2	Post-Doctoral Degree	4		

4. Faculty into which you are employed

Faculty of Education	1	Faculty of Business, Management Science and Law	3
Faculty of Science, Engineering and Technology	2	Faculty of Health Science	4

5. Teaching Experience: how long have you been employed at WSU as a lecturer?

1 to 2 years	1	3 - 4 years	2	5 - 6 years	3	7 - 8 years	4	9 - 10 years	5	11 years +	6

6. Please, rate research training practical services being rendered by the Research Associate at the Research Resource Centre, Walter Sisulu University (WSU).

Poor	1	Good	3
Fair	2	Excellent	4

7. Are there any promotional activities regarding the importance of doing research by academic lecturers being organized by the Research Resource Centre throughout the academic year?

Yes	1	No	2

8. Do you find doing research as one of the priorities amongst academic activities being promoted and supported by the Research Associate at Walter Sisulu University?

Yes	1	No	2

9. Do you have anyone that you know amongst colleagues in your department/faculty who does research?

Yes	1	No	2

10. At the outset, teaching is vital and striving for excellence in teaching is both necessary and highly commendable by the university and this is often re-emphasized by the Research Resource Centre's research related activities. Teaching should be supported by ongoing research. From your background, which one is more important than the other?

Teaching	1	Research	2

SECTION B

INSTRUCTIONS:

- **To respond, please indicate the extent to which you agree or disagree with the following statements as applicable to you.**
- **Please indicate your choice by means of a tick or by a cross: 1. Strongly agree, 2. Agree, 3. Neutral, 4. Disagree, 5. Strongly disagree.**

		Strongly agree	Agree	Neutral	Disagree	Strongly disagree
1	As far as I am concerned as a Research Associate, good teaching and good research belong together.	1	2	3	4	5
2	Much depends on the Research Associate who is responsible for the operational services of the Research Resource Centre at WSU and developing a positive attitude towards research consciousness and research skills?	1	2	3	4	5
3	The Research Resource Centre ought to always aim at aligning teaching with research interests in such a way that they both become mutually supportive.	1	2	3	4	5
4	Would you recommend to your colleagues attendance of research capacity development workshops, seminars, trainings, etc. organized by the Research Resource	1	2	3	4	5

	Centre in future which provide intellectual stimulus and facilitate a cross-pollination of thoughts and ideas?					
5	Research productivity is being promoted amongst academic lecturers by the Research Associate not only for the benefit of the university in terms of its research output, but also for the benefit of individual status as an academic lecturer.	1	2	3	4	5
6	Are you aware that engaging in research and bringing it to completion in the form of a published article, book or report should be personally satisfying for an academic at the university, and also achievement through the Research Resource Centre if there was any collaboration involved?	1	2	3	4	5
7	While peer review is crucial for assessing research, a person's realistic self-assessment, mentoring and support are equally important. This could result in novice researchers not being able to undermine their own ability to do research on their own.	1	2	3	4	5
8	As a Research Associate, I ought to also serve as a research mentor, hence I am able to give some research related advices, affirmation and assistance in writing research proposals, help academics and postgraduate students prepare articles for publication, etc.	1	2	3	4	5
9	In a good mentoring relationship with the Research Associate do you believe that a researcher can also develop a better sense of accountability?	1	2	3	4	5
10	Unless you are working in a research group, research can be a lonely enterprise. Would you join a peer-support group or research collaboration facilitated by a	1	2	3	4	5

		1	2	3	4	5
	Research Associate?					
11	Would you acknowledge the fact that most lecturers at Walter Sisulu University find themselves trapped in a victim mentality of generally complaining about having 'no time', 'too much teaching load', 'too much admin work', etc.), for them to be able to work with a Research Associate who gives support in guiding them on how to do research. All of these complaints may be true to some extent.	1	2	3	4	5
12	To do research usually requires funding. It is a responsibility of the Research Associate to find out if there is any research funding available to support some research projects from the Directorate of Research Development which is responsible for the allocation of research funds.	1	2	3	4	5
13	If I could somehow help implement a policy where a form of incentive is emphasized through a financial gain to encourage academics to do research this would be another motive for undertaking research. Isn't that so?	1	2	3	4	5
14	Ethical issues permeate every human activity, and this applies no less to the research capacity development by the Research Associate. Whether research has to do with experiments with animals, field work with human subjects (children, aged, mentally handicapped), confidential commissioned research, etc. ethical decisions and constraints ought to always be involved.	1	2	3	4	5

SECTION C

12. Why do you feel there is a need for a better facilitation of research capacity development by the Research Associate at Walter Sisulu University (WSU)?

………

……………….……

………………………….

13. What do you think should be done to change or improve the way research capacity development is facilitated by the Research Associate at WSU?

………

………

…………………………..

14. Do you feel that the research related services rendered by the Research Resource Centre are enough at WSU?

………

………

……………………….

15. Do you like the way research is currently conducted and facilitated by the Research Associate, and what is it that you feel need to be considered as well?

………

………

………………………….

16. What are the current responsibilities and duties that according to you the services that I am rendering as a Research Associate must include?

………

………

………………………….

17. What do you think is the cause of a decline on research productivity at WSU? Does it have anything to do with the way I render my services at the Research Resource Centre?

……

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……………………………..

18. What would you suggest that I should do to prevent such a decline from happening in future at WSU?

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………………………………….

19. Do you think research related activities as organized by the Research Resource Centre at WSU should be more regular, or how many times should we hold such activities in a year?

……

……

………………………………….

20. Do you think your current job, other than teaching has explored your potential to do research to the fullest? What are the changes that you would like to see in your current work situation, or you would like to point out or discuss with the Research Associate?

……

……

………………………………….

21. Would you encourage collaboration or team work in your area of studies for the purposes of improving publications, as this is being encouraged by the Research Associate?

……

……

………………………………..

22. How would you define success in your work environment, teaching or doing research, or both? What would you consider to be essential to the training program of your choice organized by the Research Associate?

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23. What are the benefits that you would expect to gain from any training and development program organized the Research Associate from the Research Resource Centre?

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....

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24. Please, share a word of advice from your experience that has a research related significance during the time you have been serving in this university and the time that you have interacted with your colleagues and the Research Associate, whether positive or negative towards research related activities:

....

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....

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Thank you so much for taking time to participate in this study, I value your feedback!

APPENDIX B

DIRECTOR OF POSTGRADUATE STUDIES

INFORMED CONSENT FORM

Title of the project:

"Working towards an improved facilitation of Research Capacity Development at Walter Sisulu University using Action Research Methodology"

Name of the Researcher: **Mr. Nkosinathi Owen Sotshangane (sotsha@wsu.ac.za)**

Researcher 'Institution: **Walter Sisulu University**   Phone: **047 502 2958**

Name of the Main Supervisor (in case of students): **Prof. Thenjiwe Meyiwa and Prof. Teresa Chisanga**

Purpose of the study/research: (if researcher is for qualification, which one?): **Doctor of Education (D. Ed)**

<div align="center">PARTICIPANT'S INFORMED CONSENT</div>

The purpose of the study and the extent to which I will be involved was explained to me by the researcher or another person authorized by the researcher in a language which I understood. I have understood the purpose of the study and the extent to which I will be involved in the study. I unreservedly agree to take part in it voluntarily. I understand that I am free to withdraw from the study at anytime at any stage at my own will. I am aware that I may not directly benefit from this study. I am made aware that my responses will be recorded anonymously and that I may be audio or video-taped for the purpose of this research.

For participants who are under 18 years (minors): I have explained to my parent/guardian that I am willing to be part of this study and they too have agreed to it.

Signed at (place) _____ on (date)_____ by (Full name)_____of (address) _____

Witness   Name:
_____Signature:_____ _____Date:_____

In case where minors are participants, the parent/guardian also needs to sign below (In such cases, a letter of introduction in a language which the parent/guardian understands will accompany this form)

PARENT'S/GUARDIAN'S INFORMED CONSENT

I_____ am the father/mother/guardian of the minor. The purpose of the study/project and the extent to which the minor under my care will be involved was explained by the researcher or another person authorized by the researcher to me in a language which I understood. I have understood the purpose of the study and the extent to which the minor will be involved in the study. I unreservedly agree for him/her/them to take part in it if he/she/they have no personal objection. I understand that I and/or the minor are free to withdraw our consent at any time at any stage at our own will. I have explained to the minor under my care that I have no objection in him/her in taking part in this study and he/she too have agreed to it.

Signed at (place)_____on (date)_____ by (full name) _____
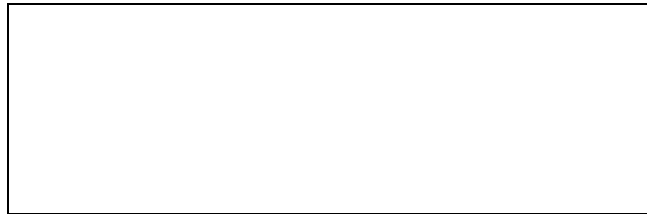
Of
(address):_____

_____

Witness   Name:_____

Signature:_____   Date:_____

ENDORSEMENT BY THE HEAD OF THE PARTICIPANT'S INSTITUTION

Name:_____Signature:_____

_____

Office Stamp:

APPENDIX C

Faculty of Education

Research Ethics Committee

Nelson Mandela Drive, Private Bag x1, Mthatha, WSU, Eastern Cape, South Africa

Tel: 047-5022723/ 5022327. Fax: 047-5022595

Email: @wsu.ac.za

APPLICATION FOR ETHICAL CLEARANCE

IMPORTANT
This form must be completed by those who intend using human respondents as sources of information for the research projects.
Applications are only considered once approval is granted by the Faculty of Education Ethics Committee and all documentation is submitted.

1. **RESEARCH PROJECT INFORMATION**

NAME OF STUDENT	Nkosinathi Owen Sotshangane
REG. NUMBER	**191614904**
FACULTY	**Education**
E-mail	**sotsha@wsu.ac.za**
Professional status (if not a student)	**Research Associate**
TITLE OF STUDY	**Working Towards an Improved Facilitation of Research**

	Capacity Development Using Action Research (AR) Methodology at Walter Sisulu University
SUPERVISOR/ PROMOTER	**Prof. Thenjiwe Meyiwa**
SUPERVISOR E-mail	**tmeyiwa@wsu.ac.za**
RESEARCH PURPOSE	Working towards an improved facilitation of research capacity development is essential for realizing the university academic status of producing excellence in research and teaching and this contributes to sustain development of the university.
Honours	
Masters	
Doctoral	**Doctor of Education (D. Ed)**
Non-degree purpose	

ANTICIPATED FUNDING (if any)	**Certainly, I will apply for the research funding.**
FIRST APPLICATION	• **Yes**
RESUBMISSION	• **No**

2. **RESEARCH OBJECTIVES** (Please list – use a separate sheet if necessary)

Action research is a method that I intend to use for improving research capacity development practice. This methodology can involve problem-solving, hence the solution to the problem of this study will lead to the improvement of the way I do my work as a Research Associate. I will involve action, evaluation through reflection based on collected data and then change my practice during implementation according to research findings. However, I am aware that after action, research findings will emerge

as action develops, but findings are not conclusive or absolute. Eventually, it is my responsibility to report about the research findings and how worth was the study. Fortunately, this study is situation based at my work place, and it is my responsibility to change my practice for the better.

3. **SUMMARY OF THE RESEARCH** (maximum summary 250-300 words)

Generally speaking, for any university to survive it has to make a research a pivot around which all academic activities revolves. According to Valsa Koshy (2005, p.1), research is a form of disciplined enquiry leading to the generation of new knowledge. Thus, quality, teaching and learning is informed by research, and also sustainable income generation for academic activities depends on research. Therefore, any university strategic plan must, among other academic activities, focus around research capacity development. However, at Walter Sisulu University, conditions for research have been severely compromised as manifested by generally poor remuneration and relocation, inadequate infrastructure, heavy teaching loads, inability to mentor and supervise postgraduate students and novice researchers, etc. The university's progress depends on capacity to generate, acquire, adapt, and apply this modern knowledge into services and products that directly respond to the needs of immediate communities that the university serves. However, Walter Sisulu University lacks adequate resources to generate, acquire, adapt and apply such modern knowledge, and this is why there is a need for me to come up with an innovative participatory approach to better facilitate research capacity development.

4. **SOURCE OF DATA**

4.1 Human participants

4.1.1 How many participants will be used in the research study?

- I intend to interact with 50% of 297 academic staff members with Masters or PhD qualifications, which is about 150 research participants.

4.1.2. How will the participants be selected?

- I am focusing on academic members who have Masters or PhD qualifications.
- I am focusing only on academics based at Nelson Mandela Drive campus.

4.1.3 Are there incentives offered to participants?

- No

If yes, please specify

4.14 Has permission been obtained from relevant authorities (e.g. school, hospital, clinic, etc.)?

- Yes

If yes, please specify

- At the moment in time five consent application forms were signed and submitted.

5. INFORMED CONSENT

A copy of consent form(s) must be attached = must be on the official letterhead of the department within which the research resides.

In cases where participants are under the age of 18 or mentally and/or legally incompetent, how is their assent obtained and from who is proxy consent obtained?

If participants are under 18 years, or mentally or legally incompetent, how will it be made clear to the participants that they may withdraw from the study at any time?

6. CONFIDENTIALITY/ ANONIMITY

How will anonymity of the participants be protected?

- All information required for the purposes of this study is not confidential, and will never be associated with either the responses or the findings. All the information will be treated anonymously and confidential.

How will the confidentiality of information be assured?

- Participant's data will not be associated with their names.

7. DISSEMINATION OF RESEARCH RESULTS

To whom will the results be made available?

- Before they graduate, all higher degrees students are required to have a

minimum of three presentations in a Seminar and in a Conference.

- Lastly, dissemination of research findings must be through academic publications.

In which format will the results be made available (e.g. thesis, dissertation, scientific articles, radio, etc.)?

- Results will first be made available as articles publications in a peer reviewed academic journals and as a thesis.

8. ANY OTHER INFORMATION

Please describe any other information that may be valuable to the committee when reviewing your application.

- On Wednesday, 11 May 2011, I presented a Research Proposal in the Post-Graduate Students Seminar held at Committee Room M.

Indicate by X

9. ATTACHMENT CHECKLIST Compulsory:	
Research Proposal	**X**
Questionnaire/ Interview schedule	**X**
Letter of informed consent	**X**
Permission from relevant authorities	**X**

10. DETAILS OF SUBMISSION

Applicant/ Researcher:

Surname: Initials: Title: Prof/Dr/Mr/Ms

Sotshangane   **N.O.**   **Mr**

Signature: Date:

25 – May - 2011

Supervisor/Promoter

In my view, the proposed research is ethically acceptable.

Surname: Initials: Title: Prof/Dr/Mr/Ms

Meyiwa   **T.**   **Prof**

Signature: Date:

25 – May - 2011

HOD/Director of School

Surname: Initials: Title: Prof/Dr/Mr/Ms

Signature: Date:

Chair: Higher Degrees Committee

Surname: Initials: Title: Prof/Dr/Mr/Ms

Signature: Date:

APPENDIX D

WSU Research Resource Centre,
Third Floor, East Teaching Mall,
Nelson Mandela Drive Campus
Private Bag X 1
 5117
Mthatha, Eastern Cape
Tel.: 047 502 2958
Fax: 047 502 2959
Cell: 082 486 8882
E-mail: sotsha@wsu.ac.za

....

Prof. Nthoana Tau-Mzamane

The Registrar

Walter Sisulu University

Private Bag X 1

Mthatha

5117

07 – March - 2011

Dear Prof. Tau-Mzamane

CONSENT APPLICATION LETTER FOR CONDUCTING RESEARCH WITHIN WALTER SISULU UNIVEREITY (WSU) PARTICULARLY, AMONGST NELSON MANDELA DRIVE CAMPUS (NMD) ACADEMIC STAFF MEMBERS

I hereby wish to request your permission to allow me to conduct research within Walter Sisulu University amongst the Nelson Mandela Drive Campus academic staff members. As a part-time Doctoral student in Education, I have just completed a research proposal under the supervision of Prof. Thenjiwe Meyiwa on: "**How do I better facilitate**

research capacity development at Walter Sisulu University using Action Research (AR) methodology".

I am currently employed at Walter Sisulu University as a Senior Research Associate, managing the Research Resource Centre, under the Directorate of Research Development.

Study overview

Any university strategic plan must, among other academic activities, focus around research capacity development. Walter Sisulu University lacks adequate resources to generate, acquire, adapt and apply modern knowledge into services and products that directly respond to the needs of immediate communities that the university serves, and this is why there is a need for innovative participatory approach to better facilitate research capacity development.

As a research associate, it is my responsibility to thoughtfully engage in practices that involve changes that are more satisfying to help create desired changes in the way research capacity development ought to be practically facilitated. This information I will receive it through the interpretation of the results of a survey and interviews that will be conducted using Action Research Methodology with academics with Masters and PhD qualifications.

Research capacity development is essential for realizing the university academic status of producing excellence in research and teaching and this contributes to sustain development of the university. When reference is made to academic excellence of an institution the focus is never exclusively on teaching and learning, but also on a comprehensive and integrated services provided by the university. For example, for any university to survive it has to make a research a pivot around which all academic activities revolves. Through this study I should be able to realign my work, resources allocation and fundamental assumptions in order for WSU to succeed in a world that is

changing daily. The main purpose is to motivate and encourage academics to be able to publish research generated knowledge in recognized peer reviewed journals for the purposes of uplifting the standard of the university research output.

This research will be carried out only at Nelson Mandela Drive Campus during 2011 academic year.
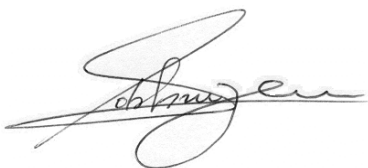
Participation in the survey and interview is entirely voluntary and there are no known or anticipated risks to participation in this study. Participants may decline to answer any of the questions that they do not wish to answer. Further, they may decide to withdraw from this study at any time, without any negative consequences.

All information provided will be considered confidential unless otherwise agreed upon, and the data collected will be kept confidential.

I assure you that this study still has to be reviewed and approved by the Faculty of Education Ethics Committee.

I look forward to hearing from you, and I thank you for allowing me to conduct such an interesting study at Walter Sisulu University.

Yours Sincerely

Nkosinathi Owen Sotshangane
D. Ed Candidate
(Student No.: 191614904)

APPENDIX F

Self-Reflective Action Research Cyclic Model Guiding Questions

Cycle One Questions On: 'Research Integrity in Academia' on Monday 1st September from 14h30 to 17h30

I believe a feedback from the following questions would lead to the improvement of the way I do my practice as well as suggest thoughtful ways to improve in different ways, and make instructional improvements during my facilitation of research capacity development at Walter Sisulu University.

1. Do you feel there is a need for a better facilitation of research capacity development at WSU, judging from Nkosinathi Sotshangane's presentation on Research Integrity in Academia?

2. What do you think should be done to improve the way research capacity development is facilitated by Nkosinathi Sotshangane, based on this particular presentation?

3. Generally speaking, what are the current responsibilities and duties that according to you the services that Nkosinathi Sotshangane is rendering as a Research Associate must include?

4. What do you think is the cause of a decline on research productivity at WSU?

5. What would you suggest that Nkosinathi Sotshangane should do to motivate both academics and postgraduate students in order to prevent decline of research productivity at WSU in future?

6. Do you think research related activities as organized by the Research Resource Centre at WSU should be more regular, or how many times should we hold such activities in a year?

7. Do you think your current job, other than teaching has explored your potential to do research to the fullest? What are the changes that you would like to see in your current work situation, or you would like to point out?

8. Would you encourage collaboration or team work in your area of studies or department, for the purposes of improving research output in terms of publications by WSU, as this is being encouraged by the Department of Higher Education and Training (DHET)?

9. How would you define success in your work environment, teaching or doing research? What would you consider to be essential to the training program of your choice to be organized by Nkosinathi Sotshangane?

10. What are the benefits that you would expect to gain from any training and development program facilitated by the Nkosinathi Sotshangane?

11. Please, share a word of advice from your experience that has a research related significance during the time you have been serving in this university and the time that you have interacted with your colleagues, whether positive or negative towards research.

Cycle Two Questions: Questionnaire Design on Friday 5th September 2014 from 10h00 to 13h00

The questionnaire that I revised for the sake of reflection during second cycle, were as follows:

9. How important and necessary was today's presentation by Nkosinathi Sotshangane?

10. Did you find any value in today's presentation by Nkosinathi Sotshangane, for whose benefit?

11. What did you like about today's presentation by Nkosinathi Sotshangane?

12. What is it that you did not like about today's presentation?

13. Would you encourage your colleagues or postgraduate students to attend Nkosinathi Sotshangane's presentation on Questionnaire Design?
14. What do you suggest Nkosinathi Sotshangane should consider for when this presentation is done again?
15. What would you consider to be the most essential aspect from today's training program by Nkosinathi Sotshangane?
16. What are the other benefits that you would expect to gain from another training and development program facilitated by Nkosinathi Sotshangane in future?

Cycle Three Questions: Defining, entering and editing quantitative data using SPSS on Friday 19th September 2014 from 10h00 to 13h00

My third cycle questionnaire was to evaluate a hands-on session by my research participants of my third presentation on SPSS training as follows:

8. Did you learn anything interesting from today's research capacity development presentation on Statistical Products and Service Solutions (SPSS)?
9. Generally speaking, did you see any significance of all these three research capacity development presentations that I have conducted on Research Integrity; Questionnaire Design; and Defining, entering and editing quantitative data using SPSS, and why?
10. How does the decline of research productivity or research output at WSU affects you, and why?
11. What do you suggest I should do in future to promote research culture amongst academics and postgraduate students at WSU?
12. What does collaboration mean to you, in terms of research productivity?
13. Would you encourage collaboration or team work in your area of studies or department, for the purposes of improving research productivity?

14. Based on all research capacity development presentations that I have conducted, how can I improve my practice in such a way that my services at the Research Resource Centre are consistent so that they continue having a positive influence in you, if there was any?

APPENDIX G

Research Resource Centre

Directorate of Research Development

Nelson Mandela Drive

Private Bag X 1

Mthatha

Tel. 047 502 2958

Cell: 083 464 2466

Transformative Education/al Studies Participants

Walter Sisulu University

Nelson Mandela Drive

Mthatha

11 – August - 2014

Dear Colleagues

SELF-REFLECTION ACTION RESEARCH DOCTORAL STUDY BEING CONDUCTED AT WSU USING TRANSFORMATIVE EDUCATION/AL STUDIES (TES) PARTICIPANTS

This letter serves as an invitation to participate in a research study that I am currently conducting at Walter Sisulu University, Nelson Mandela Drive campus. As a part-time Doctor of Education (D.Ed) student at Walter Sisulu University, I am currently conducting research under the Supervision of Professor Theresa Chisanga and Dr Maisha Molepo on: "***Working towards an Improved Facilitation of Research***

Capacity Development at Walter Sisulu University (WSU) Using Action Research (AR) Methodology".

I am employed as a Senior Research Associate whose responsibility is to facilitate research capacity development amongst postgraduate students and academic staff members. Action Research Methodology that I am using to conduct this study begins with the question: **How can I improve the way I facilitate research capacity development within the university?** This question is a simply form of self-reflection cycle inquiry that I will be undertaking with your permission to help me generate evidence from some reflexive action cycles that will eventually support a claim that I am actually improving the way I do my work. My aim of adopting a reflexive cycle model is to gather information in such a way that I would be able to generate enough evidence for my own benefit and for your benefit as my research participants.

Your names, voices, answers, etc. during our interaction, as there will be some recordings, will be dealt with confidentiality, and your anonymity will be protected throughout this interaction period.

Will you please, kindly confirm your willingness and acceptance to interact with me during these three cycles that I am asking for your permission to conduct with me by an e-mail as soon as you can. I will thereafter set up a meeting for further explanation on what are we going to do exactly and how and when are we going to meet.

I really thank you in advance for your acceptance and participation, and I promise, you will never regret this opportunity.

Yours Sincerely

Nkosinathi Owen Sotshangane