

THE DESIGN OF CONTINUOUS PROFESSIONAL DEVELOPMENT IN
TECHNIKONS,
WITH SPECIAL REFERENCE TO THE TEACHING FUNCTION

by

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DECLARATION

Student number: **463-967-7**

I declare that

The Design of Continuous Professional Development in Technikons, with Special Reference to the Teaching Function is my own work and that all the sources that I have used or quoted have been indicated and acknowledged by means of complete references.

.....

SIGNATURE

(MR. B.L. MATEE)

14 MAY 2009

DATE

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List of Acronyms

ACE	: Advanced Certificate in Education
CAE	: College of Advanced Education
CATE	: College of Advanced Technical Education
CAUT	: Committee for the Advancement of University Teaching
CFH and AE	: Centre for Higher and Adult Education
CHE	: Council for Higher Education
CPD	: Continuous Professional Development
CTAS	: College of Technology and Applied Sciences
CTP	: Committee for Technikon Principals
CUTSD	: Committee for University Teaching and Staff Development
DID	: Directorate Institutional Development
DoE	: Department of Education
ECSA	: Engineering Council of South Africa
FMER	: Federal Ministry of Education and Research
HEQC	: Higher Education Quality Council
HBO	: Higher Professional Institute
HEFECE	: Higher Education Funding Education Council for England
ILTHE	: Institute of Learning and Teaching in Higher Education
NCHE	: National Commission on Higher Education
NQF	: National Qualifications Framework
NWG	: National Working Group
PDP	: Personal Development Plan
PGCHE	: Post-graduate Certificate in Higher Education
QPU	: Quality Promotions Unit
SAARDHE	: South African Association for Research and Development in Higher Education
SAICA	: South African Institute of Chartered Accountants
SAQA	: South African Qualifications Authority
SACE	: South African Council for Educators

SEDA	: Staff and Educational Development Association
SERTEC	: The Certification Council for Technikon Education
TLTP	: Teaching and Learning Technology Programme
TQA	: Teaching Quality Assessment
UCOSDA	: Universities and Colleges' Staff Development Agency
UK	: United Kingdom
UoT1	: University of Technology 1
UoT2	: University of Technology 2
UoT3	: University of Technology 3
US	: United States
VUT	: Vaal University of Technology

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SUMMARY

A CPD model for the University of Technology lecturers is designed in this study. The focus of the CPD model is on teaching as a predominant feature of the Lecturers' functions.

Literature review on the nature, historic developments and the mandate of former Technikons in South Africa is conducted. A comparative analysis of University of Technology education systems in five other countries is conducted. Research was then conducted to establish the status of Lecturers' CPD in former Technikons. Data obtained from literature and the research project was used to design a CPD model for University of Technology Lecturers.

Interviews were subsequently conducted with CPD practitioners in Universities of Technology to obtain opinions on the model. A survey was conducted to obtain Lecturers' opinions on the aspects of the model. Data obtained was then used to modify the model.

KEYWORDS

Continuous Professional Development, Higher Education, Teaching and learning, Learning Theories, Teaching portfolios, Student Feedback, Leadership Enhancement, Research Development, Orientation programmes, Pedagogic Development, Instructional Content development, Participation in Professional Organisations, University of Technology Education.

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CHAPTER 1

GENERAL ORIENTATION TO THE STUDY

1.1 INTRODUCTION AND BACKGROUND TO THE STUDY

I am involved with Professional development of the academic members of staff at the Vaal University of Technology (Formerly Vaal Triangle Technikon). My job as a teaching facilitator in the Directorate for Institutional Development (DID) entails the offering of support services to academics with regards to teaching and learning. The Vaal University of Technology (VUT) has tasked the DID to be responsible for professional development of academics in the institution. As part of its mandate, the DID has designed policy for the professional development of academic staff. The VUT management has accepted this policy of the DID. The policy encompasses the professional development of the existing academic staff and newly appointed academic staff, including heads of academic departments.

Academic Staff do not participate in the DID programmes as expected.

Academics cite a number of reasons for failure to participate in the programmes, or comply with the requirements of the DID policy. Reasons cited are that the demands of the policy are an equivalence of obtaining a teaching qualification, they are busy pursuing higher qualifications or too busy with research. These and other problems make it imperative that the DID should develop a model of Continuous Professional Development (CPD) that will accommodate the majority of academics in the institution. The model should be responsive to the needs of the academics and their workload demands.

Structured CPD has to be negotiated with the academics in order to ensure that efficiency in teaching and learning is successfully attained. The Department of Education (DoE 2001) highlights the need for higher education institutions to ensure that they improve the throughput rates of their students and also put

mechanisms in place to improve the quality of teaching. This has necessitated VUT to revisit professional development practices to ensure that academics do deliver the type of teaching that would promote student learning, and as a consequence, improve the throughput rates of the institution. Consequently, DID established professional development programmes that would provide academics with opportunities to hone their teaching skills. As most of the academics at VUT do not have a teaching background, DID provides programmes that expose these academics to, and equip them with, the necessary teaching skills to effectively fulfil their teaching role. This situation is not only unique to VUT. The same sentiments are echoed in conversations with colleagues, in the professional development units at other former Technikons. This has prompted this study in order to address these problems that are experienced at such institutions.

1.2 PROBLEM STATEMENT AND RESEARCH QUESTIONS

The problem identified is that the lecturers do not make use of CPD opportunities availed to them through the provision of professional development programmes that provide skills to assist with the improvement and delivery of effective teaching. This study thus attempts to respond to this challenge by investigating the following questions:

What constitute CPD activities for the University of Technology lecturer?

What other skills development activities are available for the lecturer, other than activities provided on the professional development programmes that can be classified as CPD?

What are some of the factors that impede the participation of lecturers in professional development programmes to promote good teaching practice?

Does the status change from Technikon to University of Technology have any impact on the nature of teaching provided by Universities of Technology?

Have the teaching development needs of lecturers at the former Technikons changed since the status change to University of Technology?

Are there differences in the teaching and learning needs of University and University of Technology students?

1.3 THE AIM OF THE STUDY

The basic purpose in this study is to design a CPD model for the University of Technology lecturer. This model should focus on ensuring that teaching at the institutions is effectively and efficiently implemented, so as to improve student learning and throughput rates. The model will focus on the promotion of effective teaching as one of the main functions of the lecturer.

1.4 RESEARCH METHODS AND DESIGN

Qualitative and quantitative research methods were applied when conducting this study. The restructuring process of higher education in South Africa has resulted in five Universities of Technology remaining in the country. The initial phase (mini research project) of the study involved interviews conducted with CPD practitioners in two South African Universities of Technology. Documents on CPD practices from these two institutions and from three other Universities of Technology in the country were also obtained. The basic purpose of this part of the study was to gather data on the current state of CPD at Universities of Technology in the country. The data collected from this first phase of the research project, together with data accumulated during the literature review, was used in the design of the CPD model.

The second phase of this study included semi structured interviews with CPD practitioners, conducted at a representative number of Universities of Technology in South Africa. Together with interviews, questionnaires were sent to a representative number of lecturers in Universities of Technology in South Africa.

The feedback received from the interviews and questionnaires was used to improve the CPD model proposed in this study.

1.4.1 DATA COLLECTION STRATEGIES

For data collection purposes, semi structured interviews were conducted at two Universities of technology in the first phase of the study. The people interviewed were individuals responsible for professional development at these institutions. The interviews were recorded on tape and transcribed. The interviews afforded me the opportunity to establish personal links and contacts with the individuals as I intended to request these interviewees to assist with the second phase of questionnaire distribution to lecturers.

Data collection in the second phase of this study included, firstly, interviews with professional development practitioners in Universities of Technology. Data from these interviews was also tape recorded and transcribed. Secondly, questionnaires were used to collect data on the lecturers' opinions and attitudes towards the CPD model that I designed.

1.4.2 SELECTION AND SAMPLING

I am situated in Gauteng where two of the five Universities of Technology in the country are situated. For the initial research project report in section 3.7, I selected my sample for the interviews from one of the Universities of Technology in Gauteng, and the second one outside of Gauteng. Purposeful sampling techniques were thus used to elicit information from the small population. Documents on CPD from two other Universities of Technology and from the one where I am currently situated were also obtained to establish the nature of CPD programmes that are in place at these institutions to promote good teaching.

I used both qualitative and quantitative techniques to gather data for the second research project detailed in chapter 5. I visited three other Universities of Technology to collect the qualitative data. During the visit to these institutions I also established contacts with colleagues at these institutions so as to increase the possibility of getting feedback for quantitative data collection strategies. I thereafter sent out questionnaires to the three Universities of Technology initially visited in the country for quantitative data collection purposes.

1.4.3 LIMITATIONS OF THE STUDY

I should at this point indicate that when this study was started, the purpose was to develop a CPD model for the Technikon sector (the concept which is further discussed in chapter 2), as was the term used in South Africa for the Universities of Technology. In 2003, the Minister of Education announced that the name Technikon would be re-designated as University of Technology. This name change and other changes that came with the changing landscape of South African higher education system resulted with the Universities of Technology (Technikons) being reduced in number from twenty one to five nationally. These changes had a drastic impact on this study. I however decided to continue with this study, as it is indicated in policy (DoE 2004:2) that the reason for the reduction of the number of Universities of Technology was in no way that of the elimination of the “Technikon type” of educational institutions.

I should also indicate that this research project started before the higher education landscape was transformed in the country. Universities of Technology where these studies were conducted were either going through merging processes or internal restructuring processes. These transformation processes resulted in other factors causing these institutions to conduct business in a different manner from what would otherwise be deemed conventional. Issues like staff shortages, staff shuffling, merging of two or more units involved in professional development of academics, national and Institutional politics and the

like had huge impact on how these Universities of Technology operated. This transformation process also impacted on the way in which these Universities of Technology conducted business to promote good teaching. I believe this transformation process has an effect on professional development within Universities of Technology, but this study does not in any way attempt to establish or evaluate this impact.

As this study use both qualitative and quantitative research methods, limitations of each method are contained in the appropriate sections in the study.

1.5 DEFINITION OF TERMS

The terms used in this study are clarified as follows:

The term higher education refers to the learning institution that students attend after they complete secondary school education. Such institutions include Universities, Colleges, Universities of Technology, Polytechnics, etc. This terminology can be confusing at times, for example, a College may be classified as a higher education institution in one country, and it may mean a private secondary school in the other (Barnhart and Barnhart 1988). Higher education can thus be defined as education that is provided by post secondary education institutions, like Universities, and Colleges, which award academic degrees. Such degrees include first degrees, honours, masters and doctoral degrees. Higher education thus includes both the teaching and research institutions, which includes both the undergraduate and postgraduate levels of study. In this study however, College will be used to refer to the post secondary school educational institution, which awards certificates and degree qualifications, and falls within the higher education category classification.

Traditional University refers to the higher education institutions as defined in higher education above, with the exclusion of colleges, Polytechnics and

Universities of Technology. In this study, the term Traditional University will be used interchangeably with the term University.

Tertiary education is defined as the educational level that follows the completion of secondary school education. It is commonly higher education, which prepares students for Postgraduate education, but it can also be vocational education.

Tertiary education culminates in the receipt of the first degree (Vocational Certificate, Associate degree or bachelor's degree) and excludes education towards honours, masters and doctoral degrees.

Vocational education is basically education aimed at preparing an individual for a job, career or profession, which is traditionally non-academic in nature and is directly related to trade or occupation. Vocational education may be offered at secondary school level and also at tertiary level of education (WBE 1994).

Vocational education is rarely considered on its own to fall within the definition of the higher education band, but it does contribute as an academic credit towards attaining the first higher education qualification (L'Hoest 1998: 4).

Institute of Technology refers to a higher education or vocational education institution similar to a Polytechnic, which specialise in technical education. Some of these institutions are Universities that award academic degrees. The term is commonly used in the United States to refer to and it is equivalent to the College of Technology and Science.

Human Resources in this text refer to the function provided by the human resources unit other than the professional development of staff as defined in Academic Support Services.

Career refers to a general course of action or progress through life (or a distinct portion of life). In this study, it is also used as a synonym for vocation.

Academic Development or Academic Support Services refers to all professional and technical support services that help with the improvement of teaching and learning in an institution. These embrace both educational development (activities involved with the enhancement of academic practices and processes geared at ensuring optimal learning outcomes for students) and staff development (which entails work to help staff to increase staff capabilities and performance in academic practice).

Teaching Development refers to all forms of support that is geared at the improvement of all the aspects of teaching. Teaching Development provides both staff and research development in relation to the teaching role of the academic. The main purpose of teaching development is to promote the enhancement of teaching through specifically the use of instruction. Teaching Development is therefore focussed on the development of staff in the skills that would improve instruction.

Student feedback or student evaluation refers to a tool used to gather information from students regarding their experiences in the teaching and learning environment. Students give their opinions on these experiences in a variety of ways, which may be formal or informal, qualitative or quantitative. This process may be equated to an evaluation process for teaching, the evaluation of the learning experience for students, the evaluation of the instruction method in a particular class, an evaluation of a subject or a course that the students have gone through. The most popular way of eliciting student feedback is through the administration of questionnaires, the use of focus group interviews or open ended questions. In this study student feedback refers to the use of questionnaires to elicit information from students, with regards to their experiences in the teaching and learning environment, to assist in the improvement of teaching.

1.6 CHAPTER DIVISION:

Chapter 1

The chapter introduces the general orientation of the study. This includes the statement of the problem, the purpose of the study, research questions, the research design and methods used in the study.

Chapter 2

This chapter introduces the historic development of Universities of Technology in South Africa. This is followed by a historic overview of equivalent institutions to Universities of Technology in Germany, Netherlands, Australia, United Kingdom and the United States of America. A comparative analysis of University of Technology in these countries is conducted. A discussion on the unique nature of University of Technology education and its implication on teaching and learning is also conducted.

Chapter 3

The first part of this chapter is literature review on CPD, describing the characteristic features of good teaching practice and the teaching profession in higher education. This is followed by a discussion on the desired outcomes that should be achieved when lecturers participate in CPD activities.

The second part of this chapter involves a mini-research project where I establish the current state of CPD in Universities of Technology. Data gathered together with information from VUT and two other Universities of Technology in the country is obtained so as to design the CPD model.

Chapter 4

Using the historic analysis of South Africa, together with comparative analysis of other countries for Universities of Technology and literature study on CPD in chapter three, the CPD model for the University of Technology lecturer is designed in this chapter. Suggestions on how the model may be implemented are also discussed.

Chapter 5

The research design and the rationale for the mixed method research design is discussed. Questionnaire design and the triangulation of the mixed method design are also discussed.

Chapter 6

The results discussed in this chapter indicate that the suggested CPD model aspects should be accepted as contributing towards the effectiveness of teaching. These aspects are personal development, orientation programmes, pedagogic development, subject content knowledge development, leadership enhancement and participation in professional bodies. Suggestions proposed in the implementation of the orientation programme namely, mentoring, teaching portfolios and the use of student feedback are not accepted. Results further indicate that research development should be added as an aspect in the proposed model.

Chapter 7

The last chapter discusses the summary and recommendations in the study. Recommendations on the use of teaching portfolios, student feedback and mentoring to improve teaching practice are also made.

CHAPTER 2

TEACHING AND LEARNING IN UNIVERSITIES OF TECHNOLOGY

2.1 INTRODUCTION

The University of Technology concept is new in South Africa. These institutions were better known as Technikons in South Africa. Technikons were the equivalent of Universities of Technology in Australia, Institutes or Colleges of Technology in America, Polytechnics in some European countries, Hogeschool in the Netherlands and Fachhochschulen in Germany. Technikons were unique institutions known for their career-focussed, hands on approach to education and training in South Africa (Du Pre 2003). The status of Technikons was eventually changed to Universities of Technology in 2004. In this study, I will use the term Technikon to refer to University of Technology specifically in the South African context prior to the name change in 2004. In this chapter, I look at the historical development and mandate of Universities of Technology in South Africa. This is followed by a discussion on the International trends in University of Technology education systems in five countries, which are for benchmark purposes. This will then be followed by a discussion on the unique features of University of technology education and the implication of these features on teaching and learning.

2.2 THE HISTORIC OVERVIEW OF TECHNIKON EDUCATION IN SOUTH AFRICA

The development of Technikon education in South Africa emanated from Technical Colleges and Colleges of Advanced Technical education (Sertec 1996, Pittendrigh 1989). Technikon development was therefore a gradual process that occurred over a number of decades (Dalmaine, Manhire and Attesh 1999:8; Pittendrigh 1989: 106).

In the latter part of the 19th Century, there emerged a great development of mines and railways in South Africa. This led to an increased need for technical personnel in these industries, resulting in the development of training centres, which later became known as Technical Colleges. By the time the union of South Africa was formed in 1910, a reasonable framework of technical education was in place (Du Pre 2001a:1; Pittendrigh 1989:109). The shortage of skilled, high level personnel developed due to the rapid developmental needs of commerce and industry. This led to the character, extent and variety of courses in technical education changing. Economic and Industrial changes created a need for high level technical skill beyond those offered at diploma level by Technical Colleges (Du Pre 2001a: 2). Ultimately the Advanced Technical Education Act (1967) was adopted, and the name College of Advanced Technical education emerged, but the name was changed to Technikon in 1977 as institutions of advanced vocational learning (Advanced Technical College Act (1979); Jacobs 1992: 1). The term Technikon, is a combination of the Greek root word, ‘techne’, (which refers to ingenuity, creativeness (implying a certain process of thinking) and understanding, dexterity or skill). These denote working and creative skill to fabricate things, and the management of the fabrication of things (Du pre 2004: 25). To this term, a classic language suffix ‘kon’ (which has connotations of an Academy, was added.) The name Technikon was a new concept, and it became a unique term for this type of institutions in South Africa (Dalmaine et al 1999:3; Du Pre 2001a:1; Fowler 1993:15; Pittendrigh 1988:194).

The purpose of Technikon education was to prepare students for a specific vocation or a set of related vocations in industry (DoE 1997(b): 10). It was geared at the provision of career-oriented training based on the market needs in the private and public sector with a strong emphasis on cooperative education. This involved the placing of students in work situations to give them practical experience in different areas of expertise while they were still studying as part of the curriculum. Cooperative education became a unique character of Technikon

education (CHE 2000a:4.1.3; Tromp, Staak, Van Eldik and Kok 2001:2) and is discussed in section 2.4.6.5.

An independent certification council (known as SERTEC) was established to act as a guardian of quality for the Technikons through the Certification Council for Technikon Education Act (1986). This body was established as a response to the quest by Technikons to improve their status and autonomy (CHE 2000a:4.1.1; Corneilse 2001:7). The promulgation of the Technikon Act (1993) became a great milestone in the history of Technikon education, which afforded the Technikons the powers to award degrees (Du Pre 2001b:2). Technikons therefore changed from tertiary education institutions to be classified as higher education institutions. It is this move in the Technikon sector that initialled or spiralled into the whole Technikon sector aspiring for equal status with the Traditional University sector.

In February 1995, the Minister of Education commissioned the National Commission on Higher education (NCHE) to engage in an intensive process of investigations into the higher education system. The White Paper, released subsequent to the commission, outlined the transformation framework of higher education in the new political dispensation. The South African Qualifications Authority (SAQA) was established in 1995 and it was given the mandate to establish and implement the National Qualifications Framework (NQF). The purpose of the NQF was to create an integrated national framework for learning achievements, to facilitate access, mobility and progression within education and training career path, to accelerate the redress of past unfair discriminatory laws, and to enhance the quality of education and training (SAQA Act 1995). The purpose of the ministry was to reduce and/or to eliminate duplication and overlap of services (and programmes) as created during the apartheid era, and to enhance the responsiveness of higher education institutions to the regional needs for academic programmes.

The National Working Group was appointed in 2001 to set in motion the National Plan for Higher Education. The recommendations of the National Working Group (NWG) resulted in the number of higher education institutions merging and also the emerging of a new type of higher education institution namely Comprehensive Universities (Result of mergers between Universities and Technikons). As a result of these mergers, the number of Technikons was reduced from twenty one (21) nationally to six (five being Universities of Technology and one Technikon). The NWG indicated that this move is in no way an attempt to eliminate the binary divide between the Universities and Technikons. A few Technikons would be allowed to carry on with their programmes as they were recognized as serving a niche that Universities in certain communities was not providing (CHE 2000b; DoE 2004; Koen 2003:1). The DoE (2004) also indicates that policy supports the avoidance of 'academic drift' which is the move towards more University type of programmes away from the Technikon type of programmes.

The history of Technikon education in South Africa suggests that it is supposed to play a pivotal role in providing a technologically inclined skilled workforce that the South African economy needs. Technikon qualifications have been perceived as more likely than University qualifications to increase employability prospects of students (Humphrey 2002:38). Technikons have also experienced an increase in enrolments and thus more likely to increase the number of skilled individuals into the economy. Technikons did not only provide a variety of learning opportunities focussed on the needs of the developing South African economy, they possess an ethos of being more 'employer centred' and/or 'occupation directed' in their endeavour to supply a competent and productive workforce (Du Pre 2004).

The development of quality assurance measures in the Technikon sector also served to enhance the status of Technikon education with interested stakeholders in this sector. Professional bodies which were responsible for

registering practitioners in the fields like engineering became involved in the quality monitoring process of the Technikons, through their involvement in the Sertec processes (Jacobs 1997:6). As a result, this quality assurance role of Sertec has played a vital role in enhancing the credibility of Technikon education more especially with employers in industry.

Technikon education has in the past played a crucial role in increasing access for learners into higher education by their more flexible entrance requirements. Due to the practical career-focussed approach to training, and the enhanced marketability of Technikon graduates (i.e., higher employability prospects perception), Technikons have in the last decade attracted students from historically disadvantaged communities. This access component into higher education and the dramatic growth of Technikon education in the 1990s indicates that students do perceive Technikon education as possessing attributes different from attributes of the Universities.

2.3 THE MANDATE OF TECHNIKON EDUCATION IN SOUTH AFRICA

From the time of their inception, Technikons were viewed with a primary focus being to provide practical career oriented training in specific vocations (Fowler 1993: 15; Sertec 1996:5). They were established in the late 1970s to award certificates and diplomas at tertiary level (Du Pre 2002). Strong emphasis was placed on cooperative education which involved placing students in work situations as part of their training, to grant them opportunity to acquire practical skills in their areas of expertise (Du Pre 2002; Genis 2001; Humphrey 2002:11; Sertec 1996:7; Tromp et, al 2001: 2). Technikons were mandated to provide high level professionals who would develop and apply technical knowledge, however many Technikons have deviated from this mandate to include in their programmes fields in commerce, business and humanities. Sertec (1998: 5) indicates that Technikon qualifications should focus on the development of an understanding of Technology and/or the occupation. This should be

accompanied by the mastery of the Techniques and skills required by a specific technology of occupation.

DoE (1997b) identifies two broad objectives of the Technikon mandate. These broad objectives are to support and guide learners at tertiary level of education towards greater maturity and to prepare people for the practice, promotion and transfer of Technology within a specific vocation and professions. From the above objectives, three essentials or requirements of Technikon Education are then identified as follows. Firstly, Technikon instructional programmes should be at tertiary level and take place in an educationally accountable manner. Secondly, instructional programmes should be aimed at meeting specific vocational/ industrial needs. Thirdly, the instructional programmes should promote the use of Technology. These three requirements are discussed in detail below.

2.3.1 TERTIARY LEVEL AND EDUCATIONALLY ACCOUNTABLE PROGRAMMES.

The first requirement in any Technikon instructional programmes indicates that the program must take place at a level that is higher than offerings at pre-tertiary education level. The programmes must also embed sound educational principles. What this implies is that the knowledge depth and skill development at first year level programmes should be higher than that in technical colleges. Provision is also made in the report that if it is the same, then it must take place in a shorter period of time. The program should also require a greater amount of independent study by the students as compared to that at technical colleges. In the process of program delivery, sound didactic principles should be applied throughout the program offering. This involves educating or moulding of a well rounded, high-and-middle level manpower, able to execute tasks at hand and having mastered high level cognitive skills (Fowler 1993:16). Due to the lower entrance requirements of Technikon education, teaching at Technikons does need to be

different from that of Universities, as Technikon students have different needs compared to their University counterparts. The kind of student accepted at Technikons does need more attention in terms of instruction and support in order to succeed in higher education. This places a demand for some educational expertise for the Technikon Lecturer. Though the Lecturers' training may not be in education, they must acquire expert skills to structure and implement a sound curriculum, which also includes presenting their classroom material in a didactically sound manner. This places a demand on Technikons to ensure that their Lecturers have the required skill to teach at an appropriate level. Keeping in mind that the entrance requirements into Technikon education are lower than University requirements. Students will need more support with regards to 'academic coping' skills compared to their University counterparts. In the process, the learners should be instructed so that their general orientation towards their vocation may be sound. Their skills, knowledge, values and attitudes must be developed to an extent that they are able to practice vocationally, as resourceful and professional practitioners (RSA 1997b).

2.3.2 PROGRAMMES LINKED WITH VOCATIONAL NEEDS.

Technikon instructional programmes do not necessarily follow structured logical guidelines that usually underlie scientific inquiry as is common practice in pure academic scientific knowledge (DoE 1997c; Sertec 1998:5). This means that the approach in education places a greater emphasis on the ability to apply the practical theories of scientific principles, and a lesser emphasis on the mastery of theoretical scientific concepts/principles. Primarily, Technikon programmes were geared at training of a workforce which should get things done. Programmes are therefore more task-oriented, with emphasis on the understanding of technology and occupational practice. An adequate amount of scientific knowledge should be included in the programmes, but with a view on its application in technology rather than for the development of pure science (Sertec 1998). Instructional programmes should also be more directed to occupations than towards

disciplines (Sertec 1996: 1, 3). Students must therefore acquire and be able to apply knowledge and skills in a specific vocation/industry as part of the training. This necessitates very close links between the Technikons and various industries that depend on the human resource output of Technikons for their human resource supply. Technology changes very rapidly in some of these industries. The implication being that Technikon programmes should respond to such changes on an ongoing basis in order to meet these needs. The needs and demands of industry therefore predominantly drive Technikon instructional programmes.

To be able to comply with this requirement, sufficient liaison mechanisms should be established and maintained with industry (Sertec 1996:1, 3), and where possible and applicable, with vocational councils/bodies (E.g. Engineering Council of South Africa, The South African Institute of Chartered Accountants, e.t.c.) for all programmes offered. The implication is that curricula in Technikons should be flexible and the teaching in classrooms should thus also respond in granting students the necessary skills to get into industry with sufficient knowledge to be effective in a particular vocation (RSA 1997b). As a consequence, Technikon lecturing staff should keep abreast not only with the changes in the educational teaching practice, but also with the changes in diverse specialised or technological fields applied in industry, which are relevant to specific vocations. These changes should thus be built into the curricula in the specific vocational practice. This will ensure that the students' skills are relevant and up to speed when they get into the world of work.

2.3.3 PRACTICAL APPLICATION OF KNOWLEDGE AND TECHNOLOGY

As mentioned in the previous paragraph, Technikon education should focus more on the practical application of scientific theory and on Technology. The essence of which should be the development, implementation and practical application of Technology. The implication is that the instructional programmes should actually

relate to the implementation of existing knowledge, technology, formulas and/or results in the practice of a particular segment of a vocation. Technikon education should thus foster the technological thinking within their students as part of its unique character. Fowler (1993) indicates that this greater proportion of Technology focus is one of the objectives of the Technikon education. This application should be logically integrated into Technikon lectures in a didactically acceptable manner (RSA 1997b).

To sum up, Technikon instruction should be provided at post school level, focussing at specific career orientation praxis, yet conducted with the application of sound didactic principles. Instruction should also be geared at training for specific skills, technology transfer, vocation and careers, rather than at a specific discipline. Sensitivity to Industry needs is essential, thus constant evaluation of programmes with input from the relevant industries is equally essential. Technikons aspired to develop well rounded high and middle level manpower which will not only execute tasks, but will master cognitive skills essential for coping with demands on the students' careers. This sensitivity to the needs of the economy became evident in the introduction of the concept of Entrepreneurship (Fowler 1993) in many of the Technikon programmes as a means to develop job creation skill initiatives for the Technikon graduate.

I have briefly outlined the historic developments of Technikon education. In the section below I conduct a literature review on similar types of institutions in five other countries. The purpose for this literature review is firstly, to establish the uniqueness of University of Technology type of education in these countries, and secondly to draw from such countries practices which are unique for Technikon type teaching and learning.

2.4 INTERNATIONAL TRENDS IN UNIVERSITY OF TECHNOLOGY EDUCATION

The higher education sector is faced with various challenges. The changes experienced in South Africa in the higher education sector as described in paragraph 2.2 and 2.3 above are attempts by political authorities to appropriately deal with such challenges that are internationally experienced by the higher education sector. Other countries have gone through similar experiences, and we can learn much from the experiences of such countries and avoid pitfalls they have already experienced in their systems. In this section I will review the higher education system of five countries, Germany, Netherlands, Australia, United Kingdom and the United States of America. I will examine the brief history of each education system, and extrapolate from this, lessons for best practice.

2.4.1 GERMANY

Germany has had a long traditional history in education going back into some centuries. It is Europe's largest and highly populated economy. Higher education institutions are governed and funded by the federal government. The different Landers (States) are responsible for the patterns of governance and funding of higher education institutions.

2.4.1.1 A BRIEF HISTORIC BACKGROUND AND STRUCTURE OF HIGHER EDUCATION IN GERMANY

The higher education system was modelled on the ideas of Wilhelm von Humboldt the founder of the University of Berlin in 1810 (Dearing 1997: 3.4; DoE 2004:9). Governance in German higher education has been a process that was governed by political demands on the system. Inter-state coordination ensued after 1948 with various stakeholders in higher education collaborating for the improvement of national interests. Great amount of changes in the higher

education landscape ensued, due to a great belief that the whole higher education system was in a crisis. The transition period between 1965 and 1980 led to the establishment of Fachhochschulen (Also known as Universities of Applied Research-South Africa's University of Technology equivalent) in 1968, and these developed rapidly as new higher education institutions (FMER 2002:8; Majcher 2000:10). This introduced what is known as a binary system of higher education, which is divided into the University sector, which offers academic-oriented programmes, and the non-University sector, which offers courses leading to a professionally oriented qualification (Kennedy 1996:21; Kreysing 2002:553). The establishment of Fachhochschulen education contributed greatly to the development of higher education networking in the whole country. After the unification of the two German states (the Federal Republic of Germany in the west and the communist German Democratic Republic in the east) in the early 1990s, efforts were made to reshape the higher education landscape by bringing together the two higher education systems (Koeleman 2001:63) and these have not been quite successful. This could be due to the fact that the federal government did not compel the Landers to enforce legislation to bring the binary divide together (DoE 2004: 10). There is no process in place at the moment to bring the binary divides in higher education together.

The non-University sector is further divided into the Fachhochschulens and the College of Public Administration. The latter are a specialised kind of Fachhochschulens, which offer training for civil service training at a higher level, while the former, offers highly practice-oriented training for occupations which require the direct application of scientific findings and methods of artistic ability (Huisman and Kaiser 2001: 15; Kennedy 1996:21). The courses offered by Fachhochschulens are shorter than those offered at University level. A strong emphasis in the courses offered by Fachhochschulens is in Technology and knowledge transfer, and they take approximately four years to complete, with one or two semesters dedicated to practical on the job training. Courses cover areas like economics, engineering, social studies, agriculture, and design. Teaching in Fachhochschulens is predominantly application oriented and it is generally directed

by the demands of the practical professional practice. Teaching thus focuses on students combining classroom learning with practical experience which takes place at the workplace in industry. Research activities of lecturers have an application focus, with the objective being to convert good theory into practice (Dearing 1997: 3.9; FMER 2002:10; Kennedy 1996:21). Graduates from Fachhochschulens may get access to Doctoral study opportunities at University level, provided they do get a suitable professor at a University, who is willing to act as their promoter/supervisor (Dearing 1997; FMER 2003:11; Huisman 2003:14; Kennedy 1996:22). Germany's higher education system also has another unique institution of higher education called Berufsakademie, which were created as an initiative between the states and several large industries. They are an extension of the dual system of higher education and were established to create a shorter and relevant route towards degree qualifications, equivalent to those offered at the Fachhochschulens (Dearing 1997: 3.7 and 3.10).

There is no regulated structured cooperation between the Universities and Fachhochschulens, though it is greatly encouraged. Cooperation initiatives that exist have been between individual professors or managers especially in the field of teaching (Koeleman 2001:59). Professors at Fachhochschulens are required to illustrate their achievements of the application or development of academic and scientific knowledge and methods. This illustration comprises of evidence of professional experience of at least five years, three of which must have been spent in an environment outside the higher education sector (FMER 2002:12; FMER 2003; Koeleman 2001:60). There seem to be a great divide between the purposes of the binary divides in higher education. Universities were established with a purpose and emphasis on research and teaching. They provide academic degrees from Bachelor's level to doctoral levels. Fachhochschulens on the other hand offer degrees at Bachelor and Master's level and these qualifications are strictly geared towards specific professions or vocations (Kennedy 1996:22) and they have no powers to award Doctoral degrees. The two systems offer different types of qualifications and upgrading or lengthening programmes offered by the

Fachhochschulens will in no way bring these to be equivalent to the University degrees (Deissinger 1997). It is until recent that Fachhochschulen graduates could study a further year or two in order to achieve a University diploma. Graduates from Berufsakademie enjoy an above average opportunities on the job market with the companies that train them and with the job market at large as compared to their Fachhochschulens counterparts (Dearing 1997: 3.10). This could be the reason why Fachhochschulen education does not enjoy such popularity as compared to other countries like the Netherlands and United Kingdom (Idriss 2002).

2.4.1.2 EVALUATION OF THE FACHHOSCHULEN EDUCATION SYSTEM IN GERMANY

Fachhochschulen education is viewed as successful in Germany due to the growing demand of the graduates from these institutions. The demand for institutions of this nature did not however develop as it was initially expected (Idriss 2002; Kennedy 1996:22). This demand for Fachhochschule graduates could have perhaps been higher if such institutions offered a wide variety of fields of study, but Fachhochschulen cover only a limited number of the fields of study as compared to the University sector (Huisman 2003: 3). Approximately only 25% of the higher education students studied in Fachhochschulen institutions between 1997 and 2000 (Dearing 1997; FMER 2003:11; Huisman 2003:14). This may also be attributed to the fact that Berufsakademie seem to attract a larger percentage of student population in the non-University sector of higher education. This could be due to the nature of Berufsakademie education provided, as students are paid while they are still studying or on training and are guaranteed jobs on completion of their training.

Legislation governing Fachhochschulens requires professors to show evidence of at least three years work experience outside of the higher education sector. This ensures that professors have the applied experience in their professional fields,

and can relate what they teach in class with practice in industry. This may be the influence on Professors to stay focused on the application of theory concepts and thus the binary divide in higher education has remained intact. Fachhochschulen have remained focused on the application of theory and knowledge transfer, which is the crux of Fachhochschulen education. Knowledge transfer in this context refers to activities that deal with the generation (creation), the use (sharing), the application (implementation) and the exploitation (commercialization) of knowledge, outside of the academic environment (Christiaans and Diehl 2003). Huisman (2003: 42) indicates that in most Landes of Germany, the higher education laws oblige higher education institutions to report on the quality of teaching every two to three years. This places the responsibility upon higher education institutions to put measures in place to ensure that teaching in higher education institutions is at an acceptable level. Moreover, Fachhochschulen admission requirements are lower than those at Universities, placing greater responsibilities on the Fachhochschulens to offer extra support for their students in ensuring that they successfully complete their studies in the set minimum time to complete programmes.

Kennedy (1996:23) indicates that Technology transfer from higher education to industry in Germany holds a high priority and cooperation between the two sectors is highly encouraged as it is an important aspect of the economic policy (Mason and Wagner 1999). Fachhochschulens then, provide related industries and businesses in their regions with consultative services where professors undertake applied research projects with the assistance of students as employees. Students thus work under the supervision of their professors in their work-based learning sessions. This ensures that the students in training get to do those jobs that they are trained for, under the supervision and assistance of their professors. This benefits Fachhochschulens and industry in that Fachhochschulen research addresses industry needs. Industries outsource applied research to Fachhochschulens and focus on their core business, while Fachhochschulens expand their applied research expertise. This may also be contributing to the focus of

Fachhochschulen's research focus on applied research, rather than on basic research, thus reducing the 'academic drift' that similar institutions elsewhere have experienced. The economic policy has contributed to the success of the binary divide between these two sectors in higher education, together with the fact that the Landes did not enforce any cooperation between the Universities and Fachhochschulen on merging or amalgamations. The established Universities also had the "fear of loss of prestige" so they did not undertake any effort to cooperate or merge with Fachhochschulen due to this fear of lowering the University prestigious status they possessed.

2.4.2 NETHERLANDS

The Kingdom of the Netherlands was established in 1815. It is a modern industrialised nation and a large exporter of agricultural products.

2.4.2.1 A BRIEF HISTORIC BACKGROUND AND STRUCTURE OF HIGHER EDUCATION IN THE NETHERLANDS

The binary system of higher education namely the University and Hogeschool (South African University of Technology equivalent) is in place in the Netherlands. Some literature refers to these institutions as higher professional institutes (HBOs) -but in this study we will refer to these institutions as Hogeschool. Initially these institutions were not classified under the higher education band as higher professional Institutes, until 1986 when they were granted their 'rightful place' in the higher education system (Huisman 2001:27; Van Vught 1989). In the last decade, enrolment at Hogeschool has been greater than enrolments in Universities. Before 1983 there existed 348 Hogeschool until the government intervened through policy. 314 of these institutions were reduced to 51 while the 34 larger ones were allowed to remain as they were (Goedegebuure 1989: 83).

Hoggeschole offer four-year programmes of theoretical instruction and develop skills required for practical application in a particular profession. The development of Hoggeschole in the higher education band was mainly supported by government in order to open up access to higher education by creating relatively cheaper professional oriented programmes (Huisman 2001). The Hoggeschole became an ‘easier’ way into higher education. Whereas the Universities were created with a clear goal to pursue independent scholarship, Hoggeschole were created to provide theoretical and practical training, with a clear vocational orientation (Bitzer 2000:141). Generally the programmes are practical and oriented towards the application of knowledge (Van Vught 1989:18), and they include a component of on the job training. Hoggeschole also offer professional masters programmes, but these are not recognised nor funded by the government (Huisman 2001:28). Regulations differentiate between professional and academic programmes, though the distinction does not fully coincide with the distinction between Universities and Hoggeschole. Universities do offer professional programmes (E.g. Law, Pharmacy, Medicine and Teacher Education) and Hoggeschole do offer more of the theoretical programmes with tendencies towards University-like programmes (Huisman 2001:30; Nuffic 2003). Historically, Hoggeschole graduates had greater employment prospects as compared to their University counterparts. This gap has however lessened in the last few years, though University graduates do earn marginally higher salaries than their Hoggeschole counterparts (Huisman 2001:31-32).

The trend in University programmes towards more of professional education area, instead of the traditional academic programmes, has caused tensions between the two sectors in higher education. Hoggeschole are still battling to get government funding for professional masters programmes. Universities had previously developed programmes to accommodate Hoggeschole graduates. Funding has been a problem for these, as there is no state funding for Hoggeschole graduates after completion of their first qualification. This did encourage cooperation between Universities and Hoggeschole as Universities

developed programmes that could accommodate Hoggeschole graduates and government funding in the process. The Higher Education and Research Plan released by the Minister of Education in 2000, makes way for mergers between Hoggeschole and Universities, on the premise that each will continue to offer its own type of programmes and degrees (Huisman 2001: 29-30).

The Hoggeschole have become more of 'equal but different' partners of the Universities. The difference being that the Universities are rewarded for research output and Hoggeschole are rewarded for teaching (Bitzer 2000:140). This has resulted in an introduction of a credit system, which made it possible for articulation between the two sectors by students through the transfer of credits. The length of programmes is the same in the two sectors, and both sectors offer professional and theoretical oriented programmes. This to a very little degree makes the two systems comparable (Huisman 2001: 29). There are however marginal differences between the two sectors of education. These differences are in the entrance requirements, the exclusive basic research funding for Universities and the variations in the types of degrees offered. Hoggeschole are still not mandates to offer doctoral degrees. Teaching in both systems is externally quality assured (Universities starting in the 1980s and Hoggeschole starting in the 1990s). Quality assurance measure involve five year rolling plan for Universities and seven years for Hoggeschole where self evaluation process is undertaken, followed by an external peer review. This will then be followed by a public report of the quality assurance committee. University Lecturers are more highly qualified as compared to the Hoggeschole Lecturers (Huisman 2001: 30-31).

2.4.2.2 EVALUATION OF THE HOGGESCHOLE EDUCATION SYSTEM IN THE NETHERLANDS

The main difference between the Universities and the Hoggeschole starts with the entrance requirements of each. The Hoggeschole admissions requirements

are lower than those required for University entrance. The Dutch National Council for Higher Education compels Hoggeschole to examine the way they have been doing things. Concepts like ‘new learning’ where focus on teaching shifts from ‘knowledge transmission’ to more of ‘teacher support for learning’ (Hoogveld and Paas 2001), and ‘remodelling’ of courses and design to competence-oriented curriculum (Roggema-van Heusden 2004: 98) were used to reshape teaching practices within Hoggeschole. This resulted in more Hoggeschole engaging in research that focussed more on developing their teaching staff to focus on developing expertise on coaching students in their experiential learning processes. Hoggeschole Lecturers were thus in a way ‘pressurised’ to get involved with research on improving their teaching in order to consequently improve student learning more especially in work based learning. Furthermore, Ballantyne, Bain and Packer (1999) indicates that Universities and Hoggeschole in the Netherlands have taken serious considerations into teaching practice and have developed a considerable amount of research into teaching and learning in the new setting to enhance the quality of teaching and learning at such institutions.

The introduction of the credit system transfer has made it possible for the Hoggeschole graduates to move to the Universities after completion of their studies. Though there is no funding for this, policy is in place to ensure that it is a possibility. As this may not have been fully exploited, it may be inconclusive to make a judgment on this policy success or failure. Cooperation between Universities and Hoggeschole is encouraged though not legislated.

Mergers between the Universities and the Hoggeschole was not mandated by legislation, thus the binary divide has remained intact, due the unwillingness of the two types of institutions to merge. The success of the mergers exists where the aim of the merger was to upgrade existing small Hoggeschole into bigger institutions (Goedegebuure 1989: 87). These mergers had to be successful as the government had imposed a minimum number of enrolments for the Hoggeschole to 600 students. Compliance with minimum enrolments by such

institutions to ensure continued funding from the government. The merging Hoggeschole had to ensure that the mergers were successful as failure to merge would have jeopardised their existence.

Structural differences between Hoggeschole and Universities pertain to the nature of postgraduate education and the type of the first degree. Hoggeschole qualifications mainly include a cooperative education component, though not all qualifications include the cooperative education component. Though the distinction does not in essence indicate the differences between the two sectors. The strong differences that are evident in the Dutch system are the exclusive basic research function of the Universities (including the powers to award PhD) and variations in the degrees awarded by these Hoggeschole institutions. There is however similarities in some respect- for example, both offer professionally oriented programmes.

2.4.3 AUSTRALIA

Australia is the sixth largest country in the world and it is geographically isolated yet highly urbanized. It became a commonwealth of the British Empire in 1901. It has vast available natural resources and these have been taken advantage of in developing the agricultural and manufacturing industries. This has resulted in Australia developing their education system to meet the needs of these industries (CIA Wordbooks 2003; Wood and Meek 2000:70)).

2.4.3.1 A BRIEF HISTORIC BACKGROUND AND STRUCTURE OF HIGHER EDUCATION SYSTEM IN AUSTRALIA.

In 1965, the Australian government adopted the binary policy for higher education. This policy recognized the different roles played by Universities on the one hand, and the Colleges of Advanced Education (CAE) on the other. The

binary divide provided a tremendous growth for the CAEs on the one hand, and the Universities retained their elite characteristic of 'education for the elite few' (that is those who were intellectually and/or financially advantaged) on the other. Yet the CAEs became affordable for those who would never make it to University studies and also affordable for those without sufficient funding for University education (Scott 1999: 19-20). Australia had a binary system of higher education until 1988 when it was abolished as a result of the restructuring of higher education landscape (Wood and Meek 2002:8). The government created a unified national system of higher education. Universities and colleges merged and as a result, the number of higher education institutions was reduced from 65 in 1987 to only 37 in 1991 (Mazzarol and Hosie 1996:41). This legislation shift included the diversification of the funding base and increased emphasis on accountability for funding (Wood and Meek 2002:8). CAEs, which are an equivalent of the South African University of Technology, existed side by side with Universities. Government policy established criteria for the sustainable existence of higher education institutions. This was accomplished by creating arbitrary minimum size below which existing institutions would not be able to survive as institutions funded by public funds. As a result, many CAEs and a few smaller Universities were pressured to amalgamate to form bigger higher education institutions. Ultimately the government created mechanisms where CAEs would be absorbed into the University sector, and this mechanism was used to eliminate the binary divide in higher education. These policies compelled many CAEs and few smaller Universities to merge or be incorporated into larger organisations commonly known as New Universities (Scott 1999: 31). Both the existing Traditional University and the newly formed Universities offered degree programmes yet degrees offered by the New Universities were considered less prestigious. After the amalgamation of higher education systems, there arose an increase of University linkages with industry in an attempt to make their programmes more professional and more relevant to the workplace like the previous CAEs programmes were (Mazzarol and Hosie 1996:40).

In 1990, after the abolishing of the binary system in higher education, the government established Commonwealth Staff Development Fund in recognition of the vital role played by staff development in an effective University system. This body later evolved into The Committee for the Advancement of University teaching (CAUT) and recently to Committee for University Teaching and Staff Development, which played a pivotal role in encouraging good practice and innovation in University teaching. This body serves to make recommendations to the Minister of Education on the National Teaching Development Grants. The Committee for University and Staff Development (CUTSD) replaced this body in 1996, and its function was to promote quality and excellence in University teaching (DoE S and T 2000; Martens and Prosser 1998: 28-30). The government further established a Committee for Quality Assurance in Higher Education between 1994 and 1996. Since then, Australian Universities started implementing various systems for quality assurance of teaching and learning. The Universities began examining and reviewing their teaching and made attempts to devise systems to assure the quality of their teaching. As a result, good teaching in higher education has explicit rewards. Quality assurance systems on teaching were focussed mainly on a regular feedback from students, however these systems have improved to focus on the overall improvements of the quality of teaching and learning (Martens and Prosser 1998: 28-31).

2.4.3.2 EVALUATION OF THE UNIVERSITY OF TECHNOLOGY EDUCATION SYSTEM IN AUSTRALIA

Though the binary divide in higher education was abolished, yet in practice and in people's conceptions, the differences between the Universities and the 'New Universities' still exist. This is evident in the prestige attached to the 'Traditional University' qualifications. Though the higher education institutions are classified as Universities, the unique features of the old CAEs is still evident in the New Universities. Merges between the University and CAE system did not remove the duplication and differences in qualifications acquired from higher education

institutions. Furthermore, such mergers did not entirely remove the differentiation between the two higher education systems; neither did it remove the duplication of programmes. Culturally the differences still exist between the New Universities and the Traditional University (Bitzer 2000:140; Mazzarol and Hossie 1996: 48).

With the abolishing of the binary divide in higher education, the government has introduced the CAUT which indicates that University teaching is approached with more serious considerations. This is geared at improving the quality of teaching and learning in all Universities. The establishment of the Commonwealth Staff Development Fund with regards to the University teaching excellence indicated that government policy recognised the importance of teaching excellence in all Universities. This Fund encourages projects that individuals and organisations (within Universities) undertake to exhibit excellence in their teaching endeavours and be rewarded for their efforts as professional teachers in higher education. This has been a major force in Australian higher education in promoting good teaching practice in the entire Australian higher education system. The abolishing of the binary divide also resulted in the teaching staff at the former Polytechnics being under pressure to conduct research, and this caused significant problems and resistance from some teaching staff (Ferguson and Coubrough 2002: 66).

2.4.4 THE UNITED KINGDOM

The United Kingdom (UK) comprises of England, Scotland, Northern Ireland, and Wales. It is a highly industrialized country. Higher Education in the UK has gone through a number of phases in order to address the economic needs of the country for a healthy economic development (CIA Wordbooks 2003).

2.4.4.1 A BRIEF HISTORIC BACKGROUND AND STRUCTURE OF HIGHER EDUCATION IN THE UK

The UK Polytechnics have their origins as far back as towards the end of the nineteenth century and their purpose was to teach the street children (or boys) literacy and practical skills and inculcate them with the evangelical Christian beliefs (Price 1998: 229). Universities (in this section, I will particularly refer to these Universities as Research Universities) dominated the higher education system until in the 1960s when the Robbins Commission proposed for other types of advanced institutions. Between 1988 and 1992, the British Parliament enacted legislation to accelerate the transformation of the elite higher education institutions (Research Universities) into mass education institutions to accommodate the growing student population. Another breed of Higher Education Institutions namely, Polytechnics were formally instituted, nationalized, and granted full operational freedom, like Traditional University. The purpose of the establishing of Polytechnics was a response to the growing national needs of advanced vocational, professional and industrial education offered at higher education institutions, which the Research Universities had failed to respond to (Ward 2001:4-7).

Through the Further and Higher Education Act of 1992, the binary divide in higher education was eliminated and Polytechnics were allowed to include the term/title “University” in their names if they met specific criteria for classification as University institutions. All Polytechnics that applied for University status met the requirements were awarded University status, and they could offer both bachelors and masters programmes. The binary divide between the two systems is not formal, yet indications are that it still informally exists. Former Polytechnics are less rigorous in research output whereas they are more focussed on their teaching provision function. Government ‘forces’ seem to work at removing this divide as all institutions are evaluated on the same standards. Added to that, Research Universities have been greatly challenged to increase their responsiveness to industry needs, thus becoming more professionally oriented

like former Polytechnics (Theisens 2001: 107). The former Polytechnics (or New Universities as they are also sometimes referred to) had rigorous validation processes for their programmes; they developed a strong orientation towards professional, multidisciplinary programmes and assessment processes. The Research Universities though, only had such rigour for their research output, while concern still remained for the effectiveness of their teaching function (Reilly 1998: 8).

The structure of courses at the Research Universities and former Polytechnics are similar though they have different objectives. Research Universities are focused on academic courses and former Polytechnics on more professional courses. The mission and vision of the two types of institutions still distinguishes one from the other. University course developed a tendency to take up more of a professional course route like the former Polytechnic courses do. On the one hand former Polytechnic education has taken a growing tendency aimed at academic achievement than is traditionally usual. The gap between the academic and professional divide has lessened and academic skills have become more necessary in many professional jobs (Bakewell and Gibson-Sweet 1998:111; Bitzer 2000:140; Theisens 2001:105). Employability prospects of student from the former Polytechnics still remain higher than that of students from the Research Universities (Bakewell and Gibson-Sweet 1998:112). Research output in former Polytechnics has improved a lot since 1992, but it is still marginally less compared to Research Universities' research output. Former Polytechnics are still teaching institutions with a small research output, while Research Universities have combined teaching and research in their focus. Former Polytechnics have made attempts to identify niche areas where Research funding may be available, yet due to the inexperience of their personnel in research, this has not significantly improved their research output (Theisens 2001:105). In 2000, it had been eight years since the binary system was abolished yet the Research Universities still remained research output focused

and former Polytechnics still remained teaching focused institutions (Theisens 2001: 105).

The British government took initiatives to ensure that higher education institutions improved their teaching by employing policies that enforced certain measures like the licensing of University teachers to practice. Such measures include firstly, ensuring that newly appointed University teachers are provided with national accredited training programmes overseen by Institute of Learning and Teaching in Higher Education (ILTHE). Secondly this initial training would have to be followed by the University teachers being able to demonstrate their commitment to scholarship and excellence in teaching and learning management, and by involving themselves in CPD activities to that effect (Badley 1999: 36; Gibbs 2005: 5). This would include being able to implement student-centred approaches by using innovative teaching strategies, Computers and Information Technology systems to support learning. The British government further brought about initiatives like the formation of organisations like Staff and Educational Developed Association (SEDA) and Universities and College's Staff Development Agency (UCODA), and these bodies contributed tremendously to the enhancement of teaching in higher education (Badley 1999: 36; Chadwick 1995: 22). The Teaching Quality Assessment (TQA) through the Higher Education Funding Education Council for England (HEFECE) brought about different forms of process (like self evaluation, peer review, etc) to improve the quality of higher education teaching. HEFECE also funds programmes like the Teaching and Learning Technology Programme (TLTP) which focused mainly on the development of new technology based materials in a wide range of subject areas. HEFECE also supports the dissemination of best teaching and learning through its fund for the development of teaching and learning practices. HEFECE has also set aside funds to reward excellence in teaching by providing a financial reward as a catalyst for the further improvement and enhancement of the status of teaching and learning in higher education (Badley 1999:31; Gosling 2004:136). Dearing (1997) further recommends the establishment of ILTHE and

their function would be to accredit training programmes for higher education teachers. Apart from national initiatives to improve the quality of teaching, individual higher education institutions also undertook some series of initiatives towards the improvement of teaching. Many higher education institutions, more especially the former Polytechnics had developed varied methods of enhancing teaching and learning (Badley 1999:38). Such institution created central units known as Centres of Educational Development (also known as Centres of Teaching and Learning) to improve teaching within the institutions. Such centres provided skills to new lectures to teaching, and by also spearheading research into teaching and learning into higher education for other Lecturers who are already teaching at these institutions.

A number of Universities (mostly former Polytechnics) decided to introduce a qualification, Postgraduate Certificate in Higher Education (PGCNE), as an attempt to equip their staff with teaching qualification and comply with National Policy (Chadwick 1995:21). Personnel qualification requirements for both Polytechnics and Universities in the UK is similar, though the Traditional University seem to attract teachers and researchers with a doctoral qualifications due to the status and prestige such institutions are perceived to hold (Theisens 2001: 106).

2.4.4.2 EVALUATING THE POLYTECHNIC EDUCATION SYSTEM IN THE UK

The idea to name all the higher education institutions Universities, historically dominated the higher education sector, thus the name change seem to have been easily acceptable during the higher education restructuring process (Farnham 1999). The success of this name change also lies in ‘government forces’ that did its best to make the two sectors of higher education equal. Though in essence, on a formal level, the two higher education systems merged, their character did not become similar, as in practice, considerable differences

still exist (Bakewell and Gibson-Sweet 1998:109; Bitzer 2000: 140; Theisens 2001:103). The mission and vision of higher educations institutions still distinguishes Research Universities and former Polytechnics though both sectors are known as Universities. This influences the former Polytechnics and Research Universities to still keep to their initial mission and purpose. The employability prospects of former Polytechnic graduates is still high as compared to that of Research Universities' graduates, indicating that in practice, the subtle divide between the two sectors still exist. Though Research Universities have been 'forced' to forge links with communities and industries around them, to address existing needs, such has been positive steps in improving University education and developing societies around these Traditional University. Research Universities are still rigorous in research output and former Polytechnics still uphold the orientation that focuses more on professional and vocational teaching. The former Polytechnics have improved their research rigour, but their research output is still marginally less than that of Research Universities. Dearing (1997) made recommendations for developing a National Qualifications Framework, which will establish a common currency of credits accumulation in the higher education sector as a whole (Theisens 2001: 107). This may make it possible for bridging the gap in the differences between Research Universities and former Polytechnics in the UK.

Ferguson and Coubrough (2002: 67) indicates that the transformation in higher education when Polytechnics changed to Universities had undesirable effects on the staff at these former Polytechnics, as some teachers at these former polytechnics had 'classified' themselves as teachers, rather than researchers. The change to University status resulted in stronger tendencies by researchers in the former Polytechnics to put lower priority on teaching. Teachers who prided themselves in teaching, and who wanted to continue doing what they were doing (teaching) well, were suddenly considered drones on the whole higher education system rather than being rewarded for filling a niche.

A review of the TQA scores from 1993 – 2000 in England and Scotland indicated that the Research Universities fared well in the achievement of excellent scores as compared to the former Polytechnics (Drennan and Beck 2001:93). The former Polytechnics, which held teaching as their core activity, felt that the TQA evaluation process was unfair as most Research Universities were by far better resourced than the former Polytechnics. So, the “playing fields” were not levelled as there were perceptions that assessors involved in the TQA process were predominantly recruited from the Research Universities (Drennan and Beck 2001:93). Chadwick (2001) in his studies also indicated that other factors , which were not “evened out” between the Research Universities and the former Polytechnics played a role in influencing the differences in the TQA scores of the Universities until 2001.TQA scores were strongly influenced by the age of the Universities and reputation factors. Institutions which had been in existence longer (Traditional University) fared well in research quality output and had a good reputation in society. The higher the University’s scored in research and reputation, the higher their chances of better scores on TQA schedule. Also, Research Universities had higher entry level requirements and as the TQA evaluations had a greater component of students’ interviews, Research University students were more articulate and would therefore score better for their Universities on TQA evaluations. The so called ‘University ready’ students were attracted to reputable Universities, giving such Universities better and greater chances for better scores on the TQA, and this gave such institutions a considerable advantage. Good students are attracted to Research Universities which brings financial rewards for Research Universities in terms of research funding, which in turn improved resources for student learning. Better resources like library stocks and computer equipment available for student support, does influence the TQA assessment as these have impact on the quality of teaching learning and assessment processes by TQA. The former Polytechnics cater predominantly for local students and have a mission that provides wider access and such factors do have a negative effect on the former Polytechnics’ available finance and resources, and ultimately negative ratings on the TQA scores.

Chadwick (2001) also suggests that enhancing research for the former Polytechnics would reap financial rewards. So, paying attention to and addressing these factors, would possibly have a positive influence and result in the improvement of the TQA scores for the former Polytechnics (Drennan and Beck 2001:101).

2.4.5 THE UNITED STATES OF AMERICA (US).

A North American country situated between Canada and Mexico deemed the most powerful nation state with a steady economic growth, low unemployment levels and a rapid advancement in Technology (CIA Wordbooks 2003).

2.4.5.1 A BRIEF HISTORIC BACKGROUND AND STRUCTURE OF HIGHER EDUCATION SYSTEM IN THE US

The US higher education system is informed by the Jefferson's ideals of limited governmental control and freedom of expression. This has led to the states and religious communities establishing higher education institutions to maintain continued protection of such rights from levels of governmental control seen in many countries (Eckel and King 2004). The US is the largest provider of international education drawing most of its students from China, Taiwan and India (Mazzarol and Hosie 1996:37).

There is no distinction between the University sector and the non-University sector. The level of qualification in a specified program, rather than the type of institution offering it delineates the level of study. There is no central body to ensure uniformity in higher education institutions. Regional accreditation bodies are responsible for the setting and regulation of minimum standards for the subjects or subject related studies, in professional fields and for specialised institutions. The accreditation process is a self-governing or self-regulating process of quality control to ensure that the minimum standards, adequate

academic capability and administrative competence are maintained. This also serves to promote mutual recognition of qualifications within the higher education system.

Higher education is characterised by accessibility, diversity and it is known for its size and quality. A widely accepted Carnegie classification of the US higher education system 2000 model, distinguishes between five types of higher education institutions, namely, Research and Doctoral Institutions I and II, Baccalaureate Colleges (I and II) and Associate of Arts colleges (Ben-David 1972:5; Bitzer 2001; Boyer 1994;). Each state has the responsibility to run the education system as it deems fit. There is very little power the national government has on higher education. Higher education institutions may either be public (predominantly funded by state funds) or private (privately funded though they do get some state funding but such Institutions are to a great extent autonomous) institutions. Higher education institutions are generally classified as two year or four year institutions. Four year institutions are legally authorized to offer programme leading to bachelor's degrees. Higher education institutions offer four principal types of qualifications namely, associate degrees, (which require two years college education), bachelor's degrees (minimum of four year study), master's degrees, and PhD degrees (Dearing 1997: Section 7).

The Colleges of Technology and Applied Sciences (Or Institutes of Technology as they are referred to in some of the states) and Community Colleges are the institutions that offer programmes that are closely comparable with Technikons. Some of these institutions do not aspire to become Research Universities and their mission is mainly to provide good quality undergraduate education. The programmes are also characterised by a component of students gaining valuable job experience programmes and internships. Exit qualifications at Colleges of Technology and Applied Sciences (CTAS) progress from certificates, diplomas, to associate degrees, bachelors and masters degrees in some instances. It is not clear however, that there exist any articulation pathways from qualifications offered by CTAS to the Universities. In some of the CTAS students who have

completed a two year Associate degree have the option of called the ‘capstone option’ which grants the students the opportunity to proceed to a bachelors degree with only an additional two years of study (DoE 2004:7). Such an option is also highly available and more common to students in the vocational or career focused fields of study in Community Colleges, and this option leads to applied degrees. Community Colleges also offer associate degrees and their mission and mandate indicates that they also serve as Comprehensive Universities (Phillipe and Boggs 2003: 79). The Associate degrees offered by Community Colleges are predominantly in Vocational and Professional fields which also prepare students for transfer to the four-year institutions (Eckel and King 2004:1). The mission of Community Colleges has also predominantly evolved to include programmes similar to those offered by CTAS (Cohen 2002:6; Lane 2003:52). For some of the Community Colleges, their mission (including what they do as institutions) so strongly resemble that of CTAS that it becomes difficult to clearly differentiate between Community Colleges and CTAS.

There are no national criteria on standards in higher education and Universities and Colleges (including CTAS) use a range of screening systems to select their students for admission, though most higher educations institutions will require a high school diploma. Some Universities go to the extent of admitting anyone who has any kind of Technological education or any other useful education (Ben-David 1972:41). Associate degrees offered by CTAS are mostly terminal whereas those completed at Community Colleges mostly offer articulation opportunities for bachelors degrees. These articulation agreements are not legislated, but are dependant on the agreements between different institutions. The differentiation of levels of study, make the whole system have possibilities of students moving from one level to the other and from one part of the higher education section to the other. This is viewed as a unique feature in the US higher education system (Ben-David 1972:7).

The Universities that have historically been in existence longer (like Harvard), emphasise research as their output while the recently established Universities adopted a strategy of providing services to the communities they are in. This phenomenon became very popular in the 1970s and that resulted in a phenomenal growth of these Universities. These Universities also became heavily involved with the development of secondary schools education in their regions, to ensure that the quality of students entering higher education is ready for University education (Ben-David 1972: 43).

Higher education institutions' staff typically falls within three categories: Teaching, Research and Community service. University Lecturers' jobs are therefore also not uniform in nature. The mission of the institution, the level /rank of staff member, academic discipline and work is used to determine the focus of each Lecturer's position. For example, a Lecturer whose focus is on undergraduate teaching will focus on teaching (like in Community Colleges) and not on research or community service (Eckel and King 2004: 10).

Higher education institutions have recently been under pressure to document the quality of teaching and learning within these institutions, as a means of providing evidence of the quality of student learning (Eckel and King 2004:18; Michael 1997). This has resulted in Institutes of Technology, Colleges and Universities taking strides to shift from focus on teaching to focus on learning. Research by CTAS is focussed on the recognition of changes in needs of Industry with regards to the workers. Industry needs for knowledgeable worker, who is skilled to solve problems using Technology in the work environment, able to effectively communicate, interact and work with others well, manage work well, were identified. The CTAS pushed to make learning new skills more accessible through the use of Information Technology. This led to increases commercialization of learning which was met with a lot of opposition from some lecturing staff (Humbert and Vignare 2004; Saunders 2003). On the whole, this has also lead to higher education institutions making greater efforts to improve

student learning and creating ways of indicating efforts these institutions have made to account for their teaching.

2.4.5.2 EVALUATION OF THE CTAS EDUCATION SYSTEM IN THE US

The US higher education is highly influenced by its culture, history and political forces within the country. This has resulted in a highly decentralised higher education system that is quite complex. The Carnegie taxonomy of classification does not capture the main differences between the institutions, grouping together widely divergent institutions. While on the other hand it separates institutions that have a lot in common (Bitzer 2000:142). The complexity of the system is observed in the funding for such institutions. Funding for some of the institutions is privately acquired, for the most part and these institutions are autonomous and operate independent of government or federal intervention. This calls on these institutions raising funds elsewhere in order to maintain their existence. As most higher education institutions generate their income from student enrolments, these higher education institutions have compromised their admission policies in order to attract as many students as possible. The impact of these on the quality of education at such institutions has raised questions about the overall quality of higher education.

A positive element in the philosophy of education in the US is in the move away from a society where higher education is for the elite few. The establishment of the CTAS and Community Colleges has led to many who could not have had access to higher education, acquiring that access. The development of currency in credit transfer amongst many colleges and Universities has led to access and articulation possibilities which are unknown to many other students in the world today (Eckel and King 2004: 8).

Lack of National government control with regards to the quality assurance in higher education has brought about a lot of controversy with regard to the quality

of higher education in the US. Though institutions have the freedom to affiliate with an accreditation body of their choice, these accreditation bodies do not have the expertise on how these institutions can meet ‘acceptable standards’. Neither do they have any form of powers to ensure that such standards are achieved and maintained.

The high competitiveness of the higher education institutions has led to a lot of higher education institutions offering vocational programmes that result in certificates rather than degrees. These programmes are geared at making profits to generate funds in the mists of diminishing state funding into higher education. This has led to higher education institutions losing focus on their mission and focusing on profit generation, which has subsequently led to institutions’ missions and vision being greatly deviated from. This makes it very difficult to differentiate between diverse missions of higher education institutions in the US. The profit generation motive trend in higher education resulted in some institutions merging in order to survive the highly market related competition in higher education. This has further led to the criticism of the higher education system in the US, as commercialised instead of professional, which has also been viewed as compromising the ‘ethics’ of education (Michael 1997).

The system of evaluation for University Lecturer has clearly differentiated in the kind of focus for Lecturers. In some institutions, some Lecturer focus of teaching, and therefore their performance evaluated on the basis of their teaching. Similarly those, whose focus is on research, will also, be evaluated on the basis of their research output and those who focus on Community Development, being evaluated on the impact of projects on Communities around them.

2.4.6 COMPARATIVE ANALYSIS OF FIVE UNIVERSITY OF TECHNOLOGY SYSTEMS

Comparative studies on the higher education systems in the above mentioned countries should be made with some clarification of difficulty in making such a comparison. Firstly, the term University is loosely used in the US but is used with restriction in countries like UK and Australia. Secondly the term further education is not used in the US education system, so anything beyond secondary school education is classified as higher education. It would be unfair to compare higher education in the US, with that of countries where the further education band, as in the four other country's education system discussed above, exist. For example a student leaving the UK secondary education system with A-levels qualifications, may be accepted at a US University and complete their four year degree in about three years or so. These discrepancies may be acerbated by the fact that the US higher education institutions do not have national legislated mandatory externally imposed quality control measures, which brings to question, the justification of such institutions being classified as higher education institutions or being named Universities. Drennan and Beck (2001) suggest that Universities should be grouped in terms of their diverse missions and the evaluation systems be used to fit the purpose of the particular University under evaluation. Such groupings of Universities with set criteria, would then allow for a more meaningful comparison.

Australia (1965), UK (1967), Germany (1965) and Netherlands (1965) adopted the binary divide policies in higher education. Such policies explicitly acknowledged the different roles played by University education and non-University education. In the US a system of differentiation within the higher education system was retained. The binary divide in higher education still exists in Germany and the Netherlands, where the University and the non- University sector (Fachhochschulen and Hogeschools) are viewed as equal but different partners in higher education. The demand for non-university higher education by

both countries is high though it is not as high as it had been expected to be. Graduates from Germany Fachhochschulen may study up to PhD level, while in the Netherlands, the furthering or upgrading of studies to the Hogeschool Masters degree is possible but not state funded. Political agenda, strategies and conditions that exist in both countries may be hampering the development of non-university education to Masters and Doctoral levels. This on the other hand may have been the reason for the continued existence and success of the non-university sector (or University of Technology) education in the two countries. These institutions have focused on teaching Technical and Vocational education and they were politically supported to do so. Their success in teaching is reason for the continued focus on their initial mission of providing a technically skilled labour force. This is a high priority policy in the German economy.

Australia (1988) and the UK (1992) abolished the binary divide in higher education. CAEs (Australia) and Polytechnics (UK) adopted the title University. What is still amazing is the adoption of the binary divide and its abolishing a few years later after the initial adoption. Perhaps in the process of rationalization, the two governments realized the similarities of offerings at these institutions. Teather (1998: 20-21) suggests that the educational ideologies of the two countries are similar. His opinion is that the abolishing of the binary divide was influenced by the need for greater acceptance of a more inclusive higher education system that recognized the importance of not only developing the elite few who had access to higher education, but opening up access for all into higher education. The abolishing of the binary divide in the UK and Australia was successful only as far as the name change was concerned. The success of which could be credited to government intervention in driving the whole higher education transformation where the unified system became both policy and political imperative. So, the binary divide was successfully abolished only where the state did impose the abolishing of such a divide. As far as the mission, culture, orientation and purpose of higher education is concerned, differences between the Universities and the 'New Universities' (former CAEs and

Polytechnics) still exist. Universities are still perceived as more prestigious than 'New Universities'. In practice, the legislation abolishing of the binary divide did not get rid of the higher education institutions with University of Technology orientation. In the US, distinction between higher education institutions does not exist, but the level of qualification delineates the type of qualification offered by each institution. Though all post secondary school education institutions are classified as Universities, a number of such institutions like CTAS (and a substantial number of Community Colleges and some Universities), still provide education similarly provided by Universities of Technology.

I have briefly discussed the history and systems of the five countries' higher education systems and shown how 'University of Technology' programmes are provided in each country. A comparison of the provision of 'University of Technology' education in these five education systems identifies six important features that I will discuss in this section. These features are; focus on technology and professional occupations, technology commercialisation and transfer, training of University of Technology lecturers, access and articulation to further studies, cooperative education and commitment to the improvement of teaching.

2.4.6.1 FOCUS ON TECHNOLOGY AND PROFESSIONAL OCCUPATIONS

Universities of Technology have their purpose as being to focus on the development of Technology or the development of technically skilled professional personnel within communities they serve. Most of such institutions still exist for this purpose. Though this purpose has been muddled by attempts to identify with Universities, the mission and vision of Universities of Technology still differentiates Universities of Technology from Universities. The implication on teaching is therefore that teaching at Universities of Technology should be governed by 'application orientation', which should be driven by the demands of

practical professional practice. This mission also involved the development of Technology and its use in advancing knowledge and research. This mission in many such institutions has also included the development of skilled workers in specific professions and occupations. These specific occupations and professions offered by Universities of Technology were not catered for by Universities. Universities of Technology have succeeded in fulfilling this mission. Most Universities of Technology have deviated from such a mission though, to include other areas of learning. In my opinion, such a mission was initially a niche demanded by industry or communities in which such institutions existed. This mission has made Universities of Technology unique in focus, which is different from the focus of Universities.

2.4.6.2 TECHNOLOGY COMMERCIALISATION AND TRANSFER

The German model of University of Technology education is one of the successful examples discussed above. The crux of the German University of Technology is knowledge transfer and the commercialisation thereof. This concept involves the creation of knowledge, the dissemination of technological knowledge and the application thereof, with a greater emphasis on the application of technology. It is built in the German economic policy that Fachhoschulens team up with industry to conduct Technological research that these industries can use. While in the US research development in CTAs focuses more on industry needs with regards to workers' skills. This has resulted in the establishment of excellent research centres that pump their research into industry. The uniqueness of such research lies in its focus on the fabrication and management of fabrication of things which is more task oriented and graduates from such institutions are better prepared to execute tasks required in the work environment. This research is thus created by Fachhoschulens and CTAs immediately disseminated to industry for application. This has improved efficiency production in industry which has had a spin-off in the economic growth of the two countries as a whole. This has for example also contributed in

research development in Fachhoschulens which has ensured the sustainability of Fachhoschulens institutions. Skilled researchers have been developed in Fachhoschulens and the Professors in such institutions have developed experience in applied research development. This in my opinion has succeeded in keeping the focus of Fachhoschulen education on its mission, (apart from the fact that there was no governmental interference in bringing the two divides together), which is teaching and applied research in technology. This has also contributed in the sustainability of the binary divide in higher education in that Fachhoschulens have remained focused instead of making attempts to earn University status.

2.4.6.3 TRAINING OF UNIVERSITY OF TECHNOLOGY LECTURERS

A good example of good practice in University of Technology education system is seen in the requirements on Fachhoschulen's Professors to practice as educators. They are required to provide evidence of five years practical experience in the field in which they teach, three years of these five should have been gained from outside of the higher education sector. The Professors are also required to demonstrate the application and development of academic and scientific knowledge before they can be accepted as Lecturers in Fachhoschulens. Lecturers therefore do not only teach the theoretical concepts they know, but the emphasis in their teaching is on the Lecturers being able to show their students how these theories apply in practice. In Australia's Universities the government has put in place measures to encourage Lecturers to focus on higher education teaching as a profession. Thus, Lecturers are challenged to apply good teaching techniques in the dissemination of knowledge content. So, such Lecturers are required not only to be masters of their own subject content, but to also practice as professional teachers in the delivery of their subject content. This is even more so, explicitly rewarded by higher education authorities. I do believe that the lecturing staff at Universities of Technology should be involved not only in subject instruction in class, but should

also be involved in the evaluation of the experiential learning component of their students. This will motivate the Lecturers to also keep up to speed with the latest developments in industry, with regards to their subject, thus ensuring that what they teach in class is applicable in industry. This industry experience requirement ensures that Lecturers keep abreast with latest developments in their subjects and focus their teaching on ensuring that students acquire the necessary skills that will ensure that they are able to execute the tasks required of a worker when students get into industry in specific vocations or professions. In the US, Lecturers' functions are differentiated on the basis of the Lecturers' function. This focus could be teaching, research or community service and the Lecturer's evaluation is based on the type of expertise focus. This focus ensures that Lecturers specialise in their area of expertise and not on the other facets of a Lecturers function.

2.4.6.4 ACCESS AND ARTICULATION TO FURTHER STUDIES

In the discussion of the five University of Technology systems discussed above, one feature that surfaces is access into higher education that is evident as a unique feature. University of Technology sector can benefit students who may have not had the opportunity to study in higher education. As entry requirements into University of Technology education is lower, as compared to the University entry requirements, University of Technology education may serve as a vehicle to provide access into higher education. In the US, Universities participate in the secondary school programmes within the community by providing the necessary resources and skills to assist students from such schools gain access into higher education. Apart from this lower entry requirement by Universities of Technology, mass higher education agenda by some of the governments (US, UK, Australia) also meant the costs of University of Technology education are lower than those of Universities. The cost and lower entry requirements by Universities of Technology have opened up access for more students into higher education. Furthermore, students who complete their studies in the US CTAs may gain

access to University education at the third year level and continue to complete their four year University degrees. This is also evident in Australia, where the government pumped more funding for CAEs type of qualifications and made efforts to persuade parents and students of the benefits of Technical courses as an alternative to University entry. There is also evidence that suggests that the students in Australia measure their success in terms of articulation provision to progress into University education (Scott 1999: 35). This feature of open access, (financially and due to the lower entry requirements) into higher education, is a unique feature that has made such institutions popular, and thus they serve as an alternative means into higher education.

In the German model of Fachhochschulens, students studying at master's level may continue to Doctoral studies, as long as they have a University Professor as a promoter to support them. In the Netherlands, post tertiary education is not funded by the government, thus articulation between Hogeschool and Universities has not been a viable option for students. The divide has recently lessened to a great extent in the last few years and articulation between institutions has been based on agreements between institutions and has largely depended on such agreements. These points highlighted above indicate the access and articulation benefit for University of Technology education students.

2.4.6.5 COOPERATIVE EDUCATION.

In section 2.2 above, I indicated that the University of Technology movement has made claims that the unique feature of University of Technology education is, cooperative education, which is defined as:

'... a teaching or training method which combines on-campus study with off-campus work experience... Includes periods of study at educational institutions and periods of in-service training...' (Pittendrigh 1989: 9).

The World Association of Cooperative education defines it as: '...a method of education that combines learning in the classroom with learning in the workplace' (CTM Standing Committee 2000: 4).

Cooperative education endeavours to integrate classroom and laboratory practice with practical work that takes place in industry. This integration ensures that the theoretical concepts learned in class are aligned with experience in the workplace, thus testing the validity of this theory learnt with practice. This element of learning that combines academic learning in the classroom and learning in the workplace, seem to be one of the most common characteristic feature of the Universities of Technology system in the countries discussed above. A number of such institutions have deviated from this initial mission of such institution, by including courses that do not have the cooperative education element in their offerings. Yet the indication is that the systems of Universities of Technology were originally to include this element in their study programmes. Instead of learners just mastering theoretical (academic) concepts, learning is enhanced by hands on application of theory in the work environment, thus reinforcing learning that has taken place in the classroom. Some University of Technology students participate in community projects as part of their experiential training (Du Pre 2001b), to ensure adherence in their programmes to the cooperative education model. Whether this feature is unique to Universities of Technology or not, will be further discussed in section 2.5 below.

2.4.6.6 COMMITMENT TO THE IMPROVEMENT OF TEACHING

One feature that runs throughout the five systems of Technikon type of institutions is the deeper commitment to the improvement of the quality of teaching and learning. Cooperation within such institutions in Germany with regards to quality teaching is quiet high and in the Netherlands Lecturers are encouraged to engage in research on teaching with focus on improving student learning and competency-oriented teaching and learning with greater focus on

developing expertise on coaching students in the experiential learning process. In the UK accreditation of higher education teachers programmes was intensified and such teachers were expected to demonstrate thorough commitment to scholarship and excellence in teaching and learning. Funds were also pumped into the improvement higher education teaching and the use of innovative teaching strategies to improve student learning encouraged in both UK and Australia. Intense funding of staff development initiatives in these countries also indicates that teaching at such institutions was viewed with greater seriousness. The seriousness with which teaching is viewed may be due to the fact that all Technikon type institutions have lower entrance requirements as compared to Universities. The Australian Universities system of ensuring that the teaching at Universities is professional in nature is a good system to ensure good quality and excellent teaching at all Universities. The establishment of bodies like CUTSD ensures that higher education teaching is granted the professionalism it deserves. Furthermore, the Lecturers in Hoggeschole were encouraged to focus on conducting research into teaching and learning in the area of work-based learning. The purpose being to establish work-based learning body of knowledge, how work-based learning could be improved to ensure student success.

In the US, Lecturer's focus in higher education is categorized in terms of their focus. This focus may be research, teaching or community development. CTAS and Community College Lecturers, who focus on teaching at these institutions are recognized and rewarded with regards to their focus in higher education teaching. Good teaching is therefore also used as a yard-stick to reward higher education teaching, instead of rewarding research as it is the case in many Traditional Universities. This is also encouraged in countries like the Netherlands, UK and Australia but Lecturers at such institutions are also encouraged to get involved in research into teaching and focus on disseminating such knowledge in order to benefit other teachers in similar type of institutions.

2.5 THE UNIQUE NATURE OF UNIVERSITY OF TECHNOLOGY EDUCATION

Perhaps the starting point in defining the uniqueness of University of Technology would be to briefly illustrate the difference between a University of Technology and a Technikon. As I earlier indicated, the mandate of Technikon education was to prepare students in ingenuity, creativeness and dexterity in technical skills also to develop the understanding of such skills in specific (or set of related) vocations. This had greater emphasis on the practical application of scientific principles at tertiary level. The emphasis of Technikon education was on teaching of such skills and cooperative education, which was asserted as the focus of Technikon education. The degree granting powers to Technikons in 1993 meant that the Technikons were now classified as higher education institutions and had to also start focussing on research rather than teaching only. This impacted on the initial mandate of Technikon education (offering qualifications at tertiary level). The name change to University of Technology also implies that the performance of such institutions will now be evaluated in the same manner that Traditional Universities are evaluated on, that is teaching, research and community service. This implies that Universities of Technology have to refocus into teaching, research and community development, though emphasis in literature suggests that Universities of Technology focus should be on the teaching of technology, research in technology and applied skills.

Universities of Technology were therefore expected to develop missions distinct from those of Universities. Universities of Technology were initially characterised by a variety of vocational education aspects of continuing education and these aspects are predominantly evident in the mission statement of a number of these institutions. Universities of Technology also disseminate knowledge, and in particular, applied and technological research that aids development (CHE 2004:2, 3). Universities of Technology represent an attempt to create a new prime, separate but equal, and enjoying parity of esteem with Universities (Taylor

2002:403-404). On the other hand, Universities were viewed as institutions that specialise in research (academic and scientific) and teaching, but do not prepare students for the praxis inherent in certain occupations (Sertec 1996). The University of Technology education system stands side by side with Universities in higher education but with different aims from the aims of Universities (Sertec 1996: 5), while Harman (2002:95) classifies Universities and Universities of Technology as equal but different. Henkel (2000) profiles the Universities of Technology and Universities as dissimilar and she further sums up her discussion by stating that “research is the mainstay of Universities while teaching is the forte of Universities of Technology”. Barrett (1998: 149-150) indicates that there exist different types of education and training services currently supplied under the umbrella higher education. From this she argues that not all higher education should provide at the same level, for the same purpose, and with the same outcomes. The focus of Universities of Technology should be restricted to Applied Science and Technology (Badley 1998). Such measures would make practical education ‘respectable’ and centres of excellence would create parity of esteem where great Universities of Technology would earn the same prestige as Universities. It is this difference in missions between Universities and Universities of Technology that make the focus of these two types of higher education institutions different. Be that as it may, international trends do indicate that the Universities of Technology have transformed to become more like Universities, as an endeavour to gain equal prestige with Universities.

The question that however remains to be answered is whether the Universities of Technology are different from the Universities in their offering, or not? If they are, then, what is it that makes a University of Technology different from a University? If we bring in the argument of cooperative education features as core features of University of Technology education, it may be argued that Universities have been involved with Cooperative education in the medical and teaching fields. Doctors' and teacher training programmes at Universities do include cooperative education feature, indicating that this feature is not unique to Universities of

Technology. Although this emphasis is lacking in the majority of the programmes for the Universities, it does exist in the University sector and thus not unique to Universities of Technology.

Universities have in recent years embarked on a greater mission to commercialise their research output, thus the knowledge transfer attribute identified as unique to Universities of Technology does not hold either. Universities have also made an effort to align their programmes with industry needs to ensure the marketability of their graduates. Universities have in recent years been dramatically shaped by values of vocationalism and managerialism, which are a distinctive feature of that characterises the mission of Universities of Technology.

The recent adoption of quality control performance indicator mechanisms by the Universities, have also changed the face of University education (Scott 1999: 34). This feature of quality control performance measures has been quite strong in the University of Technology sector, until recently when Universities started to 'drift' from the autonomy they possessed, to an adoption of such quality control measures. This action has also contributed to lessening the divide between Universities and Universities of Technology.

Van Rensburg (2000) holds a view that the abolishing of the binary divide by countries like Australia and UK served as recognition that fundamentally Universities and Universities of Technology do provide the same desired results in their offerings. In essence, based on what Universities and what Universities of Technology do, there is no functional difference between the two types of institutions. This is also confirmed in the CHE (2004: 2.3) report in an attempt to establish the distinction between the Universities and the Technikons that such a difference does not exist. Universities have drifted towards offering vocational and professional qualifications and Universities of Technology have also expanded their focus from Engineering and other Technological subjects to

include Business, Commerce and Humanities in their offerings (Van Rensburg 2000: 2). Huisman and Kaiser (2001: 15) also hold the opinion that the emergence of a binary divide does not imply that the distinction between Universities and Universities of Technology can or will be maintained forever. CHE (2004: 2.3) further states that the most important formal distinction between the Universities and the Universities of Technology in the world today is the focus on vocational qualifications and the fostering of technological thinking. The CHE (2004) report further indicates that the differences are:

- The Universities of Technology enrolments are grouped in a particular classification of educational subject matter areas, as compared to Universities, which has enrolments grouped across all classification of educational subject matter areas.
- Most Universities of Technology qualifications incorporate the experiential learning component, which is not a focus for University qualifications, with the exception of a few as previously mentioned.
- The University of Technology qualifications also tend to lead to very specific qualifications rather than the generic ones as mostly offered by Universities.
- The admission criteria differ. Universities require a matriculation exemption for admission into their system, while Universities of technology require a minimum of senior certificate for enrolment.

Du Pre (2004: 28), in his attempt to illustrate the difference between the two sectors of higher education, uses the following example. A University PhD student may be involved in research that advances knowledge by trying to resolve un-chattered problem areas in the field of space-travel. The University researcher will then investigate the mathematical intricacies of space travel and come up with solutions to resolve the un-chattered territories in space-travel. But in the process, the University PhD researcher does not have the know-how of creating space-craft. This is where the University of Technology Doctoral

researcher comes into the picture. The University of Technology researcher will then apply the findings of the University researcher findings in the designing and building of the spacecraft and monitor its technical structure to get to its destination (Du Pre 2004:28). This is also indicated in the mandate of the Universities of Technology where students are expected to master the execution of specific task-oriented skills as its philosophical underpinning. The two researchers will play an equal but different role in the achievement of the final-end. So the two higher institutions have different missions and may have to apply different strategies in their teaching emphasis to achieve their missions.

I will however accept the point that the Universities of Technology were founded for a different mission, from that of Universities. This mission as mentioned involves the fostering of technological thinking in specific professions and vocational qualifications. This justification is also supported in the CHE (2004:2.3) report that Universities of Technology should provide a 'niche' that is different from that of Universities. Universities of Technology will alongside Universities (and comprehensive Universities) constitute a dynamic and excellent higher education system for South Africa (Du Pre' 2004: 4and10). The differences in the form of education provided by Universities and Universities of Technology will bring a wider variety and diversity, and also meaningfully contribute to the greater technology transfer and international competitiveness in higher education. South Africa therefore needs both Universities and Universities of Technology as both have their own spectrum of South African Higher education requirements.

2.6 IMPLICATIONS OF THESE FEATURES ON TEACHING AND LEARNING

Technikon education featured mainly for the supply of technically skilled personnel for industry. Teaching of a Technikon student thus focussed on preparing persons to perform specific jobs. The philosophy of teaching for Technikon education was therefore geared at equipping students with skills for

the mastery of specific crafts, so as to get the student ready to work in industry. Thus, emphasis was on cooperative education, which created an opportunity to equip the student with technical skills and experience to perform such specific tasks. As this was driven by a philosophy of supplying the industry needs and putting into practice existing knowledge and technology, the Lecturer's task was therefore to equip the student with information and knowledge that would make students ready for the job market. Students were perceived as lacking knowledge and skills thus they came into the learning environment as empty vessels, ready to be filled with knowledge, information and skills by the expert. Teaching was therefore focussed on Lecturers being at the centre of the teaching and learning environment, as disseminators of knowledge. Lecturers served to transfer knowledge to students as experts in their subject fields, where students had to learn from the subject expert. Students became mere recipients of learning content. This emphasis developed into Technikon Lecturers assigned heavy teaching schedules with very little time for research or community service (Chetty 2003: 12). Technikon teaching therefore focussed more on content delivery or instructional modes in the classroom, with a focus on completing the prescribed amount of curricula within specific time frames (e.g. Semesters). Students had to master content, and thus the Technikon movement developed 'standard compliance mechanisms' where success was measured in terms of compliance to these standards. When Sertec was initially founded, it served to ensure that adherence to minimum set of standards was maintained in Technikons. In my opinion, this 'compliance practice' underpinned the philosophical foundations of Technikon education where teaching had to ensure that Technikon graduates complied with minimum requirements as set by Sertec.

Now that the status of Technikons has been changed to Universities of Technology, does the name change imply that the missions of former Technikons have changed? If this mission has changed, how different is the mission of Universities of Technology from that of Technikons? What are the implications of those changes on teaching and learning? Geddes, Dreyfus and Hadson

(2004:323) indicate that this move in status change changes the goals, content and methods of doing things quiet considerably. If the Technikon programmes were largely skills-based and the province of Artisans, whereas in the Universities, programmes were more knowledge-based and the province of the Academic, emphasis shifts from ‘acquisition of skills’ learning and mastery of execution of tasks as mentioned earlier, towards life-long learning and professional capability development. This shift in emphasis is achievable through assisting students to foster deep understanding, rational critique, and to develop mature judgements that eventually constitute wisdom. Wisdom goes beyond just knowledge acquisition, envisioning possibilities to go beyond the boundaries of the actual current situations. Wisdom further entails critically applying the knowledge-base into practical situations, using value judgements to make decisions which would solve problems envisioned in the workplace (Geddes et. al. 2004). Teaching and learning in Universities of Technology should therefore shift focus towards developing students potential through promoting dialogue and inquiry in the learning environment, where the Lecturer focuses more on becoming the facilitator of the learning process rather than using the teacher-centred approaches to teaching. This practice in teaching fosters deeper learning and self directing for understanding and meaning during the learning process. Emphasis develops from educational programmes that focussed on the development of skills towards getting things done, to a more demanding level where students apply knowledge judgements in the management of their work. Focus thus becomes more of developing cognitive skills to appropriately use knowledge acquired and value judgement in getting things done. This suggests that a University of Technology should equip graduate not only to perform tasks, but graduates who are ready for more senior management positions in industry, where higher order cognitive skills are required. Teaching that fosters an independent worker, who can use higher order cognitive skills to analyse theoretical concepts and make informed decisions.

University of Technology teaching should thus still focus on three strategies namely, teaching, experiential learning and practical work including skills of problem solving while dealing with the intricacies of the world of work. However, this focus should be structured so as to equip the University of Technology graduate to function at higher level cognitive skills as compared to the Technikon graduate. Teaching should therefore focus more from the theoretical and educational requirements of knowledge transmission, practical application of knowledge transmitted in class, and be aligned to teaching practice, and developing lifelong learners with skills to adapt and be effective in meeting the changing needs of industry. Focus shifts from an Instruction paradigm of teaching to a learning paradigm. The curriculum should also entrench values that develop lifelong learning and this should be evident in teaching strategies and assessment methods that are used at the Universities of Technology.

As the University of Technology students may not always be adequately prepared for higher education, the burden of ensuring that the students' transition into higher education (and the success of the student), is accomplished, predominantly rests with the Lecturer. So the University of Technology Lecturer should be equipped with the necessary teaching skills to adequately, carefully and appropriately 'scaffold' teaching strategies to guide such students to succeed. This also involves the Lecturers making an effort to ensure that the student is adequately supported to become an independent student who is able to organise their studies independently, be able to solve their own study challenges and ultimately end up as independent personnel in the world on work. These skills involve students not only performing 'skilled tasks', but being independent in seeking solutions to problems the students encounter in their studies and ultimately on their jobs once they leave the University of Technology. Lecturers must therefore apply teaching strategies that match their students' learning profiles and preferences (Geddes et. al. 2004: 324; Qualters 2001:55). Winberg (2005) indicates that Technikons have been successful in managing to equip the students who were otherwise 'unfit' for higher education. What is

lacking in the whole process, he adds, is empirical research into this teaching. That is, the integration and reflection on what has been done, using that to validate existing theories into education. This may involve Lecturers adopting new learning theories from knowledge transmission to teacher support for learning. Skills to remodel courses to competence-orientated type of courses. This will also assist University of Technology Lecturers to take charge of the quality of teaching in improving practice, thus granting such Lecturers an opportunity to reclaim the status as professionals in the teaching profession. So such a challenge of University of Technology Lecturers should be viewed as opportunities for personal professional development and educational research development (Geddes et.al. 2004: 323).

Teaching should secondly focus on experiential learning or work-based learning, where the learner is exposed to the basic experience of the reality being studied. The role played by the cooperative education component of University of Technology education is quiet important. All the players in this role should have their roles clearly defined, and quality control measures be put in place to improve on the role played by each. It is also imperative that all the role players in cooperative education should get involved with the promotion of teaching and learning. Lecturers, for example should play a meaningful and active role in the process of experiential learning, and the assessment thereof. Instead of leaving industry role players to conduct experiential learning, Lecturers should play a meaningful role in the experiential learning process as students involved in experiential learning in industry have indicated that it is not always that theory they learn in class is applicable in the work situation. Students have been previously used in industry for production purposes rather than spending time in industry for experiential learning (Fowler 1993). Lecturers should therefore assume a greater role in experiential learning to ensure that curricula for experiential learning is properly structured and adhered to. The Lecturers' involvement should also serve to ensure that experiential learning supports theory and is properly assessed in an educationally accountable manner. The

participation of University of Technology Lecturers in informing the experiential learning component, grants them a responsibility to participate in the curriculum process and assessment thereof. A point that may also reverberate from the second implication is that research into work- based learning may be another area where empirical research development is a possibility as suggested in section 2.4.5 above.

Thirdly, teaching should also focus on practicals, which involve application of acquired knowledge by means of laboratory/ workshop experiments. This teaching should therefore enhance and illustrate the theoretical components taught during class time. If this is not possible, practicals should be integrated in the programme that will be done during experiential learning in the work situation. Kaminski (1996:28); indicates the importance of development of cognitive skills for University of Technology students by stating that:

‘If a work praxis comes down to us only as the form of mastering technical tasks, and does not at the same time serve as a starting basis for broader cognitive processes, practical work remains merely tinkering and keeping busy’.

The importance of cognitive skills development is also indicated by Fowler (1993) as one of the skills that Technikon students should be developed in, in order to become independent thinkers as workers in industry rather than just performers of tasks to get things done. University of Technology teachers should always integrate theory and practice in their teaching praxis. More time should be spent on student learning to put in practice the theory they have learnt in class (knowledge application). The use of case studies should be a good example to improve of this aspect of teaching. This is important in that the students will be given an opportunity to integrate and use information in a meaningful way, rather than just covering the materials in class (Qualters 2001:57). Instead of using more class time to cover material, Lecturers should use this time on strategies to master the application of materials covered. This shift towards student learning

should also include the balance of emphasis on practical problems solving methods, with the emphasis on fundamental deeper and meaningful understanding of theory (Felder 1988:680). This further implies that the Lecturers face the challenge of acquiring new skills so as to be involved with the remodelling of courses and design to competence-oriented curricula.

Fourthly, the focus in assessing the effectiveness of teaching should thus be emphatic on the assessment of applied competencies. The greater percentage of 'assessment load' should therefore focus more on the application of theoretical knowledge acquired in classroom as compared to the assessment of recollection of factual knowledge. The implication being that conventional ways of assessing students such as the three hour exams that require the recollection of factual knowledge, are actually not adequate enough for University of Technology teaching. Universities of Technology should therefore ensure that high level cognitive skills are developed within their students through appropriate teaching and learning (Including assessment) approaches. Teaching should use contemporary teaching and assessment approaches to develop their students' independent study capabilities together with research skills in order for their students to further develop the application of knowledge skills in their fields to solve practical problems.

Lastly, University of Technology Lecturers should become involved in the evaluation of their own teaching and the effects of their teaching on student learning. Good teachers take time to reflect on their own praxis, so University of Technology teachers should take the time to apply mechanisms that ensure the evaluation of their teaching and learning methodology. The emphasis now shifts to accountability towards student learning. Quality assurance measures should be put in place to ensure that Lecturers not only have their teaching evaluated, but that they make a concerted effort to maximise learning through their teaching praxis. This evaluation of their teaching is essential for their continuing professional development as a basis for quality assurance systems required by

national policy. This will help University of Technology teachers to identify their areas of improvement together with the strengths which can be built upon.

Added to the implications on teaching mentioned above, such implications bring up greater responsibility on the University of Technology Lecturer to reflect on his/her teaching. As this reflection takes place, a new demand arises for the University of Technology to approach the practice of teaching from the scholarship of teaching perspective. This will be further discussed in the section 4.3.3 below.

2.7 CONCLUSION

Technikons were initially formed to prepare students who were exiting secondary school education for specific vocation or career oriented education. Their mandate was to guide tertiary education students in preparation for specific chosen vocations. Comparing this mandate with similar institutions in the world, Universities of Technology do develop the human resource skills that are essential in Technological, Vocational and Professional occupations, for the improvement of the welfare of the communities in which they are established. In some countries, the binary divide between higher education institutions have been abolished yet we still have Universities with a University of Technology oriented mission that have contributed towards the development of skilled Vocational and professional personnel in the economic development of such countries. Universities have in recent years transformed and adopted characteristics similar in nature to that of Universities of Technology and vice versa. Differentiation between such institutions is thus difficult to establish (or better still, cannot be established at all). Yet, in this study we do accept that even if this differentiation may not be empirically clearly evident, Universities of Technology should have a different mission and focus different from that of Universities. The mission of such institutions is to train middle and high level manpower, able to execute tasks (mastery of psychomotor skills), in the application of Technology. This mean that the University of Technology student

should be trained in the ‘know how’ of Technology application. Winberg (2005:197) indicates that the name change from Technikon to University of Technology demand of the Universities of Technology to reflect on what the mission of the important aspect of its mission, and that is:

‘... to equip students with solid technical knowledge and practical skill, but also to promote an awareness of social and ethical concerns, individual creativity, as well as the ability to reflect on and evaluate their own actions...academic staff themselves need to understand how to integrate experiences across different areas of learning, both within and outside of the academic context’ (Winberg 2005: 197).

Universities of Technology should therefore predominantly focus on the providing higher education in applied sciences and Technology skills which are not provided by University studies. Emphasis on the Cooperative education component should be sustained as this form of training is not the main focus of Universities. However focus should also be geared at the impact of cooperative education on the educational experience of the student. Lecturers at such institutions should also focus on research into educational value added by experiential learning and curricula development of the Universities of Technology. The training provided by Universities of Technology should be done in an educationally accountable manner to ensure the success of their students is on the basis of their mission.

CHAPTER 3

CONTINUOUS PROFESSIONAL DEVELOPMENT WITH REFERENCE TO TEACHING

3.1 INTRODUCTION

This chapter is divided into two sections. The first section presents the literature review on the concept of CPD and on the characteristic features of what good teaching in higher education entails. This is followed by a discussion on the desired outcomes that should result when Lecturers engage in CPD activities. The second section presents a report on the (mini) research project I conducted to establish the state of CPD in Universities of Technology in South Africa. This is followed by a brief discussion of the teaching Profession in Higher Education Institutions.

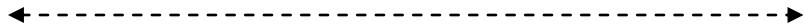
3.2 THE CONCEPT CPD - LITERATURE REVIEW

The term Profession originates from the Latin root, "Professare", which literally mean to profess, or to make a declaration based on one's beliefs with regards to knowledge, experience and values (Farrugia 1996: 28; Kelly 1995). In recent years the term has developed more attributes. Mokgalane (2002) defines professions as those occupations whose competencies are based on theoretical or abstract knowledge, usually obtained by means of higher education. She further declares that the activities of a profession involve an intellectual activity, which requires professional accountability where the practitioner in the profession adheres to certain ethical codes of conduct. Lee (1995:48) defines a profession as occupations organised in institutional forms, whose practitioners are explicitly committed to serve public interest, and who offer their clients services that are related to an intellectually based body of knowledge. Starr, in Wise (2005:319) defines a profession as an occupation that regulates itself through systematic

specialised knowledge, which requires training and collegial discipline that has a base in technical knowledge which has a service provision orientation rather than a profit orientation. Literature also suggests that professions had a history and reputation as privileged work with altruistic objectives (WordIQ 2004).

Professions were alternatively viewed in an economic perspective as a way in which organisations used to gain market control of an occupational service.

Organisations did this, by means of monopolistic exclusions of individuals deemed unworthy or unqualified to provide the occupational service from participation in the provision of such services (Lee 1995:49). Sociologists define this as power elitism, or organised exclusivity along guild lines, which George Bernard Shaw characterises as ‘conspiracy against the laity’ (Alvarez-Dardet and Ashton 2005:437). Explicit mechanisms were created by professional structures to operationalise such strategies of exclusion, including entry prerequisites; institutionalised programs of academic education and work related training and experience. The professional monopoly was established once the authorities or state had granted exclusive rights of service only to the certified professionals (Lee 1995:49). Traditionally, professionals are characterised by occupational practices reflecting esoteric, general and systematic knowledge- attributes which entitled them to organisational and operational autonomy governed by an internalised code of ethics (Farrugia 1996:30). Such organised professions were a system in which the middle class established cultural control and established its social status (Engvall 1997:52; WordIQ 2004). Some other professional bodies do extend their professional services and membership to associates who are not qualified as professionals in the field, but do perform expert services that are in line with the services catered for by the profession (Jones and Robinson 1997: 200). The traditional model of defining a profession was found to be quiet rigid and failing to recognise the evolutionary progress developing within occupations. Farrugia (1996:30) bring in a flexible model as illustrated in Figure 3.1 below.



Non professions

Ideal professions

Figure 3.1

Figure 3.1 illustrates two poles set at opposite ends. Occupations exhibiting to a greater degree, traits consistent with professions are placed close to ideal professions and those occupations that do not exhibit profession's traits are placed on the other end of the continuum. Placing an occupation on a continuum would depend on its degree of substantive theory, validated practice, operational autonomy, organisational autonomy, prestige and esteem. This model esteems professions to be non-static, but shifting their positions on their continuum as they improve or lose their degree of professional characteristics on the above mentioned criteria.

Nicholls (2000:371), on the other hand defines a professional as a person who has undergone a lengthy period of professional training in a body of abstract knowledge (also MWMD 2002), who is controlled by a code of ethics and professional values, and committed to the core business of the organisation. From the definitions above, indications are that a professional is a practitioner who undergoes a period of training, in a specific vocation, where intellectually based body of abstract knowledge, together with practical skills, is learned and mastered. After such training, the practitioner uses the acquired related knowledge and skill to provide services, which serve public interest. This dimension to the definition of a professional is explained in the WRUD (1996), as the act of professing or claiming, open declaration, public avowal or acknowledgement. Farrugia (1996: 28) explains this as a declaration, based on ones' beliefs, knowledge, experience and values. This has connotations of a vow or a promise, which adds to the meaning of the term, profession. Once the vow has been made, acceptance into the 'monopolistic' society and recognition of the status of the professional is granted.

The profession is thus greater than abstract knowledge acquisition and practice. It involves a vow made, or a promise to abide by a certain code of ethics and values. This declaration signifies the existence of a contract, where the practitioner agrees to abide by a certain code of professional practice. Deviations from the terms of the vow may result in the disqualification of the practitioner from the profession. This may be clearly explained in the terms of the Medical Professional declaration of the Hippocratic Oath. This is an oath taken by medical practitioners on attaining their qualification. If the medical practitioner breaks any of the codes in the Hippocratic Oath, they are declared as **not** deserving of the privilege of maintaining the practice license (Bernhardt 1997). In a sense, a professional would have to undergo what Bryan and Schwartz (1998:10) regard as a ritual, or rite of passage as part of a larger process. The practitioner on taking the vow, attains the professional status, becomes an independent and autonomous person, who however has to operate within the ‘practice boundaries’ of the vow taken. Once the professional is admitted into the profession, he/she has to comply with the practices within the profession, in order to maintain the status of a professional. This professional autonomy often results in the isolated existence for the professional (Browell 2000:59; Engvall 1997). Connelly and Rosenberg (2003:3) indicate the following characteristic norms as a sum of requirements, to elevate an occupation to a profession status, which meticulously summarises the definitions given above, as follows:

- The degree and complexity of knowledge (substantive theory) required in the provision of unique, definite and essential service, to conduct business.
- Lengthy periods of training and induction.
- The development of skills and knowledge base required throughout the career of the professional.
- Code of ethics that is clear and well interpreted.
- A comprehensive self governing body of practitioners.
- Specialisation and acquisition of expertise in the field of practice.

- Substantial authority over actions taken in practice and taking responsibility for judgements made within the scope of professional autonomy.
- Relatively high salaries compared to others.

Debates on professions serving the interests of the privileged elite, disinterested specialists performing expert services, have been conducted in this area. Society does however require of professionals to provide expert service to the public, with excellence, competence, and effectiveness in order for society to afford a particular occupation the trust and prestige status of a profession (Connelly and Rosenberg 2003: 3).

Bearing in mind that with the advent of technological development and research that keeps on informing practice, a number of professional practices are affected by these new Technologies. Professionals' academic qualifications have a limited life-span as developments in practice or on the job take place (Simmonds 2003:169). Many professions would thus require the continuing education, or re-certification or renewal of practice license in order to continue practising and maintain the professional status of the profession (Bryan and Schwartz 1998:4). The isolation of independent practitioners, and the Technological advancements in practice, together with the re-certification or renewal of practice licenses, brings in a necessary concept for the professional, namely professional development.

Professional Development is defined as a process consisting of orientation, in-service education, and continuing education for the purpose of promoting the development of personnel within any employment setting, consistent with the goals and the responsibilities of the employer (Van Niekerk 2002:2) and the profession. Nicholls (2000:371) explains professional development as the enhancement of the knowledge, skills, and understanding of individuals or group in a learning context that may be identified by themselves or their institutions. Nicholls (2000:372) indicates that in higher education, professional development

involves the improvement of quality of teaching and learning of the researcher/teacher and to develop the culture of lifelong learning where opportunities for individuals to extend their knowledge base, skills, and teaching activities are provided. It involves activities that assist the professional to keep his/her skills, knowledge and expertise, current and up to date (Simmonds 2003:169). Bryan and Schwartz (1998:7-8) and Vrasidas and Zembylas (2004:326) further explain that professional development has certain common levels classified as:

Individual, Group/Program, Departmental, Divisional and the Professional Association. The professional (including employer organisations and professional organisations), thus has the responsibility to keep abreast with the current development in the profession and in order to improve practice and keep up to date with peers in the profession. Professional development can therefore be viewed as the sum total of all the formal and informal learning experiences that occur throughout the professional's career. These learning experiences serve to enhance knowledge base and skills base of the professional in order that the service to consumers of the professional's service may be improved.

Farrugia (1996: 29) further explains that professional standing has certain implications to the practitioner. Firstly, it involves a long and progressive path where knowledge and practice are enhanced. Secondly, those individuals within the profession should be engaged in a continuous vocational development beyond academic training and qualification. And thirdly, that professional cannot operate in the wilderness, there is a need in all professions for collaborations and an appreciation of the professional services rendered. It is therefore essential that a community of professionals be established where networking is used to enhance practice.

Bringing focus more closer to professional development of educators, Schlader and Fuso (2003) define Professional Development as career-long, context-specific, continuous endeavours that are guided by standards, grounded in the educators' own work, focused on student learning, tailored to the educators' stage of career development; while Fishman, Best, Foster and Marx (2000:3)

defines professional development as fundamentally concerned with the educator's learning: changes in the knowledge, beliefs and attitudes that educators possess that lead to the acquisition of new skills, new concepts, and new processes related to the work of teaching and learning. The purpose of professional development for educators is therefore, to develop, implement and share practices, knowledge and values that addresses the needs of the society utilising the services of the profession. In the process, the educator's attitudes, beliefs and knowledge are transformed and integrated into teaching practice in order to maximise effective learning for the student.

Different authors, in different time periods, depending on given contexts they wanted to address, used the term professional development differently to refer to concepts related to CPD (Bolam and McMahon 2004: 33). For example, terms like Staff Training, In-Service Education and Training (INSET) (Craft 1996), and Staff Development (Welsh and Woodward 1989) have been used in relation to professional development. I will briefly explain these concepts.

Examining the term *staff training*, two connotations are established. Firstly, it involves the acquisition of skills for specific tasks (ranging from low skills like operating a photocopier to high level skills like open heart surgery). Secondly, staff training is viewed as a remedial response to deficits in performance, which entails bringing staff up to speed with their work (Partington and Stainton 2003:2). In this instance, staff undergo a training programme to develop areas of deficiency in their practice or their jobs. Staff is then subjected to a training programme, where skills that they may previously have not possessed, are imparted, in order to get staff to perform on the job or be 'up to speed' on the job.

Staff Development is defined as involving all the activities, actions, processes, policies, programs and procedures employed to facilitate and support staff so that their performance and potential may be enhanced and they may serve their own and their institution's needs (CFH and AE 1998:10). Staff development is

essentially concerned with releasing the potential of all staff to be effective, successful, and creative and to be bold in taking initiatives in their work to the benefit of their students, their colleagues, their institutions and their own career development (Partington and Stainton 2003:1). Development in this instance brings in a much broader term than training implying long-term benefits for both the organisation and the individual (Bowell 2000: 59).

Staff development is a process, which includes both formal and informal learning opportunities, to assist individuals to perform competently in the fulfilment of role expectation (Van Niekerk 2002:2). Staff development generally refers to in-service continuing education (or staff training), designed to enhance the competencies, skills and knowledge of an individual in order to enable the individual to provide a better service to the clientele (Bryan and Schwartz 1998:5). Bolam and McMahon (2004: 45) define staff development as a combination of different types of programs and activities which aim to empower teachers to develop positive attitudes and beliefs about education and management. In the process, teachers become more competent in teaching students and managing the educational process as well as adapting to change in the educational environment. This involves more than just 'bringing staff up to speed' but has a growth element drawn in. Staff development should provide for the opportunity for professional growth, refinement of existing skills, and acquisition of new skills (Bryan and Schwartz 1998:5). Added to this, staff development may also be perceived as a change management tool, to effect change in practice and behaviour, for the improvement of quality in education (Bolam and McMahon 2004).

Inset refers to the In-Service Education and Training. This is the training provided by organisations to employees who are already on the job. This includes terminal and rarely continuing programs that offer existing teachers opportunities to review and expand their teaching expertise (Moyo, Donn and Housell 1997: 19). These are activities that teachers engage in, intended to improve their

professional knowledge, skills and attitudes, with the ultimate objective being to teach more effectively (Bolam 1982: 3).

After one has attained a professional qualification and being admitted into practice of a particular profession, one needs to engage in activities that require one to keep abreast with developments in one's profession. Simmonds (2003:169) identifies the following activities, as ways of keeping abreast with developments in a professional's skills, knowledge and expertise:

1. Remaining in touch with issues relevant to the job and the profession.
2. Developing existing skills, knowledge and expertise.
3. Considering how to acquire new skills (Setting up a new mindset) to enhance practice (Nicholls 2000:371).
4. Broadening ones' knowledge and understanding of the job one is doing (This includes being able to market one's skills, networking and cultivating relationships and other range of competencies (Nicholls 2000:371)).
5. Developing personally within the job. (Including developing self-insight and taking personal change (Nicholls 2000:371)).

Involvement with the above-mentioned activities brings us to an additional concept called *Continuous Professional Development* (CPD). Day and Sachs (2004: 9) indicate such definitions related to professional development as described above illustrated the *deficit* model of CPD where teachers as an example of professionals needed to be provided with something (knowledge and skills) which they did not already have. The deficit model of CPD attempt to prescribe standards as if all professionals' (in the field of expertise) circumstances are the same. However along with the deficit model, exists the *aspirational* model which acknowledges professionals may already be effective in what they do, but that they can build on this effectiveness. The aspirational

model is build upon research findings about effective improvements. The deficit model and the aspirational model of CPD are however not in conflict, but rather complementary to each other as they combine to meet the ever changing needs of professionals.

CPD is a concept that was first developed in the United Kingdom during the 1970s and its use has popularly increased with different professions (Doney1998: 486). Various authors have come up with different (yet complementary) definitions for CPD with different emphasis on certain concepts/characteristics within the definition.

Redfern, (in Doney 1998: 487) defines CPD as:

‘...an ongoing process aimed at monitoring and upgrading skills and competencies of individual workers in a profession...It develops a marketable worth and promotes recognised good practice throughout the profession.’

Kennie and Enemark (1998) add on the element, ‘CPD is... the process by which a professional person maintains the quality and relevance of professional services throughout his/her working life.’ While in Jones and Robinson (1997), Madden and Mitchell define CDP as:

‘...the maintenance and enhancement of knowledge, expertise and competence of professionals throughout their careers according to a plan formulated with regards to the needs of the professional, the employer, the profession and society’.

Doney (1998) further uses the following definition,

‘The systematic maintenance, improvement and broadening of knowledge and skills and the development of personal qualities necessary for the execution of professional and technical duties throughout the practitioners’ working life’.

In Browell (2000:58), CPD is also described as concerned with constant upgrading of professional knowledge throughout the professional’s working life, requiring self-direction, self-management and responsiveness to the development opportunities offered by work experience. Central to the concept of

CPD is the improvement of educational performance and enhancement of educational quality ((Bolam and McMahon 2004: 35).

When I examine the above-mentioned definitions, I can highlight certain characteristic concepts, which are central to CPD. To establish the theoretical framework for this study I will use some of the features in literature review above, and also borrow from Mashile (2002). From this article, I have identified four concepts that are useful in the development of a CPD framework for University of Technology Lecturers' professional development model. Mashile's article discusses the role of the state, professional bodies and higher education in the CPD of educators. The article focuses on the role played by higher education institutions in the provision of CPD and how this role is affected by globalisation. Yet some concepts discussed in his article provide a suitable guideline that I will use for developing a CPD framework for University of Technology Lecturers. These concepts are; Features of CPD, Learning in CPD, Stakeholder involvement in CPD and areas of learning covered in CPD.

3.2.1 FEATURES OF CPD

There are four features that I have identified from definitions of CPD in literature, and these will be discussed as follows:

3.2.1.1 CPD IS A CONTINUOUS PROCESS

CPD is a continuous process that occurs throughout the Academic's life, indicating that the academics adhere to the concept of life-long learning, as envisaged by the DoE (2001). CPD should be structured to cover pre-career, mid-career and post retirement needs of a professional (Shaw and Green 1999). The development of a professional is therefore a long-term process that is progressive and goes beyond the working life of a professional (Nicholls 2000:373; Simmonds 2003:169). This calls on Universities of Technology to

develop the culture of life-long learning amongst academics. When this culture is established, it will encourage academics to willingly participate in professional development activities and programs. Understanding of contexts within which academics work, and within Universities of Technology, will assist in developing correct environment to develop lifelong learning culture and attitudes.

3.2.1.2 CPD IS BROAD BASED

CPD activities must be broad-based. CPD activities should aim at developing the skills and competencies for ensuring that the quality of the professional service should improve. Growth in terms of the quality of knowledge and skills should be evident in any CPD activity (Craft 1996), including growth in the professional's personal qualities. All these CPD activities should improve performance and confidence on the job (Noon 1994: 5) and client satisfaction (Doney 1998). Integrating practice and personal goals in CPD planning is necessary for the success of CPD (Smith and Tillema 2001). What all these imply is that CPD activities should cover development in the life of the professional in all aspects of life. These aspects do not only include development of cognitive or practical knowledge, but should cover aspects such as emotional, personal and spiritual development (Day and Sachs 2004: 10).

3.2.1.3 CPD IS SYSTEMATICALLY ORGANISED

In order for CPD activities to be successful, they must be systematically organised. Van Niekerk (2002) explains that CPD consist of planned and organised learning experiences, designed to augment the knowledge, skills and attitudes of educators for the enhancement of practice. Successful practice in any profession is achieved when CPD is planned, professional knowledge is upgraded, and personal competencies are improved (Simmonds 2003:169). The implementation of CPD should therefore not be a haphazard activity, but one that is seriously given attention. Throughout the career span of any professional,

there should be consistent monitoring and upgrading of skills and competencies in order to ensure that the services that the professional provide remain relevant to the needs of consumers of the professional's services. This calls for CPD practitioners developing strategies to assist academics and academic managers to develop personal development PDP)s that will ensure improvement and broadening of professional's knowledge and capabilities. Literature also suggests that CPD activities should be credit bearing (Mashile 2002: Shaw and Green 1999) and this in my opinion is a motivating factor, as CPD participants will have something (credits) to show for CPD efforts undertaken.

3.2.1.4 CPD TO FOCUS ON THE ORGANISATION

CPD activities must be focused on the organisation or the profession it endeavour to serve. It is possible that the organisational strategies may be different from those of individual academics within the organisations. The organisations thus need clear policies that ensure that the organisational culture is developed to its desired state. The mission and vision of the organisations and professions should always be taken into consideration when developing CPD activities. CPD activities should be responsive to the needs of the organisations and professions (Noon 1994). Jones and Fear (1994) also indicate that CPD activities should reflect organisational needs and strategies. The quality and relevance of professional services provided by academics at Universities of Technology should always be linked to the values and purpose of the institution.

3.2.2 LEARNING IN CPD

In this section I discuss how learning takes place for Lecturers as educators. Lecturers get involved in CPD in order to raise standards of teaching and achievement (Day 2002:51). To be able to assist Lecturers to raise the standards of teaching and learning, we must understand the most effective ways that Lecturers learn best in. The Institutional culture most conducive to learning,

conditions of work and other factors that also influence the promotion of good practice for Lecturers, must be clearly understood in order to succeed in CPD undertakings. These factors, including the personal life factors of the Lecturers, will play a role in influencing good practice for the Lecturer. The influence of these factors on the delivery of good practice and how these factors will also impact on CPD, should be understood and taken into consideration in order to effectively manage CPD. Focus of learning experiences should be on the development of broader knowledge and intellectual skills as well as vocational skills with the ultimate goal being to enhance teaching practice. CPD is therefore not about attending courses (Noon 1994:8), or gaining qualifications, but it is about the integration of this learning and work, and learning from experience both on and off the job. CPD is therefore not a once off activity, but a process. This suggests that appraisal forms in organisations should use PDPs where objectives of jobs and individuals are recorded and CPD activities could be developed from such records (Irwin 1998:36). The reason for engagement in CPD activities is for the professional to demonstrate abilities to perform at acceptable standards over a period of time (Jones and Robinson 1997:197). At any given point in one's career, it is advisable that records of CPD events should be kept as evidence of activities undertaken (Lewis and Day 2004). Jones and Robinson (1997: 204) suggest that this should either be a recording of attendance or focused on the learning outcomes of the CPD activities. These should not be kept for the sake of record keeping, but progression and development should be established in the keeping of such records. Once the professional takes responsibility for this, then CPD activities do not become just 'compliance activities', but growth and development in the professional's practice can (to a greater extent be) established.

CPD learning activities for a Lecture can occur in two forms. These forms are represented in a continuum in figure 3.2 below. Firstly professional development can be considered as the initiatives that individual Lecturers undertake represented by A. These forms of initiatives consist mainly of Lecturers

undertaking formal learning for qualification or short courses that target specific skills that the individual Lecturers need. Secondly CPD is viewed as a process of growth, which involves Lecturers investigating their own practice and constructing their own theories of teaching rather than letting others prescribe what they need to change in practice. CPD becomes a process that is undertaken over the life of the teacher, (Life Long Learning concept) represented by B in figure 3.2. Lecturers then become agents of their own learning, where they choose what, how and when to learn. In light of the form of the Lecturer's professional development, it is sufficient to say that it can take place at any point on the continuum in figure 3.2 below.

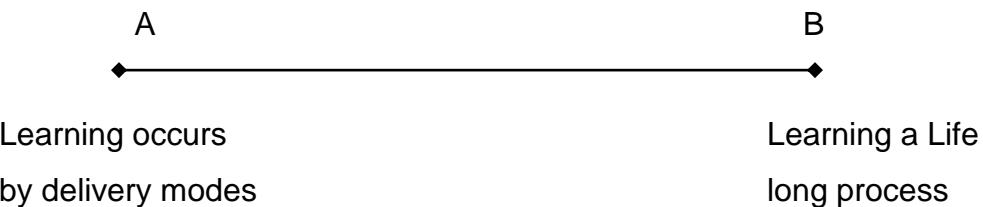


Figure 3.2

There are factors that will influence where professional development takes place on a continuum. For example, transformation in higher education (as discussed in chapter 2) has resulted in the need for Universities of Technology Lecturers to improve their educational qualifications to be in par with their University counterparts. So professional development for a lecture that needs to improve their qualifications may be more towards learning that focuses on learning that occurs through delivery modes, like attaining a higher qualification or attending a developmental workshop. Whereas a Lecturer who has attained the required qualifications (though not necessarily so), and feels they need to focus on their teaching practice, may focus more on action research in teaching practice, which will be more towards point B on the continuum.

I will now discuss the learning theories that are more applicable to Lecturers. These theories are adult theories of learning, post-modern theories of learning and other perspectives of learning.

3.2.2.1 ADULT LEARNING THEORIES

As Lecturers are adult learners, it is important to briefly examine how adult learning theories relate to the professional development of Lecturers and the interconnectedness of these with the theories of adult education. Theories of adult learning, which became popular through the works of Malcolm Knowles (Gravett 2001; Knowles M.S. 1990: 58-63), play a foundational role in the principles of professional development. These principles are briefly discussed below.

A) LEARNER CONCEPT

Adults as learners have developed a deep psychological need to be recognised, perceived and treated by others as responsible enough to take charge of their own learning. If in the learning process, they perceive others as infringing on their dignity and imposing their wills on them, feelings of resentment and resistance towards others may develop. This implies that adults have a deep psychological need of self directness in their learning. Adults need to be listened to and they need their self identity to be recognised. Impositions on their learning will create unnecessary conflict in the learning environment (Knowles 1990:58-59).

B) LEARNER'S EXPERIENCE

Adult learners normally come to a learning environment having vast amount of experience in life. Thus they have become a rich resource of learning from these experiences. This experience should be used in the learning environment, adults need to be given the time to learn from one another through group discussions,

simulation exercises, field experiences, problem- based type of exercises (like case studies), etc Using this experience is appropriate for upholding, recognising and dignifying and acknowledging the self concept of adults (Gravett 2001: 8-9; Green 2002: 16; Knowles 1990: 59).

C) READINESS TO LEARN

Adult learners become ready to learn something when they develop a need to know something or when circumstances challenge them to perform more effectively in some aspect of their lives. This readiness to learn is developed when one needs to move on to a higher stage of development in one's career. This readiness to learn may also be triggered by exposing adult learners to role models, engagement with career planning, or creating awareness in the knowledge of the adult learner between what they know and what they need to know (Gravett 9-10; Knowles 1990: 63).

D) LEARNER'S ORIENTATION TO LEARNING

Adult learners are motivated by experiences in their lives, which create a need in adults to start learning. For the most part, adults learn, not for the sake of learning, but they learn so as to be able to perform tasks or solve problems. Their learning activities should be more geared at life centred, task centred or problem orientation to learning. It is important that adults become clear of the relevance of what they are about to learn so as to be able to apply this newly acquired knowledge to situations in the real world (Green 2002: 13).

E) LEARNERS' MOTIVATION TO LEARN

Adult learning accepts that though there might be external factors that influences / motivates adults to learn. Like a better salary, promotion, etc. However, the importance of internal factors like self esteem, recognition, self-actualisation,

better quality of life and the like, do have a positive impact in motivating adult learners to learn. Though it may be accepted that some adults come into the learning environment because of the demands of their job (forced to learn) and the adult learners may not realise the benefit of the learning experience and therefore not necessarily motivated to learn (Gravett 2001: 10-20).

These principles do play an important role in the designing of professional development and they can also be found implicitly embedded in professional development processes. The implication of this to the University of Technology Lecturers as learners in professional development is indicated in the 'call' made in literature for professional educators to take responsibility for their own learning. Throughout this exercise, an atmosphere of mutual respect and mutual planning should be in place, where collaboration is achieved through a supportive environment and trust is developed (Rogers 2002). The experience of adult learners should be used in this instance to develop learning plans such as learning contracts, though this may have negative consequences, as this experience may also have been a habitual erroneous way of doing things. It should be noted however that on a positive note, this experience can be used to achieve positive results in the learning process. The readiness to learn is developed when Lecturers become aware of gaps that exist in their knowledge. At times this can be triggered by being overwhelmed by situations that are difficult to handle, like how to teach large classes or how to handle discipline issues among students. Prospects of promotion, greater self worth and greater possibilities in career development can be used to motivate the Lecturer to desire advancing knowledge and effectiveness. Acquisition of new knowledge in this regard is best if the learner is encouraged to learn rather than imparting knowledge to him/her (Gravett 2001; Rogers 2002).

3.2.2.2 POST-MODERN THEORIES OF LEARNING

One could never discuss these theories without examining how these together with the post modern theories of learning impact on the professional development of educators. These focus more on the theoretical perspectives of teacher learning. Post modern theories of learning which focus more on the contextuality and situatedness of learning and attempt to understand how learning occurs in practice have been getting a lot of attention in recent research developments (Hara 2001; Jurasaite-Harbison 2005:161-164; Vrasidas and Zembylas 2004:161-164). These theories attempt to understand how the complexities of everyday learning in formal and informal settings in practice play a role in professional development. In this regard, CPD is viewed as performance that involves different forms of individually developed knowledge that is constructed in and through a specific context. Jurasaite-Harbison (2005: 162) explores learning that occurs spontaneously and informally where accounts of an individual teacher's learning that are not designed for in professional development, are interrogated. This informal learning occurs in situations that do not explicitly target the teacher's professional development. Yet from his study he concludes that this type of learning is quiet beneficial for professionals' learning. His research explores theories of teacher's learning represented in informal settings, and it is insightful in establishing empirical evidence to support the kind of learning from informal settings. The study illustrates the value of new learning and insight that feeds into, and plays a significant role in, the improvement of teaching practice. One problem with the study is that the population consists of a single individual whose way of learning is deeply investigated. Though his subject is able to give a coherent account her thought and perception process, it may not necessarily be the same thought and perception processes that other higher education teachers may feel when they go through the learning process.

3.2.2.3 OTHER PERSPERCTIVES OF LEARNING

Another perspective to learning that may shed some light to adult learning is the dimensions of Vrasidas and Zembylas (2004: 327-329) namely personal and social constructivism, situated and distributed constructivism and communities of practice. I discuss these dimensions as follows.

A) PERSONAL AND SOCIAL CONSTRUCTIVISM

The fundamental assumption here is that learning does not develop independent of the learner. The learner constructs knowledge by drawing from personal experiences and cognitive structures (Personal Constructivism), while the learner also constructs knowledge from the community structures or community within which the learner is based (Social Constructivism). The learner's knowledge construction can never be divorced from personal experiences and social interaction that s/he is exposed to.

Jurasaitė –Harbison (2005: 163-164) discusses the dimension of identity formation in a social context where she indicates that we can only know ourselves and recognise others once we have come to terms with and reflected on structural 'embeddedness' in formal and informal structures. Personal experiences provide a foundation upon which new knowledge may be developed as new knowledge provide linkages which can be used to build upon. This is not only reflected in the personal level but Jurasaitė and Harbison (2005: 163) indicates that adult identities are not fixed, they also have multiple and competing identities that are grounded in social circumstances and reflected upon through social mediation. She therefore concludes that this should assist us to understand that professional identity yields a rich understanding between self and certain contexts of practice. Though this concept of the relationship between self-identity and the professional's social recognition is quiet complex, we can presently draw the following from it. Learning optimally take place where knowledge constructed is relevant to the Professional's personal experience, and

it is also applicable in the practice at hand and in the environment the professional operates from. The development of learning cannot be alienated from the context of practice. Effectiveness occurs where we build on what the Professional knows. It is crucial that CPD activities be authentic and represents the professional's culture and also has a direct relationship to the professional's practice, as learning will be more effective if it is relevant in the professional's context and can be immediately applicable within that context.

B) SITUATED AND DISTRIBUTED CONSTRUCTIVISM

The assumption in this learning theory is that the situation in which (and the activities that take place when) knowledge is constructed, play an integral part in the learning process. This implies that learning takes place within specific acculturation and is related to real life situations (Situated Cognition). Knowledge and cognition is also distributed between the learner and the teacher, and it is related to their physical and socio-political worlds (Distributed Cognition). Learning is therefore a process that takes place in a participants' framework and **not only** in an individual's mind. It is also distributed amongst participants, and not only occurring in one person. This information is helpful in CPD activity development in that it enriches our understanding of how adults can be supported to achieve in CPD. Adults learn better from other adults in a learning environment where ownership of CPD exists. Professionals should feel they own and support the CPD activities at hand. Shared ownership of CPD ensures that energy will not be wasted on pushing adults, who are not willing to learn, to learn. Adults will learn best when they own the process and feel they are part of the CPD process. Learning essentials are best achieved when shared between the professional and management. Management should identify and be aware what the needs of professional are, and professionals should also feel they benefit from the CPD activities. Learning should not only take place in the professional's mind, but should also enrich professional practice and be applicable (distributed cognition) in the environment s/he operates from. It is also

helpful in that activities in CPD learning should take cognisance of the professional's situation and use other participants' input to construct knowledge in the learning activities. It would therefore be a futile exercise to enforce CPD to professionals who will not be able to implement the new knowledge acquired out of CPD activities in their immediate working environment. Jurasaite-Harbison (2005: 161) indicates that learning for teachers develop from multiple sources and multiple contexts. He thus alludes to the fact that learning taking place in both formal and informal contexts is important for the teacher's CPD.

C) COMMUNITIES OF PRACTICE

Communities of practice are groups of people, bound by what they do together. In activities undertaken, rules of engagement are constantly renegotiated and there is also shared repertoire of routines. Hara (2001) defines these as informal networks that support professional practitioners to develop shared meaning and engage in knowledge building among members. These communities are theorised as sites of learning where mutual learning for common practice interests, drive the process. These networks are established to promote knowledge sharing and professional development. Hara (2001) in his study examines the implications of informal and formal learning (that takes place in these communities of practice) on CPD. He investigates learning that takes place amongst Attorneys in a county's public defender's office. He then concludes that informal learning is sometimes more effective than formal classroom learning, though he asserts that both formal and informal learning are complimentary in CPD. This study further indicates that informal learning in communities of practice also serves as a tool that bridges the gap between formal learning in class and practical knowledge. Informal learning in his study contributed greatly in assisting professionals in the law profession to convert their knowledge gained in formal context, to practical knowledge that they could implement in the court room. There is however little empirical evidence of the success of communities of practice in more complex settings. . Vrasidas and Zembylas (2004) conduct a

study where the success of their study is illustrated and credited to the use of communities of practice where collaboration is high and participants have access to one another's expertise. This collaboration created interdependence amongst participants, and they established communities that feed into the design of online professional development model. What we learn from this is that there is learning taking place in the sharing of information in the staff-room/ tea room with other colleagues. Though little empirical evidence is available in this area, the evidence in studies at hand indicates valuable theories in communities of practice learning that can be effective in enriching practice.

For a University of Technology Lecturer, there is informal learning that takes place in the discussions with colleagues. Learning taking place in this environment is seldom given the credit it deserves. Learning in this environment is not usually recognised as CPD activity as it is not structured but very informal.

3.2.3 STAKEHOLDER INVOLVEMENT IN CPD

Mashile (2002: 177-179) identifies three key stakeholders involved in CPD and the relationship between them. These are the individual professional, the employer / organisations and the professional associations. The involvement of **all** stakeholders in CPD activities is crucial. Jones and Robinson (1997: 198) elude that for CPD to be effective, it should therefore be the responsibility of management (within employer organisations), individual professionals (and professional organisations), as all these parties need to plan for future directions in the profession. Vrasidas and Zembylas (2004: 331) research project further indicates that when there is a shared responsibility, ownership and commitment to CPD by the developers, facilitators and participants, the possibilities of success for CPD is high. Browell (2000:59) also encourages collaborations between all role players/ stakeholders in professional development. Mechanisms to facilitate proper communication between individual members, the organisations and the professional bodies within the profession need to be established. This serves to ascertain that the practice within the organisations

still adheres to the required values and standards as set in the professions' code of conduct and ethics (Farrugia 1996:29). Black (2000: 230) also highlights the importance of this communication role as bridging the gap between practice and new research developments. This co-operation will benefit both the professionals, the institutions they serve under and professional bodies. The professional involved in CPD should buy into the process and have a voice in CPD in order to sign up for it. CPD also requires the professional to look ahead and prepare for change as well as responding to immediate needs and challenges. CPD should **not** be a top down approach by management or the professional society but it should be less authoritarian and more collaborative in nature (Partington and Stainton 2003:3). Therefore, the Lecturers are supposed to initiate methods of improving their teaching practice in order to effect effective learning. Roche (2001:124, 126) suggests that managers as CPD practitioners should provide a framework for individuals and organisations to link, building on personnel strengths and develop networks. This will provide nurturing for individuals or groups in reaching their full potential and achieving the organisation's objectives. These relationships between stakeholders are differentiated as follows:

3.2.3.1 EMPLOYER ORGANISATIONS AND THE PROFESSIONAL

The first relationship involves the employer organisations (organisations) and the professional. For any organisations to achieve its priorities it has to ensure that training and development is provided to motivate the professionals to perform at an optimum level. This is a function where the individuals within employer organisations are to be assisted to develop PDPs and given support to achieve in terms of the PDP performance agreements. Jones and Robinson (1997) indicate that organisations need to develop the skills of line managers in CPD implementation, as this has been the reason why some organisations do not give sufficient attention to CPD. Managers lack the skill of properly liaison with subordinates, and the strategic awareness to effectively provide support for CPD

(Jones and Robinson 1997). Irwin (1998:35) and Jones and Robinson (1997:198) allude that it is important that CPD should relate back clearly to the organisations' strategies and operational objectives, and therefore effective personnel development should reinforce the objectives of the organisation. Organisations should train and develop their staff in order to change behaviour that will benefit both individual professionals and the organisations. Jones and Robinson (1997:197) also emphasises that employing organisations should be stakeholders in the CPD process. This highlights the important contribution in decision making for management when justifying monetary costs for CPD activities that such activities do contribute to the organisation's achieving their mission and vision (Jones and Robinson 1997: 202).

In the University of Technology Context, this relationship needs the departmental managers to provide support for the Lecturers in developing PDPs and setting performance levels required of Lecturers. The professional development units in Universities of Technology play an integral role in providing skills required to achieve the priorities of Universities of Technology. This they may achieve by providing management skills for academic heads and other professional skills required by the Lecturers. Depending on the expertise of professional development practitioners, this function may also be outsourced if expertise for some specialised skills is not available within the professional development units. Furthermore, employer organisations have the responsibilities to provide training to Lecturers as professionals in their different fields, with teaching skills necessary for them to teach optimally. Therefore Universities of Technology should ensure that they have qualified staff in teacher development centres to optimally provide services towards the support of their lectures.

3.2.3.2 EMPLOYER ORGANISATIONS AND PROFESSIONAL ORGANISATIONS

The second relationship is that between the employer organisations and the professional organisations. This relationship in Mashile's article between the Department of Education and South African Council for Educators (SACE) is legislated; thus a framework for its existence is in place. In the University of Technology context, this relationship is not legislated and thus not clearly defined. Lecturers at Universities of Technology may be educators but they do not all qualify as educators in terms of the SACE Act (2000). Instead, Lecturers at Universities of Technology belong to different professional bodies that are not Educator's organisations. For example, a Lecturer in engineering may be affiliated to the Engineering Council of South Africa, as a professional body for engineers. As an educator, s/he may again choose to affiliate to additional professional organisations like the South African Association for Research and Development in Higher Education (SAARDHE). Mashile's article suggests that the professional specifications be used to develop a CPD framework, which can assist Lecturers to identify professional development options and routes for career planning. Clear policy related to teaching practice within Universities of Technology should ensure effective teaching practice takes place. Support for professional development in the Lecturers' fields of specialisation and teaching should be provided. Ideally, as Mashile's article suggests, this kind of relationship should also be sustained.

3.2.3.3 PROFESSIONALS AND PROFESSIONAL ORGANISATIONS

The third relationship is that between the individual professionals and the relevant professional organisation. The professional organisation is in a position to establish long term viable CPD practices as the only vested interest in the process is in improving professionalism within practice. In a University of Technology this relationship may be two-tiered, as Lecturers are professionals in

the fields of their expertise and also professionals as teachers. A number of professional bodies like the South African Institute of Chartered Accountants (SAICA) and The Engineering Council of South Africa (ECSA) have already made provision for educators who are qualified in the respective fields, to become members or associate members. From my personal experience as a member of one of the organisations and through informal discussions with other Lecturers who are members in these professional organisations, professional development in these professional organisations focuses more in the respective field than in the teaching of the subject content. It is therefore my opinion that the individual Lecturers should establish links with the teacher development units in Universities of Technology as a means to develop as teachers for the subjects they teach. Policy should inform the nature of such links and how these links will improve teaching effectiveness. Lecturers should also be encouraged to network with other Lecturers who teach subjects related to their own fields of expertise in order to share expertise in the teaching of their subject.

3.2.4 AREAS OF LEARNING COVERED BY CPD

Learning for professionals should cover four main areas of development (Mashile 2002:176). These are personal development, pedagogic development, leadership enhancement and Instructional content development.

3.2.4.1 PERSONAL DEVELOPMENT

Activities for development in this area should cover subjects that deal with issues of a personal nature for the individual professional. These are factors in the Lecturer's life that are not directly work related but if these factors are not dealt with, will adversely affect the individual Lecturer's performance on the job. The topics in this area include self-management, time management, coping with stress, interpersonal relationships, health issues, and the like. Bolam and McMahon (2004: 9) identify teaching as a passionate vocation, so the conception

of CPD needs to include in it the education of self, including areas of emotions. CPD should personally fulfil the individual professionally (Irwin 1998:36) and when these issues of a personal nature are addressed in the professional's life, greater possibilities exist that the individual professional will be emotionally fulfilled and further do well in professional practice.

3.2.4.2 PEDAGOGICAL DEVELOPMENT

Pedagogic development involves activities that deal with the classroom performance for the Lecturer. This area deals with operational activities of the Lecturer in performing daily activities. The CPD activities to develop these operational skills for lecturers may include workshop attendance on topics like, handling classroom discipline, handling large classes, assessment practice, classroom management, etc. These topics are not only restricted to classroom operations but teaching and learning issues like curriculum development and administrative duties that relate to the support of the teaching and learning. These topics include issues like setting exams, memorandums, and other administrative issues related to classroom practice.

3.2.4.3 LEADERSHIP ENHANCEMENT

Leadership enhancement includes activities that assist the Lecturer to develop leadership skills. Lecturers also serve as leaders in their classes and thus skills on leadership development are necessary for growth in their work. These skills should include skills on working with colleagues in peer evaluation exercises and identifying potential leaders like tutors for their classes. Mentoring skills development also form part of this leadership development. Academic managers also need to develop their leadership skills on peer evaluation, assisting other lectures with development of PDPs, policy development, financial management, etc. Marshal, Adams and Cameron (2000:50) identify this as challenges of professional development units to help to develop Academics' awareness in the

understanding of the nature of the academy which includes leadership development, designing and implementing strategic support for academic managers and policy development support in leadership and good management of Universities.

3.2.4.4 INSTRUCTIONAL CONTENT DEVELOPMENT

This area deals with the development of Lecturer's knowledge on content mastery of the subject they teach. This may be acquired through attending subject specific seminars and workshops, where professionals deepen their knowledge of content they teach. Studying for a higher qualification in the subject taught may also be area of developing instructional content.

As Lecturers at Universities of Technology are at different levels of their development, it is *not* good practice to prescribe CPD activities. Lecturers should thus be given the liberty to manage their own professional development and assume responsibility for their own learning. With the help of academic heads, lectures should be assisted with the development of Lecturers' PDPs and provided with support to implement such in their professional growth.

3.2.5 CONCLUDING REMARKS ON THE CPD CONCEPT

Shaw and Green (1999:169-174) state that CPD previously failed to be continuous, as it was fragmented and its focus has been too much on the profession and less than developmental. Furthermore, Shaw and Green (1999) highlight that for CPD to be genuinely continuous then higher education institutions must continually change their traditional approaches to CPD.

Morrison (2003) further indicates that the empirical evidence to support the effectiveness of CPD activities is weak and inconclusive. CPD activities are to produce change in the professional's behaviours and improve customer satisfaction outcomes. Thus, he argues that, 'happy scores' or 'smileys' used as measurement for CPD activities are not sufficient as they do not measure the

changes or improvements in practice. The improvement of practice, not the ‘happy scores’ by the professional is thus imperative in all the CPD activities. There is however concurrence that, “CPD if properly managed, can better prepare professionals for their roles and responsibilities, thereby enabling the institution and its facilities to achieve the goals they set and the excellence they pursue” (Browell 2000:59; Irwin 1998: 37). CPD is therefore greater than the attendance of a number of training workshops, meetings or in-service days- but it also involves the process of learning how to put into practice knowledge through engagement with other practitioners within a particular community (Schlager and Fusco 2003: 205).

Immediate long-term needs of professional are better met through a systematic and planned CPD rather than random, once-off events- though issues like budgets, time, etc may influence CPD. Emphasis should thus be on the development of the profession and the professional, vocational relevance, minimal disruptions to the workplace, and minimal costs in terms of money and time (Shaw and Green 1999:174). How these factors should be integrated in practice, is essential for the successful implementation of CPD practice (Lewis and Day 2004; Shaw and Green 1999:174). CPD can also therefore be viewed as a strategic tool that can be used, because of its potential to increase quality of service and performance by professionals (Browell 2000:59). The development of teacher knowledge and skills, is vital both to the teacher and student, and is a vital source of resources for lifelong learning (Nicholls 2000:372). CPD ensures that the professional remains up to date and is encouraged to aspire and improve performance, while maintaining the standards of competence and behaviours (Browell 2000) in the practice.

I need to highlight at this point that participation in CPD, in the context of this study, is to assist the University of Technology Lecturer to improve the effectiveness of their teaching. Lecturer’s CPD activities should thus be geared at improving the quality of teaching effectiveness. In section 3.3, I will discuss what entails effective teaching from a few perspectives found in literature. These

characteristics of good teaching should become the yardstick that measures the effectiveness of CPD activities. If CPD activities result in the achievement or improvement these characteristics of good teaching, then CPD activities will be deemed as having achieved CPD objectives.

3.3 CHARACTERISTICS OF GOOD TEACHING- LITERATURE REVIEW

Ramsden (1992:87-88) indicates that there previously existed beliefs that teaching is an undeterminable phenomenon, and therefore an indefinable quality. These beliefs were prompted by theories of higher education that believed learning took place outside of the Lecturer halls and it was done by the students on their own, thus learning was divorced from teaching. Teaching was therefore regarded as an unimportant part of the learning process. Teaching was perceived as the teacher's job, and learning as the student's job, and the two activities were kept as separate. These beliefs just created good excuses for not doing anything to improve teaching. The reality is that though teaching is undoubtedly a complicated phenomenon, with interconnections between issues, values, and practices which even more so make the whole teaching endeavour, complex. Yet there are certain practices in teaching that if undertaken in the teaching and learning environment, will to a considerable degree promote better chances of learning from the teaching experience. I will use the following example to illustrate the difficulty in quantifying this complexity of teaching effectiveness. It was mentioned in chapter two that part of Universities of Technology purpose in developing students also entails developing students' skills to be lifelong learners. Geddes et. al. (2004) indicates that developing students as lifelong learners is indicative of good teaching practice. However, the success of teaching in attaining such a purpose is not necessarily immediately identifiable. For instance, it is not easy when students leave higher education institutions, to determine if the teaching they have actually received, has equipped them with the skills that would assist them to become lifelong learners.

It is difficult if not impossible to measure the success of the teaching that yields the desired results of inculcating lifelong learners when students leave the higher education institution. Be that as it may, literature does indicate that there are certain teaching strategies that can be used to inculcate in students, the traits that would promote the attitude or traits of lifelong learning (Nicholls 2000:371). Crebbin (1997) explains that there is no single standard of a good teacher, but there exists from research and literature, a lot of, known and identifiable characteristics that define good and effective teaching.

Perhaps the starting point in defining the characteristics of good and effective teaching would be to attempt to explain the difference or relationship between good teaching and effective teaching. There is a wide variety of definitions used for good teaching in higher education. Only some are given priority within a given community, at a particular given time, depending on the purpose of defining good teaching and the different classifications of research on teaching approaches. Good teaching relates to achieving the task of teaching (even though learning may **not** necessarily occur/ follow). Good teaching refers to the state, when content taught accords with disciplinary standards of adequacy and completeness, and appropriate methods implemented with the intention of enhancing the student's competence with regards to content being taught (Fenstermacher and Richardson 2005: 195). Once the learner achieves, to some reasonable and acceptable desired level of competence, with regards to what the teaching task purposed is, it is said that teaching has been *effective*. Not all good teaching is effective and not all effective learning is a result of good teaching. Good teaching is grounded in the task sense of teaching while effective teaching is grounded in the achievement sense of teaching (Fenstermacher and Richardson 2005: 189-191). CHE (2004: 8) indicates that teaching and learning should not be separated as both are the two sides of the same coin. Both teaching and learning require active involvement of both the teacher and the learner. Teaching is viewed as inspiration and facilitation of learning, while learning is viewed as a conceptual and cognitive change as a direct / indirect

interaction with the knowledge and experience of the other. Learning is also quite a complex process which is approached from different theories, where all such theories are not infallible. Learning theories do however agree that learning is not only a cognitive, rational process, but also an affective, social and cultural process (CHE 2001:8; Crebbin 1997). Teaching and learning though independent phenomena are connected in quite a complex manner (Fenstermacher and Richardson 2005:195).

Crebbin (1997) indicates that for one to list qualities that are indicative of good teaching depends on the approach one has in identifying these qualities. The first discourse of defining good teaching is from the management discourse, the second discourse focuses on the teacher, and the third focuses on learning. I will briefly discuss each of these below.

3.3.1 MANAGEMENT DISCOURSE OF GOOD TEACHING

This discourse of managing teaching emanates from the need of management structures in higher education to define the goals of the institutions, including teaching. The definition of good teaching from this perspective is driven by principles of management, which entail efficiency, productivity, cost-savings, accountability, and the like. This managerial approach to teaching presupposes quantified indicators of good teaching and is even observable in some circles where academics are referred to as academic managers or administrators of teaching. Clearly defined roles with regards to management and teaching practice are given, and adherence to these would be indicative of good teaching practice. Thus compliance to set criteria would serve as an indication of good teaching practice. Teaching is viewed as something that can be planned, observed and accounted for in fairly simplistic cause-and-effect terms. The complexities of teaching and the connections with educational discourse of learning complexities are not interrogated in this perspective. The assumption made in this discourse is that there exists a *teaching fix*, which automatically

translates into effective learning (Crebbin 1997). This presupposition rarely interrogates how other factors present in the teaching and learning environment, may impact on learning. Factors like poverty, linguistic capabilities of the teacher and student, racial and cultural, differences, time, resource availability, and the like, are seldom considered in this discourse.

This perspective of effective teaching is characterised by Educational Manager's attempts to become accountable for teaching. In an attempt to manage teaching, educational managers engage in establishing policy and checklists of activities that are identified with good and effective teaching practice, which good teachers should strictly adhere to in their practice. A teacher is evaluated on the basis of, for example, the organisation of the class, the organisation of the materials used in class, resources available for use in class, and the like. Barr and Tagg (2003) illustrate this by citing a real life experience where a dean of a faculty visited a class for a biology lesson where the Lecturer was experimenting with collaborative methods of instruction. Students were enthusiastically discussing material in small groups spread across the classroom. The Lecturer would observe each group for a few minutes, sometimes making a few comments before moving to the next group. After a few minutes in class, the dean approached the Lecturer and whispered, "I came today to do your evaluation, seeing that you are not teaching today, I will come back another time when you are teaching". In the dean's opinion, the Lecturer was not teaching because the Lecturer was not following a conventional lecture method of handling the class in terms of the pre-set criteria that he was using to evaluate teaching. In this method of teaching practice, called the teaching paradigm, teaching is evaluated in terms of lecturing and behavioural activities of the teacher rather than on student learning. National initiatives as discussed in chapter two, such as the imposition of mandatory teaching evaluation systems are means to account for the effectiveness of teaching from the managerial perspective. The basic tenet in this discourse is that minimum standards be set to guide the minimum requirements of teaching practice. This is an attempt to have a system that is

seen to contribute to the enhancement and validity of teaching evaluations as observed in CHE (2002) documents for the evaluation of teaching and learning in higher education.

3.3.2 DISCOURSE WITH FOCUS ON THE TEACHER

Focus in this discourse is more on what the teacher does (task oriented part of teaching). This discourse identifies good teaching from the focus of actions that the teacher undertakes. Actions which are associated with good teaching practice. Teachers tend to hold different theories of teaching at different stages of their careers. These theories are based on two conceptions of teaching, namely, teaching as a knowledge transmission and teaching as facilitation of learning (Biggs 1999). The latter will be discussed further in section 3.3.3. The teaching discourse that focuses on the teacher as transmitter of knowledge has in the focus, the teacher's mastery of teaching techniques. The students are expected to attend classes and take notes and if teaching doesn't attain the desired outcomes, it is perceived that the faults should lie with the students (Biggs 2002). While it is acknowledged that teachers are different in their approach to doing things, yet there are characteristics that are commonly displayed in good teaching or observed from good teachers. This approach focuses on what the teacher does in presenting materials in an appropriate manner that is deemed to promote learning (Crebbin 1997). Teaching is then viewed as either being *teacher focussed – content oriented*, which focuses on the delivery of syllabus content to be remembered, or *student-centred – learning oriented* focus, which stimulates students to think about what is being taught (Entwistle, Skinner, Entwistle and Orr 2000). This discourse, suggests that an effective teacher involves instructional behaviours to transmit knowledge and skill to students (Fenstermacher and Richardson 2005:198). The teacher in contact with the student becomes responsible for planning, organising, managing and controlling teaching, in order to attain the desired outcomes of teaching (or to make teaching effective). The teacher holds knowledge and transmits this knowledge and skills

to students. The teacher's actions involve motivating the students to stay on the task, manage students' behaviour and evaluate progress. The student receives this knowledge and skill, and hopefully to reproduce the same, at a later stage. Good teaching practice from this approach may be divided into four categories that demonstrate what the good teacher is able to do. These are the teacher's knowledge base, communication, interest in the subject and respect for students. These will be briefly discussed as follows:

3.3.2.1 TEACHER'S KNOWLEDGE BASE

Good teachers are not only characterised by their competencies in instruction. Added to competencies, the good teachers' practices, knowledge base and values should inform and direct teaching practice. Good teachers exhibit several qualities in their knowledge base. This knowledge base includes subject matter knowledge, subject specific pedagogy and political/professional knowledge (Baume 2004).

Good teaching is about keeping on top of the subject field. Minimum required knowledge for the subject being taught by a Lecturer should be adhered to. This knowledge of the subject should also be accompanied by the knowledge of the area of expertise, including relevant literature and knowledge of the works of others in the subject field (Brain 1998). Foundational knowledge and recent knowledge developments in specific subject discipline is important for a good teacher to uphold. This includes involvement with research on the subject, reflection and scholarship. Knowledge on values, purposes and theories that underlie a specific discipline also serves as an indicator of a good teacher. Added to subject content knowledge, a good teacher should develop good subject specific pedagogy. A good teacher should also be able to account how he/she has used this new knowledge in his/her current practice (Baume 2004) to enhance learning. A good teacher should also keep abreast with political/ professional, social and cultural issues within the context of his/her practice. This

includes being aware of governmental/ political policies that impact on educational welfare, understanding such policies and having a say in them. Being able to debate for and against such policies and implementing change brought about by such policies adds to characteristics of a teaching professional who is aware of issues impacting in his/her profession.

3.3.2.2 COMMUNICATION

An effective teacher is also characterised by the ability to communicate knowledge and expertise of the subject effectively to the students. A good teacher takes advanced knowledge of the of the subject content and makes it accessible to students (Brain 1998). A good teacher is able to simplify complex phenomena, by presenting teaching material in an organized, systematic way that makes the material understandable to students, thus making learning a possibility (Ballantyne, Bain and Packer 1999; Ramsden 1992). Teaching for learning has more to do with setting aims and achievements rather than the mere use a particular teaching method. Good teachers set goals, and then work towards achieving such goals as best they can. Students learn or are able to do what they could not do at the beginning of teaching, thus achieving the purpose of teaching. The good teacher develops their teaching skills and methods in order to clearly communicate subject content to students. Not only that, but a good teacher is able to develop sound judgement about how, and when to apply different teaching skills and methods. Good teaching is about bridging the gap between theory and practice. It is about a teacher being able to communicate theory so clearly, that the students is able to see how the theory relates to actual practical activist where this theory is applicable.

3.3.2.3 INTEREST IN THE SUBJECT

A good teacher should also be able to show and create interest in the subject they teach. Good teaching is about passion and conveying this passion. Good

teaching is about enthusiasm, motivating, imparting the knowledge of the subject, while exuding love for one's discipline. Infectious desire and ability to share knowledge with others (Ballantyne et. al. 1999: 244; Brain 1998), is indicative of good teaching characteristics. Students need to be engaged in learning and this is a good challenge to a good teacher, to motivate and engage students (Knapper 2004). This may be called creating an atmosphere of intellectual excitement, which involves enthusiasm, inspiration, interesting viewpoints, humour, being accessible to students and being helpful to students.

3.3.2.4 ATTITUDE TOWARDS STUDENTS

A good teacher has a deep-seated concern and respect for students. A good teacher is not only interested in the subject they teach, but also in ways that students can learn content better. Good teaching is about pushing students to excel while at the same time being human, respectful and professional at all times. Good teachers create a relaxed atmosphere of developing, caring, nurturing minds and talents. Good teachers are constantly getting feedback from students on how the students experience the learning environment and adjust their teaching to meet the needs of students. This indicates that good teachers value students' perspectives (Brain 1998). Good teaching uses students' experience as a learning resource (valuing that experience), acknowledging the experience and establishing learning contexts that recognises this experience. Furthermore, good teaching is also about enhancing students' general capabilities and work related skills, encouraging students to develop independent modes of learning, developing students' self esteem and intellectual capabilities, while encouraging cognitive learning (Pennington and O'Neil 1994:16). Good teachers encourage active student's participation in learning. They also encourage cooperative and collaborative engagements among students in the learning process. Good teachers use student's ideas to deepen students' thinking and understanding. Give students prompt feedback about their learning. They mix caring and humanistic approaches with good academic rigour, while

pitching content that they teach at student's level. They align content to the relevant everyday experiences of students. They tailor their teaching to the desired outcomes of student learning. They are able to create an environment that makes learning possible. The effectiveness of teaching from this perspective is viewed in terms of modelled behaviour of learning outcomes.

3.3.3 TEACHING AS RELATED TO LEARNING

The third discourse identifies good teaching as related to learning. There is growing consensus that good teaching is not only about high quality content presentations or demonstration of high quality teaching skills. Good teaching is characterised by high quality student learning (Broder and Dorfman 1994; Ramsden 1992). Learning is said to be achieved when the purpose of the teaching task has been achieved or when teaching is effective. For teaching to become effective, the learner has to play an active role in the teaching process. Fenstermacher and Richardson (2005: 190) list these roles as *willingness and effort* on the part of the learner, a socially *supportive environment* (consisting of family, community and peers) that assists the learner to learn, and *opportunities* (sufficient facilities, time and resources) of teaching and learning. The teacher becomes a teaching professional whose purpose is to arrange activities that would acknowledge the cognitive processes involved in the building of knowledge and skills. The application of cognitive psychology is encouraged in this discourse. Constructive approaches to *teaching and learning* serve as the basis for this discourse. The focus is on the teacher as a professional, constructing cognitive processes, and skills that recognise underlying meaning of classroom activities (Fenstermacher and Richardson 2005: 199-201). The approach to teaching is thus learning-centred and the teachers' responsibility is to give strategies for learning content to students and develop skills. The teacher facilitates the learning process in order for students to construct meaning and understanding (Fenstermacher and Richardson 2005: 204). A good teacher continually make attempts to align teaching skills with the best ways that

students can best understand content, not only motivating students to learn, but teaching students how to learn.

Good teaching discourages superficial approaches to learning but encourages deep approaches to learning. The focus for this approach to learning is fundamental on the development of meaning and not reproduction or regurgitation of content. Superficial approaches to learning are variations of learning where students learn the materials being studied in order to meet the externally imposed demands. The students adopt learning strategies focused on memorization of facts. Deep approaches to learning on the other hand involve the students wanting more to understand the meaning of content. Research further indicates that superficial approaches to learning yield low quality learning whereas the deep approaches to learning yield higher quality outcomes in learning (Martens and Prosser 1998:29). Thus, deep approaches to learning involve understanding that transcends memorising or mastery isolated facts to include understanding that involves deep and critical awareness of things and issues and how these things and issues connect.

3.4 THE TEACHING PROFESSION IN HIGHER EDUCATION

The quality of teaching and learning in higher education institutions have recently received lots of attention and debates about the effectiveness of teaching in such institutions have been placed under close scrutiny (Biggs 2002; Prosser and Trigval 1999). Many academics have indicated that the primary drive behind their choice of career is the interest in teaching (Ramsden, Margetson, Martin and Clarke 1995:2.2). The status of teaching in higher education has been overlooked mainly because teaching in higher education has been accepted as routine aspect of the academic's work, and thus taken for granted (Ramsden et. al. 1995:2.3). To this end has teaching been sidelined and good teaching (compared to research) has not been rewarded. Research has been supported more than excellent teaching. Discussions indicate that greater consideration

should be given to teaching, yet teaching support units at Universities have been understaffed and inadequately funded, thus academics have viewed them as token gestures rather than serious indicators of institutional priorities in providing good teaching (Ramsden et. al.1995: 2.3). This is further complicated by the complexities of the work of an academic in higher education, namely, teaching, research and community service. Academics as professionals have many activities and using one aspect of their profession to judge their performance is to some great extent, imbalanced and unfair.

Farrugia (1996:29) argues on the justification of teaching professionalism in higher education. The phenomenon that brings up such issues emanate, first from the quality audit procedures operating in higher education institutions. Secondly from the issue that Lecturers' work is to a great extent influenced by external curricula and examination boards. The higher education teaching profession is thus being 'proletarianized by bureaucratic institutions' that increasingly regulates the activities of Lecturers. He however indicates that such should not affect the quest for University Lecturers' work to be viewed as a profession. Firstly, the quality audits should be viewed as a means of reinforcing professional standing by highlighting contribution of research to the teaching practice. Secondly, though University Lecturers operate inside bureaucratic institutions, the culture in Universities encourages individual research. This grants University Lecturers autonomy, where the seeking of truth and knowledge is free from outside interference. This professional characteristic of increasing specialist knowledge for refining and validating practice is highly indicative of the Lecturers' occupation being justly classified to a reasonable degree, professional status (Farrugia 1996:30). This is indicative of professional traits that are desirable in all professions. The quality of service Lecturers provide is prestigious and contains indices which Lecturers can use to gauge and justify CPD and assure a high quality service through internal and external audit procedures (Farrugia 1996).

One cannot however deny that the nature of the work of a Lecturer is complex. Arreola, Aleamoni and Theall (2001) conceptualises the work of a Lecturer as a meta-profession. Higher education Lecturers are predominantly drawn from pools of professionals from different areas of specialisation other than teaching. The authors call these different fields of expertise base professions. Such base expertise knowledge and skills is however **not** sufficient for effective teaching, though it is essential to promote effectiveness in the different fields of expertise. Services that Lecturers provider require professionalism in different areas of their practice in order for them to be effective in teaching. Professionalism in practice involves three areas of specialisation. These are:

1. Professionalism in the subject or base profession content expertise, which implies scholarship and research in keeping the subject knowledge and up to date.
2. Professionalism of the Lecturer in communicating the subject content, which should also includes Instructional design (including assessment and use of different forms of technology in instructional delivery).
3. Professionalism of the Lecturer as a manager in activities such as course design and other supportive practice in the academy These include leadership skills, administrative processes, etc. (Partington 1999:248).

Thus, Arreola et al. (2001) conceptualises University teaching as a meta-profession, that is, the profession that is built upon the foundation of another (base) profession. It is this multi faceted nature of the work of a Lecturer that tends to undermine the credibility of the Lecturers' work as a professional. The Lecturer ends up having to specialise in so many facets of his/her job that s/he ends up being a 'jack of all traits' (Teacher, Researcher, Communicators/creators of knowledge, professional in the field that they teach and Manager).

Lecturers therefore need to be equipped with teaching skills as well, in order to be able to practice effectively in the field of teaching. It is this demand of effective teaching skills that influenced policy in some countries where higher education authorities suggested that Lecturers (more especially inexperienced newly appointed Lecturers) should obtain a formal professional teaching qualification. Nicholls (2000) argues that this approach presents a dilemma by stating that:

‘If researchers have to be ‘professionally developed’ as teachers, are we applying a ‘deficit’ model of professional development? Are we suggesting that something is lacking in the new researcher/teacher and therefore needs to be corrected, in this case teaching skills, and their application to learning situation? Do these have to be corrected or improved before researcher/teacher can deliver quality teaching and subsequently learning outcomes? ...In this context teachers are seen as the object, rather than the subject, of professional growth. Yet what we should be striving for, if teaching standards in higher education are to improve and change, is to understand how researcher/teachers learn and change and the role teaching plays in that change.’ (Nicholls 2000: 373-347).

Pickering (2003) warns that professional development units should not just assume that the Lecturers come into the academic world with **no** knowledge or beliefs of pedagogy. All Lecturers come into the academic world with previously acquired pedagogic knowledge and beliefs (even if these may not be informed by sound theory), which will to a great extend, influence the Lecturers’ approach to teaching. Such pedagogic beliefs should be interrogated and used to introduce a change in behaviour that is informed by pedagogically sound theory. Creating this opportunity for Lecturers will encourage reflective practice on the part of lectures, who will in future, use such acquired knowledge to change behaviour and as a result, improve the quality of their teaching practice.

It is therefore also my opinion that Lecturers do not necessarily require a teaching qualification to be effective in teaching practice. Teaching skills can be ‘built’ within the lecturers’ professional practice, through informed and empirical teaching practice theory. This highlights the possibility of facilitating a change process within the Lecturers’ practice to effect learning which will improve teaching. This then makes CPD for Lecturers imperative, in ensuring that the

Lecturers are equipped with the theoretical framework of teaching- and apply this in teaching practice to promote and provide effective learning for students.

For Traditional Universities in particular, research has been a yard stick that has been used to reward the Lecturer's work as compared to teaching and community service. It has however been concurred in world trends that the quality of University teaching and the development of a reward system for excellent teaching should be prioritised (Ramsden et.al. 1995).

3.5 THE TEACHING PROFESSION IN UNIVERSITIES OF TECHNOLOGY

University of Technology Lecturers in South Africa on the other hand have been operating from a unique culture. As indicated in chapter 2, Universities of Technology developed from CATEs to Technikons, with a mission to provide technically skilled workforce for industry, most of the Lecturers were recruited from industry, most of which are still practitioners in their field of expertise. Many Lecturers from Universities of Technology still view themselves more in light of their technical expertise and identify their profession with the technical expertise, more than they do with their teaching expertise (Winberg 2005: 192). Though it can be agreed that "Technikons were also successful in accepting students without matriculation exemption and developing their skills particularly in Mathematics and science" (Winberg 2005:192). The Lecturers from the Technikon dispensation therefore have been able to teach at the level where such Lecturers were successful at teaching students who might have been declared unfit for higher education, and sufficiently training them for the required technical expertise in industry. This means that though the University of Technology Lecturers predominantly identified their professions with the field of expertise they are involved with; their primary day to day activity focus has been teaching which they have been successfully doing well.

The newly acquired University of Technology status has impact on this as most Lecturers are now under pressure to get involved in research. Though in my experience in working with University of Technology Lecturers, there are some Lecturers who feel very strongly about teaching and would like their professional focus to be on teaching and finding better ways to assist students to learn. It may also be argued that this already imply that such Lecturers are already involved with research. The nature of the relationship between teaching and research continues to be a subject of considerable debate (Ramsden et.al 1995: Paragraph 1, 2). Geddes, Dreyfus and Hadson (2004: 323-324) in their studies on perception of University of Technology Lecturers indicate that most Lecturers in the former Polytechnics primarily viewed themselves as teachers. Most of such Lecturers in this study indicated that they wanted to devote their time to helping students learn and they viewed themselves as subject specialists who made an effort to remain informed and up to date in their primary discipline. The same study though, indicates that such Lecturers also indicated that they seldom read academic journals, or attended conferences concerned with the wider issues in educational research, teaching and assessment. Winberg (2005) indicates that the idea of research has been a thorn to the experienced Lecturers from Universities of Technology. It is my opinion, that this is a new challenge that University of Technology Lecturers to accept and move into research on technology teaching for example, where they share their successes with other practitioners. It can also be argued that the University of Technology Lecturers involved in broadening their field of knowledge expertise and also involved with finding different methods of assisting their students learn, imply that such Lecturers to some extent, involved with research. As Winberg (2005) indicates that what is lacking in this regard, is the proper documentation of such research and adding of such into existing knowledge base of educational research. University of Technology Lecturers' involvement into research in their field of expertise might contribute to the theory into teaching practice where these Lecturers have the experience and successes in. Chetty (2003:11-12) in his research, further highlights the fact that indicates that Lecturers at Universities of

Technology did not participate in research activities, due to heavy workload, demanding work schedules, administrative responsibilities, and the like. This has resulted in research outputs from former Technikons being low and indicates that a paradigm shift is necessary to change this state of affairs. As a result he indicates that research rigour at such institutions was lacking and that would continue to negatively affect the quality of teaching and scholarship.

3.6 THE DESIRED OUTCOMES OF CPD ACTIVITIES

From the discussion in section 3.2, 3.3 and 3.5, I would like to highlight some benchmarks, which I have identified as indicative of good teaching practice, which the University of Technology Lecturers' participation in CPD should strive to accomplish. The assumption made here is that there are no other factors existing within the teaching and learning environment within which the particular Lecturer operates in, which impede these outcomes from being realised. The understanding is therefore that the Lecturer has a supporting environment to implement whatever is learnt during CPD. The overall outcomes will be evident in the following:

3.6.1 THE IMPROVEMENT OF TASK-CENTRED TEACHING SKILLS

This entails the development of teaching skills and a repertoire of teaching methods, which involves sound judgement about how and when to apply different teaching skills and methods. This implies that the Lecturer realises that learning may be enhanced and encouraged through a combination of these teaching methods and skills.

3.6.2 THE ACQUISITION OF THE NECESSARY MANAGERIAL SKILLS

This entails activities that assist the Lecturer to effectively manage their teaching and learning activities in practice. Such skills may include amongst others, self

evaluation, peer evaluation, classroom management, and the like. Basically this entails a Lecturer being able to take up a position of a leader in class, as an academic. However, the *taking up* of leadership role should not just end up in class, but should include taking up leadership role in the academic environment as a whole and fulfilling the managerial roles of teaching.

3.6.3 THE IMPROVEMENT OF COMMUNICATION SKILLS

This focuses on teacher action and it also entails the Lecturer taking cognisance of how students respond to teaching activities. The Lecturer must be able to give students prompt feedback on student learning. The Lecturer must be able to understand that not all students are the same, and respect this diversity amongst the students, using such knowledge to effectively communicate content so as to enhance student learning.

3.6.4 THE IMPROVEMENT OF SUBJECT EXPERTISE KNOWLEDGE

This entails broadening one's knowledge of the subject and how students come to understand the subject. This also entails increased ability to communicate subject knowledge well, making this knowledge available to students by making use of different methods and technologies to enhance student learning. It entails being able to make the subject knowledge interesting and enjoyable for the students. This may also entail being able to close the gap or relationship between theory and practice. Being able to communicate this content and the overall values embedded in the curriculum.

3.6.5 THE IMPROVEMENT OF LEARNING OPPORTUNITIES FOR STUDENTS

This entails understanding about students learning which also involves the Lecturer being able to create a conducive environment for learning. Such skills

include being able to enhance learning through encouraging interaction and collaboration techniques to enhance learning.

3.6.6 THE IMPROVEMENT OF THE LECTURER'S SELF IMAGE

This entails developing a sound view of oneself as a teacher, and the teaching process. The Lecturer attaining sound personal philosophy about themselves and their teaching, which is not threatened by opposing views of the others, but being able to embrace the opposing views and use them to develop an improved/better self-concept. An overarching development of a healthy self-concept to a point of being able to present and defend a point of view, confidently before students and others.

3.7 THE STATUS OF CPD FOR LECTURERS IN UNIVERSITIES OF TECHNOLOGY

Universities of Technology had undergone a transformation process in the last few years and I needed to establish what the status of CPD in these institutions is. South Africa now has only five Universities of Technology, and to establish the status of professional development I visited two such institutions. The purpose of this investigation was to establish CPD practices that are in place to ensure that the good teaching takes place at these institutions. Secondly, I needed to establish what type of support services that are in place for Lecturers to enhance Lecturers' skills in teaching practice. Qualitative research techniques were used to establish this CPD status.

3.7.1 RESEARCH DESIGN

Qualitative research is a naturalistic inquiry where non-interfering data collection strategies to discover the natural flow of events and processes and how these are interpreted by participants (McMillan and Schumacher 1993: 372). Qualitative

research is thus interested in understanding people's experiences in context and the participant's meaning of these situations (Maykut and Morehouse 1994).

Qualitative research is concerned with the critical aspects of human behaviour while taking into account historical background, verbal narratives and social situations of each participant. I needed to gather data on what the state of professional development for Lecturers at Universities of Technology is. The purpose of the qualitative study of this research project was to elicit information on the status of CPD with regards to the enhancement of teaching practice at these Universities of Technology. Qualitative researchers value context sensitivity, which is understanding phenomena in all its complexities and within a particular situation and environment. The historic development of the Technikon movement does have an impact on the practices of teaching and this history had to be considered in the study.

I specifically chose these two institutions for two reasons. Firstly these institutions were accessible for me in terms of location. The one institution visited is in the Gauteng province and the second, outside of the Gauteng area. Secondly I had previously been in touch of these institutions and was aware that the people who headed the teaching development units had vast experience in the professional development of Lecturers in Universities of Technology. Thus, purposeful sampling technique, which is used to increase the utility of information from small samples (McMillan and Schumacher 1993:378), was used. Both institutions had undergone merging processes with similar type of institutions. The information gathered from these two institutions, together with the information on the state of CPD at VUT will serve as part of base-line data in the construction of the CPD model in the next chapter.

3.7.2 RESEARCH QUESTIONS

The research questions in this phase can be stated as follows:

- What professional development policies and practices are in place to promote good teaching and learning in the Institutions?
- What professional development strategies and support programs are in place within the institution to promote good teaching practice?

As unstructured interviews were conducted, and information on the above mentioned questions was gathered. During the interviews documents on CPD activities and programs at these institutions were exchanged. Though the use of these documents was not the initial intention in this study, I however could not avoid using the data in such documents as some of this data clarified some of the CPD practices at these institutions, and thus, had implications in my study and some of the answers were more cleared through using these documents.

3.7.3 RESEARCH METHODOLOGY

I decided to undertake interviews with the participants. The interviews lasted approximately thirty to forty five minutes each. Unstructured interviews where verbal interaction to elicit information from the participants were conducted. I had a general plan of inquiry but not a specific set of questions that I had to follow.

3.7.4 RESEARCHER'S ROLE AND ETHICS

Researchers in a qualitative study are often immersed in the phenomena being studied. When permission to enter the field is obtained, participants need to have confidence in the researcher that the data will be used for the stated intended purpose. Confidentiality and anonymity in the description of research setting is tantamount to good research ethics. In this section, to avoid the participants being identifiable in print, I had to avoid giving too much detail on the location of the Universities of Technology under study. I also avoided having to explain the nature of merging processes that these two institutions underwent, as this

information, in my opinion would compromise the confidentiality and anonymity values envisaged in positivists' research theory.

Interactive processes between the researcher and the researched may influence the collection, analysis and interpretation of data. Researchers have to attempt by all means to collect data in order to understand the subjects from the subject's frame of reference. The researcher should avoid as much as possible to be subjective in data collection and analysis. This positivist's approach to research assumes that the people and systems can be understood from observation. The purpose is to gather factual data in a way that minimises and controls the personal feelings and biases of the researcher (Renfrew 1997: 22). This is however disputed as other research theories do not believe that it is possible for a researcher to completely eliminate the researcher's subjective beliefs and views into their work.

3.7. 5 CONTEXT SENSITIVITY

Human actions are strongly influenced by the context settings in which they occur. An attempt should be made to investigate phenomena as it unfolds in a natural setting without any conscious manipulation of research conditions. It should however be noted that be as it may, research findings are not restricted to the context in which they occur. Such findings may be applicable in a different context.

With the current restructuring of higher education, I had to be aware of the effect of these changes on the sites chosen to conduct this study. Needless to point out that things were not normal at these institutions as there were subtle uncertainties of transformation in both institutions. The effect of mergers and incorporations experienced by these institutions creates an 'abnormal' context within which this research is undertaken. I must however state that these changes are present in almost all the Universities of Technology in South Africa, as transformation has impacted all such institutions. Thus, I can safely conclude

that the context, within which the phenomena are investigated, would probably be the same in all the other remaining Universities of Technology in the country, therefore to some reasonable degree, applicable to all.

3.7.6 VALIDITY AND RELIABILITY

The concept of validity and reliability in qualitative research are discussed in some detail in section 5.3.2.6. For this reason I will not discuss validity and reliability in this section. I however need to indicate that before both interviews commenced, I re-explained the purpose of the interview to the interviewees. I also requested the participants that I tape record the interviews, more for an accurate reflection of the interview. Both participants granted permission to record. The interviews were tape recorded and later transcribed. This gave me the freedom to engage with the interviewees instead of focussing on note taking.

3.7.7 DATA ANALYSIS

Hermeneutics as an interpretative method of data analysis was used to uncover meaning of data. The analysis of data of the interviews began during the interviews themselves. I kept a track of emerging themes and used such to make sense of data collected. Data was transcribed, thereafter listened to, to verify the correctness of the transcript. Each copy of the transcript was read a few times and patterns and themes were highlighted as they emerged. These were later transcribed to different sheets of paper with different themes accordingly. Recurring themes were recounted and common themes identified. Each theme or pattern was fully explored and the participants' responses were compared with the other to establish dominant themes.

3.7.8 LIMITATIONS OF THIS STUDY

There are factors that could have influenced the way these institutions conducted professional development. The factors such as power relationships within the organisations, new structures emerging in merging institutions where new ways of conducting professional development had to be forged, which policies to be effected or implemented with regards to professional development in the case where the merging institutions had different professional development policies. The dynamics of merging institutions or departments do have impact on teaching CPD practice. These dynamics are not interrogated in this report.

The second factor has to do with the transition underwent by Universities of Technology from the Technikon status. This transition has had great impact on pending practices and staff in these institutions. All these factors were not investigated in this study as they were not the intentions of this investigation. The exclusion of the impact of these factors on the current status of professional development, could fail to fully understand why certain practices in professional development prevail in some of these institutions.

3.7.9 FINDINGS

The findings were divided into the following categories and will be discussed as follows:

3.7.9.1 ORIENTATION FOR NEWLY APPOINTED LECTURERS

Both institution A and B handled the professional development of their newly appointed lecturing staff differently from the existing staff members within the institutions. Both institutions had intense orientation program for all the newly appointed academic staff and these programs are compulsory for all newly appointed academic staff regardless of their qualifications or experience. The

orientation is focused on developing the teaching skills of the newly appointed Lecturers. Both institutions have policies that compel all newly appointed academics to attend this orientation program regardless of them having teaching experience (or qualifications) or not. Like participant from Institution B explains:

'We were responsible, solely for the academic orientation of a person, who perhaps comes from the industry but where very good in their subject field but they have never taught them... It does not matter whether they have lectured for thirty years or fifty years, they must enrol for that' (referring to the orientation program for new staff).

The Orientation training programs for academics are very important in both institutions to promote the culture of good teaching at these institutions. The Orientation program is also compulsory for newly appointed staff at the institutions from which only documents on their teaching enhancement activities were collected. Such programs are an introduction to theories of teaching and learning for higher education. The Orientation programs run from three days, minimum, to five days maximum, and differences in the length of the programs differing from one institution to the other. Orientation programs also serve (to some extend) to ensure that the newly appointed Lecturers use acceptable teaching practices within these Universities of Technology.

3.7.9.2 COMPLIANCE WITH POLICY TO ENHANCE TEACHING

Policy is clear and watertight to ensure that the Lecturers that are newly appointed at these institutions undergo the orientation program. But beyond the orientation program, measures to ensure that Lecturers continuously enhance their teaching practice and skills are in place, but compliance with such measures is not adhered to. Both institutions have programs and policies that enhance teaching practice for the institutions as a whole, but staff members do not make use of such available teaching development resources or facilities. For example, in Institution A, policy makes it compulsory for staff members at the institution to undergo an Advance Certificate in Education (ACE), if they did not have a teaching qualification. Yet the interviewees indicated that such policy has

never been implemented. Institution B on the other hand, has it in policy that each staff member has to complete two modules that are credit bearing towards a Masters degree in education. The newly appointed academics are forced through the appraisal systems in place, to complete these two modules within the first semester of their appointment. For members of existing staff in the institution, this has to be done within a period of four years, but there are no measures in place to ensure compliance with such policy.

Apart from compliance with policy as stipulated in the paragraph above, both these institutions have units or department that have been mandated to promote good teaching and learning practices within the institution. These same units or departments have programs in place to assist Lecturers to improve their teaching skills. Institution A's interviewee indicated that there is a problem with the attendance of such programs, to a point that they no longer draft a program for their teaching development programs, but normally offer programs to different departments on request by such departments. In institution B, there is also policy in place indicating that staff members must attend a specific number of workshops per year on the teaching development workshop programs, but as the interviewee from institution B mentioned:

‘But, Bruce it is not easy to convince them. As you know it is not easy to convince your academic staff member who has been teaching for twenty five years...that was not enforced. It was never implemented’.

The same sentiments were echoed by the interviewee from institution A, who also indicated that it is difficult to force Lecturers who have been in the institutions long to attend these teaching development program workshops. Furthermore, the interviewee from institution A also indicated that they do not have any support from departmental managers to ensure that Lecturers in different departments adhered to policy with regards to teaching development policies.

The imbalance identified here is that Lecturers who have been teaching in these institutions for long periods of time are not complying with professional development policy. Yet newly appointed Lecturers who may have the same experience, are compelled to undergo professional development activities through performance appraisal systems in place to ensure adherence to such policies. The question that is left unanswered is, what evidence do we have that indicates that lecturers who have been teaching at Universities of Technology long, are good teachers. Policies seem to be watertight in ensuring compliance by newly appointed Lecturers, yet when it comes to existing Lecturers within the institutions, there are loopholes that make it difficult to ensure that CPD policies are adhered to.

3.7.9.3 STAFFING OF TEACHING DEVELOPMENT UNITS

Both institutions have units that are mandated to facilitate the development of good teaching, though the units that offer these services are understaffed. The teaching development units do not have sufficient practitioners who specialise in the facilitation of teaching skills for Lecturers at these institutions. Institution A interviewee indicated that:

‘... we now have eleven faculties across six campuses with the same number of staff...some of the problems we have and our model will only work once we have enough staff in this unit to service all these faculties on all these campuses’.

Four staff members have to offer teaching development services to all the Lecturers. Institution B has only one staff member (the director) as the only person in the teaching and learning centre, though the interviewee did indicate that the unit that handles curriculum development does offer him support with regards to manpower issues of handling the workload in the unit. For teaching development units to effectively put in place measures to promote good teaching within the institutions as a whole, these units need to have sufficient manpower. Currently such units are understaffed.

3.7.9.4 LINKING OF TEACHING PORTFOLIO DEVELOPMENT WITH THE APPRAISAL SYSTEM

Both institutions have good programs on assisting Lecturers with the development of teaching portfolios. Lecturers are expected to construct teaching portfolios, and support through workshops is given for lectures to construct teaching portfolios. But the construction of teaching portfolios is not linked with the appraisal system or reward system to encourage Lecturers to use these teaching portfolios as a means to reflect on their practice. In institution A, Lecturers are expected to use these teaching portfolios when applying for promotion posts within the institution, whereas in Institution B, Senate had just approved the use of teaching portfolios in the institution's appraisal system to be effected in a year's time. In institution A, any Lecturer who wants a promotion is expected to produce a teaching portfolio. In institution B teaching portfolios are going to be necessary for all Lecturers as the interviewee indicated that:

'We are also in my unit, my centre at the moment helping academics with the compilation of teaching portfolios. That also links with the performance management system. Next year we start with a new system of performance management, and at the end of the year I want all of them (referring to Lecturers) to have teaching portfolio. They must submit that for the performance management and this student evaluation is part of the teaching portfolio'.

Teaching portfolios have different purposes. Teaching portfolios may be used to demonstrate the scope of and quality of teaching effectiveness or they may also be used for performance appraisal. Others choose to use teaching portfolios, with a reward system, to promote good teaching. Due to the nature of the work that I do, I perceive teaching portfolio as a developmental tool rather than an appraisal or performance management tool. The danger of using it for performance management is in that it may just end up as a good document that has been designed for the purpose of a reward rather than using it as a tool that informs teaching practice. So my opinion is that it may be used with other tools for performance management systems, but its main purpose should be to inform teaching practice for improvement purposes.

3.7.9.5 CONFLICT OF PRIORITIES IN CPD

At both institutions, indications were that Lecturers fail to comply with CPD activities that are organised within the institutions for the development of teaching skills because Lecturers indicate that Lecturers are too busy. Both interviewees indicated that Lecturers do indicate their willingness to comply with policy but Lecturers do not have the time to attend programs that promote good teaching, in place within the institutions. As indicated in the previous chapter, since the change from Technikon to University of Technology, Lecturers at Universities of Technology are under pressure to upgrade their formal qualifications. This is a priority for the Lecturers, and their departmental managers. Departmental managers view this upgrading of qualifications as a priority as compared to Lecturers' compliance to CPD policies in the University of Technology. The basic problem in my analysis emanates from the new University status awarded the former Technikons. This has resulted in Lecturers all of a sudden placed under pressure to attain higher qualifications. Departmental heads have identified this as a priority to satisfy the requirements of the University of Technology status as compared to emphasising teaching for the institutions as was the Technikon mandate. This may also be the reason why teaching improvement policies in place at these institutions are not adhered to as discussed in section 3.7.9.2 above.

3.7.9.6 THE USE OF STUDENT FEEDBACK TO EVALUATE TEACHING

Both Universities of Technology have well established student feedback systems in place, which is used to evaluate teaching. In both institutions the student feedback system serves to evaluate teaching where the results of the student feedback included in the teaching portfolio. In Institution B the inclusion of student feedback in the teaching portfolio, which is linked with appraisal system starting in 2006 is going to make it mandatory for Lecturers to continually get their students to evaluate the Lecturer's teaching. Both interviewees did indicate

that for some departments within their institutions, the student feedback system is used to diagnose good and bad points in a particular Lecturer's performance. The results are then used to draft development plans for the particular Lecturer. From the interviews and the documents from the other two Universities of Technology, the use of student feedback is widely used for different purposes in these institutions. It is for this reason that I need to further discuss the use of student feedback.

The use of student feedback is deemed 'good practice' in teaching by Higher Education Quality Council (HEQC), with regards institutional management of quality improvement (Johnson 2000). Though the use of student feedback is not conclusively valid, scholars do agree that it may be a useful tool to provide meaningful information that measures teaching effectiveness or the quality of teaching and learning effectiveness (Ahmadi, Helms and Raiszadeh 2001:13; Crumbley and Fliedner 2002:217; Neuman 2000). Student feedback also provides guidelines for an individual Lecturer to elicit information from students which assists in the improvement of teaching (Mace 1997; Neuman 2000; Potocki-Malice, Holmesland, Estrela and Viega-Simao 1999). Student evaluation of teaching questionnaires has also been used to facilitate the Lecturers' Professional Development in Teaching (Johnson 2000:419), and for quality assurance purposes (Johnson 2000; Neuman 2000; Potocki-Malicet et. al. 1999;).

There are various arguments for and against the use of student feedback (Ahmadi et al 2001). Some question the validity of such, seeing students with no experience or training in course material to make adequately informed judgments on the Lecturers' teaching methods (Ahmadi et. al. 2001; Mace 1997:4). Different perceptions are held over the validity of student feedback by Administrators and Academics. Administrators believe that student feedback does measure teaching effectiveness to a greater degree than Academics do. Academics believe that other factors like personality, course difficulty, interest and motivation, and class size, are primary determinants of good ratings by

students (Morgan, Seed and Swinney 2003). Students are however deemed as direct recipients of teaching. They can therefore provide valuable information on how well teaching has educationally benefited them or how well it has helped them learn. They therefore are in a position to give valuable information on interaction with the academic in the teaching and learning environment. Thus their feedback may be deemed valuable source of data for the evaluation and improvement of teaching. Administrators should however take precaution in making major decisions, based **only** on student feedback data. The use of student feedback alone for personnel decisions is regarded as not being appropriate, as students may use such to punish the Lecturers who demand more of their participatory effort in the learning process (Crumley, Henry and Krachman 2002). It is therefore important that the correct interpretation of the student feedback results is adopted in order to effectively benefit from their use (Neuman 2000). Bearing in mind bias factors possibilities do exist in the use of questionnaires. It is also not fair practice to compare the different Lecturers' rankings on based on raw scores without taking into consideration instructional contexts of the different Lecturers (Johnson 2000).

Concerns have also been raised with regards to the tools used in gathering data on student evaluation of teaching. It has been argued that such a tool may be designed to elicit exactly the type of data an individual designer may want it to elicit (Rowley 2003: 143). Other factors that influence the evaluation of student ratings of teaching include, Class size (Ahmadi et. al. 2001; Crumbley and Fliedner 2002), ethnic background (Worthington 2002), relationship of the sex of the student to the sex of the Lecturer (Ahmadi et. al. 2001), personality (Clayson 1999), to mention a few. These concerns on teaching evaluation have raised issues of validity, relevance and accuracy of such data. These do not however get rid of issues that validate students to become participants in the teaching and learning environment. Participation in student evaluation will shed light on issues that may be obscure to academics. This will also ensure that they play a participatory role in the teaching and learning process. The mere

fact that they have a voice in how they are taught should contribute towards improving their commitment in the improvement of quality of teaching and learning.

3.7.9.7 RECOMMENDATIONS AND CONCLUSION

Information gathered indicates that there is support for good teaching practice at Universities of Technology. CPD policies are in place to ensure that Lecturers at these institutions effectively provide good support for learning by equipping their Lecturers with skills that promote good teaching. There are however few problem areas that need to be revisited to ensure effectiveness of these policies and these will be indicated as follows:

- Technikons historically recruited their staff from industry (Winberg 2005) and this practice necessitated policies that ensured that all newly appointed Lecturers received training in teaching practice. The assumption made was that all newly appointed staff had no teaching experience or had to be trained to teach in ways that the institutions deemed appropriate teaching techniques for higher education. Thus the training of newly appointed Lecturers was viewed as critical and was enforced. Winberg (2005) indicates that since the name change to University of Technology, the former Technikons changed recruitment strategies and started recruiting staff with teaching qualifications and with higher education teaching experience. Some of these institutions started recruiting experienced researchers as to increase their research output. As recruitment strategies have changed, it may be necessary to visit such policies. It may be inappropriate to compel a newly appointed academic, who has been recruited to enhance research output, to attend the orientation program that focuses on teaching practice rather than research. Universities of Technology need to revisit their policies on the Lecturers CPD to ensure that these policies together with the practices

within the institutions still serve to meet the needs of the broader recruitment strategies within the Universities of Technology.

- The inconsistencies in policy implementation or adherence to policy seem to also emanate from the transformation indicated above. This may also be the reason for the problem in conflict of priorities. Firstly CPD activities seem to be narrowly defined in policy and these CPD activities are limited to workshops and seminars organised by the teaching development centres in Universities of Technology. It is imperative for the Universities of Technology teaching development centres to broaden the definition of CPD and broaden support services provided. A broader definition of CPD may be necessary in policy in order to ensure that such centres provide relevant support services to the lecturers. For example, as Lecturers in former Technikons are supposed to improve their qualifications, it follows then that the improvement of formal qualifications should feature as part of professional development, and this is not presently the case. Lecturers' 'busyness' with formal studies is part of CPD and should be viewed as such on policy to eliminate conflicting priorities and perceptions of failure to comply with CPD policies. Secondly, with the advent of the move from Technikon to the University of Technology, focus of University of Technology shifts from teaching, to include within the Lecturer's duties, research and community service. Research activities should also be embedded in CPD activities and professional development activities should include such, more especially research into teaching and learning.
- I am of the opinion that the use of student feedback should be for developmental rather than summative or punitive purposes. Student evaluation of teaching should be viewed as a tool that provided information on teaching. Student ratings and comments of teaching should thus be viewed as data that needs to be interpreted in a

particular context, rather than an overall measurement of teaching effectiveness.

- On examining documents from the two Universities of Technology visited, and the documents from the other two, there is a lot of teaching support service and programs by different units that Lecturers are expected to attend to. For example, there are teaching development units, curriculum development units, learning development units, and the like on campuses of the Universities of Technology, and each of these units have programs that require Lecturers to comply with. The Lecturers are expected to cooperate with all these departments and when there isn't co-ordination of these support services for example, the workload for such support services become a bit too much for the Lecturers. One Lecturer is expected to attend teaching development programs, attend to curriculum development activities within the institutions and also make time for students to attend learning development activities. When these departments operate without one informing and being informed by the other, on teaching and learning support activities, such activities tend to be too many and they increase the burden of responsibility upon the Lecturers. Teaching should be informed by learning as the two cannot operate without the other. Both teaching and learning development should be informed by curriculum expertise that is pedagogically sound and not only influenced by Industry as it has been the case.
- Policies should perhaps be linked to the reward systems that are already in existence within the institutions to ensure that CPD for Lecturers is continuous. The appraisal systems for the Lecturers should be directly linked to their main function, which is teaching. The use of teaching portfolios should be encouraged for use in the development of teaching and not solely for performance management.

- Lastly Universities of Technology pay more attention to the staffing of the units that provide teaching development support services to the lecturing staff as this has a direct effect on enhancing the quality of teaching. I believe if Universities of Technology really want to advance their practice to be at par with Traditional Universities, serious considerations need to be given to ensuring that more research is conducted with regards to research in teaching conducted at former Technikons. The provision of staffing should also include ‘beefing up’ of Lecturers’ support services. Literature indicated that students at former Technikons are not ‘higher education ready’. Staffing of such service departments should also be prioritised as the success of Universities of Technology is also dependent on the support service that students receive. I believe this will in a long-run, have an impact on throughput rates of the Universities of Technology growth.

The impact of transformation on professional development status in Universities of Technology may need to be further explored as it is outside the scope of this investigation. This is a research area that may need further exploration.

CHAPTER 4

DESIGN OF A CPD MODEL

4.1 INTRODUCTION

Chapter one provides the background of this study. Chapter two provides a historic overview of Technikons in South Africa and overviews the mandate of Technikons. A comparative study of similar type of institutions in five countries internationally is also conducted and features of education in such institutions and the implications of such features on teaching are discussed. In chapter three I discussed the theoretical underpinnings of CPD and the characteristic features of good teaching. This is then followed by a research project on the state of CPD in Universities of Technology. Literature reviewed and research conducted in chapters two and three served to provide baseline data for the development of the CPD model for the University of Technology Lecturers in this chapter. The design of this model is also driven by the need to create alternative career paths best suited for Lecturers with interests, abilities and aptitudes in teaching, and who want to pursue teaching as the predominant feature of their careers-path.

4.2 THEORETICAL FRAMEWORK OF THE MODEL

While CPD has been considered an integral part of most professions, educational institutions have been slow in considering embedding formalised Programmes and activities with professional development structures relating particularly to teaching and learning (Stefani 2005). Klingner (2004) indicates that previously CPD was too linear or top down approach, where participants were relatively passive in the process and the experts made them aware of the latest ideas regarding teaching and learning with very little or no input into the process from participants. As stated in literature review, Lecturers should assume a sense of responsibility for their own professional development, thus Lecturers

should be provided with a framework of CPD structure within which to operationalise CPD activities. Lecturers should also be provided with sufficient support to successfully engage in CPD. Therefore, Lecturer's CPD should be structured to grant an opportunity to make choices within the parameters of the CPD model. This broad-based CPD structure grants Lecturers the liberty to participate in designing their own CPD where lecturers are also at liberty to choose CPD activities as long as such activities can be justified.

The purpose of CPD for a Lecturer should be the improvement of teaching effectiveness. CPD in this instance would involve the Lecturer engaging in a coherent Programme or a range of activities that support and/or encourage identification of learning needs and actions to enhance or change current practice. The ultimate objective being to achieve the set outcomes as reflected in the individual Lecturer's PDP. This will to a great extend ensure that CPD activities are systematically coordinated. Literature in the previous chapter supported and encouraged that CPD, in order to be successfully implemented, CPD should be systematically organised and planned, and at any given time, there should be justification of CPD activities undertaken. When CPD is systematically organised, well planned and coherent, it does not only assist in the improvement of teaching practice, but has greater impact on the morale and job satisfaction of the Lecturer (Stefani 2005). The integral part of the management of the CPD process should be reflection. Literature has also suggested that CPD can include (but not limited to) the following activities:

- Attendance of courses- Generic institutional professional development units may provide attendance of courses. These are support Programmes in place to offer teaching support services to the Lecturers. These courses may however be provided outside the particular University of Technology. The assumption made here is that there should be mechanisms in place to help the individual Lecturer be

able to attend such courses, be it monetarily or giving time off for such attendance.

- Conference attendance and presentation of teaching and learning research undertaken in these conferences.
- Professional interactions / Networking (Both formal and informal), where ideas and experiences are shared.
- Consulting experts and experienced colleagues.
- Learning by teaching and doing - Learning as you teach
- Personal research or action research (This should be formal or informal, ongoing activities directed at improving teaching)
- Formal Studies (Contact/ Distance education)

I should mention that these methods for CPD are just a means to an end and not the end in themselves. Literature in the previous chapter indicated that participation in CPD should yield outcomes like, acquisition of managerial skills, improvement of subject knowledge, improvement of learning opportunities for students, improvement of communication skills, improvement of self-image and the improvement of task orientated teaching skills. The desired outcomes for participating in CPD activities should ultimately be for the improvement of teaching and learning. To develop a teacher who is competent in his/her abilities to demonstrate appropriate teaching skills so as to assist the University of Technology student to learn and succeed. Literature further recommends that such participation in CPD should also result in the change in knowledge, beliefs, and attitudes. The purpose of such participation should be to update professional knowledge or to develop new skills in order to offer instruction in courses at a higher level, and so forth. The key for successful CPD is not found in the learning method adopted, nor is there a best approach to learning. Instead, effective management of CPD should take into account reasons for the selection of a particular method of learning. Literature further suggests that different types of Programmes and methods should be employed in CPD, formal and informal, to empower the Lecturers to excel and succeed in their careers.

A good management system of CPD should provide the professional with guidelines only on achieving the desired outcomes for CPD and not to dictate what should be done, how and when it should be done. So Lecturers should have a say in the strategic direction and activities of CPD that they follow. The accepted view in CPD management is that different methods or a combination of methods is appropriate for different types of learning (Eraut 2001:8). Literature studies also indicated that what is important is to create an opportunity for individuals to improve educational performance and enhance the quality of education.

4.3 THE TEACHING MODEL DESIGNED

From literature studied and research conducted in the previous chapters, I have identified and isolated six areas of CPD, that professional development of a Lecturer should cover. Literature reviewed indicates that there are four areas of learning that should be covered through CPD, namely personal development, pedagogic development, leadership enhancement and instructional content development (section 3.2.4). I chose to use these areas of development as I realised these create a broad framework from which University of Technology Lecturers' CPD can be positioned. Added to these four areas of development, I chose two more areas that in my opinion came out strongly in research conducted in the previous chapter and in literature. The inclusion of these two areas would provide an even broader framework for the CPD model and these are the orientation programme and participation in professional organisations. In my opinion, a broad based structured CPD is in line with literature recommendations identified in the description of features of CPD. The model is graphically depicted in figure 4.1 below. These areas are not deliberated on in any order of importance but the significance of the contribution of each will be explained and justified in the discussion below.

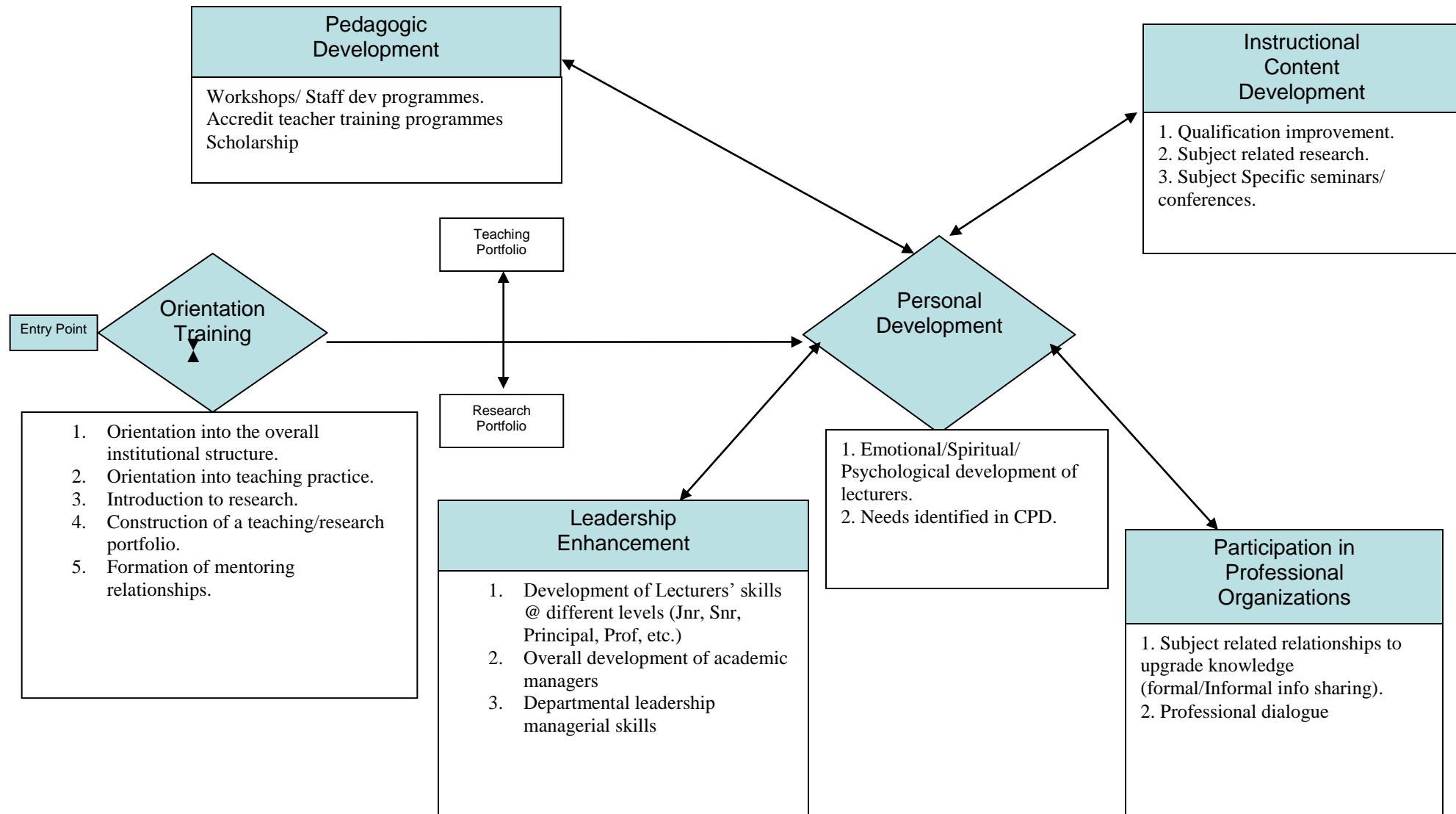


Figure 4.1

4.3.1 PERSONAL DEVELOPMENT

Literature reviewed indicates that the impact of personal circumstances in the life of the professional should be considered in the planning of CPD. Literature also encourages the integration of personal goals with the professional goals in planning for CPD. The success of CPD in attaining the goals of CPD, depends on all aspects of the professional's life (emotional, personal and spiritual), being catered for in CPD (Day and Sachs 2004; Smith and Tillema 2001).

Literature further indicated that for Lecturers to effectively learn, the situation within which such learning takes place (situated constructivism) plays an integral part of the learning process. Personal constructivism also indicated that for learning to successfully take place in the life of a professional, knowledge construction should be drawn from or applicable in personal experiences. So, the situations and personal circumstances in Lecturers' lives dictate the strides in advancement, such Lecturers make throughout the career path. The Lecturers' knowledge construction can thus never be divorced from personal and social interactions that the lecture is exposed to. Such knowledge construction takes place within a specific acculturation and relates to real life situations. It is imperative for Lecturers to be supported to maintain psychological, personal, social, and intellectual health (Day 2002: 60). It is important for any professional to grow and be fulfilled in their personal capacity as a stepping-stone towards successfully developing in their career (Craft 1996). Research further indicates that that CPD should not focus only on the cognitive aspect of development for the teaching professionals, but that the best practice involves a combination of cognition and emotion (Bolam and McMahon 2004: 9). A holistic approach to the development of a Lecturer would serve as a catalyst to enhance the achievement of CPD goals. Lectures can therefore not be treated as a homogeneous group in terms of CPD. Each Lecturer has varying attributes, competencies and at different phases and circumstances of their personal and career lives. Therefore, personal development is also an important aspect of professional development for a Lecturer. I envisage personal development as encompassing two areas of

the professional's life. The first area of a Lecturer's personal development is the area that embraces the attributes in the Lecturer's life that are not directly related to the job. These areas (emotional, spiritual, personal) of the professional's life were indicated in the previous chapter as capable of adversely affecting the performance of the Lecturer if not attended to. Fulfilment in these areas is crucial for the job satisfaction of the Lecturers. So the Lecturers need support in these areas of Lecturers' personal lives and skills to effectively deal with circumstances of life, making the best use of learning opportunities as possible. Lecturers will not optimally function in their jobs if they lack some of these personal skills like, emotional intelligence, how to relate to other people, and the like. This personal capacity development provides a good foundation for success in other areas of the Lecturer's career life. Lecturers should thus be provided a platform in order for such personal areas in their lives to be enhanced. This may also be explained as the development of the knowledge of self, where the Lecturer regularly engages in, on and about their values, purposes, emotions and relationships. As the circumstances in life keep on changing, it is important that the needs that keep on changing in the Lecturer's lives are also addressed. As some of the needs in personal lives are addressed, the better the chances for Lecturers in taking strides to accomplish professional goals

The second area of a Lecturer's personal development is the area that is directly related to the job of the Lecturer. Lecturers as professionals have aspirations in life and in their careers. Such aspirations provide a driving force or motivation to engage in activities that would make the realisation of such aspirations, possible. It is therefore advisable for the Lecturer to put such aspirations on paper as this will clearly map out actions that should be taken to accomplish such career aspirations. This area of personal development thus, starts with the development of PDP. A good model of CDP starts with a well planned PDP as this PDP serves as an integral part of a Lecturer's CPD. PDP is described as a structured process undertaken by an individual Lecturer to reflect on the individual's own learning performance and achievements, educational, and career development. The PDP

for the individual Lecturer should include clear reasons for CPD activity, identifying the method of learning, and advisably a follow-up on the CPD activity as an evaluation of the benefits that may be evident or so desired (Eraut 2001). The construction and recording of PDPs would serve to validate CPD activities and thus in essence formalise this ‘evidence based practice’ (Stefani 2005). Ideally, this PDP should be drawn up shortly after Lecturer starts with the lectureship position, where the Lecturer concerned, with assistance from his/her immediate senior, draft a plan of CPD action that would actualize the career goals. I include the assistance of the Lecturer’s immediate manager because literature recommends that CPD should be aligned to the needs and strategies of the organisation the particular Lecturer is employed by. The Lecturer’s immediate manager will ensure that CPD activities are in line with the organisational strategies and goals. Thereafter, the Lecturer concerned should be given time to reflect on the new job experience and draw up plans for career advancement in the process. The PDP can then be changed or adjusted or built upon with time as the Lecturer progresses in the Lecturer’s career path. The development of the PDP function would then serve as a developmental instrument used to map out directions for further development of CPD activities that are necessary in assisting the Lecturer to achieve his/her career goals. This also serves as evidence for accountability purposes in justifying the CPD activities undertaken.

Added to this, Lecturers need to consolidate a professional identity. Constructing this identity is a complex and ongoing process. Issues on reconciling competing images of a Lecturer’s roles should be dealt with. For example, a Lecturer may have a need to be an authority in the discipline area of classroom management and also desire to be perceived as a friendly and caring person. Or it may be the desire to be a nurturing caring teacher as compared to being tough on students in a way preparing them for the real world. This calls on the Lecturers putting different areas of the Lecturers’ personal lives together to form an identity of a professional with a secure identity that the Lecturers would use for further development in professional careers paths (Feiman-Nemser 2001). Literature

reviewed indicates that there are a number of Lecturers from former Polytechnics who are experienced teachers and who feel very strongly about teaching. It would cause unnecessary stress and conflict to enforce research development for such Lecturers. Such Lecturers should be allowed to use PDPs to dictate the direction such Lecturers need to take in order to enhance their contribution to the teaching and learning environment. Personal development would thus play a central role in dictating the area of CPD a Lecturer should focus on and operate in. In figure 4.1, personal development is depicted as being central to CPD and the area of development the Lecturer decides to work on for the Lecturers CPD activities is directly influenced by the Lecturer's personal circumstances. What is reflected on the PDP will be used to determine which area of CPD the Lecturer focuses on in their professional development.

4.3.2 ORIENTATION PROGRAMME

Literature reviewed in the previous chapters indicates that Lecturers recruited in Universities of Technology are professionals in their own careers. When recruited into the Universities of Technology, a new responsibility which is to teach is thus established for such Lecturers. I should also indicate that teaching thus becomes a vital function of such a professional's career. Furthermore, literature also indicates that students, who are admitted into the University of Technology system, are not always ready for higher education. It is the responsibility of Universities of Technology to ensure that such students, having gained access into higher education, are provided with the necessary support so as to ensure the students' success. Provision of good teaching as discussed in the previous chapters is therefore one of the ways Universities of Technology can ensure the success of students.

Research conducted in the previous chapter indicated that orientation training Programmes for the newly appointed Lecturers at Universities of Technology forms an integral part of introducing newly appointed Lecturers to the higher

education teaching practice. The use of orientation training Programmes for Lecturers at Universities of Technology still serves a crucial function in this regard. I envisage the orientation training Programmes serving as an entry point into the University of Technology teaching practice as depicted in figure 4.1. Though this practice was motivated by the fact that it was normal practice to recruit Lecturers with no teaching background, in my opinion, whether a particular Lecturer is experienced or not, it is still good practice and beneficial to orientate newly appointed Lecturers, to the teaching and learning environment, strategies, policies and practice of a particular University of Technology.

The introductory teaching experience of Lecturers in their first year of teaching practice provides a gateway of influencing the behaviour of a Lecturer for the rest of their career (Feiman-Nemser 2001: 1026). If the recruitment strategies of Universities of Technology have since the name change, changed, the practice of making orientation training compulsory may have to be reconsidered. Details of suggested orientation training proposal will be clarified as I proceed.

Orientation training Programmes involve all the activities that ensure that Lecturers have the required skills, knowledge and appropriate understanding to fulfil their functions. This involves the Lecturer being oriented with the environment of a particular broader organisation in order to smoothly function in the classroom, at the department level and at the Organisation level. It is therefore the joint responsibility with departmental managers and the teaching development units (Or Centres of teaching and learning) as set up in the Universities of Technology structures to ensure that this smooth function is attained.

Bartell (2005: 6) defines the teacher orientation as a systematic organised plan for support and development of a new teacher in the initial one to three years of service. Research (Coffey and Gibbs 2002; Feiman-Nemser 2001:1018) indicates that, novice Lecturers in their first year of practice enter a time of

discovery, adaptation, and learning. The novice Lecturer enters the teaching profession with ‘pre-existing’ perceptions about teaching that the novice Lecturer has learnt from their experiences in the world about teaching. The novice Lecturer continues to practice the teaching strategies they have developed over time regardless of whether these constitute best teaching practices or not. Within the first year of teaching, novice Lecturers develop a teaching repertoire (variety of techniques, skills, and approaches to all dimensions of education), which they will use in their practice. Intervention is important at this point to assist the Lecturer understand the reasoning behind using the different approaches to teaching in different contexts. It is important to inform or influence practice at this time by exposing educational theories that inform teaching and thus help the Lecturer to start reflecting on what they do, why they do it, and what impact does it have on student learning. This, to me represents the importance of the need for effective orientation programmes to be in place for Lecturers that are starting out in higher education teaching. Research does indicate that what novice Lecturers are exposed to this time, may not necessarily immediately influence their practice (Feiman-Nemser 2001: 1026-1027). However an introduction of these teaching skills at this point in time has implications at the beginning of a process, to influence that which a teacher is able to achieve and sustain for the rest of their teaching careers (Bartell 2005: 6). Stes and Clement (2004:2) in their studies on the effectiveness of training Programmes for novice Lecturers, found that though novice lecturers may not necessarily immediately use skills acquired during the training Programmes, signs of behavioural change is to a limited extent, exhibited. Conceptual changes definitely occurred after training, and thus Stes and Clement (2004) indicate that teaching practice change is preceded by reflection, which in turn, would in a long term, influence teaching practice. Stes and Clement (2004) further indicate that the settings (or educational context) within the educational institutions have a greater influence of the use of teaching skills acquired during the orientation training Programmes. If the environment encourages and promotes good teaching practice, then the novice Lecturer will be motivated to use the knowledge acquired during the orientation training

Programme. On the other hand, if the environment does not encourage the promotion of good teaching practice, the novice Lecturer is likely not to use the knowledge acquired during such orientation programme.

The development of a successful orientation course for the newly appointed lectures is essential in the long-term on teaching practice. In my opinion, the orientation programme should be made compulsory for all Lecturers, with the exception of Lecturers with previous higher education teaching experience (or with teaching qualifications), or research experience. These exceptions will be further discussed below. From examining the orientation programmes documentation from the Universities of technology where research was conducted in the previous chapter, I would divide the orientation programme into five parts, namely, orientation to the overall institutional structure, orientation into teaching practice, introduction to research, construction of a teaching portfolio and formation of mentoring networks. Each of these parts will be discussed below.

4.3.2.1 ORIENTATION TO THE OVERALL INSTITUTIONAL STRUCTURE

Orientation into the overall structure of the institution entails making newly appointed Lecturers aware of the structures and available support services or campus facilities, conditions of work, policies governing the institution, the use of the library, where to find what, when, how, and the like. The responsibility of this part of the Programme lies with different units (or departments) and these may differ from one Institution to the next. What is essential is that every Lecturer appointed in a University of Technology should be familiarised with these essential service areas in order to function effectively within the Institution's system. Added to this benefit, the Lecturers should be made aware of the support services available to him/her. These include services provided by human resource units, and other support services that assist the Lecturer to self-actualise. The Lecturer should also be made aware of support services available

to the students in order for the Lecturer to refer students (the lecturers encountered in class) to the relevant support services required by the student. These support services for the students have to do with the kind of support that lies outside of the Lecturers' domain of expertise but crucial for the success of the student in higher education. Examples of such services include student counselling, student academic development services, and the like. I further propose that this section of the orientation programme be made compulsory for all newly appointed Lecturers.

4.3.2.2 ORIENTATION INTO TEACHING PRACTICE

This part of the orientation programme entails orientation into teaching and learning practice where the use of generic principles and practices of teaching and learning in higher education are exposed to the newly appointed Lecturer. Any institution has its own policies, culture and ways of doing things. The new Lecturer should experience this as an orientation into the institution's teaching practices. These include basic principles and theories of teaching that all teachers need to learn and these need not necessarily be subject specific. The purpose of this part of the orientation entails informing the Lecturers of the knowledge base that is at the heart of learning which shapes professional teaching practice. This knowledge base includes knowledge about students and their ways of learning, learning theories, learning differences among students, and the like (as also discussed in section 3.3). Newly appointed Lecturers who are qualified teachers may be exempted from this second part of the orientation programme. These newly appointed Lecturers probably have the theoretical grounding in pedagogy that is proposed in this section of the orientation programme.

4.3.2.3 INTRODUCTION TO RESEARCH

This part of the orientation programme entails general introduction into research. I must however state that though this model focuses on the teaching function of the Lecturer, it is imperative for every Lecturer performing the teaching function to become acquainted with research skills in order to use research to deal with some of the challenges in teaching practice. Added to this, the newly appointed Lecturers still need to be introduced to the policies and rules that govern research within a particular University of Technology. It can also be argued that every teacher should be involved with research in an endeavour to address some of the educational issues that exist in teaching. Thus it is also necessary for all Lecturers to know the research basics and methodologies in order to undertake action research. Therefore every teacher should have these research skills and the purpose of this part of the orientation programme is to expose Lecturers to research skills, with the ultimate objective being to use these research skills in improving teaching practice. As mentioned when we discussed the changes in the recruitment strategies of Universities of Technology, trends indicate that newly appointed Lecturers are experienced researchers, such experienced Lecturers may not need to undergo this third part of the orientation programme, but novice Lecturer-Researchers have to undergo such basic research Programme.

Literature in the previous chapter indicates that participation in research at Universities of Technology is lacking. Literature encourages former Polytechnics to emphatically be motivated to engage in research, and this would serve as a means to address this encouragement, more especially research into teaching. This part of the orientation programme also prepares Lecturers in Universities of Technology to have an opportunity to also focus on and develop research skills. This part of the orientation programme should also serve to address the promotion of research ethos within such institutions. In the same manner as teaching has been given attention at former Technikons, research development

should also receive rigorous attention in order to promote the culture of linking teaching and research in Universities of Technology.

4.3.2.4 CONSTRUCTION OF TEACHING PORTFOLIO

Research conducted in the previous chapter indicates that teaching portfolios are becoming an emphasised part of the University of Technology Lecturers' requirements for performance management purposes. The lecture is given a period to reflect on their practice and construct a teaching portfolio within a specified reasonable time period. Thus I envisage this part of the orientation programme entailing the newly appointed Lecturer constructing evidence based teaching portfolio. The time required to construct this teaching portfolio should be determined by the experience of the particular Lecturer. One Lecturer might need more time while the other less time to do so. Bartell's (2005:6) definition of the orientation training for teachers suggests that the orientation training as the initial period of two or three years. I would recommend that the period to present the teaching portfolio for evaluation be open for a maximum of two years. For the newly appointed Lecturer with experience and qualification in higher education (who may be exempted as suggested in section 4.3.2.2) or one recruited for research purposes within the institution (who may not be required to participate in suggestions made in section 4.3.2.3) of the orientation programme, this creates an opportunity to demonstrate evidence of teaching or research expertise, that has been acquired in the past. For the newly appointed Lecturer who attended part two and/or three of the Programme above, it is an opportunity to demonstrate how the knowledge acquired on higher education teaching and learning practice during the orientation programme, has been implemented in the first few months or year(s) of teaching practice. Killen (2004: 182-184) indicates that a teaching portfolio can be structured for professional development and career enhancement purposes. The following are identified as the purposes of construction of a teaching portfolio:

- It encourages Lecturers to plan their teaching careers and evaluate their own teaching.
- Documentation of important aspects of teacher's experience.
- It provides structured reflection on a Lecturer's experience. The reflection which can serve as a tool for a Lecturer to become a better teacher.
- It can serve as a framework for strengthening a Lecturer's teaching and his/her research.
- It provides the recording of CPD so that a Lecturer can plan and reflect on such CPD.
- It assists the Lecturer to reflect on teaching and learning beliefs, so that teaching strategies can be reflected on and changed where possible.
- Emphasises the value of teaching and learning within an institution, and serve to provide a mechanism for capturing the teaching and learning complexities.

Teaching portfolio should also include student feedback on the performance of the Lecturer and assessment by peers. The portfolio should carry a summary of all education-related activities that the Lecturer has been involved with. The teaching portfolio would therefore provide a solid basis for evaluating the Lecturer's teaching performance and overall contribution to education. The construction and evaluation of a teaching portfolio should be followed by a reward for this exercise, in order to encourage Lecturers to fulfil this part of professional development.

The evaluation of these portfolios would provide guidelines of areas that may need to be worked into the Lecturer's PDP, thus facilitate the CPD activities that are necessary to improve effectiveness. The orientation-training period may also be a time used to provide the support necessary for preparation into this performance evaluation. I indicated in the previous chapter that I do have reservations with the teaching (or research) portfolio being used for performance management purposes. I will accept it that due to pressure placed in

management of Universities of Technology to account for teaching within these institutions, the use of teaching portfolios for performance management be accepted in conjunction with the use of such teaching portfolios for developmental purposes.

4.3.2.5 FORMATION OF MENTORING NETWORKS

Literature study in the previous chapter indicated that the role that is played by communities of practice in improving teaching and learning skills is invaluable. Lectures therefore need to be assisted in the establishment of networks that encourage and enhance good teaching practice. In this instance, such networks will especially be used for the benefit of novice Lecturers who are new to higher education teaching. The formation of these networks will create an opportunity for experienced Lecturers to mentor and provide support to the novice Lecturers and assist novice Lecturers with teaching skills and sharing of expertise that the experienced Lecturers have acquired over a period of time. These mentoring networks may thus serve as communities of practice that are informal in nature. I am of the opinion that these can be used to inculcate a culture of collegiality within academic departments. It is for this reason that I believe that the orientation training Programme should not only end with a few days type of Programme and activities, but the newly appointed Lecturer should be provided with a supportive and encouraging environment to establish mentoring and networking relationships. In these networks, it is important that ideas, problems, struggles, suggestions and experiences are shared with confidentiality. Care should be taken that whoever participates in these mentoring or network relationships should not form part of those who will evaluate the performance of the newly appointed Lecturer. Trust in mentoring relationships, is essential in that the newly appointed Lecturer would be willing to share even their weaknesses and failures without the fear of such weaknesses coming up during their performance evaluation. So, an environment where the newly appointed Lecturer may share his/her struggles and successes with confidence that the information

divulged will serve only to assist in informing and improving teaching practice and expertise needs to be created and safeguarded. This environment of reflective practice, where non-critical assistance and support becomes invaluable to facilitate the Lecturer's reflection upon beliefs and practice on teaching becomes vital in the success of teaching practice. This suggests creating an environment where the possibility of ongoing CPD practice exists, and thus encouraging the practice of CPD as a life long learning process.

One aspect that needs to be mentioned at this point in time is the development of leadership skills among experienced Lecturers to apply in mentoring relationships. For the experienced Lecturer, mentoring is a powerful professional development experience (Fieman-Nemser 2001:1037). Providing experienced Lecturer an opportunity to impart skills and knowledge in observation and analysis, coaching and assessment, collaboration and inquiry, and the like, would add to the ongoing improvement of teaching. These leadership and mentoring skills do not however come naturally. They need to be deliberately built into the professional development schedules of Lecturers in order to facilitate the overall leadership development skills of every Lecturer. These skills are very necessary for the development of teaching in higher education, as experienced Lecturers can develop into a rich resource for the improvement of teaching.

4.3.3 PEDAGOGIC DEVELOPMENT

Literature studies indicated that Lecturers in Universities of Technology are recruited experts in their respective fields' of expertise. However, these experts are not teachers, neither do they have teaching qualifications or teaching experience (Winberg 2005). Literature further highlighted that some of the Lecturers at the Universities of Technology view their main function as teaching (Winberg 2005). For such Lecturers, whose feel that their priority function is teaching, rather than research or community service, I believe an opportunity should be made available for such Lecturers to prioritize this function in their day

to day activities. Literature further indicated that the admission practices in Universities of Technology purports to open up access for students who are not ready for higher education. Lecturers who have to teach such students have to be prepared to successfully ensure that such students succeed in attaining their first qualifications. Literature also suggests that teaching in Universities of Technology should be conducted in an academically sound manner in order to ensure the success of the under-prepared student accepted in such institutions (RSA 1997b). Prioritizing this function implies that the individual Lecturer focuses activities into teaching and all the relevant concepts that have to do with teaching and learning. Programmes received from the two Universities of Technology visited and the other three that I received documents on the teaching development practices from, indicate that there are extensive workshop Programmes that provide services for pedagogic development of Lecturers. Lecturers who want to focus on their teaching expertise would benefit more from these teaching development Programmes. Such Lecturers are professionals in their different fields, but it is however important that they develop thorough grounding in teaching and learning theories which can be used to theoretically ground their practice. The attendance of workshop presentations to deliver this pedagogy was previously indicated as problematic. The Technikon movement's teaching development units had adopted this deficit model of CPD as the recruitment strategies of Technikons were focussed on Lecturers without previous teaching background and at that time, such workshops benefited such Lecturers. I did indicate in the previous chapter that this model of delivery for CPD is not obsolete but this method of CPD delivery is complementary to the other methods. Therefore, these workshops still have a place in the University of Technology CPD Programmes, yet a broader conceptual framework of CPD models which include aspiring models of CPD should be incorporated with the deficit model to cater for the continually changing developmental needs of the University of Technology Lecturer.

In chapter 2, literature also indicated that when Polytechnics (UK and Australia) changed to Universities, the Lecturers were put under pressure to acquire teaching qualifications. This was a means by educational authorities to indicate their commitment to the quality of teaching at Universities. There is no research data available, indicating that graduates from teacher education Programmes (that are used for teacher preparation), over a longer term period, perform better than teachers who never went through such teacher preparation Programmes (Coffey and Biggs 2002; Zuoyu 2002:214). Academic background has been identified as the most decisive factor in the teaching profession (Zuoyu 2002:214). Even if graduates in other professions do struggle in the beginning of their teaching practice, they surely end up doing well with time, as long as they have a strong academic background in their relevant professional discipline.

Pedagogic development aspects of the CPD model would develop opportunities for Lecturers who need to be equipped with expertise in educational practice in order to facilitate the teaching and learning process, using the educational theories that are relevant to higher education. Lecturers need to be trained on a range of topics related to teaching, learning and assessment. These should cover topics on teaching approaches, learning styles, approaches to learning, and the like. As the Lecturers' main function is to help students learn, Lecturers need to develop and attain a pedagogic stance rooted in educational theory and the knowledge of their students. The information on how students are like at different stages of development will provide Lecturers with informed perspectives in learning and development that would provide a framework of understanding students (Fieman-Nemser 2001:1018). Factors such as the background of students, their culture, sociological background, race, etc. are helpful in informing the Lecturer on how different students are and thus, empower the Lecturer to explore his/her own biases and grow in understanding the diverse student population. These features when considered will not only improve student learning, but will also improve the equipping of the Lecturer with skills that assist with the efficacy of teaching that optimises and maximises students' learning.

As indicated in literature studied, higher education Institutions world-wide have been under pressure to account for the professionalism of Lecturers through the demonstration of research assessment exercises and formalising training for University teachers (Pickering 2003). As a consequence, many Universities have established in-house teaching development units or teaching and learning centres, which have been involved with ensuring that quality teaching is delivered at these institutions. Pickering (2003) raises concern that insufficient research has been conducted on the impact the Programmes of such units have on the impetus of improvement of the quality of teaching. This is also confirmed by the study conducted by Coffey and Gibbs (2002) and McAuthur, Earls and Edwards (2004) that the introduction of a variety of teaching methods does not have a significant impact on their use in teaching practice at the time immediately after such varying teaching methods are learnt. Pickering (2003) in her studies indicates that novice Lecturers had not made sufficient changes within a year, in their teaching practice after teaching development units' intervention. Yet the same study does agree with literature indications that teaching development units do serve a function of information gathering and information sharing. This is also supported by research conducted by Stes and Clement (2004) (referred to as she/her in this paragraph) that information acquired during such courses (though with no immediate significant impact on teaching practice) is later used to shape the practice of teaching by lectures. Furthermore, the same studies found that action-learning sets (which are created by teaching development units during their teaching development intervention workshops) nevertheless, created an opportunity for Lecturers to engage in a change process that in her opinion would ultimately improve teaching. Her opinion is therefore that though the Lecturers have been exposed to these new teaching methods or different ways of teaching practice and they had not as yet changed their teaching practice within the first year of receiving training in these new teaching methods. Yet that does not imply that such new knowledge would not be put to good use at all in the future. She argues that the Lecturers had began the process of changing their behaviour in practice and this change process involves the Lecturers

starting to reflect on how this newly acquired knowledge would impact on their practice in future. Thus in her opinion such interventions do in a long run, serve as catalysts for change in the improvement of teaching practice. Different methods of teaching, fit for higher education teaching, which promotes effective learning, need to be learned and used appropriately.

Gibbs (2005: 5) further indicates that ongoing debates continue on whether some of the UK 'teaching only' Universities should employ teaching staff who do not focus on research. The Dearing Report (1997) also proposes that all higher education institutions that focus on teaching and learning as part of their objectives should establish teaching in such institutions as a profession in its own right. This professionalization should include teaching and learning management, commissioning research and development into teaching and learning practices, stimulating innovation and coordinating the development of innovative learning materials. This direction in the professionalization of higher education teaching will ensure good practice by professionals in higher education. This then serves as an indication that there are different roles played by University Lecturers. That is, the role of teaching and that of being a researcher. Dearing (1997) also recognises and predicts that the teaching profession in higher education will go through various stages and development in the next twenty years. Dearing (1997) further recommends that higher education institutions should review their staff development policies and address such changing roles of teachers and make it a norm for all full time teachers to be trained on accredited teaching Programmes. Teaching development units in higher education institutions should make attempts to formalise these activities, and better still, to convert them into credit bearing units contributing towards the attainment of a formal qualification in higher education teaching. One of the Universities of Technology visited did indicate that to deal with the problem of attendance at their CPD workshops, some of the professional development Programmes have been linked with Universities that have experience in teacher development. Such Programmes offered are credit bearing towards formal qualifications in education. Indications

are that such credit bearing status on Programmes does motivate staff to attend such Programmes. This is another possibility where Lecturers may be motivated to undertake such professional development Programmes, knowing that such courses will benefit them should they decide to pursue further teaching qualifications.

Literature reviewed in the previous chapter indicated that research in the former Polytechnics is a foreign concept which most of the lecturing staff in such institutions struggled with, as such academics from former Polytechnics viewed themselves as teachers. Trigwell, Martins, Benjamin and Prosser (2000) indicate the argument of separation of teaching and research is outdated. Trigwell, et. al. (2000) suggest that the work of an academic is multifaceted and all these activities that the academics do cannot be compartmentalised as each is only a part of a larger whole. Trigwell, et. al. (2000) then suggests that academics should explore rather scholarship, which is described as follows:

- The scholarship of discovery- This is close to the old idea of research where literature is collected and read for one's own use.
- The scholarship of integration- This involves making connections across disciplines and placing specialities in a larger context.
- The scholarship of application- This goes beyond research application and emphasises the role played by research in informing teaching practice and vice versa.
- The scholarship of teaching- This involves communication being at the heart of significant knowledge.

Trigwell, et. al. (2000) further highlights that the purpose of the scholarship of teaching is to make transparent how we make learning possible, where teachers are informed of the theoretical perspectives and literature of teaching and learning in their discipline. This also involves the collection and presentation of rigorous evidence of the effectiveness of these theoretical perspectives and this

literature. Nicholls (2000) views teaching and research as complementary forms of scholarship, and indicates that CPD has a significant role to play in enabling the teacher/researcher to learn about the teaching and learning process. This should also include assisting the development of strategies for teaching based on the understanding related to the scholarship of teaching. Nicholls (2000) further indicates that in the realm of higher education, the status of teaching as both a professional activity and in the sphere of research must be raised. This calls on teaching development units to highlight and facilitate the discussion of teaching, learning and research. How can teaching help develop research into practice – and improve the quality of student learning?

In concluding the pedagogic development concept of CPD, one cannot over emphasise the need for Universities of Technology to link the teaching expertise with research in order to develop empirical body of knowledge for the work that former Technikons have previously successfully done.

4.3.4 INSTRUCTIONAL CONTENT KNOWLEDGE DEVELOPMENT

Lecturers are supposed to help students learn and understand the worthwhile content, and this calls for the Lecturer to know and understand well the subjects they teach. Added to this, they have the responsibility to connect the students and the subject content, thus they need to develop the skills to effectively achieve this, and to deepen their understanding of the subject content in areas that may need deeper understanding and strengthening. Furthermore Lecturers have the responsibility of knowing their subjects from a pedagogical perspective. This entails being able to understand what students find confusing or difficult to understand, and developing skills for offering the alternative ways of explanations, models, and analogies to represent core concepts and processes (Feiman-Nemser 2001:1017). There are three aspects of subject knowledge that Feiman-Nemser (2001:1017) identifies as necessary for teaching, namely:

- 1) Knowledge of central facts, concepts, theories and procedures within a given field (Instructional Content Development).
- 2) Knowledge of explanatory frameworks that organise and connect ideas (Pedagogy).
- 3) Knowledge of rules of evidence and proof (Research).

The implication of the first point above is that the Lecturer has to be well-versed in the subject content of offerings they provide. The status change for Technikon to University of Technology has implication to the curriculum that is provided in Universities of Technology, which as previously indicated, indicates that the level of offering may have to improve as compared to the Technikon era level.

Literature review in chapter 2 did indicate that Universities of Technology have to foster deeper understanding of concepts, rational critique, and the development of mature judgements that constitute wisdom. Added to these skills, higher order cognitive skills to apply knowledge judgements at more complex levels are required to be developed within the curricula of Universities of Technology. The minimum requirements for Technikon Lecturers have been a B.Tech or honours degree. The status change implies that the University of Technology Lecturer has to increase their level of content knowledge by improving their qualifications in order to meet the demands placed on the University of Technology education system.

Secondly, added to the subject knowledge improvement University of Technology Lecturers have to also increase their knowledge of explanatory framework that organises and connects knowledge ideas. This implies that the Lecturer needs to understand what confuses the students and be in a position to offer alternative ways of explanations. The Lecturer must be able to frame the purpose of studying content and being familiar with other well designed curricula materials. Apart from the knowledge of content, Lecturers must get to a point of understanding the nature of knowledge and inquiry in different fields related to their field of study. This may include discipline based principles and practices of

teaching aimed at providing specific skills needed to help the students develop a deep understanding of the specific subject in question or the related field of study and most importantly, how to transmit content in order to maximise student learning (Feiman-Nemser 2001).

The third leg of subject knowledge improvement for the University of Technology Lecturer involves research (rules of evidence). This involves research in the Lecturer's field of expertise and extends beyond that to include research in the teaching of the Lecturer's field of expertise. The objective in this research is to improve the Lecturer's knowledge and skills base so as to subsequently improve student learning.

These areas of development (Instructional content development) forms a greater part of a Lecturers' professional development demands, which as a result of the name change from Technikon, have also changed. The University of Technology qualifications demands have shifted the type of needs the lecturing professional has, and the CPD structure should accommodate such changes. The teaching development units at Universities of Technology should also adjust their support services for Lecturers to accommodate the changing needs of the lecturing staff. The teaching development units in Universities of Technology should find ways of meeting these changing needs and adjust what they offer to keep meeting the needs of the lecturing staff at Universities of Technology.

Apart from studies for higher qualifications, instructional content development may also be acquired through discussions with colleagues teaching the same subjects. Experiences with colleagues are shared within the groups and the individual Lecturers learn from one another's experiences in teaching content. This is where communities of practice may be of great help to the Lecturer where ideas are shared for the purpose of enhancing teaching practice. Subject specific seminars as an example, are also valuable in providing support for instructional content development. What this calls for, is for Lecturers at former Technikons

engaging in communities of practice, where they participate in subject specific conferences and networks, which contributes to the improvement of the teaching of a particular subject. There has been such sporadic collaboration within institutions for staff members teaching the same subjects, but this was not formalised so as to produce tangible documented research outputs that would add to the enrichment of educational practice.

4.3.5 LEADERSHIP ENHANCEMENT

One cannot ignore the leadership roles played by Lecturers in different roles of their everyday practice. As an academic, the Lecturer plays a leadership role in leading the students' learning process. Leadership is also expected in the broader institutional community like departmental and faculty committee meetings. Lecturers also lead by working with other colleagues in order to improve teaching and learning, group processes, conflict management, goal setting, strategic planning, etc. Added to this, it was mentioned that the justification of Universities of Technology teaching, as a profession, requires the University of Technology Lecturers' involvement with the skill of managing the whole process of the 'Meta Professionalism' (section 3.4) for continuous improvement. These diverse needed skills highlight the need to hone the leadership skills of Lecturers as a means to ensure that the Lecturers effectively perform their duties. These multifaceted leadership roles played by the Lecturer imply that leadership enhancement plays a significant role in the Lecturer's CPD.

Leadership development opportunities were not always explicitly available in the Technikon movement, as it has been with the Universities. Prospects for advancing from Lecturer, to senior Lecturer, Principal Lecturer and professorship levels were not clearly defined in the former Technikons. Since the change of status to University of Technology these development opportunities are now available, and these require different degrees of leadership skills at each level. All these make it imperative for leadership enhancement to be embedded in all

Lecturers' professional development initiatives. Leadership enhancement initiatives would prepare the Lecturers to take up leadership roles in the University of Technology movement in the future.

The leadership discussion above illustrates that the Lecturer needs to be assisted with leadership and managerial aspects of teaching. I need to briefly differentiate between management and leadership, as the two terms are often interchangeably used yet the two terms are not necessarily the same. Managers are appointed and given legitimate powers to reward or punish. The manager's ability to influence is based on the formal authority inherent in their position, whereas leaders may be appointed or emerge from the group (Robbins and Decenzo 2001:344-345). Leaders are people who are able to influence others. Managers should ideally be leaders, however not all leaders possess the ability to manage and thus not all Lecturers should hold managerial positions. Not all Lecturers may in their career progression develop to managerial positions, yet all Lecturers are expected to demonstrate leadership traits in the teaching and learning environment. Lecturers can therefore become good leaders who inspire and motivate colleagues and more especially the students they are in contact with in the teaching and learning environment. Winberg (2005: 194) indicates that the move from Technikons to University of Technology status had leadership problems that developed with the change in status. Firstly, departmental managers were predominantly recruited from industry and most of them lacked the experience, qualifications or academic leadership skills. Secondly managers had a strong mindset in the practice of educating for the needs of industry. These practices in the Technikons movement did not improve much or change when the former Technikons were awarded the powers to award degrees since 1993, and it does not seem they will add much value in the University of Technology (Winberg 2005: 194). Thirdly, the idea of research, as a new concept to Technikons has become another point that needs attention. Academic managers do not have the skill to manage research. Universities of Technology have recently made big strides

though, in employing academics with research experience from Universities. However, the change of the mindset of the 'old' academic managers, who cannot cope with having to manage the research concept, will still continue to slow down the pace of development for Universities of Technology to the level of University status, with regards to research (Winberg 2005).

Research conducted in the previous chapter also indicated that there were problems with the implementation of policy by managers within the Universities of Technology where the research project was conducted. Possibly such managers may be overwhelmed by the whole change idea from Technikon to University of Technology thus failing to manage the change. The second possibility is that managers may just be resisting change as change is difficult to implement more especially if that change entails the change of culture that has existed for a long time. The first possibility mentioned is that managers may sincerely be lacking the required skills to transform these institutions by implementing policy that advances the idea of University status for the former Technikons. These leadership issues will for a long time remain a stumbling block for the development to Universities of Technology to the same academic stature as that of the Universities unless deliberate strategic steps are taken in leadership capacity enhancement. Leadership in Universities of Technology thus still has to undergo a lot of development and transformation before such institutions can develop research status equivalent to their University counterparts. This is also the same findings in Chetty's (2003) study, indicating that leadership enhancement or leadership transformation in Universities of Technology needs serious considerations and development in order to take such institutions where they 'academically' ought to be.

The leadership concept for the University of Technology is crucial in the success of the sector to advance from the Technikon way of doing things, to the University way of doing things. Leadership development needs for the University of Technology has changed and it has its own challenges in the success of the

overall University of Technology movement. Leadership experience (starting from senior management level down to ordinary Lecturer in class) if properly applied would ensure the success of the whole University of Technology sector.

Leadership that would adapt with the demands of the University of Technology sector, to ensure that policy changes are implemented for the success of the University of Technology concept is crucial. Chetty (2003) further highlights the urgency of leadership change at Universities of Technology in order for such institutions to achieve the institutions' core purpose. Chetty (2003) also alludes to the fact that current bureaucratic leadership styles of former Technikons are responsible for the Technikon movement not advancing as it should. Chetty sums up his concerns as follows:

'The autocratic nature of management has resulted in staff disillusionment, poor research output and poor scholarship concomitant with poor governance and weak financial systems... poor quality teaching and assessment processes...ineffective and unenthusiastic presentation characterised by a lack of critical education, active participation cognition and independent learning' (Chetty 2003:14).

The leadership challenge facing Universities of Technology have more to do with the transformation of leadership models that are appropriate for scholarship and research. This shift in the leadership of former Technikons will surely impact the leadership role played by the academics in the classrooms towards achieving the kind of results, fit for University institutions.

In conclusion, leadership enhancement at Universities of Technology thus needs to focus at two points. Firstly at the development of those Lecturers who are academic managers and are responsible for the development of teaching and research effectiveness within departments. Secondly, leadership development needs to also focus at developing the skills of Lecturers as leaders in their academic responsibilities and other leadership skills required for the advancement of the University of Technology sector from the Technikon way of conducting business to the University way of conducting business.

4.3.6 PARTICIPATION IN PROFESSIONAL ORGANISATIONS

I have previously highlighted the issue that Lecturers at Universities of Technology did not attend conferences, published little, and were not involved in any activity of sharing their expertise with colleagues from other institutions (Chetty 2003 and Winberg 2005). Literature also indicated that Lecturers can learn greatly from learning that takes place within communities of practice as discussed in section 3.2.2.3c. Further more, I indicated in section 2.3.2 that Lecturers have the challenge of keeping their knowledge abreast with changes in the diverse specialised or technical fields that they teach. Added to this, Lecturers also need to keep abreast with the developments of teaching of the content in their subject. This makes it important for Lecturers to belong to professional organisations that would assist the Lecturers with the acquisition of knowledge and skills that would address such concerns. Opportunities to engage in professional dialogue with other practitioners in the similar situations, facing similar challenges, can provide encouragement, good support and at times critical friendships that would effectively promote effective and good teaching practice for the Lecturer.

This further brings to the fore the scholarship of teaching philosophy as earlier discussed. Scholars are members of a community where there exist conversations, evaluation, exchange of findings, methods and excuses where such information is shared, discussed, critiqued, and built upon (Trigwell et.al. 2000). The scholarship of teaching also involves the practice of teaching giving rise to new knowledge. Scholarship of teaching is built around the ethics of inquiry involving being well informed and open to critical reflection. It is these communities of practice that will contribute towards establishing the scholarship of teaching for the University of Technology Lecturers.

It is therefore for these reasons that the Lecturer needs to belong to an established community of practitioners who engage with the Lecturer on common

practice issues that are key in the enhancement of knowledge and skills. This can either be a community of practitioners in the profession that the Lecturer is involved in or at a community of practitioners, who are involved in the teaching in the subject field that the Lecturer is involved in. This affiliation is advisable to be in a formal organisation where at certain regular intervals such a community of practitioners meets together to discuss developments in practice. Expert knowledge could then be shared amongst such professionals. On the other hand, the community of practitioners need not be meeting at intervals, but they could just be disseminating information on the developments in the profession through printed or electronic media. The necessity of this kind of dialogue with other professional is mainly to share professional expertise in areas of specialisation that enhance and expand knowledge in the profession, and in the teaching of the subjects the particular Lecturer teaches. This may also involve the Lecturer attending conferences, where such expertise is shared. It should be however encouraged that Lecturers attend such conferences or discussions in order to present their findings on teaching related research they themselves have conducted. The purpose here is to share expertise on content being taught, but moreover, to share experiences that are related to teaching practice as literature indicates the necessity of Lecturers to get involved in structured reading and authorship of technical papers and becoming mentors in professional institutions.

4.4 HOW THE CPD MODEL WORKS

When a Lecturer enters into the University of Technology system to teach, the orientation programme training as depicted in figure 4.1 should be the entry point. Exiting the orientation programme will entail compiling a teaching portfolio. Part one and four of this orientation programme is compulsory for all the newly appointed Lecturers. Suggestions made in section 4.3.2.2 and 4.3.2.3 are optional, depending on the experience of the newly appointed Lecturer. Universities of Technology in South Africa have policies that make the attendance of orientation programmes compulsory. The reason for this is that

each institution has its own teaching and learning philosophies and practices. So every newly appointed person involved in teaching should be introduced to, and informed of these philosophies and practices, and should also be expected to embrace and abide by the ‘spirit’ of such philosophies and practices within a particular institution. This makes it sound reasonable to compel all newly appointed Lecturers to comply with this requirement to attend the orientation programme. After the completion of the orientation programme, the newly appointed Lecturer should be given an opportunity to submit a teaching portfolio or a research portfolio, depending on the newly appointed Lecturer’s experience. For someone new to higher education teaching for instance, there will be a need for this teaching portfolio in order to give more direction to the areas of professional development the newly appointed Lecturer may need to take. If the newly appointed Lecturer has been appointed to do research the newly appointed Lecturer may need to construct a research portfolio in order to plot areas of development needed in research.

Following the submission of a teaching portfolio, the newly appointed Lecturer should be expected to write down their reflection on their career goals and construct a PDP which will inform the drafting of the performance agreement for performance evaluation purposes. Clear measurable short-term goals should be set in conjunction and cooperation with the line manager of the newly appointed Lecturer. The line manager’s responsibility is to ensure that required support is given to achieve the desired outcomes of the career goals as set in the PDP of the Lecturer. Secondly the line manager involvement in the process is to ensure that the implementation of CPD is systematically organised and undertaken. Thirdly, the line manager should ensure that CPD is also aligned with the institutional strategic direction. Ensuring that learning for CPD integrates the whole work experience as recommended in literature. The PDP should therefore be reviewed at regular intervals during the performance evaluation process and necessary changes made to the PDP to ensure that appropriate CPD activities are engaged with.

The next step after the two described above, will be determined by what is reflected in the PDP of the individual Lecturer. In the Lecturer's PDP, there should be indications of what skills need to be developed by the particular Lecturer at a given point in time. If leadership skills are the professional needs that have been identified in the PDP, then the Lecturer should engage in CPD activities that enhance leadership skills needed. The same would apply for other needs, be it Pedagogic development skills, Instructional content development skills and Participation in Professional Organisations. A Lecturer is not obliged to participate in one area of development at a time. It may happen that at any given time, there are a number of areas of development that the Lecturer needs to focus on. So a Lecturer may participate in CPD activities in more than one area of professional development, indicated on the Lecturer's PDP. The idea behind the model is that after a few years of experience in the teaching field, all Lecturers should be encouraged to participate in Professional organisations in order to share or disseminate information concerning their teaching experience gathered over a few years. This, in a way would then encourage the University of Technology Lecturers to engage in research which is one of the concerns raised by literature. Maybe the particular Lecturer may be assigned opportunities to mentor other Lecturers with lesser experience than themselves. If possible, the culmination of such mentoring relationships should be research publications that inform or support knowledge in this area of teaching scholarship.

4.5 CONCLUSION

The model designed above serve as a guideline for the professional development path that a Lecturer may follow in CPD. The model is not prescriptive on how each learning area should be developed, but is essential that planning and PDP development should serve to justify the engagement in CPD activities throughout the Lecturer's professional career path.

Proper systematic planning on PDP will determine the time it will take to develop in a specific area of CPD activity at any given time. What is paramount to be mentioned at this point is that the Lecturer can engage in CPD activities in any particular order. What the model does not do is to prescribe what activities should entail, how much time should be spent on each particular area of professional development activity or in what sequence the CPD activities should be undertaken.

As CPD activities are time consuming for the Lecturer, PDPs should be properly planned in terms of the Lecturer's priorities. The Lecturer should engage in setting clear professional goals. Management within the University of Technology should provide support to achieve these. Mechanisms in place, including policies and availability of resources, should also be utilised to ensure that CPD objectives are achievable. The priorities of the University of Technology, informed by its mission and vision, should feed into CPD planning and should thus be explicit to all stakeholders in CPD. The PDP should be revisited annually or once every three to five years to determine if progress is being made towards attaining CPD objectives.

CHAPTER 5

RESEARCH DESIGN OF EMPIRICAL STUDY

5.1 INTRODUCTION

In chapter 4, I designed a CPD model for the University of Technology Lecturer (hereafter simply called a model). The purpose of the empirical investigation is to test this model to establish whether the suggested areas of learning (aspects) in the model would be suitable for the University of Technology Lecturer. I will briefly explain and justify the research design, then describe in brief the research setting. This will be followed by an explanation of research methods employed and a discussion on the research instrument used. Data analysis techniques employed will also be discussed.

5.2 AIMS AND OBJECTIVES OF THE STUDY

The main purpose of the empirical investigation is to determine if the CPD model designed in the previous chapter is viable for implementation in Universities of Technology.

The objectives of the empirical investigation are as follows:

- To determine the attitudes, views or opinions of Lecturers towards the CPD model.
- To determine the views of the professional development practitioners with regards to the CPD model.

5.3 RESEARCH DESIGN

Research Design refers to the plan, structure and strategy of the investigation that is used to obtain evidence in an attempt to answer research questions, with

the ultimate goal being to provide the most valid and accurate answers as possible to the research questions (McMillan and Schumacher 1993:31). Thus the research design may also be viewed as a path that the researcher follows in order to find answers to the research questions (Creswell 2005:281). The path followed to answer research questions have to do with the manner in which data is collected, analysed and interpreted using qualitative or quantitative designs. Each of the two paths differs from the other with regards to procedures and methods involved. Both qualitative and quantitative research have advantages and disadvantages. In the recent past there have been developments to encourage the use of both qualitative and quantitative techniques in a single study (Collins et. al. 2006; Johnson and Onwuegbuzie 2004; Tashakkori and Teddlie2003). The selection of each method or both methods is depended on the nature of information so desired in the study (Wiseman 1999: 130). There are different schools of thought with regards to the different research paradigms and in this empirical study I am not going to discuss the debates in these paradigms, but I will use each method appropriately. Where both qualitative and quantitative methods are used to collect data, the research design is known as a mixed method design.

5.3.1 MIXED METHOD RESEARCH DESIGN AND RATIONALE

Mixed method research may be defined as a class of research where the researcher combines both qualitative and quantitative research techniques, methods, approaches, concepts or language into a single study (Johnson and Onwuegbuzie 2004: 17). Both qualitative and quantitative research techniques are viewed as important and useful and the purpose of using both is to draw from the strengths and minimise weaknesses of both in a single study or across studies. The use of mixed method research paradigm or philosophy is an attempt to fit together the insights provided by both research paradigms into a workable solution (Johnson and Onwuegbuzie 2004: 18-19).

Literature (Creswell 2003:208; O'Cathain, Murphy and Nicholl 2007; Tashakkori and Teddlie 2003) indicates that the use of qualitative and quantitative data has previously been used in research, but it is only in the recent past that both forms of data has been used together as distinct research design or methodology.

Various terms like multi-method, mixed methods or multiple-methods were used in explaining this design, though recently research scholars have standardised terminology to adopt the term mixed method designs for studies that combined both qualitative and quantitative research methods in one study. Interest in the recent past has so increased and journals on the methodology (For example, the Journal of Mixed Methods Research and the International Journal of Multiple Research Approaches) have been launched and books have been published.

Interest in mixed method research design has resulted in scholars further investigating to understand the relevance of this established and emerging body of knowledge to their own work. Creswell (2003: 208-222) delves in detail on different strategies employed in mixed methods designs and explain how each strategy may be chosen and implemented, how different forms of data may be collected and the sequencing of data collection and analysis. Lastly he explains how the analysis of these forms of data is prioritised and integrated.

I chose to use both quantitative and qualitative research methods to elicit data that I would use to test the CPD model. This mixed method research design is used when the researcher would like both the quantitative and qualitative types of data to provide a better understanding of the research problems and also attempt to provide answers to research questions (Collins, Onwuegbuzie and Sutton 2006: 17-18). The strength of the mixed method design is that it combines the advantage of both forms of data, building on both the strengths of qualitative and quantitative research methods, as one source of data collected can enhance, elaborate on, or complement data from the other source (Collins et. al. 2006:68; Creswell 2005:510-511,517). Quantitative data provides greater confidence in the generalizability of results, whereas qualitative data provides the

context in which the CPD model can be successfully implemented and help to clarify quantitative statistical or numeric findings.

Research methods involve ways in which data is collected and analysed. The methods are developed to acquire accurate, reliable and valid data and knowledge on the study. Survey methods were used. Interviews and questionnaires as instruments of gathering data were used in combination to elicit data. Interviews were used to determine the opinions and views of CPD practitioners on the model as these practitioners offer teaching support for Lecturers in Universities of Technology. Questionnaires were distributed to Lecturers, to establish the Lecturers' attitudes and opinions towards the suggested aspects of the model as discussed in the previous chapter. The questionnaires also served to determine the Lecturer's opinions with regard to the suggestions, opinions and issues with regards to aspects of the model.

Data analysis for both qualitative and quantitative methods will be discussed in section 5.3.2.5 and section 5.3.3.5 respectively. The analysis of the mixed method design will thereafter be discussed in section 5.4.

5.3.2 QUALITATIVE RESEARCH DESIGNS

Qualitative research design is an inquiry process of understanding based on distinct methodological traditions of inquiry that explores a social or human phenomenon. Qualitative research is an umbrella term covering various forms of inquiry where the researcher builds a complex and holistic picture, analysis of words, reports detailed views of informants and conducts the study in a natural setting (Merriam 2001: 5-6). Qualitative research designs are helpful for the understanding of and explanations of the meaning of social phenomena with as little disruption or control to the natural setting as possible. The researcher in qualitative studies can never be detached from the phenomena under investigation, as the researcher gets closely involved with the meaning and

understanding of concepts and data that surface during the investigation. The researcher is thus expected to suspend a priori theoretical knowledge that s/he brings into the field (Flick 1998: 41). Emphasis in qualitative research is therefore on comprehensive meaning and understanding of phenomenon within its unique context, rather than within the universal context (Booyse, Schulze, Bester and Mellet 1993: 15). Interest is therefore on the meaning that people have constructed and how the people make sense of their world and the experiences they have in the world. The whole in this regard would include the past, the present and inclusive of the historical aspects as a means to construct relationships. Qualitative research does not make attempts to predict the future, but it attempts to understand the nature of settings where a phenomenon occurs.

5.3.2.1 RESEARCH QUESTIONS

- What are the views and opinions of the teaching development practitioners with regards to the aspects of the model?
- What are the views and opinions of teaching development practitioners with regards to suggestions proposed on the aspects of the model?

5.3.2.2 RESEARCH POPULATION AND SAMPLE SELECTION

As mentioned in previous chapters, Universities of Technology countrywide have established teaching development units. These teaching development units do serve as influential points of strategic direction of teaching and learning in Universities of Technology as the teaching development units provide an invaluable service with regards to the training, development or support of teaching strategies for Lecturers. The respondents I chose to collect qualitative data from are people who provide professional development to Lecturers at Universities of Technology within the teaching development units. In my opinion, such experts in the training of Lecturers would give informative feedback on the

model, its strengths and weaknesses, and critically give information that would serve to inform and reshape the model. I chose to interview heads of these units as experienced providers of teaching support for Lecturers.

Purposive sampling strategies were used as these refer to special applications of interviewing that focuses on persons considered influential, prominent, and well informed in an organization or a community. The person is usually familiar with the overall view of the organisation or community and is able to respond well to provocative and intelligent questions that allow the person the freedom to express their knowledge (McMillan and Schumacher 1993: 427). Data was collected from individuals with specialized knowledge of the phenomenon under study, status or communication skills, who are willing to share their knowledge and skills with the researcher. Semi-structured interviews were conducted with the participants.

5.3.2.3 INFORMED CONSENT AS DIALOGUE

Ethics are considered as measures taken to deal with beliefs about what is right or wrong, what is proper or improper, what is good or what is bad (McMillan and Schumacher 1993:182). As a researcher, one needs to be sensitive to the ethical principles in dealing with research conducted and how one interacts with participants prior, during and after data collection. These ethics emerge from conflicts in values that may be expressed in discussions or decisions that relate to the individual's opinions versus professional code of conduct. A researcher may for example, need to have access to some information which in turn, violates the right to privacy for the participant. Certain measures need to be considered in ensuring that participants do consent to participate in the research project.

I initially sent emails to the heads of the units identified as responsible for Lecturers' professional development within the four Universities of Technology. A

sample copy of the survey questions (Appendix 1) was attached. This was done so that the participants may become aware of the nature of the study and the nature of questions that they were going to be responding to. In my opinion this gave the participants an opportunity to make a voluntary decision to participate or not to participate, without feeling that they are being coerced into participation. Of the four units contacted, three responded and interview appointments were arranged.

At the beginning of each interview, I first explained to the participants the nature (and topic) and purpose of the study and assured the participants of their anonymity and confidentiality in the study. To ensure this, the location of Universities of Technology who participated in the study is not mentioned. Participant's rights to decline from participating in the study were also explained. All participants agreed to participate in the study without any objections.

5.3.2.4 INTERVIEWS AS DATA COLLECTION TECHNIQUE

Interviews involve purposeful verbal conversations, usually between two or more persons, with the purpose of getting information from the other (Gillham 2000a). Insight into how the interviewee(s) interprets the situation or conceive their world is then obtained. In qualitative research, open-ended informal interviews are generally used. Respondents are encouraged to give their own view of the phenomenon under investigation. Since the respondents respond differently to questions, the researcher must structure interviews properly so that comparability of responses can be possible. A semi-structured interview guide (See appendix 1) was used to conduct research as it allows the interviewer to select topics for discussion in advance and the researcher is allowed the liberty for the sequencing and wording of questions during the interview.

Interviews facilitate the exploration of more complex issues and personal engagements in the collection of data. Kahn and Cannell (2004:56) indicate that

an interviewer, who is more likely to accurately communicate with the respondents, is the interviewer who arms himself/ herself will carefully formulated sets of questions. Knowledge of successful question formulation increases the possibility of obtaining accurate and informative data, thus increasing the reliability of data collected. The reason for choosing the semi-structured interview guide in this instance was to obtain clarity on responses as questions for interviews will be open-ended. The semi-structured interview guide will also assist the research in comparing data gathered across a number of settings (Brown and Dowling 1998: 72-77). As the questions are open-ended, they provided me with flexibility in terms of responses and follow up questions in order to obtain clarity and more in-depth feedback. This will enable me to delve deeper into some subject areas for critical information to be obtained. To enhance reliability in the analysis of data collected, the interviews were tape-recorded.

For the sake of developing confidence in interview skills, I first had to 'trial-run' the questionnaire on colleagues who are involved with the professional development of Lecturers at my institution. 'Trialling' or pre-test involves trying out possible interview questions on somebody neutral and preferably from the same kind of occupation as the intended Interviewees (Gillham 2000b: 21-22). These are colleagues with experience in the field of teacher training field and thus I felt that their contributions would add light to the actual research interviews I was about to embark on. Trialling is distinct from piloting. Piloting is an advanced stage of interview developing, where the research interview is given a dummy run in either the actual research setting or one close to the actual research setting.

Primarily the data obtained from the interviews needed to pinpoint specific values or benefits that would result from the implementation of the CPD model. The interviews would gather the verbal opinions and evaluation of the core aspects of the model.

5.3.2.5 QUALITATIVE DATA ANALYSIS

The process of data analysis and data interpretation will be inductive. The researcher allowed patterns to emerge from data instead of imposing such patterns prior or during data collection. A systematic way of selecting, categorizing, comparing, synthesizing and interpretation of emerging concepts was followed. Qualitative data was categorized into codes. Codes were assigned numbers and the number of times codes appear in data were numerically tabulated. Patterns were determined as they emerged and were coded. This cyclical process began immediately after the initial data collection process and continued until all interviews had been conducted.

5.3.2.6 QUALITATIVE DATA VALIDITY AND RELIABILITY

Validity refers to the extent to which explanations of a phenomenon matches the realities of the world (McMillan and Schumacher 1993: 157). This implies that the instruments used to measure a phenomenon, should measure exactly what it is meant to measure. Validity addresses questions like; do researchers actually observe what they report to have observed, or do researchers actually hear the meaning that they report to have heard. In other word, does the degree to which the concepts are interpreted, have mutual meaning to both the researcher and the participants? McMillan and Schumacher (1993:158) describe two types of validity, namely internal and external validity. Internal Validity expresses the extent to which extraneous variables have been controlled or accounted for. The historic extraneous incidents or events that may play a role in influencing the validity of the data in Universities of Technology were discussed in section 3.7.8 and these were noted. External Validity refers to the extent to which the results and conclusions can be generalized to other setting and contexts. Content validity (often equated with face validity) refers to the extent to which the experts in the field believe that the instrument used addresses the research objectives and it serves to reduce the researcher's bias. This defines how the instrument is

representative of all the possible questions that a researcher could ask about content (Creswell 2005: 164; Huck 2004: 88-89; Wiseman 1999: 96-97).

Reliability refers to the consistency of the instrument and test administration in the study, the consistency of researcher's interactive style, data recording, data analysis, and the interpretation of the participant's meaning from the data. Reliability further refers to the extent to which independent researchers can discover the same phenomena and to which there is agreement on the description of the phenomena between the researcher and the participants (McMillan and Schumacher 1993:385). The qualitative research process is quiet personal, and thus no two researchers can establish same findings from the same observation, interviews or document analysis. This makes the reliability very difficult for researchers in qualitative studies as researchers may study a phenomenon in the same setting but come up with different results (McMillan and Schumacher 1993: 386).

A major component of validity of any measuring device is its reliability. If reliability on the instrument is lacking, then validity is compromised (Wiseman 1999: 98). In other words, if reliability is low, the meaning of the results may not be accurate, thus not valid. In this study, the same researcher collects and analyses data in a uniform manner, using reliable research procedures. McMillan and Schumacher (1993: 386-391) further indicates that reliability can be enhanced by making use of the following strategies:

A) RESEARCHER'S ROLE

The importance of researcher's social relationship with the participants plays an influential role on the outcomes of the study. Thus it is required that studies should identify the researcher's role and status within the group. It is preferred that the researcher should be from outside the research site. A researcher who is known to participants or who already has status within a

group of participants, limits reliability. The use of a combination of data collection strategies reduces the threats of reliability. For example, the researcher may mechanically record interviews while conducting interviews, in order to be free to make observations while conducting such interviews. Or the researcher may make use of surveys, together with interviews where data collected in the one strategy of data collection technique is used in combination with data collected by another data collection strategy in order to validate data. McMillan and Schumacher (1993: 374) indicated that reliability in qualitative research is marked by disciplined, subjective, self examination and criticism of data obtained. In field research, reliability is also not only dependent on researcher's insight, awareness, questions and the like, but also on the researcher listening to what participants tell the researcher. This makes the participants and their statements part of the reliability establishing process (Neuman 2000: 368).

B) RESPONDENT'S SELECTION

To enhance reliability in the selection of respondents, the researcher has to carefully select, describe and explain the decision making process used in the selection of respondents. The procedure for qualitative data collection has been explained above.

C) SOCIAL CONTEXT

The social context within which the research is conducted has implications on the data collected and this is the reason why it is important to reflect on descriptions of people interviewed, time, place, etc. Interpersonal relationships between group members may explain certain actions and meanings. Though observations are not part of data collecting techniques in this study, observations will be noted if any observation in the researcher's opinion, are of a nature that will influence the results of the study.

D) DATA COLLECTION STRATEGIES

It is important to describe the different data collection techniques used in a study, how data was recorded, under what circumstances was data collected, and the like, as this information is important in future research endeavours of a similar nature. In this study, as the researcher spent some time in each research site, any observation of influential nature on the results was noted.

E) DATA ANALYSIS STRATEGIES

Researchers are required to provide retrospective accounts of how data was synthesized and identify the general strategies of data analysis and interpretation. Qualitative research uses a combination of different to reduce threats to reliability. In the collection of qualitative data a mechanical recording device were used. Verbatim accounts of the interview were transcribed before the data analysis process starts to ensure that an accurate record of the interview was analyzed.

5.3.3 QUANTITATIVE RESEARCH DESIGNS

Quantitative research designs emphasise quantification of phenomena through the use of numbers, statistics, and experimental control (McMillan and Schumacher 1993: 32). Quantitative research usually presents statistical results represented with numbers and it mainly involves the use of structured questions where response options are often predetermined. A survey design provides numeric descriptions of attitudes or opinions of a population by studying a sample of the population. From the sample, the researcher makes claims about the population (Creswell 2005: 156-157). The measurements used should however be objective and statistically valid. Quantitative techniques are usually

used to quantify behaviour or attitudes, measuring variables on which they hinge, compare and point out correlations.

5.3.3.1 RESEARCH QUESTIONS

The research questions for the quantitative study are:

- Are the Lecturers in Universities of Technology of the opinion that the implementation of the suggested aspects of the model can improve teaching?
- What are the attitudes and opinions of Lecturers in Universities of Technology towards the implementation of the suggestions within the aspects of the model?

5.3.3.2 RESEARCH POPULATION AND SAMPLE SELECTION

The CPD model designed is for use by the University of Technology Lecturers. University of Technology Lecturers are therefore the respondents who would give invaluable information on how feasible the implementation of the CPD model might be.

As mentioned earlier in this study, there are currently five Universities of Technology in the country - Two in Gauteng, one in the Free State, one in the Western Cape and one in KwaZulu- Natal (though I have not taken into consideration Mangosuthu Technikon since the institution is not recognised as a University of Technology). My population is therefore based on these five sites. My sample will be chosen from three of these sites. These Universities of Technology will be named UoT1, UoT2 and UoT3 in an attempt to conceal their identity.

During the visits to conduct interviews, I made contacts with some Lecturers at these institutions. I then made a request from these contacts to assist me with the distribution of questionnaires. My initial intention was to collect both qualitative and quantitative data simultaneously. However due to the tedious procedures I needed to follow in the various institutions to collect quantitative data, I resorted to sending questionnaires directly to the respondents.

Questionnaires were distributed to Lecturers in three Universities of Technology. I initially sent out 80 questionnaires to Lecturers at UoT1, 30 questionnaires to UoT2 and 30 questionnaires to UoT3. I further requested colleagues at UoT2 and UoT3 to distribute the questionnaires to participants within their institutions.

Markham (2004) indicates that the Internet can be used as a medium of communication where researchers and participants can communicate and exchange data or information. I therefore distributed the questionnaires electronically since I verified that all Lecturers in the three institutions have access to computers and emails.

5.3.3.3 ETHICAL MEASURES

Ethical measures were discussed in par. 5.3.2.3. In this part of the study ethics in research were also considered. The respondents have to be informed of the study and they have the right to have their identity protected, to be protected from harm. Participants also have the right to be protected from deception, humiliation or any other physical and psychological harm. Added to these, confidentiality and anonymity of their participation assured. As a way to communicate to these participants, a cover letter to the study was sent with the questionnaire to the participants. I have attached the cover letter (Appendix 3). The letter also indicates to the participants of their rights to decline from participating in the study.

5.3.3.4 THE DESIGN OF THE INSTRUMENT USED

I chose to use questionnaires as an instrument to obtain data that I would use to measure the attitudes and determine opinions of Lecturer in Universities of Technology towards the core aspects of the CPD model. The objective of using questionnaires is to obtain data on attitudes and opinions about a phenomenon from people who are informed on a particular issue. Questionnaires were an appropriate tool to use to gather as much data as possible. Questionnaires have both strengths and limitations which are closely related. In order to ensure that information or data gathered from questionnaires is useful for research purposes, it is important that questionnaire responses are comparable. The questionnaire should also be setup such that each question will be interpreted in a similar manner by all respondents. The questionnaire should be free from ambiguity, bias and it should avoid leading questions (Brown and Dowling 1998:66-72; Gillham 2000b).

Appendix 2 contains the questionnaire designed for Lecturers. A few questions were set under each aspect of the model. The questions are therefore grouped together under the following aspects: personal development, orientation program, pedagogic development, instructional content development, leadership enhancement, and participation in professional bodies. Under each aspect of the model, I set questions to establish if the Lecturers were of the opinions that the particular aspect of the model would improve teaching effectiveness. Added to this, there are other suggestions made on the implementation of the model which I felt should not be left out of the questionnaire. These questions relate to concerns, suggestions, issues or opinions raised in the literature reviewed in chapter 2 and 3, together with the findings of the mini-research project earlier undertaken. These suggestions involve research development, mentoring, teaching portfolios and student feedback. For these suggestions, I also included statements to establish if the Lecturers were of the opinion that such suggestions on the aspects of the model would also improve teaching practice. I also included

open ended comments for each aspect of the model and suggestions on the questionnaire. This qualitative data will be helpful in providing a clearer understanding of contexts within which Lecturers operate. Furthermore the qualitative data will assist in the consideration of any issues not catered for in the questionnaire. I should however state the non-response to these open ended comments by the Lecturers on the questionnaire will not affect the quantitative investigation. Certain procedures as proposed in literature (Brown and Dowling 1998: 66-78; Creswell 2005: 362-375, McMillan and Schumacher 1993: 240-242; Mertens 1998:115 126; Wiseman 1999: 129-131) were followed in constructing the questionnaires to ensure that such questions had face validity, internal consistency, discriminatory power and reliability and these will be discussed section 5.3.3.6.

5.3.3.5 QUANTITATIVE DATA ANALYSIS

Under each aspect of the CPD model, questions (or statements) were set to determine if Lecturers are in agreement or not with such statements. Some statements indicated an opinion of whether in the Lecturers' opinion, the aspect in question would improve teaching practice while some statements asked the Lecturers to grant opinions on suggestions, concerns or opinions highlighted in literature reviews (and in the mini research project earlier conducted in chapter 3) on issues within the particular aspect of the model. The statements were set such that they are rated on a scale from 1 to 5, where 1 represented strongly disagreed, 2 represented disagreed, 3 represented not sure, 4 represented agreed and 5 strongly agreed (See Appendix 2).

A rating of 1 and 2 indicates a disagreement with a particular statement and a rating of 3 indicates uncertainty with regard to a particular statement. Therefore a mean score of 3 or less for each statement indicates that the Lecturers are **not** in agreement with a particular statement. It is therefore the reason I chose to use the mean score of 3 determine if the lecturers accept the particular statement or

not. A mean score that is greater than 3 indicates that the Lecturers are in agreement with a particular statement.

As mentioned earlier, the purpose of the questionnaire was to elicit responses with regards to research questions. Firstly, the questionnaire was to establish if the Lecturers are of the opinion that the implementation of the aspects of the model would enhance teaching, Secondly, the questionnaire was to establish what the opinions of the Lecturers is with regards to suggestions made regarding the implementation of the model. In an attempt to clearly answer both questions, the analysis of the questionnaire will be structured into two parts. The first part attempts to answer the first question as stated above and the second part will attempt to answer the second research question.

5.3.3.5.1 LECTURERS OPINIONS OF THE MODEL

The analysis for each aspect of the model was conducted as follows.

A) Personal Development

Statement 35 and 36 were jointly used to determine if the Lecturers are of the opinion that personal development contributes towards the improvement of teaching practice. The mean of both statements was computed to establish if the Lecturers agreed with the statements. The responses were then summed up to provide a single score under this aspect.

B) Orientation Programme

Statements 1, 2 and 5 were jointly used to determine if the lecturers are of the opinion that the implementation of the orientation programmes contribute towards improves and enhances teaching practice. The mean of each statement was first computed to establish the Lecturers' opinions with regards to the statements.

The responses were then summed up to provide a single score under this aspect.

C) Pedagogic Development

Pedagogic development deals with the improvement of teaching skills. It is in my opinion unnecessary to conduct an analysis to determine the contribution of pedagogic development on the improvement of teaching practice. Thus I only conducted an analysis of the individual statements to establish the Lecturers' opinions on suggestions with regards to pedagogic development.

D) Subject Content Knowledge Improvement¹

Statements 23, 24 and 27 were jointly used to determine if the lecturers are of the opinion that the improving of subject content knowledge for the lecturer, acquiring a higher qualification and conducting subject related research would contribute towards the improvement of teaching practice. The mean of each statement was first computed to establish Lecturers' opinions. The responses were then summed up to provide a single score under this aspect.

E) Leadership Development

Statement 38 was used to determine if the lecturers are of the opinion that leadership within an institution does have an impact on teaching effectiveness. The statement directly requires of Lecturers to indicate if they are of the opinion that leadership enhancement, as an aspect of the model, contributes towards teaching effectiveness. This to me is sufficient to justify the use of a single question to determine Lecturers' opinion under the aspect leadership enhancement.

¹ For the sake of using consistent terminology- the term referred to as Instructional Content Development will from now henceforth, be referred to as Subject Content knowledge Improvement

F) Participation in Professional Bodies

Statements 44 and 45 were jointly used to determine if the lecturers are of the opinion that participation with other professional bodies, communicating with other colleagues and/or conference attendance, contributes towards the improvement of teaching practice. The mean of each statement was first computed to establish opinions on the particular statements. The responses were summed up to provide a single score under this aspect.

5.3.3.5.2 LECTURERS' SUGGESTIONS TO IMPROVE THE MODEL

After determining the Lecturers' opinions on the aspects of the model, the following statements were used to determine if the Lecturers agree with the suggestions made within the aspects of the model. These suggestions were analysed as follows.

A) Personal Development

Statement 34 and 37 were separately analysed to determine the Lecturers' opinion on discussions and concerns with regards to personal development issues.

B) Orientation Programme

Statement 3 and 4 were separately analysed to determine the opinions of the lecturers about suggestions made with regards to the implementation of the orientation programme. The model suggests that orientation programmes should incorporate research, teaching portfolios, student feedback and mentoring. The analysis of the incorporation of these professional development activities will be discussed separately in section 5.3.3.5.3 below.

C) Pedagogic Development

Statements 29, 30, 31, 32 and 33 were separately analysed to determine the lecturers' opinions with regards to concerns, suggestions and discussions on pedagogic development.

D) Subject Content Knowledge Improvement

Statements 25, 26 and 28 were separately analysed to determine the opinion of lecturers on the aspect of subject content knowledge improvement.

E) Leadership Development

Statement 39, 41 and 42 were separately analysed to determine the opinions of Lecturers with regards to concerns, suggestions and discussion with regards to certain issues of Leadership within Universities of Technology.

F) Participation in Professional Bodies

Statements 46, 47 and 48 were separately analysed to determine the opinions of Lecturers with regard to concerns, discussions and suggestions on issues regarding participating in professional bodies.

5.3.3.5.3 ANALYSIS OF SUGGESTED ORIENTATION PROGRAMME ACTIVITIES

A) Research Development

Statements 9 and 14 were jointly used to determine if the lecturers are of the opinion that research contributes towards the improvement of teaching practice.

The mean of each statement was first computed to establish the lecturers' opinion with regards to the particular statement. The responses were then summed up to determine (a single score for research development) if the Lecturers are of the opinion that research improves teaching practice.

Thereafter statements 10, 11, 12, 13, 40 and 43 on research development were separately analysed to determine the opinions of lecturers on suggestions, concerns and opinions raised about research development.

B) Teaching Portfolio

Statements 15 and 18 were jointly used to determine if the lecturers are of the opinion that the use of teaching portfolios contributes towards the improvement of teaching practice. The mean of each statement was first computed to determine the Lecturers' opinion with regards to the particular statement. The responses were then summed up to determine (a single score for teaching portfolios) if the Lecturers are of the opinion that teaching portfolios improve teaching practice.

Thereafter statement 16 and 17 were separately analysed to determine the opinion of Lecturers with regards suggestions made with regards to the use of teaching portfolios.

C) Student Feedback

Statements 19 and 20 were jointly used to determine if the lecturers are of the opinion that conducting student feedback contribute towards the enhancement of teaching practice. The mean of each statement was first computed to determine the Lecturers' opinions with regards to the particular statement. The responses were then summed up to determine (a single score for student feedback) if the lecturers are of the opinion that student feedback improves teaching practice.

Thereafter statement 21 and 22 were separately analysed to determine the opinions of Lecturers with regard to the use of student feedback.

D) Mentoring Programs

Statements 6 and 7 were jointly used to determine if the lecturers are of the opinion that the implementation of mentoring programs improves teaching practice. The mean of each statement was first computed to determine the lecturers' opinion with regards to the particular statement. The responses were then summed up to determine (a single for mentoring) if the Lecturers are of the opinion that mentoring improves teaching practice.

Thereafter statement 8 was analysed to determine the opinion of the lecturers about suggestions made with regards to the mentoring programs.

5.3.3.6 QUANTITATIVE DATA VALIDITY AND RELIABILITY

In the instance of using questionnaires in research, the quality of the instrument that is used has to also deal with the issue of validity and reliability. Reliability of an instrument used means that the scores from an instrument are consistent and stable. When referring to reliability, a researcher tries to answer the question: To what degree does respondents' performance remain consistent across repeated testing? In other word, when an individual answers question one way, the individual should consistently answer closely related questions in the same way (Creswell 2005: 162). Validity in the instance of the questionnaire attempts to respond to the following questions:

- What does the instrument measure?
- What do the results mean?

In essence, validity may be equated to accuracy of the research instrument. In other words, data is valid to the extent that the results of the measurement are

accurate. As discussed in section 5.3.2.6, validity and reliability are closely related concepts. The accuracy and consistency of the instrument has an impact in the meaning of the results. Validity relates to scores in the instrument used making sense, being meaningful and enabling the researcher to draw good conclusions from the sample studied to the population. In addressing the issues of validity in the research instrument, the questionnaire was initially given to a few of my colleagues who are experienced researchers not only for them to fill in the questionnaire, but also to give input with regards to the instrument being clear and unambiguous. Secondly the questionnaire was then discussed with my supervisor whose inputs and suggestions were also worked into the questionnaire. On the basis of feedback that I received and worked into the instrument, one can reasonably conclude with confidence that the validity of the instrument was obtained.

Huck (2004: 86-88) indicates that various methods of assessing reliability may be used in a study to accomplish different purposes. He warns however that due to these different purposes, researchers should be careful in using reliability tests in quantitative data analysis. He then recommends that various approaches or tests to reliability be used within one study. In this study I chose to use the Cronbach's alpha using SPSS to test reliability across all the 48 statements. The results are depicted in table 5.1 below. Reliability value is 0,781 which in terms of Field (2005) is considered acceptable.

Case Processing Summary

	N	%
Cases Valid	62	100.0
Excluded ^a	0	.0
Total	62	100.0

a. Listwise deletion based on all variables in the procedure.

Reliability Statistics

Cronbach's Alpha	N of Items
.781	48

Table 5.1

5.4 MIXED METHOD DATA ANALYSIS

The analysis of both qualitative and quantitative data in a mixed method research has controversy and challenges. Figure 5.1 below gives a brief outline of how data in this empirical study will be triangulated.

Quantitative and Qualitative data will first be separately analyzed before comparing the results from both sets of data. The idea here is to converge data from both the quantitative and qualitative studies. The intention will be to integrate and compare the two forms of data. The integration and comparison will serve to make an interpretation of the results. Then the comparison of the two sources of data will be used to determine if the data from the interviews supports or contradicts the data from questionnaire results. Conclusions on the study will then be drawn from the comparisons of the qualitative and quantitative data analysis.

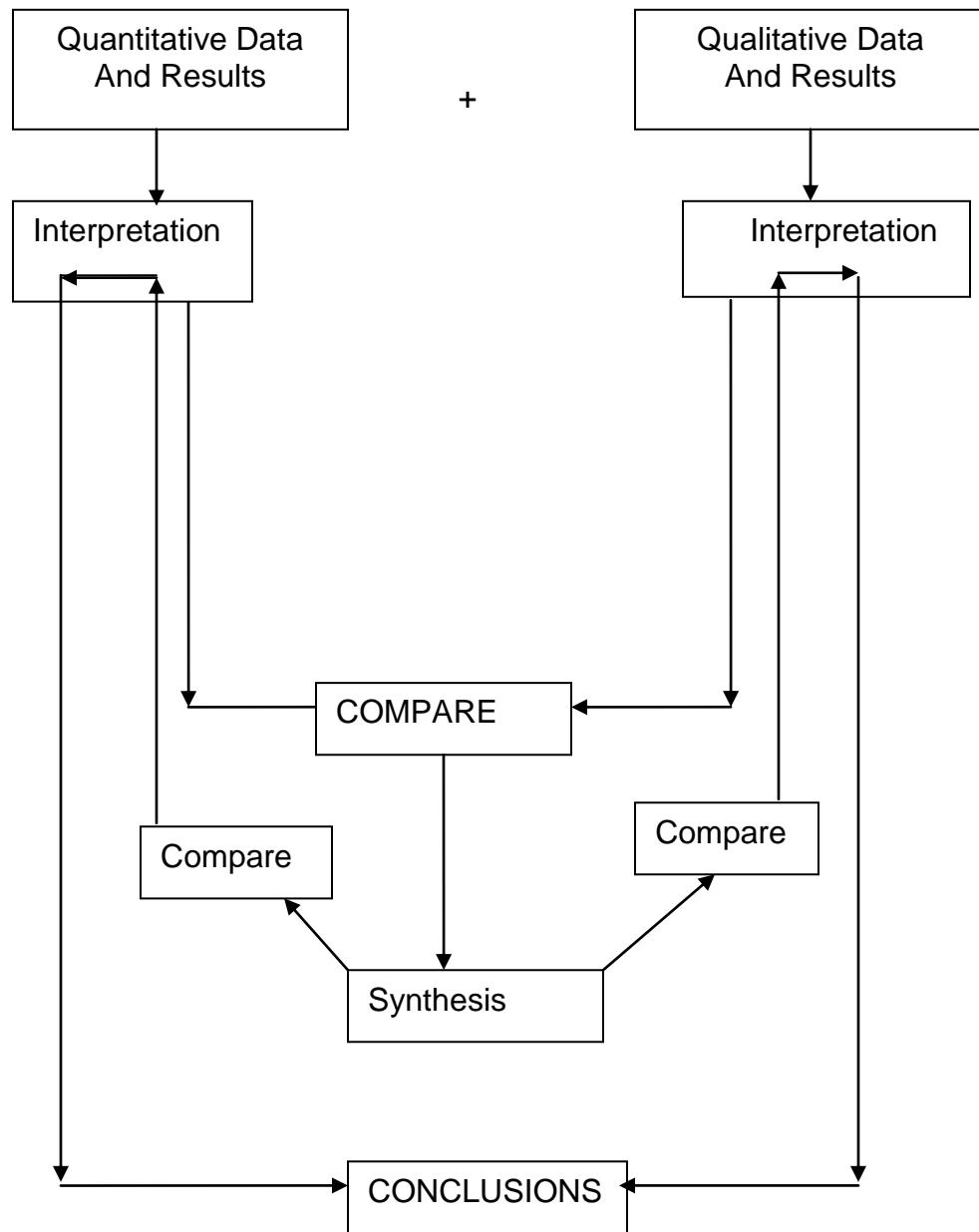


Figure 5.1

5.5 LIMITATIONS OF THE STUDY

No study is completely flawless. The discussion on the limitation of any study demonstrates that the researcher understands that reality is such that the findings of any one study cannot be conclusive or generalised to other settings,

but can in the least be transferable to different setting (Marshall and Rossman 1999:42). I identified the following to be limitations that pertained to this study.

- Due to time constraints, ideally large scale empirical investigation which would include a larger sample of lecturers is desired. This is not so in this study.

I however believe that this study sheds light into CPD issues that are pertinent to University of Technology Lecturers.

5.6 CONCLUSIONS

In this chapter I discussed the research design of the empirical investigation. A sample of three respondents was interviewed and in-depth information will be obtained. Together with this technique, a number of Lecturers from three Universities of Technology were requested to respond the questionnaire. The next chapter (6) reports on the finding conducted in this study.

CHAPTER 6

RESULTS OF THE STUDY

6.1 INTRODUCTION

In this chapter I discuss the results of the findings of the study conducted. The discussion of the results is divided into two parts. Firstly, the discussion focused on whether the proposed aspects of the model are accepted as contributing to teaching effectiveness or teaching practice. Secondly, I discuss the suggestions made with regards to the proposed aspects of the model. As mentioned in the previous chapter, the identity of the University of Technology is labeled UoT1, UoT2 and UoT3.

6.2 DATA COLLECTION

Interviews were held with the people responsible for the development of Lecturers' teaching skills from three Universities of Technology. All the participants had more than ten years experience in the development of Universities of Technology Lecturers. I believed that this experience would shed some informative light on this study as these participants were involved with the same careers during the Technikon era, and these participants had been through the transition period of such Technikons and have observed the impact of the change to University of Technology on Lecturers within the participants' institutions.

Survey questionnaires were distributed to Lecturers in three Universities of Technology. The numbers of responses from the Lecturers are tabled in table 6.1 below.

Institution	Number of responses	Percentage
UoT1	46	74%
UoT2	7	11%
UoT3	9	15%
TOTALS	62	100%

Table 6.1

6.3 CONTRIBUTION OF THE ASPECTS TO TEACHING

In this section I discuss the results of the findings with regards to each proposed aspect of the model namely, personal development, orientation programmes, pedagogic development, subject content knowledge development, leadership enhancement and participation in professional bodies.

In section 5.3.3.5 I explained the rationale for using a mean score greater than 3 as an indication that the lecturers are in agreement (or not) with a particular statement. Where two statements were summed up to establish whether the Lecturers' are in agreement with a particular aspect as contributing to teaching practice, a minimum summed mean score of 6 will be used to accept or reject the particular aspect. Similarly where three statements are used, a minimum summed mean score of 9 will be used to accept or reject the particular aspect.

6.3.1 PERSONAL DEVELOPMENT

The qualitative and quantitative findings for personal development will be separately provided and discussed below.

6.3.1.1 INTERVIEW DATA FINDINGS

All the three teaching development practitioners indicated that personal development is important in the development of a career long motivation for the Lecturers. The indication was that it is important to consider personal development for individual Lecturers in order for Lecturers to flourish in their academic careers. UoT1 respondent indicated that,

'If Lecturers are not self- actualized in their personal lives, there is no way they are going to sustain their career success...Lecturer are adults and they should be given the liberty to identify areas in their lives that need to be developed and be given the necessary support to self-actualize. Once this has been achieved, then in my opinion, such lecturers will do well even in their careers'.

The UoT2 respondent further highlighted that,

'...the development of a personal nature is quiet important for lecturers to be successful in their careers and at times managers are driven by strategic goals that they lose this human touch in their endeavours which in a way I do believe can bring in unnecessary tensions that may lead to the demoralization of lecturers that we were talking about'.

Thus the teaching development practitioners felt that the Lecturers needed support in handling some of the personal issues in their lives before they could successfully complete further studies for instance. The UoT3 respondent indicated that it is important for managers to evaluate their subordinates PDPs on a one to one basis in order to fully support the subordinate with regards to goals in the life of a particular subordinate. The teaching development practitioners also agreed that personal development plays a significant part in the career advancement of Lecturers and in promoting teaching practice.

6.3.1.2 QUESTIONNAIRE DATA FINDINGS

The results from the Lecturers with regards to personal development are summed up in table 6.2 below.

	Strongly Disagree	Disagree	Not Sure	Agree	Strongly Agree	Mean Value
<u>Statement 35</u> Personal self improvement plays an important role in my career development.	0 (0%)	1 (2%)	5 (8%)	38 (61%)	18 (29%)	4,18 ²
<u>Statement 36</u> Personal development is helpful in improving my effectiveness in teaching.	0 (0%)	0 (0%)	2 (3%)	40 (65%)	20 (32%)	4.29
Summed scores of statements 35 and 36	0 (0%)	1 (1%)	7 (5%)	78 (63%)	38 (31%)	8,47

Table 6.2

Statement 35 and 36

The mean scores for both statement 35 and 36 are both greater than 3 meaning that the lecturers are in agreement with both statements. The summed mean score of both statements is 8,47 which is greater than the threshold score of 6. We therefore accept that the lecturers do agree that personal development contributes towards the improvement of teaching.

6.3.1.3 PERSONAL DEVELOPMENT DISCUSSION

There is consensus between data collected in qualitative and quantitative investigation with regards to personal development. Both sets of data indicate

² The mean (average score) of all the scores for statement 35

that personal development contributes in ensuring that Lecturers effectively perform their teaching duties. Indications from qualitative data are that personal development is at the centre of CPD. The success in whatever endeavours that Lecturers venture into, will be predominantly determined by the Lecturers' personal development area. Therefore, personal development sets the stage for success in career development. If an individual Lecturer does not receive the necessary support to achieve personal goals, then objectives for the career goals may be difficult or impossible to achieve. I therefore conclude that personal development be accepted as an aspect of the CPD model.

6.3.2 ORIENTATION PROGRAMMES

The findings for the orientation programs' interviews and the questionnaires will be separately provided. A discussion of both sets of data will follow.

6.3.2.1 INTERVIEW DATA FINDINGS

All three participants believed that the orientation programs they conduct are effective in introducing Lecturers to higher education teaching. All agreed that is even effective more for assisting Lecturers with no previous teaching experience. The evidence of this is predominantly in the feedback surveys they conduct with the attendees of the orientation programmes after the completion of such programmes.

The participant from UoT1 indicated that they have encouraged participation and contribution of all Lecturers attending such orientation programs. In her own words, 'we have had to request some experienced researchers or teachers if you like, to share their expertise with other participants by giving them sessions on our orientation program. This sharing of expertise has raised enthusiasm and the level of participation by other participants as this sharing with colleagues is even better received'. According to her, this has also had positive impact on

experienced Lecturers as experienced Lecturers, while sharing their knowledge and experiences with novice Lecturers, indicated how such interactions have benefited experienced Lecturers also. Such interactions have opened experienced lecturers up to new ways of looking at other concepts in teaching practice and learning new things in the process. Thus the teaching development practitioners felt that orientation programmes within Universities of Technology are crucial in setting the stage for effective teaching practice.

6.3.2.2 QUESTIONNAIRE DATA FINDINGS

The results of the survey on the orientation program are detailed in table 6.3 below.

	Strongly Disagree	Disagree	Not Sure	Agree	Strongly Agree	Average/ Mean Score
<u>Statement 1</u> Orientation programs ensure that lecturers have the minimum required skills to perform their teaching functions.	4 (6%)	10 (16%)	6 (10%)	30 (49%)	12 (19%)	3.58
<u>Statement 2</u> Orientation programs are helpful in introducing novice lecturers to higher education teaching practice.	2 (3%)	4 (6, 5%)	4 (6,5%)	32 (52%)	20 (32%)	4.03
<u>Statement 5</u> What a lecturer learns during the orientation programme influences a lecturer's teaching practice.	8 (13%)	2 (3%)	8 (13%)	32 (52%)	12 (19%)	3.61
<u>Summed scores for statement 1, 2 and 5.</u>	14 (7%)	16 (9%)	18 (10%)	94 (50%)	44 (24%)	11, 22

Table 6.3

Statement 1, 2 and 5

The mean scores of the three statements are individually greater than 3. The mean score for the summed scores is obtained by adding up the mean score of the three statements, is 11,22 which is greater than the threshold score of 9. On the basis of these score we can conclude that in terms of data collected, the Lecturers are in support of the opinion that the orientation programmes contribute towards the improvement and enhancement of teaching practice.

6.3.2.3 ORIENTATION PROGRAMMES DISCUSSION

Qualitative data gathered from the teaching development practitioners supports the implementation of orientation programmes into Universities of Technology. Such support is based firstly on the assumption that the newly appointed Lecturers are most of the time not qualified as teachers. Secondly there is support that the newly appointed Lecturers should be made aware of higher education teaching practice even if they may be qualified teachers. Thirdly though the newly appointed Lecturers may be experienced in higher education teaching, the newly appointed Lecturers still learn about the teaching context within the particular Universities of Technology the newly appointed Lecturer is appointed at. There were however recommendations provided by the interviewees on the proposed model and these will be discussed in section 6.5 and concluded on in section 7.2.2 below. Quantitative data also indicates that lecturers support the opinion that the orientation programmes contribute to the overall teaching effectiveness. It is therefore on the basis of the acceptance of orientation programmes by teaching development practitioners and Lecturers that I accept that Orientation programmes be accepted as an aspect of the model.

6.3.3 PEDAGOGIC DEVELOPMENT

The qualitative and quantitative findings for pedagogic development will be separately provided and discussed below.

6.3.3.1 INTERVIEW DATA FINDINGS

All the teaching development practitioners indicated that it is good for the University of Technology Lecturers to obtain a teaching qualification but not that the teaching development practitioners would deem professional teaching qualification as a prerequisite in order to be effective in the teaching practice. The feeling was the Lecturers should be provided with support to be effective in their teaching by the particular institution. The respondent from UoT1 indicated that,

‘...The reason why we exist is specifically to ensure that teaching within the institution is at an acceptable level. We therefore need to put in place, whether through whatever means we have at our disposal, to ensure that Lecturers are thoroughly equipped to conduct teaching in an acceptable manner’.

Indications are that University of Technology teaching should be the focus of a Lecturer’s job and that such teaching should be conducted well. The feeling from the UoT2 respondent was that,

‘...teaching is dynamic; we therefore cannot teach Lecturers to teach and leave them in classroom without providing mechanisms to ensure that Lecturers continue with this dynamic responsibility in an environment that is fully supported to promote excellent teaching. We should provide an environment that enables, promotes and encourages good teaching throughout the career of any Lecturers. That is what the teaching development units in former Technikons exist for.’

6.3.3.2 QUESTIONNAIRE DATA FINDINGS

As mentioned earlier, as pedagogic development has to do with the promotion of teaching skills, I did not set questions to evaluate if lecturers accept that

pedagogic development contributes towards teaching effectiveness. However, suggestions on pedagogic development are discussed in section 6.4.3.3.

6.3.3.3 PEDAGOGIC DEVELOPMENT DISCUSSION

The teaching development practitioners from the three Universities of Technology indicated support that the work that is done by teaching development units is important to Universities of Technology. The UoT2 respondent indicated that 'It is important to realize that teaching skills improvement is important to Lecturers and that we provide such a service to the Lecturers'. The UoT2 respondent was also convinced that we should not deceive ourselves to think that 'equipping Lecturers with teaching qualifications and throwing them in class without the necessary support will help us (meaning Universities of Technology) to achieve excellent teaching.' In his opinion it is quiet important to have a center that provides support for pedagogic development of Lecturers.

The teaching development practitioners supported that proposal that pedagogic development be accepted as an important aspect of a Lecturer's job. The overall feeling was that teaching should receive priority in terms of what the Lecturers do.

6.3.4 SUBJECT CONTENT KNOWLEDGE IMPROVEMENT

The qualitative and quantitative findings for subject content knowledge improvement will be separately provided and discussed below.

6.3.4.1 INTERVIEW DATA FINDINGS

All respondents indicated that they do agree that improving one's qualification in the subject that one teaches assists in improving teaching effectiveness. This improvement in the qualification involves studying further in the subject or

conducting research in a particular subject. The sentiments were that improving one's knowledge in the subjects that one teaches does enhance one's abilities to communicate the content from a more informed base. Thus all the three respondents supported the proposal that subject content knowledge development is an important aspect of a Lecturer's job thus it should be accepted as a separate aspect of the model.

6.3.4.2 QUESTIONNAIRE DATA FINDINGS

The results of the study on subject content knowledge improvement are detailed in table 6.4 below.

	Strongly Disagree	Disagree	Not Sure	Agree	Strongly Agree	Average Mean score
<u>Statement 23</u> Acquiring a higher qualification in the subject one teaches helps one to be a better teacher.	2 (3%)	6 (10%)	0 (0%)	32 (52%)	22 (35%)	4.06
<u>Statement 24</u> Broadening ones' knowledge of the subject one teaches contributes towards communicating content well.	1 (2%)	2 (3%)	0 (0%)	29 (47%)	30 (48%)	4.37
<u>Statement 27</u> Conducting research in the subject that one teaches improves one's teaching practice.	1 (2%)	3 (5%)	5 (8%)	35 (56%)	18 (29%)	4.06
Summed score for statement 23, 24 and 27	4 (2%)	11 (6%)	5 (3%)	96 (51%)	70 (38%)	12.5

Table 6.4

Statement 23, 24 and 27

The mean scores of the three statements are individually greater than 3. The mean score for the summed scores is obtained by adding up the mean score of the three statements, is 12,5 which is greater than the threshold score of 9. On

the basis of these score we can conclude that in terms of data collected, the Lecturers are in support of the opinion that the subject content knowledge improvement does contribute towards the improvement and enhancement of teaching practice.

6.3.4.3 SUBJECT CONTENT KNOWLEDGE IMPROVEMENT DISCUSSION

Qualitative data collected indicates that the teaching development practitioners are of the opinion that when Lecturers improves their subject content knowledge, the process result in the Lecturers improving the Lecturers' teaching skills. UoT1 respondent indicated that this assists the Lecturers to become more passionate about the teaching of the subject as they teach from a more informed perspective. She also concurred with UoT2 and UoT3 respondents that conducting research in the subject that a Lecturer teaches increases confidence in communicating abilities of a Lecturer. That, Lecturers with research background tend to foster more research initiatives amongst the students and advocate for the University of Technology research vision as compared to colleagues without research background. Lecturers' data collected indicates that Lecturers do concur that attaining higher qualifications, broadening content knowledge in the subject and conducting research in a subject that the lecturers teach, contributes towards the quality of teaching. Lecturers further indicated that subject content knowledge development is important and helpful in lecturers' development.

Thus, both qualitative and quantitative data discussed above indicates that there is consensus between teaching development practitioners and Lecturers that subject knowledge development does contribute towards teaching effectiveness. I will therefore accept that subject content knowledge development be accepted as an aspect of the CPD model.

6.3.5 LEADERSHIP ENHANCEMENT

The qualitative and quantitative findings for leadership enhancement will be separately provided and discussed below.

6.3.5.1 INTERVIEW DATA FINDINGS

The teaching development practitioners agreed that the quality of leadership provided by academic managers in institutions of higher learning does have some impact on teaching and learning within such institutions. The UoT1 respondent indicated that ‘...if senior management does not take teaching and learning within the institution seriously, the same attitude would cascade down to the Lecturers...and they will subsequently not commit to the scholarship of teaching as we should...and we will be doing a disservice to the Universities of Technology as a whole as we will be failing ourselves, our students...’ An example was given that academic managers have for example powers to make decisions that financially may provide support for activities within their departments. ‘If an academic manager does not think the quality of teaching within their department is important, that academic manager is not going to allocate appropriate funds in endeavours that promote the quality of good teaching. This will affect how the people under that academic manager view the importance of the quality of teaching’. She further raised concern that

‘...we have managers who are not academics at heart or academics themselves, who attempt to run institutions of higher learning like corporate business and this would hamper the advancement of higher education institutions as academic institutions rather than what such institutions are there for. Running higher education institutions like corporate business has its benefits...but my point is not that. My point is that we need to have administrative managers who are academics at heart in order for them to always keep the vision of the academy at the fore of all we do. It’s good to apply corporate business principles in the overall running of our institutions, but we should be careful that we do not lose sight of the fact that we are still academic institutions ’.

The teaching development practitioners from UoT2 and UoT3 also indicated support for leadership enhancement as an important aspect of the University of Technology Lecturer.

6.3.5.2 QUESTIONNAIRE DATA FINDINGS

The results of the study on leadership development are detailed in table 6.5 below

	Strongly Disagree	Disagree	Not Sure	Agree	Strongly Agree	Mean score
<u>Statement 38</u> I believe the quality of leadership within an institution does have an influence on teaching effectiveness within the institution.	2 (3%)	1 (2%)	4 (7%)	17 (27%)	38 (61%)	4.42

Table 6.5

The mean score for statement 38 is equal to 4.42 which is greater than the threshold score of 3. On the basis of this mean score we accept that Lecturers are of the opinion that the quality of leadership within institutions has an influence on teaching effectiveness within the institution.

6.3.5.3 LEADERSHIP ENHANCEMENT DISCUSSION

The results indicate that both teaching development practitioners and Lecturers do concur that the quality of leadership provided within an institution does have an impact on the quality of teaching within the institution. This makes good quality of leadership within higher education institutions important as the success of higher education teaching is also dependent on the quality of leadership provided. The teaching development practitioners indicated that they are of the

opinion that leadership enhancement is an important aspect in the development Universities of Technology. Thus the need to develop leaders within the sector and amongst stakeholders in the sector is deemed important and it needs priority in order for the Universities of Technology to compete with Traditional Universities.

6.3.6 PARTICIPATION IN PROFESSIONAL BODIES

The qualitative and quantitative findings for participation in professional bodies will be separately provided and discussed below.

6.3.6.1 INTERVIEW DATA FINDINGS

All teaching development practitioners indicated that they are for the idea that University of Technology Lecturers be involved with bodies outside of their institutions for continuous professional career development. This involvement includes participating in curricula activities from other colleagues in other Universities, involvement with professional organisations outside of University systems, involvement in conference presentations, publications, and the like. The teaching development practitioners felt that this is one area that has taken the Traditional Universities to the level of research output that Traditional Universities are currently at. Thus the teaching development practitioners felt that participating in other professional bodies is an important aspect of Lectures roles in the University of Technology sector.

6.3.6.2 QUESTIONNAIRE DATA FINDINGS

The results on participation in professional bodies are detailed in table 6.6 below.

	Strongly Disagree	Disagree	Not Sure	Agree	Strongly Agree	Average mean score
<u>Statement 44</u> Communicating with other professionals in my field assists me in enhancing teaching for my subjects.	1 (2%)	2 (3%)	0 (0%)	34 (55%)	25 (40%)	4.35
<u>Statement 45</u> Attending conferences will enhance my teaching practice.	0 (0%)	3 (5%)	5 (8%)	29 (47%)	25 (40%)	4.21
Summed scores for statement 44 and 45	1 (1%)	5 (4%)	5 (4%)	63 (51%)	50 (40%)	8.56

Table 6.6

Statement 44 and statement 45

The mean scores of the two statements are individually greater than 3. The mean score for the summed scores which is obtained by adding up the mean score of the two statements, is 8,56 which is greater than the threshold score 6 . On the basis of these score we can conclude that in terms of data collected, the Lecturers are in support of the opinion that participation in other professional bodies does contribute towards the improvement and enhancement of teaching practice. This participation with other professionals would entail attending conferences and establishing channels of communication where individual professionals share expertise.

6.3.6.3 PARTICIPATION IN PROFESSIONAL BODIES DISCUSSION

The results from Lecturers' data indicated that the Lecturers do acknowledge that participation with other colleagues in their field of expertise does add value to teaching or contributes to the overall effectiveness of teaching practice. The teaching development practitioners indicated that they do support the involvement of Lecturers with other professionals, conference attendance,

curricular activities and the like, as this adds to professional career advancement. Such involvement also assists with keeping Lecturers up to date with developments in their field of expertise. It is on the basis of this data that I accept that participation with other professionals be included as an aspect of the CPD model.

6.4 FINDINGS ON THE SUGGESTIONS PROPOSED IN THE MODEL

I have discussed the results of the study and do acknowledge that all the proposed aspect of the CPD model designed as aspects that would contribute towards the improvement of teaching. This section will focus on reporting the findings on the proposed suggestion, opinions, comments and issues raised from literature and research with regards to the aspects.

6.4.1 PERSONAL DEVELOPMENT

Qualitative and quantitative findings will be given separately before discussion

6.4.1.1 INTERVIEW DATA FINDINGS

Though personal development is accepted as aspect of the model, the respondent from UoT2 cautioned that one cannot expect 'Lecturers to comply with CPD requirements enforced upon from above. The lectures need to be having a say in the setting up of such compliances before they can buy into such professional development activities. This will create an opportunity for Lecturers to have a say in CPD concerning issues that hinder compliance with such CPD at a personal level. This was more clarified by the respondent from UoT3 that the younger female Lecturers with young children may need extra support at a domestic level to be able to pursue further studies.

'...these Lecturers will need support in the areas where they have needs. Only when these needs are dealt with or addressed, can we expect such Lecturers to comply with some of the other responsibilities we place upon

them...this is where the role of line manager of a particular Lecturer, who understands conditions or the situation in the life of a particular Lecturer, comes in...then allow the Lecturer to attend to issues of a personal nature before enforcing some of the CPD demands upon them. Such an understanding will ensure that stress and conflict is lessened in enforcing or implementing CPD policies. Thus personal circumstances, to some extend, do influence the response that Lecturers will make in complying with CPD activities or policies'.

6.4.1.2 QUESTIONNAIRE DATA FINDINGS

The results for personal development suggestions are detailed in table 6.7 below.

	Strongly Disagree	Disagree	Not Sure	Agree	Strongly Agree	Average Mean score
<u>Statement 34</u> Performance management should incorporate my personal development plan.	1 2%	3 4%	10 16%	37 60%	11 18%	3.87
<u>Statement 37</u> It is important to incorporate personal development plans in the management of my job performance.	2 3%	0 0%	8 13%	37 60%	15 24%	4.02

Table 6.7

Statement 34

The mean score for statement 34 is equal to 3.87 which is greater than 3. On the basis of this score we can conclude that the Lecturers are of the opinion that personal development plans should be incorporated into performance management.

Statement 37

The mean score for statement 37 is equal to 4.02 which is greater than 3. On the basis of this mean score we accept that the Lecturers are of the opinion that the incorporation of personal development plans in the management of the Lecturers' job performance is important to the Lecturers.

6.4.1.3 DISCUSSION ON PERSONAL DEVELOPMENT SUGGESTIONS

Lecturers are in support of the opinion that the job performance should take into consideration their personal development plans and the majority also indicated that the incorporation of personal development plans in their job performance is fundamental for their career success. Both sets of data from teaching development practitioners and Lecturers also indicated that personal self improvement does play a significant role in contribution towards career success. Thus, though personal development may sound like an area that is outside of the job performance area for Lecturers, if personal development issues are ignored in the professional development of Lecturers, unnecessary conflict or breakdown in communication that result in low morale may result. Personal development and personal self improvement are crucial for career success in the lives of Lecturers. Line managers should ensure that there is alignment between what line managers set as departmental objectives and the personal development aspirations of the Lecturers. Such a consistency should not be assumed and the consideration of such in the Lecturers' CPD will to a great extent, contribute towards the success of both Lecturers and managers in job performance.

The teaching development practitioners believe that some of the academics have a lot of other responsibilities or commitments in their lives to pursue further studies. Some factors mainly economic or domestic support and these factors if they are not considered in the management of Lecturers performance, they may cause unnecessary conflict and stress for both management and Lecturers.

6.4.2 ORIENTATION PROGRAMMES

The suggestion that was made with regards to orientation programmes involved the incorporation of research, the use of teaching portfolios, the use of student feedback and mentoring into the orientation programmes. These suggestions will

be discussed separately in section 6.5 below. The discussion in this section will only focus on proposed suggestions with regards to orientation programmes.

6.4.2.1 INTERVIEW DATA FINDINGS

The teaching development practitioners support the proposal that orientation programmes be made compulsory for all academics.

The participant from UoT2 indicated that it is policy within the institution that all Lecturers attend orientation programs irrespective of qualification or previous experience. Some newly appointed Lecturers do have secondary school teaching qualification and/or experience and the UoT2 participant viewed this experience as different from teaching in higher education. In the UoT2 participant's own words,

'The Lecturers appointed may have been trained to teach at high school level but when we get to tertiary education the rules of the game change. Pedagogic teaching principles are different from andragogy teaching practices. So such lecturers need to be made aware of principles that inform tertiary teaching...even Lecturers who have the teaching experience at other Universities, they need to be informed of how we do things at UoT2, so that they do what we believe about teaching and learning at Uot2'.

The participant from UoT3 indicated that they have had more positive responses from experienced Lecturers, professionally qualified teachers and researchers who attended their orientation programs. This she summed up as follows, 'If renowned researchers like Prof. X³, who has a teaching qualification, attended our orientation program and find these quiet helpful and enriching, then there is no reason to even suggest that professionally qualified teachers should be exempted from orientation programs'. The UoT3 participant further indicated that some of the newly appointed lecturer trained as teachers a while ago and knowledge in the scholarship of teaching keep on developing. Even professionally qualified teachers need to be kept up to date with this knowledge development. The orientation programs at UoT3 are tailor-made or geared at

³ Name changed to protect the identity of the respondent.

meeting the needs of new staff. Thus the UoT3 interviewee indicated that the orientation programs have benefited new staff with regards to enlightening new staff on the teaching practices, the teaching context and the teaching environment within UoT3. Feedback they have received from highly experienced academics indicates that the orientation programs have been quite good at addressing their needs within the UoT3 environment. In the UoT1's interviewee's response, 'orientation programs are the initial point of contact with newly appointed Lecturers and it is in these sessions that ...the culture of UoT1 is inculcated into the minds of these Lecturers so that thereafter, their practice should be in line with the teaching and learning practices of UoT1.'

6.4.2.2 QUESTIONNAIRES DATA FINDINGS

The results for personal development suggestions are detailed in table 6.8 below.

	Strongly Disagree	Disagree	Not Sure	Agree	Strongly Agree	Average Scores/Mean
<u>Statement 3</u> Professionally qualified teachers should be exempted from attending orientation programs.	11 (18%)	30 (48%)	13 (21%)	5 (8%)	3 (5%)	2.34
<u>Statement 4</u> Orientation programs should be made compulsory for all newly appointed lecturers	2 (3%)	2 (3%)	7 (11%)	21 (34%)	30 (49%)	4.21

Table 6.8

Statement 3

The mean score of statement 3 is equal to 2.34 which is less than 3. We can therefore conclude that the Lecturers are **not** of the opinion that professionally qualified teachers should be exempted from attending the orientation programmes.

Statement 4

The mean score for statement 4 is equal to 4.21 which is greater than 3. On the basis of this mean score we therefore accept that the Lecturers are of the opinion that orientation programs should be made compulsory for all the newly appointed Lecturers.

Comments from the Lecturers (on the questionnaire) on orientation programs included indications that orientation programs:

- ‘give new Lecturers guidelines on higher education teaching practice’.
- ‘assisting with staff that has no teaching background’.
- ‘assisting new staff to “easily fit in” within the institutions’
- ‘orientation programs do make transition of the newly appointed Lecturers into the higher education environment, easier.’ And
- that ‘orientation programs are essential and should continue.’

Few comments recommended that there should be more focus on human resources issues like employment equity, benefit and the like. Added to these, one respondent indicated that ‘to make a judgment on this question, will depend on the content of the orientation program.’

6.4.2.3 DISCUSSION ON ORIENTATION PROGRAMME SUGGESTIONS

The teaching development practitioners support the proposal that the orientation programs be made compulsory for all academics. Such support is based firstly that the newly appointed Lecturers are most of the time not qualified as teachers but added to this is that the Lecturers should be made aware of higher education teaching practice even if they may be qualified teachers. Secondly the newly appointed Lecturers though experienced in higher education teaching, still learn about the teaching context within the particular Universities of Technology. Added to this, Lecturers are of the opinion that the orientation programs should be compulsory for all newly appointed Lecturers where professionally qualified teachers are not exempted from attending the orientation programs. Thus

lectures and teaching development practitioners do view orientation programs as helpful and positively contributing in influencing teaching or teaching practice.

6.4.3 PEDAGOGIC DEVELOPMENT

Qualitative and quantitative data findings will be separately provided.

6.4.3.1 INTERVIEW DATA FINDINGS

Respondent from UoT2 felt strongly about the aspect pedagogic development in the model. He also felt strongly about making teaching qualifications compulsory for all lecturers. Towards the end of the interview he however renegaded that in his opinion, it is important for Lecturers to be trained to teach well, though not with emphasis on getting a formal teaching qualification. In his opinion if resources are made available for Lecturers to improve their teaching skills and get teaching qualification, such resources should be fully utilized. ‘Training that ends up with just training for its sake was not effective’, thus the UoT2 respondent felt that at the end of the day the Lecturers should have a qualification or ‘something to provide evidence that support the experience and claim of the Lecturers’ teaching abilities’.

The teaching development workshops are just one strategy that could be used to deliver support for good teaching practice, but such workshop still remain viable in addressing some CPD needs amongst Lecturers. The UoT3 respondent, when asked complains about Lecturers not attending such workshops indicated an opinion that,

‘...Perhaps teaching development units should not focus so much on how many people attend such workshops. But on the impact that such workshops have on Lecturers and on the students also. If we put a program in place and have an attendance of two or three lecturers for example. To me the number of people who attend these workshops is not actually that important. What is important is to examine the impact that these development workshops would have...when these lecturers apply

what they learn in class. They are going to use the new knowledge to help hundreds of students in their classes to do well. This to me should be the impact that we examine. Not the number of people who attend such workshops'.

The UoT3 respondent indicated that 'if measures are available to assist Lecturers to get accreditation for attending workshops designed for teaching skills improvement, then such measures should be fully utilized.'

6.4.3.2 QUESTIONNAIRE DATA FINDINGS

The results of the study on suggestion regarding pedagogic development are detailed in table 6.9 below.

	Strongly Disagree	Disagree	Not Sure	Agree	Strongly Agree	Average Mean score
<u>Statement 29</u> Teaching development workshops are helpful in improving teaching skills.	0 (0%)	4 (6%)	16 (26%)	26 (42%)	16 (26%)	3.87
<u>Statement 30</u> Acquiring a professional teaching qualification is important for University of Technology lecturers.	3 (5%)	15 (24%)	17 (27%)	13 (21%)	14 (23%)	3.32
<u>Statement 31</u> Formalising teaching development workshops to bear credit towards formal teaching qualifications will motivate me to attend such workshops.	1 (2%)	9 (14%)	21 (34%)	19 (31%)	12 (19%)	3.52
<u>Statement 32</u> I believe teaching, compared to research, is the most important aspect of a lecturer's job.	2 (3%)	8 (13%)	10 (16%)	27 (44%)	15 (24%)	3.73
<u>Statement 33</u> I do not have enough time to attend teaching development workshops.	5 (8%)	17 (27%)	13 (21%)	23 (37%)	4 (7%)	3.06

Table 6.9

Statement 29

The mean score for statement 29 is equal to 3.87 which is greater than 3. On the basis of this mean score we accept that the Lecturers are of the opinion that teaching development workshops are helpful in equipping the Lecturers with required teaching skills.

Statement 30

The mean score for statement 30 is equal to 3.32 which is greater than 3. On the basis of this mean score we accept that the Lecturers are of the opinion that acquiring a professional teaching qualification is important for Lecturers.

Statement 31

The mean score for statement 31 is equal to 3.52 which is greater than 3. On the basis of this mean score we accept that Lecturers are of the opinion that formalizing teaching development workshops to bear credit towards formal teaching qualifications will motivate the lecturers to attend such workshops.

Statement 32

The mean score for statement 32 is equal to 3.73 which is greater than 3. On the basis of this mean score we accept that Lecturers are of the opinion that teaching, compared to research is the most important aspect of the Lecturers' job.

Statement 33

The mean score for statement 33 is equal to 3.06 which is greater than 3. On the basis of this mean score we accept that Lecturers indicate that they do not have enough time to attend teaching development workshops.

6.4.3.3 DISCUSSION ON PEDAGOGIC DEVELOPMENT SUGGESTIONS

Indications from teaching development practitioners are that teaching development workshops are helpful in addressing the teaching skills needs for Lecturers. Results from the quantitative data indicate that Lecturers concur that these workshops do contribute towards teaching effectiveness within these institutions. One must however indicate that workshops are not the sole strategy

that may be used to address teaching effectiveness within Universities of Technology. Whatever strategies are used, such should ensure that the needs of staff are met, the knowledge of staff on teaching is improved, and the skills of staff in improving teaching and learning are continuously enhanced.

The teaching development practitioners also indicated that it is immaterial whether Lecturers' participation in teaching development workshops lead to formal qualifications or not. What the practitioners felt is important is that the Lecturers should be equipped through such to be in a position to deal with challenges in their daily experiences in class and conduct teaching at appropriate levels for higher education. If it is possible to have these workshops accredited towards formal qualification, accreditation was accepted as a plus. The data collected from lecturers indicated that the Lecturers are of the opinion that formalizing teaching development workshops to bear credit towards formal teaching qualifications will motivate Lecturers to attend such workshops.

The statement that the Lecturers do not have sufficient time to attend teaching development workshops was accepted in terms of the mean value calculation. Yet, examining the results using the percentage scores closely leads to a different opinion conclusion. 66% of the respondents indicated that they either hold a different opinion on this statement or that they are not sure of their opinion. This means the majority of Lecturers indicated that they do not uphold the opinion that they do not have enough time to attend the teaching development workshops. This implies that data gathered does not warrant the claim made earlier in this study that Lecturers are too busy to attend teaching development workshops. What in my opinion is important regarding this issue is that Lecturers should experience such workshops as "worth their time". That is, such workshops should enrich the lives of Lecturers in dealing with their teaching activities. If Lecturers perceive such workshops as not addressing their needs, they will not make time and effort to attend such workshops.

Though in terms of quantitative data collected from Lecturers it was accepted that lecturers feel that acquiring a professional teaching qualification is important to Lecturers (Statement 30). Yet on examining the data closely one realizes that a total of 44% of the lecturers indicated that they are of the opinion that acquiring a professional teaching qualification is important for University of Technology Lecturers. What this means is that 66% of the lecturers indicated a different opinion. This implies that the majority opinion is that acquiring a professional teaching qualification is not important for University of Technology Lecturer. There is therefore consensus between teaching development practitioners and Lecturers that it is not important for University of Technology Lecturers to acquire formal teaching qualifications. The indication was more that higher education teaching is different from teaching at school level, thus Lecturers need to be equipped with the knowledge and skills to effectively handle teaching at higher education level. All the participating teaching development practitioners indicated that they do not believe that it is imperative that all Lecturers should have a professional teaching qualification. What was indicated as imperative is that the teaching development units within University of Technology exist to provide support to Lecturers on teaching and these units are to ensure that teaching is conducted well.

6.4.4 SUBJECT CONTENT KNOWLEDGE IMPROVEMENT

The results from the quantitative and qualitative data will be discussed separately.

6.4.4.1 INTERVIEW DATA FINDINGS

The teaching development practitioners indicated that the improvement of qualifications by University of Technology Lecturers is an important as increased knowledge improves presentation of materials in class. This would also increase the confidence of the particular Lecturer in delivering content. The respondents

also agreed that Lecturers should be encouraged to conduct research in the subjects that they teach so that the same Lecturers can be in a position to be able to promote the research vision within Universities of Technology. The respondents from UoT3 indicated that,

'...the focus of Technikons was to train students to find jobs. Thus the drive for research was almost non-existent in the former Technikons. In my opinion, I do not believe that a person without research background can successfully motivate University of Technology students to stay within the institutions after their first qualification...It is highly unlikely for somebody with no research background in a particular subject to promote research in that subject...lecturers needed to acquire higher qualifications more especially research qualifications in their subjects'.

The respondent from UoT2 also indicated that it is in his opinion that Lecturers who have not been involved in research in their own subjects '...tend not to encourage their students at undergraduate level to pursue further studies up to masters or doctoral level, including research'. Such Lecturers would therefore not fully support the vision of the Universities of Technology of conducting research as Universities. The UoT1 respondent also indicated that,

'...when Lecturers develops their knowledge in the subject field, they tend to teach their subject with passion and thus motivate their students to pursue further knowledge in the subject. We have had a few successes in our engineering department in the Technology station and the people who are driving these initiatives have studied up to masters and doctoral level. I do not think that they would have achieved what they have achieved if they did not study up to the level they are at.'

6.4.4.2 QUESTIONNARE DATA FINDINGS

The results from the Lecturers on subject content knowledge improvement are detailed in table 6.10 below.

	Strongly Disagree	Disagree	Not Sure	Agree	Strongly Agree	Average Mean score
<u>Statement 25</u> Developing deeper or advanced knowledge for the subject that I teach is important to me.	0 (0%)	0 (0%)	0 (0%)	22 (35%)	40 65%	4.65
<u>Statement 26</u> I would like to have more opportunities to share or discuss my teaching experience with colleagues.	0 (0%)	3 (5%)	6 (10%)	34 (55%)	19 (30%)	4.11
<u>Statement 28</u> Regular discussions with colleagues in the teaching of my subject are helpful in my development as a teacher.	0 (0%)	2 (3%)	5 (8%)	32 (52%)	23 (37%)	4.23

Table 6.10

Statement 25

The mean score for statement 25 is equal to 4.6 which is greater than 3. On the basis of this mean score we accept that the Lecturers are of the opinion that developing advanced knowledge for the subject that the lecturers teach is important to Lecturers.

Statement 26

The mean score for statement 26 is equal to 4.11 which is greater than 3. On the basis of this mean value we accept that Lecturers do indicate that they would like to have more opportunities to share or discuss teaching experiences with other colleagues.

Statement 28

The mean score for statement 28 is equal to 4.23 which is greater than 3. On the basis of this mean value we accept that the Lecturers are of the opinion that regular discussions with colleagues in the teaching of subjects Lecturers teach is helpful for the lecturers' development as teachers.

6.4.4.3 DISCUSSION ON SUBJECT CONTENT KNOWLEDGE IMPROVEMENT SUGGESTIONS

Lecturers perceive further studies in their subjects as worth their while thus motivated to pursue further studies in their subjects if opportunities for such qualification improvement are created for them within the Lecturers' institutions.

The results on the Lecturers' attitude towards subject content improvement indicate that Lecturers deem this as important and thus Lecturers can be motivated to make use of available opportunities to engage in such activities.

When one examines the data on the qualification levels for Lecturers in former Technikons (DoE 2007) between the years 2004 and 2006, one concludes that there has been an improvement in the qualification levels of Lecturers within such institutions. It may be that this improvement has progressed slower than had been expected. If this be the case, perhaps managerial strategies should examine why this is the case and remedy the situation. The results here indicate that the Lecturers' clearly comprehend the importance of qualification improvement and this should sufficiently motivate the Lecturers to make use of created opportunities to achieve higher qualifications.

The findings also indicate that Lecturers are in favour of regular discussions with colleagues on subject content related issues. These discussions should also include attendance of subject related conferences or seminars, discussions with colleagues across University of Technology campuses, subject-based related issues (including curriculum development issues), and the like. These would benefit Lecturers in their career progression and such opportunities should be fully utilised. The discussion on the nature of this participation will be further elaborated on in section 6.4.6.

6.4.5 LEADERSHIP ENHANCEMENT

The results for the qualitative and quantitative findings will be discussed separately.

6.4.5.1 INTERVIEW DATA FINDINGS

The UoT3 respondent echoed sentiments that it is quiet crucial for academics to 'grow their own timber' by providing opportunities to young academics to advance in leadership skills and let these academics be developed as leaders within higher education institutions. This was also echoed by the respondent from UoT1 who indicated that UoT1 is facing leadership crisis as managerial leadership posts remain vacant for too long after one leader has resigned from the institution and there is a lack of potential leaders within the institution to continue with the running of the departments.

There was also consensus amongst respondents that developing leadership potential has previously not been a culture that was established or encouraged in the former Technikons. Academic managers were permanently employed in positions and the need for developing other potential leaders was unnecessary. Though there was acknowledgement that former Technikons have had few examples of good managerial leadership. With the challenge to change the shape of management structures and management strategies in former Technikons, a cultural mind shift is necessary for the continual effectiveness of former Technikons and the success of such institutions. The UoT3 candidate also echoed sentiments that,

'We should be careful before drawing conclusions that leadership within former Technikons is lacking. There have been good leaders within the Technikons but I think the difficulty has been with the move from Technikon education to University of Technology. Yes there are managers with the former mindset who need to drive the changes within Universities of technology towards the goals that government has when it comes to these new institutions...'

UoT1 and UoT3 respondents indicated that this is a sensitive issue and understandably so, permanently appointed academic managers have previously occupied such positions until retirement and the transformation of such practices will take a long time to effect within such institutions. There was even an indication that the labour law in this country makes it difficult to effect this transformation. The challenge that some of the Universities of Technology have is transforming management practices of these institutions as UoT1 respondent indicated that this may be an impossible thing to achieve, unless educational authorities ensure that such transformation is enforced. The UoT3 respondent indicated that some of the cultural practices are so strongly embedded within her institution that it is going to take strong and firm leadership to effect transformation that would in a long term, effectively benefit the University of Technology movement.

The respondent from UoT2 indicates his sympathy with academic managers as academic managers are also provided budgets to govern their departmental priorities. Depending on the priorities of the particular department head, the money will be spent on what the departmental head views as important. He thus indicated that it would be ‘...an unfair judgment on academic managers without understanding the context within which managers operate under. Budgets, policies, control so much of managerial practices and it becomes really unfair...’ The view expressed was that there are quiet a number of factors influencing the decisions of academic managers and it would be unfair to conclude that academic managers are for example not able to manage Universities of Technology as new institutions.

6.4.5.2 QUESTIONNAIRE DATA FINDINGS

The results on leadership enhancement suggestions are detailed in table 6.11 below.

	Strongly Disagree	Disagree	Not Sure	Agree	Strongly Agree	Average Mean score
<u>Statement 39</u> I believe there is a need for development of leadership potential in my institution.	0 0%	0 0%	7 11%	21 34%	34 55%	4.44
<u>Statement 41</u> I believe there is sufficiently skilled management leadership in my institution.	15 24%	26 42%	10 16%	9 15%	2 3%	2.31
<u>Statement 42</u> I am satisfied with the kind of leadership provided by academic managers in my institution.	16 26%	23 37%	17 27%	5 8%	1 2%	2.23

Table 6.11

Statement 39

The mean score for statement 39 is equal to 4.44 which is greater than 3. On the basis of this mean score we accept that the lecturers are of the opinion that there is a need for the development of leadership potential within Universities of Technology.

Statement 41

The mean score for statement 41 is equal to 2.31 which is less than 3. On the basis of this mean value we **do not** accept the statement that lecturers are of the opinion that there is sufficiently skilled management leadership within the Lecturers' institutions. We can therefore conclude that lecturers are of the opinion that there is a lack of skilled management leadership within the Lecturers' institutions.

Statement 42

The mean score for statement 42 is equal to 2.23 which is less than 3. On the basis of this mean score we do not accept the statement that Lecturers are satisfied with the kind of leadership provided by academic managers. We

therefore conclude that Lecturers are **not** satisfied with the kind of leadership provided by academic managers within the Lecturers' institutions.

6.4.5.3 DISCUSSION ON LEADERSHIP ENHANCEMENT SUGGESTIONS

The majority of Lecturer-respondents indicated their awareness of the need for leadership potential development within their institutions. Of great interest is the fact that none of the respondents disagreed or strongly disagreed with this statement. It is possible that the respondents may have observed potential leaders within their institutions, and they have conceptually identified that these potential leaders need to be groomed to their full potential. Or it may be that the respondents realize that there is a need within their institutions to develop leadership due to leadership gaps that they have identified within respondents' institutions. This is further supported by data collected from UoT3 teaching development practitioners who indicated leadership crisis within their departments as department heads resign. They find no suitable replacements for such leaders and it does create some drawback in the running of such departments. This is also supported by the indication in the results that the majority of Lecturer respondents also highlighted sentiments that there is a lack of skilled management leadership within their institutions. Lecturers also indicate that they are not satisfied with the leadership provided within the Lecturers' institutions.

One aspect of leadership enhancement that kept on creeping back in the discussions during this study concerns the issue of transformation within leadership in some institutions. Discussions with teaching development practitioners in this study crept back to the issue of transformation within Universities of Technology. The University of Technology ideology needs a shift in mindset from the old Technikon management practices. This requires a strategic shift that could be exploited to the advantage of the new Universities of

Technology. The teaching development practitioners in the study indicated that failure to adapt, by former Technikon managers will forever remain a stumbling block for the development of Universities of Technology sector.

6.4.6 PARTICIPATION IN PROFESSIONAL BODIES

The discussion on the quantitative and qualitative data will be discussed separately.

6.4.6.1 INTERVIEW DATA FINDINGS

There was consensus amongst teaching development practitioners that Lecturers at Universities of Technology have been involved with other colleagues outside the lecturers' institutions. The purpose of such interactions was merely to align curricula in the former Technikons. The indication was that though this is happening; it is not taking place at a rate and at the level that is desirable for University academics. Only a few Lecturers are involved with other professional activities outside of their work environment. The UoT2 respondent indicated that they do have Lecturers in their school of Engineering who are involved in number of collaboration efforts with Engineers in industry. This collaboration involves joint projects that are to the benefit of UoT2. Reasons given on why this is important is that Lecturers needed to keep abreast with developments in their fields of expertise and working closely with Engineers in industry is seen as assisting in accomplishing this. Networks formed in participation with professional bodies were seen as creating opportunities to provide support to venture into joint publications with other professionals, discussions of professional expertise issues that may have research spin-offs.

The respondent from UoT3 Indicated that Lecturers in Universities of Technology do not publish at the same rate that their University counterparts are publishing. Thus for management in Universities of Technology, with relatively less

experience as compared to the University management regarding research, ‘...believe that the benefit for ventures in research or conference attendance is not happening with immediate explicit results. It takes time to build such and at times senior management tends to struggle with that. The mere fact that the results are not immediately evident does not mean there is no progress in Universities of Technology in terms of research publications. These things take time to be built. Universities did not get where they are in one day, it took decades to build...’ Taking it from her own experience, she believes that the development of such skills take time.

The UoT1 respondent also indicated that managers who are not experienced in academic writing activities do not really understand how to motivate their staff to focus on academic writing as in her experience Lecturers still have heavy contact class sessions. UoT1 had brought in the use of tutorial systems in order to free Lecturers to focus more on research. In her words,

‘This has not been fully understood by academic managers. Our progress to free Lecturer to conduct research is still hampered by managers who believe Lecturers should still be in class when tutors present their tutorial sessions. These managers believe that the main function of a Lecturer is to teach and allocating such a function to a tutor is irresponsibility on the part of the Lecturer. So this does not free the Lecturers to focus on other functions like research, publishing or conference presentation as the Lecturers still have classes to monitor...’

UoT1 participant however acknowledged that there have been positive strides within the institution to promote research outputs within UoT1, but what has been done is not enough to produce the desired outcome of a research institution as Universities of Technology are expected to be.

6.4.6.2 QUESTIONNAIRE DATA FINDINGS

The results form the lecturers on participating in professional bodies are detailed in table 6.12 below.

	Strongly Disagree	Disagree	Not Sure	Agree	Strongly Agree	Average mean scores
<u>Statement 46</u> Sharing my subject knowledge with colleagues is important to me.	0 (0%)	1 (2%)	1 (2%)	35 (56%)	25 (40%)	4.35
<u>Statement 47</u> Belonging to a body of professionals in my field is important to me.	0 (0%)	0 (0%)	11 (18%)	27 (43%)	24 (39%)	4.21
<u>Statement 48</u> Communication with other professionals in my field is vital for my career success.	1 (2%)	1 (2%)	4 (6%)	31 (50%)	25 (40%)	4.26

Table 6.12

Statement 46

The mean score for statement 46 is equal to 4.35 which is greater than 3. On the basis of this mean score we accept that the lecturers are of the opinion that sharing subject content knowledge with colleagues is important to Lecturers.

Statement 47

The mean score for statement 47 is equal to 4.21 which is greater than 3. On the basis of this mean score we can accept that Lecturers feel that belonging to a professional body of professionals in the lecturers' field of expertise is important.

Statement 48

The mean score for statement 48 is equal to 4.26 which is greater than 3. On the basis of this mean score we accept that Lecturers are of the opinion that communicating with other professional in the lecturers' respective fields of expertise is vital for the lecturers' success.

6.4.6.3 SUGGESTIONS ON PARTICIPATION IN PROFESSIONAL BODIES

The Lecturers indicated that they would like to have more opportunities to share their teaching experiences and knowledge with other colleagues, as this is

important for the Lecturers' career success. This was also highlighted by the Lecturer indicating that they would appreciate interactions with other colleagues in a professional organisation. The indication of the desire to have such network opportunities created indicates that respondents may either not be having these opportunities or respondents may feel the opportunities are not adequate enough, thus the respondents would like to have such opportunities created. As teaching development practitioners indicated that such networking opportunities may assist some of the Lecturers to get involved more in conference presentations, research writing and publishing. The liberty of this involvement should be given to the individual Lecturers though this should be managed well.

What the teaching development practitioners indicated is that to get to the level that Universities are with regards to publications and research, is a developmental practice, thus the process will not realize quick results. This should be undertaken with the understanding that the writing for publication process takes time and that Lecturer should be encouraged and given opportunities to advance in this line of academic practice.

6.5 OTHER SUGGESTIONS WITH REGARDS TO ORIENTATION PROGRAMMES

There were other suggestions which were made when the proposal for the model with regards to the orientation programmes when the model was designed in chapter 4. These suggestions were that the orientation programmes should include research development, the use of teaching portfolio, the use of student feedback and mentoring programmes. There are CPD activities that also improve teaching practice and were identified as tools which were used in former Technikons. I will discuss the findings of these items separately in this section.

6.5.1 RESEARCH DEVELOPMENT

The qualitative and quantitative findings for research development will be separately provided and discussed below.

6.5.1.1 INTERVIEW DATA FINDINGS

All the teaching development practitioners indicated with that all Lecturers need basic research skills in order to firstly address their teaching practice issues or problems that keep on surfacing in the teaching environment. The respondent from UoT1 indicated that, ‘...all teachers should have basic research skills in order to simply address some of the teaching and learning issues in class. We are under pressure as an institution to ensure that we have a healthy through-put rate in our institutions. Teaching that is informed by good research will play a major role in ensuring that we achieve the goals we want to achieve for the success of our students.’ Indications were that action research is necessary for all Lecturers and thus research skills were quiet important for the Lecturers. Secondly, all respondents indicated that it was important that Lecturers be encouraged to conduct research more especially in the subjects that they teach. The respondent from UoT1 also agreed and indicated that she believe that;

‘...the transition from Technikon to University of Technology demands that Lecturers need research PhDs in order to facilitate the drive by Universities of technology to conduct more research. This is even more important in ensuring that as research academic institutions we encourage some of our student to proceed with research degrees. I don’t see how a lecturer without a research qualification can encourage his students to pursue further studies in Universities of Technology. We need academics who are passionate about research in their subjects, who can instil this passion in their students and offer the required support to students who are identified with potential to achieve further qualifications. This in my opinion will ensure that as academics within the Universities of Technology, we achieve the goal that government had in mind when changing Technikons to Universities of Technology...research is an important aspect of a lecturer’s duties and this should be a separate aspect that we focus on, on its own.’

There was consensus amongst the three participants however that there are Lecturers who are not willing to conduct research. This depended mainly on the circumstances of each individual Lecturer. Indications are that some Lecturers are not willing due to domestic commitments (like raising little children), or age (Lecturers who feel that they are near retirement age and they do not need to be bothered with further studies), or Lecturers who feel that they are teachers and not researchers, to mention some examples given. Depending on such circumstances different people will respond differently to the call to conduct research.

Apart from such circumstances, the participants from UoT1 and UoT3 indicated that some of the Lecturers have indicated that they still have 'too much on the plate' with regards to their duties to focus on research. The UoT3 respondent indicated that they are

'...conducting an empirical study in our institution to establish reasons why some Lecturers are not making use of opportunities to conduct research even in the midst of such opportunities being made available within UoT3 structures. We need to find out why are research funds not utilized...I believe that we need to offer the kind of support that would assist such academics to make use of such opportunities. I have seen some of our white academics for instance going to an extent of taking unpaid study leave, stay at home in order to complete a masters or a PhD. Why can't the black staff members also do the same? I believe there are other factors that our institutions do not take into consideration when evaluating such. I will make an example about my situation as a case in point. When I had to pursue my masters and doctoral qualification, I don't think I would have done it if my mother was not there. She had to take care of my kids when I was away studying. It was very difficult but I had support from my mother with my children. My husband's role was phenomenal. I don't think I would have succeeded had he not been there in my journey. My mother is no longer there...If I am asked to go through the same experience without her, I don't think I would even be willing to try. For example, when I went to school, my husband took care of the running of our home, and to financially support our parents. We had to take care of a lot of other people in our family. If my husband was not around, I don't think it would have been possible.' When my husband pursued his doctoral qualification, we had to do without his income at home. It is not easy more especially

when you have responsibilities...Reasons are different and they may be economic, domestic, and the like.'

The UoT3 respondent indicated that preliminary findings indicated that there are a number of factors relating to support which were demoralizing some of their Lecturers when it came to conducting research. UoT3 have made great strides in driving for research development within their institution by employing academics with a strong research experience and these researchers are to focus on research development within UoT3. More especially research development amongst staff members. This she believes will contribute effectively to the institution's goal as academics who are researchers will then drive research initiatives within Universities of Technology. Thus she felt that research development should be a separate aspect of the model and not part of the orientation program.

The respondent from UoT2 indicated that he felt that it is important that all Lecturers should in essence conduct research. He however highlighted that it is important not to enforce the conducting of research on Lecturers as in his experience, this has caused unnecessary conflict. Though his opinion is that all Lecturers need to have basic research skill, he also indicated that in his experience that not all Lecturers in the former Technikons want to be researchers. Such Lecturers he felt should rather be encouraged to conduct research and not forced to.

6.5.1.2 QUESTIONNAIRE DATA FINDINGS

The results of the study on research development suggestion are detailed in table 6.13 below.

	Strongly Disagree	Disagree	Not Sure	Agree	Strongly Agree	Average mean score
<u>Statement 9</u> -All lecturers need basic research skills in their teaching practice	1 (2%)	3 (5%)	8 (13%)	30 (48%)	20 (32%)	4.05
<u>Statement 10</u> - Doing research is important to me as a lecturer.	0 (0%)	3 (5%)	2 (3%)	31 (50%)	26 (42%)	4.29
<u>Statement 11</u> - Lecturers should be given more time so as to focus more on research.	0 (0%)	4 (6%)	5 (8%)	24 (39%)	29 (47%)	4.26
<u>Statement 12</u> - Doing research in the subject that I teach is important to me as a lecturer.	0 (0%)	0 (0%)	2 (3%)	25 (40%)	35 (57%)	4.53
<u>Statement 13</u> - I view myself more as a teacher than a researcher.	3 (5%)	8 (13%)	10 (16%)	26 (42%)	15 (24%)	3.68
<u>Statement 14</u> - Research is important for my teaching practice.	0 (0%)	4 (7%)	5 (8%)	33 (53%)	20 (32%)	4.11
<u>Statement 40</u> - There is sufficiently skilled leadership for research development in my faculty/school.	19 (31%)	18 (29%)	14 (23%)	7 (11%)	4 (6%)	2.34
<u>Statement 43</u> - I believe academic managers in Universities of Technology should be trained to manage research development.	3 (5%)	2 (3%)	3 (5%)	28 (45%)	26 (42%)	4.16

Table 6.13

Statement 9

The mean score for statement 9 is equal to 4.05 which is greater than 3. In terms of data collected we accept that the Lecturers are in support of the opinion that the research development contribute towards the improvement and enhancement of teaching practice

Statement 10

The mean score for statement 10 is 4.29 which is greater than 3. In terms of data collected we accept that Lecturers view research as important to Lecturers.

Statement 11

The mean score for statement 11 is 4.26 which is greater than 3. In terms of data collected we accept that Lecturers are of the opinion that Lecturers need more time on schedules so as to focus more on research.

Statement 12

The mean score for statement 12 is 4.53 which is greater than 3 and on the basis of this mean score we accept that the lecturers are of the opinion that conducting research in the subjects that Lecturers teach is important.

Statement 13

The mean score for statement 13 is 3.68 which is greater than 3. We thus accept that most of the Lecturers view themselves more as teachers than researchers.

Statement 14

The mean score for statement 14 is equal to 4.11 which is greater than 3. In terms of data collected we accept that the Lecturers are of the opinion that conducting research is important for the Lecturers' teaching practice improvement.

Statement 40

The mean score for statement 40 is 2.34 and on the basis of this score being less than 3, we do not accept the statement that the Lecturers in Universities of Technology are of the opinion that there is sufficiently skilled leadership for research development within faculties/schools.

Statement 43

The mean value for statement 43 is equal to 4.16 which is greater than 3.. We therefore accept that Lecturers are of the opinion that academic managers should be trained to manage research development.

Questionnaire comments on research developments

One respondent also commented that there is a great need to conduct research for Universities of Technology as doing so, is an 'academic investment'.

Three comments also highlighted the necessity of time for individuals to conduct research as ‘the research process is time consuming’ and ‘research is a full time job’ (in the words of respondent). These sentiments may be an indication that respondents may still feel that Lecturers in Universities of Technology still need to be given sufficient time from their teaching schedules to conduct research. Comment also indicated that ‘Lecturers should not be forced to conduct research, those who want to focus on teaching, should be allowed to carry on teaching.’ While two of the respondents also emphasised sentiments that they are teachers/Lecturers, and not researchers.

6.5.1.3 RESEARCH DEVELOPMENT DISCUSSION

The results from the study indicate that the Lecturers are aware of the improvement or contribution to teaching that is brought about as a result of research. Added to this, the teaching development practitioners indicated that all Lecturers need basic research skills in order to firstly, empirically address some of the teaching problems in teaching practice. Secondly, to encourage and motivate the University of Technology graduate to pursue further studies by conducting postgraduate research. Though the study does not indicate that Lecturers actually do conduct research, there is however an acknowledgement of the need to conduct research and that the connection between research and teaching does exist. This realization may contribute in motivating the Lecturers to conduct research if such opportunities are created for Lecturers. This statement is made with the acknowledgement that there are other factors that do contribute towards the motivation of Lecturers conducting research.

The results further indicate that 92% of respondents indicated that conducting research is important for them while 97% indicated that conducting research in the subjects that they teach is important for them. Added to this, comments made indicated that the attitude of Lecturers on research is not as negative as had been indicated in the time past. The reason why Universities of Technology are

not conducting research as indicated in literature may be attributed to other factors other than a negative attitude towards research. The study also indicates that 86% of respondents highlighted that they needed more time to conduct research (table 6.13- Statement 11). This result and comments made on time needed to conduct research highlights sentiments raised in literature that Universities of Technology Lecturers still have heavy teaching schedules that impede research development (Chetty 2003 and Winberg 2005).

Of added interest in the study with regards to the attitudes of Lecturers with regards to their teaching or research responsibilities. 66% of respondents indicated that they view themselves more as teachers than researchers, while 68% (Table 6.8- statement 32) indicated that they view their teaching function as more important than their research function. In my opinion such lecturers would under normal circumstances pay more attention to their teaching responsibilities rather than research responsibilities. Literature also indicates that there are Lecturers in the Universities of Technology who viewed themselves more as teachers than researchers. Some of such Lecturers felt that they should not be forced by the University of Technology system to conduct research but be left out of research activities to focus on teaching. Though Lecturers view research as important and necessary, teaching is viewed as the more important function of a Lecturers than research. This in my opinion will to some degree influence the commitment of Lecturers towards research.

6.5.2 THE CONSTRUCTION OF TEACHING PORTFOLIOS

The qualitative and quantitative findings for the construction of teaching portfolios will be separately provided and discussed below.

6.5.2.1 INTERVIEW DATA FINDINGS

All respondents indicated that teaching portfolios have their place and are useful for purposes that they are set for within any particular institution.

In UoT1 management strongly advises staff to use teaching portfolios as a reflective tool so as to improve teaching practice. Though there are some people within UoT1 who use teaching portfolios to motivate for promotion, this is not enforced, as different departmental heads use teaching portfolios at their discretion in this regard. It is policy for all Lecturers to have a portfolio of teaching evidence but this has been met with resistance from some departmental heads and thus not in use. The respondent's opinion was that some of the departmental heads do not have the know-how on evaluating a teaching portfolio, thus they found teaching portfolio use cumbersome. This in her opinion was one of the reasons why the policy of making teaching portfolios compulsory was not enforced. There was also implied disapproval of the use of teaching portfolio introduction during the orientation programs. The respondent from UoT1 did not believe that they should be compulsory but emphasized that 'Lecturers need to have teaching portfolios available as they serve as a useful tool to evaluate what they do and also provide proof of evidence in justifying their teaching.'

In UoT2 the use of teaching portfolios is quiet important and teaching portfolios are used when Lecturers are being promoted. All of the Lecturers at UoT2 who had completed a higher qualification are required to compile a teaching portfolio before they could be promoted. Lecturers who have applied for promotion after obtaining higher qualifications have complied with this requirement. The respondent from UoT2 felt that the portfolios should be made compulsory as evidence of teaching practice. This he also indicated that when used for promotion, it forced Lecturers who wanted promotion 'to pause and rethink about their teaching practice'. This reflection contributes towards teaching practice improvement.

In UoT3 teaching portfolios are used when Lecturers want promotion and this has been complied with. Purposes and the use of portfolios was viewed as depending on the context within which it was used though there was agreement that it is a tool that can be effective in improving teaching practice. The UoT3 respondent also indicated to that 'we as a research institution are researching some aspects of the teaching portfolios. We have an academic within our unit who is looking into the use of portfolios, empirically examining the use of teaching portfolios in the past, how has this use impacted on what we do and what is it that we can change to ensure that we improve on this use.' However the UoT3 respondent also concurred that teaching portfolios may also be used for performance management purposes. The teaching development practitioners did not accepted that the teaching portfolio be part of the compulsory part of the orientation program.

6.5.2.2 QUESTIONNARE DATA FINDINGS

The results of the study on teaching portfolios are tabled in table 6.14 below.

	Strongly Disagree	Disagree	Not Sure	Agree	Strongly Agree	Average mean score
<u>Statement 15-</u> The construction of a teaching portfolio contributes in enhancing teaching practice.	1 (2%)	11 (18%)	16 (26%)	24 (38%)	10 (16%)	3.05
<u>Statement 16</u> Teaching portfolios are just time consuming.	7 (11%)	18 (29%)	19 (31%)	15 (24%)	3 (5%)	2.82
<u>Statement 17</u> Teaching portfolios should be used in conjunction with the performance management system.	2 (3%)	9 (15%)	16 (26%)	23 (37%)	12 (19%)	3.55
<u>Statement 18-</u> Teaching portfolios provide lecturers with reflective practice exercise that contributes towards the improvement of teaching.	1 (2%)	5 (8%)	21 (34%)	26 (42%)	9 (14%)	3.60

Table 6.14

Statement 15

The mean score for statement 15 is equal to 3.05 which is greater than 3. On the basis of this mean value we accept that the Lecturers are of the opinion that the construction of teaching portfolios does contribute towards the improvement of teaching practice.

Statement 16

The mean score for statement 16 is equal to 2.82 which is less than 3. On the basis of this mean value we do not accept the statement that the Lecturers are of the opinion that the construction of teaching portfolio is just time consuming.

Statement 17

The mean score for statement 17 is equal to 3.55 which is greater than 3. On the basis of this mean value we accept the statement that the Lecturers are of the opinion that teaching portfolio should be used in conjunction with the performance management system.

Statement 18

The mean score of statement 18 is equal to 3.60 which is greater than 3. On the basis of this score we accept that lecturers are of the opinion that teaching portfolio construction provides a reflective practice that contributes towards the improvement of teaching.

- Two comments on the use of teaching portfolios emphasize the value of teaching portfolios as proof of teaching conducted and thus helpful.
- Three comments indicated that line managers for Lecturers do not objectively use teaching portfolios or use them to advantage some of their favourite subordinates, thus they do resent or resist the use of portfolios for performance management purposes. This turns the use of teaching portfolios as 'window dressing' as one of the respondents indicated.

6.5.2.3 TEACHING PORTFOLIO CONSTRUCTION DISCUSSION

Qualitative data collected indicates that teaching portfolios may be used for different purposes depending on what one needs to achieve through the use of teaching portfolios. The respondents from UoT2 and UoT3 believed that every lecturer should always have a teaching portfolio handy as this serves as evidence for the lecturers teaching expertise, thus they felt teaching portfolios should be compulsory for all University of Technology Lecturers. Data collected from the Lecturers further concurs that teaching portfolios are helpful in providing evidence of good teaching practice and thus contribute towards the improvement of teaching.

Lecturers' data further indicates that 71% of lecturers failed to indicate support for the opinion that teaching portfolios are time consuming. This indicates that the lecturers are optimistic concerning the value of teaching portfolio construction. All three teaching development practitioners indicated that ideally teaching portfolio evaluation should be used for performance management evaluation. Data collected also indicates that the lecturers do agree that teaching portfolios should also be used for performance management purposes. Though concern is raised concerning the manipulation of teaching portfolios where academic managers become partial in the use of portfolios, it is important that when an institution chooses to use teaching portfolios, the use of such should be clearly spelled out to Lecturers as a means to ensure that such a use is acceptable within the institution. The existences of resistance in the use of teaching portfolios indicate that there are perceptions in the use of teaching portfolios that need to be clarified amongst the Lecturers.

6.5.3 THE USE OF STUDENT FEEDBACK

The qualitative and quantitative findings for student feedback will be separately provided and discussed below.

6.5.3.1 INTERVIEW DATA FINDINGS

All three Universities of technology have a system of student evaluation which is voluntary. Lecturers do use such student evaluation systems and this assists Lecturers to establish the effectiveness of teaching. The respondent from Uot1 felt that the system should be compulsory because students are the ones subjected to the Lecturers' teaching, thus students have the mandate to evaluate what they are being subjected to. All the respondents however felt student evaluation of teaching should not be used for performance management on its own, but in conjunction with other performance management evaluation tools.

The emphasis from UoT2 respondent was that student feedback should be used primarily as a tool to monitor the quality of teaching and learning. In UoT2 respondent's opinion it is incumbent on each University of Technology to monitor the quality of teaching and student feedback can provide in part, that monitoring tool. Though the student feedback process is compulsory at UoT2 yet the UoT2 respondent indicated that if that is the approach in his own experience, 'the feedback ends up being used as a punitive or rewarding measure instead of individuals using information they collect to evaluate their own praxis to improve the quality of teaching.'

The respondent from UoT1 indicated that '...there is very little that has been written on student feedback contribution to the overall teaching effectiveness within former Technikons. What we need is these institutions should start using the information from such student feedback results, to empirically inform teaching practice in Universities of Technology in order to really indicate how the benefits of student feedback and their contribution to teaching and learning'. She further indicated that,

'I believe that teaching development units should be the drivers of research in how student feedback informs practice and knowledge in the field of teaching...teaching development units should drive research in the teaching development initiatives in Universities of Technology more especially research that informs teaching practice as there is a lot that has been done without really researching how some such initiatives inform teaching practice'.

She also indicated that student feedback should be used for both the improvement of the quality of teaching and performance management. Her feeling was that if student feedback is used for 'monitoring the quality of teaching only, then when these Lecturers have used this feedback for a few years, they end up not continuing with the feedback from students...' She felt that, 'once they become experienced, they end up receiving the same type of evaluations... thus they end up feeling that the feedback information does not add much value to their teaching anymore and thus stop to conduct evaluations

voluntarily. My feeling is that student feedback should be used both for the evaluation of teaching and for performance management'.

The respondent from UoT3 indicated that they do use student feedback system for lecturers. The teaching development unit provides the necessary support where necessary to assist Lecturers where problems are identified. The student feedback use is optional but all Lecturers should also include the student feedback results in the teaching portfolio. She indicated that the use of student feedback has not been drawn into policy yet but there are departmental managers using the system and Lecturers voluntarily conduct such evaluations. She also indicated that voluntary student feedback exercises are more helpful in that Lecturers will effectively use this feedback received from students to improve teaching practice as compared how Lecturers would use the same data if it is enforced by policy.

6.5.3.2 QUESTIONNAIRE DATA FINDINGS

The results of the study on the use of student feedback are tabled in table 6.15 below.

	Strongly Disagree	Disagree	Not Sure	Agree	Strongly Agree	Average mean score
<u>Statement 19-</u> Obtaining feedback from students contributes towards improving teaching practice.	0 (0%)	2 (3%)	0 (0%)	22 (36%)	38 (61%)	4.55
<u>Statement 20</u> -Lecturers should regularly obtain feedback from their students with regards to the effectiveness of their teaching.	0 (0%)	1 (2%)	0 (0%)	26 (42%)	35 (56%)	4.53
<u>Statement 21</u> Student feedback should be used for teaching improvement purposes only .	6 (10%)	14 (23%)	15 (24%)	15 (24%)	12 (19%)	3.21
<u>Statement 22</u> Student feedback should be used for performance management purposes.	2 (3%)	13 (21%)	14 (23%)	16 (26%)	17 (27%)	3.53

Table 6.15

Statement 19

The mean value for statement 19 is equal to 4.5 which is greater than 3. We therefore accept that the lecturers are of the opinion that obtaining student feedback on a regular basis from students contributes towards the improvement of teaching practice.

Statement 20

The mean score of statement 20 is equal to 4.55 which is greater than 3. We can accept that Lecturer are of the opinion that obtaining student feedback from students on a regular basis promotes teaching effectiveness.

Statement 21

The mean value for statement 21 is equal to 3.21 which is greater than 3. We therefore accept that Lecturers are of the opinion that student feedback should be used for teaching improvement only.

Statement 22

The mean value for statement 22 is equal to 3.53 which is greater than 3. We therefore accept that the Lecturers are of the opinion that student feedback should be used for performance management purposes.

Three comments indicate the usefulness of feedback in improving and enhancing teaching with one emphasising that students are the only respondents who can give an objective evaluation for teaching effectiveness. One respondent indicated that ‘it is immaterial whether student feedback improves teaching or not, what institutions should do, should be to conduct research on the use of such to substantiate claims that are made about student feedback.’

Responses on the purpose of the use of student feedback indicate mixed feelings. One respondent questioned the objectivity of students in the student feedback process claiming that students do not always know what is good for them (as students) therefore not qualified to conduct such an evaluation of teaching. One respondent indicates that student feedback can be used for whatever purpose that one wishes to use it for, as long as it is appropriately used in a particular context. The respondent mentions that student feedback should be used only as part of the performance management system tool and not on its own in any context.

6.5.3.3 STUDENT FEEDBACK DISCUSSION

Qualitative data collected indicates that teaching development practitioners are of the opinion that student feedback should be used firstly to evaluate the quality of teaching. Secondly that student feedback should be used as a quality control measuring instrument like in performance appraisal systems. The qualitative data is also supported by the quantitative data in that 98% of the Lecturers indicated the Lecturers’ support for student feedback use as a tool to evaluate the effectiveness of teaching (Statement 20). The Lecturers also supported the use

of student feedback for performance appraisal. What is notable in these rating is that the support for the use student feedback for evaluation of teaching effectiveness is 98% compared to the 53% support of the student feedback use for performance appraisal purposes. On the other hand, 43% of the Lecturers supported the suggestion for the use of student feedback for teaching improvement purposes **only**.

Teaching development practitioners (UoT2 and UoT3) indicated that it is preferable that individual Lecturers use student feedback voluntarily as this serves solely to give lecturers information that the individual Lecturers use to improve their teaching practice. The feeling was that if student feedback is conducted for appraisal systems, Lecturers conduct such exercises simply to comply. Whereas if lecturers conduct the student feedback exercises voluntarily, there is more commitment to use data gathered from students to improve teaching and be more effective in addressing issues and concerns raised by students. There was also acknowledgement that the use of student feedback should not be the solitary tool used for performance management but that it should be used with other performance management tools. The use of student feedback should be determined by the acceptable context within which the particular institution uses the student feedback exercise for.

One needs to also take into consideration suggestions made by the respondent from UoT1 respondent concerning the use of student feedback for research into teaching and learning. The same suggestion was brought up by Lecturers concerning the use of data collected in student feedback to substantiate claims about the benefits of student feedback in improving teaching effectiveness. This again highlights research area opportunities available for Universities of Technology that may assist in improving research outputs for this sector of higher education

6.5.4 MENTORING NETWORKS

The findings for the interviews and the questionnaires on mentoring networks will be separately provided.

6.5.4.1 INTERVIEW DATA FINDINGS

All three teaching development practitioners indicated that mentoring would be quiet helpful more especially as a means to assist inexperienced Lecturers in their environment. Though there was concern with the logistics of handling mentoring if we had to formalize mentoring. As the respondent from UoT3 indicated,

'There is a problem in attempting to make some of these programs like mentoring compulsory for academics...however there is nothing wrong with these programs but I think they should be made available for academics to identify where they are needed, and academics should make use of such programs. I believe when people individually volunteer to engage in such programs, there is greater benefit achieved from such as compared to when we make these programs compulsory for the academics.'

In UoT2 the mentoring module is compulsory for all Lecturers. It is policy for academics to do at least two of such compulsory modules in education. The introduction of these compulsory modules for newly appointed Lecturers at UoT2 is new and no evaluation on the success of these programs has been conducted as yet. The UoT2 respondent however, felt mentoring as a programme would work wonders in grooming more young academics. The UoT2 respondent conceded that it is a bit problematic implementing mentoring as compulsory policy requirement for UoT2. The UoT2 respondent further indicated that they are struggling to get the cooperation of all Lecturers in undergoing these compulsory modules. Yet he felt that the benefit the lecturers may be reaping from doing this compulsory model includes giving lecturers the skills needed to promote collegiality and encouragement for Lecturers to pursue further qualifications in

education. He also highlighted that this may lessen the level of resignations of staff. He further indicated that;

‘...honestly, Industry pays our guys more money than we can afford. The University cannot afford to pay some of the salaries these guys are earning. But, if Lecturers do such courses, they may just be motivated to stay on as academics instead of leaving...I believe this may just help them to realize the value they add to others...and encourage academics to find fulfilment in doing what they do...’

The respondent from UoT1 indicated that they have had lot of resignations from young academics who leave the institution demoralized after a year or two of starting out within UoT1. As she indicated that,

‘...They resign and when one makes a follow up to check what could be the cause of this exodus of young promising academics- the reasons have been that they seem to have been treated like they were set up to fail...Unreasonable demands placed on them- like they are expected to teach too many hours with very little time to focus on research. Bottom-line there is no support...I believe the use of the mentoring system can help to address some of the issues academics who leave, pose as the issues that drive them out of the academic institutions...I don't think money is the real driving cause for such resignations- granted people do leave to make more money, but I have made an effort to talk to almost all the academics who have resigned from our institution within the last eight months or so- to sum it all up, leadership from academic heads is the number one issue that comes up. Some of the academic have been so unprofessionally handled; you wonder why such should be left to happen. This does not in any way promote collegiality...I believe mentoring can help our leaders to know how to become professional in handling junior staff members and the like.’

She believed mentoring programs could motivate such young academics to enjoy their careers as teachers and academics. This would provide young academics with role models that can provide support and boost morale for these young academics. Yet she was not in support of the mentoring programs being made compulsory for all Lecturers and also not in support of the mentoring programs being included as part of the orientation program.

The interviewee from UoT3 did indicate that staff morale within their institution is low and their unit was still making attempts to establish why this was so. What

the participants also indicated is that Universities of Technology need to use whatever is available within their means to motivate the Lecturers. She however further indicated that,

'the low staff morale cannot be attributed to one or two issues as a number of factors contribute towards this low staff morale...yet mentoring can be one of the tools used to boost morale amongst staff, promote collegiality, and the like...yet the issue of low staff morale is more complicated and will take a joint effort of all who are interested in the success of former Technikons, to put an effort in sorting out some of these problems within the former Technikons.'

Thus low staff morale will not successfully be sorted out by just one strategy like mentoring. Yet there was consensus that mentoring as one of the other strategies can contribute in addressing some of the problems contributing to low staff morale and promote good teaching within the Universities of Technology. The UoT3 respondent also did not support the suggestion in the model that mentoring should become the compulsory aspect of the orientation program.

6.5.4.2 QUESTIONNAIRE DATA FINDINGS

The results of the study on the mentoring networks are detailed in table 6.16 below.

	Strongly Disagree	Disagree	Not Sure	Agree	Strongly Agree	Average Scores/Mean
Statement 6- Establishing healthy mentoring relationships within universities provide an enabling environment for best teaching practice.	0 (0%)	1 (2%)	14 (22%)	37 (60%)	10 (16%)	3.90
Statement 7- The mentoring of novice lecturers by experienced lecturers can assist in improving teaching expertise.	0 (0%)	1 (2%)	8 (13%)	38 (61%)	15 (24%)	4.08
Statement 8- I feel there is a need to train experienced lecturers to serve as mentors for novice lecturers.	0 (0%)	2 (3%)	14 (23%)	24 (39%)	22 (35%)	4.06

Table 6.16

Statement 6

The mean score for statement 6 is equal to 3.90 which is greater than 3. In terms of data collect we accept that the Lecturers are in support of the opinion that the mentoring programs contribute towards the improvement of teaching practice.

Statement 7

The mean score for statement 7 is equal to 4.08. We can accept that the Lecturers are of the opinion that the mentoring of novice lecturers by experienced Lecturers can assist in improving teaching expertise.

Statement 8

The mean score for statement 8 is 4.06 which is greater than 3. In terms of the data collected we that the lecturers are in support of the opinion that there is a need for experienced lecturers to be trained as mentors for novice lecturers.

6.5.4.3 MENTORING NETWORKS DISCUSSION

Qualitative data collected indicates that there is consensus that mentoring can contribute in enhancing teaching practice. Mentoring does not only help in

promoting good teaching, but it also viewed as tool to boost staff morale and positive collegial relationships. From the analysis of data in table 6.16, we can also conclude that the Lecturers' data supports the opinion that mentoring does enhance or improve teaching practice. Quantitative data further indicates the need for experienced Lecturers to be trained as mentors. This in my opinion adds as a factor that can assist in the success of the implementation of the mentoring program. Teaching development practitioners do acknowledge that though mentoring is a good idea there are practical complexities in implementing such within any institution. Training of mentors may be necessary to address some of the complexities. Teaching development practitioners from UoT1 and UoT3 did not support forced compulsory mentoring programs, yet they acknowledged that mentoring programs be of good use to promote teaching. The UoT2 respondent conceded that though as a matter of policy mentoring program studies is compulsory for all academics, he has his reservations about making this program being made compulsory.

One must further indicate that the environment within which mentoring is implemented will also contribute towards the success of mentoring programs. Data gathered in the qualitative study also indicates that mentoring will not solve the problems of Universities of Technology with regards to staff morale boosting, motivation, and the like. Yet there is acknowledgement that mentoring is one of the strategies that can be used in CPD to contribute in addressing complex issues within Universities of Technology.

6.6 CONCLUSION

I have discussed the findings of the study and interpreted these findings. The discussions were corroborated by data from the interviews and questionnaires. The results of the study indicate that the suggested aspects of the CPD model are feasible. The conclusion and recommendations with regards to the aspects of the CPD model will be discussed in the next chapter.

CHAPTER 7

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

7.1 INTRODUCTION

This chapter provides an overview of the study conducted. This is done firstly by discussing a summary of each aspect of the CPD model and providing recommendations for each aspect of the CPD model. Secondly, a synopsis of the study is provided in order to illustrate that the problems originally expressed in section 1.2 have been addressed and that the aims of the study as expressed in section 1.3 have been achieved. Lastly conclusions on the study will be provided.

7.2 SUMMARY OF FINDINGS AND RECOMMENDATIONS

In the previous chapter I discussed details of the finding on the study. In this section I give a synopsis of the findings and discuss the recommendations with regards to the CPD model.

7.2.1 PERSONAL DEVELOPMENT

This study indicates that both Lecturers and teaching development practitioners do agree with literature that personal development is central to the professional development of Lecturers. Though I do acknowledge that it may sometimes be difficult to define or place parameters on the CPD activities that could be classified as personal development. Yet this aspect is important in CPD as the success of other aspects of CPD hinge on personal development. The success of other aspects of CPD is dependent on the position of each individual with regards to the individual's PDP. Literature has highlighted that teaching is a dynamic and passionate vocation, so CPD conceptions need to include in it, the education of self (Bolam and McMahon 2004). This highlights the importance of

the balance between personal, emotional and spiritual life of an individual to succeed in professional careers.

Personal and situational constructivist theories of learning also made claims that for learning to be successful in the life of a professional, such learning should be applicable and relevant to the personal life of the professional, and that such learning should be situated within the personal circumstances of, and applicable within, the professional's context. The CPD practitioners further indicated that academic managers should consider factors in individual Lecturer's personal lives and provide the necessary possible support needed to ensure that Lecturers succeed in career advancement. Such would to some extend boost staff morale and contribute to the overall motivation for productivity amongst Lecturers. An example at this juncture would include the suggestion in literature that some Lecturers in the former Polytechnics felt very strongly about teaching and did not want to be pressured into research. Lecturers were identified as having varying attributes, competencies, and at different phases in their career, thus Lecturers should not be treated as homogenous 'species' in the teaching profession. This is where academic managers can provide the necessary support to avoid conflict, by allocating appropriate teaching schedules for such Lecturers. That would bring out the best in people according to interest and focus. If a Lecturers wants more time to conduct teaching, such time should be allocated on the Lecturer's schedule but if a lecturer feels very strongly about research then such a lecturer should be freed from heavy teaching schedule to focus more on research,

Based on the findings and discussions in section 6.3.1 and section 6.4.1, I recommend that personal development should be accepted as the central aspect of the CPD model. The implication of this suggestion is that personal development should be an aspect of CPD upon which other aspects hinge. That is an aspect that should always determine where on the CPD model a particular Lecturer will be undertaking his/her CPD activities. Added to this, that academic

managers be encouraged to make use of PDPs and collaborate with Lecturers in providing support so that such Lecturers achieve professional goals.

7.2.2 ORIENTATION PROGRAMMES

The results of the study indicated that orientation programs are necessary to introduce the newly appointed Lecturers to the overall institutional structure. Secondly that orientation programs do play a role in introducing the newly appointed Lecturers to higher education teaching practice. The study further supports that the orientation programs should be made compulsory for all Lecturers who are appointed in Universities of Technology regardless of qualification or experience. The orientation program should however be structured so as to meet the needs of newly appointed Lecturers whether such Lecturers are appointed to teach or to focus on research development.

On the basis of suggested concepts of the CPD model as discussed in section 4.3.2.1 and section 4.3.2.2, I recommended that the orientation programs for all newly appointed Lecturers be encouraged as a means to improve teaching practice. It is on this basis that I accept that the implementation of orientation program as an aspect of CPD will improve teaching practice. These orientation programs should become compulsory as a means to ensure that the quality of teaching in institutions is promoted. Added to this, efforts should be made to ensure that orientation programs remain relevant, and be structured to meet the needs of all staff members not only with regards to teaching, but also with regards to research development and all the other functions of a Lecturer that would assist the Lecturers improve teaching practice.

The designed CPD model suggests that during the orientation programs, the use of mentoring networks, the introduction to research, the use of teaching portfolios and student feedback to be part of the orientation program. The use of these aspects as part of the orientation program was not supported by the teaching

development practitioners. These instruments were however not rejected as tools that impact on teaching, but are viewed as instruments that should be used separate from the orientation programs. Thus these instruments will be discussed separately in section 7.2.7.

7.2.3 PEDAGOGIC DEVELOPMENT

Literature studied indicates that Lecturers from the former Polytechnics viewed their main function as teaching. This study also confirms that this is the view held by lecturers in the sample used and that these Lecturers further view the teaching function as more important than the research function. Literature further suggests that teaching in University of Technology is to be pitched at an academically sound and accountable manner and that the demand for the status of higher education teaching, both as a professional activity and in the sphere of research, needs to be raised. Literature further indicated that Universities of Technology accepted students who were deemed as 'not fit' for higher education. On the other hand, the Lecturers that are recruited in Universities of Technology as subject experts are not necessarily professionally qualified teachers. This study also indicated that both the lecturers and teaching development practitioners are of the opinion that it is not imperative that lecturers acquire professional teaching qualifications. This view is supported by previous research that a teaching qualification is not a prerequisite for Lecturers in order for Lecturers to be effective in teaching practice. Academic background is identified as the most decisive factor in the teaching profession that contributes towards teaching effectiveness (Zuoyu 2002). It is therefore on the basis of the factors that I recommend that pedagogic development be included as part of the model.

This creates the need for the provision of teaching support for such Lecturers being necessary. Added to that, teaching for most of the University of Technology Lecturers will remain an integral part of professional functions. Literature and findings in this study indicated that such professionals do not

necessarily need teaching qualifications to be excellent as teachers, but the teaching development units introduce such professionals to teaching and learning sets which ultimately assists such professionals to become good as teachers. This makes it imperative that pedagogic development support be provided to University of Technology Lecturers in order to ensure that educationally accountable teaching practice is maintained. It is on these grounds that I therefore recommend that pedagogic development be accepted as part of the area of CPD that is important to the professional development activities of Lecturers.

There is also consensus between the teaching development practitioners and Lecturers that the teaching development workshops are helpful in improving teaching skills. The workshop services provided by teaching development units in Universities of Technology are beneficial for Lecturers. Literature indicates that information gathered during such workshops become useful and helpful to Lecturers as Lecturers advance in their careers (Stes and Clement 2004). Such workshops should be used where possible to foster good teaching practice and that teaching development units ensure that such workshops are structured to provide support at the cutting edge of the continuous changing professional development needs of Lecturers. The results in this study indicate that Lecturers do not support the view that Lecturers do not have sufficient time to attend such workshops. The implication is that Lecturers may have other reasons for not attending these workshops (as indications earlier in this study are that lecturers do not attend such workshops). If such workshops do not meet the existing needs of Lecturers, the workshops will not be attended. The lecturers also indicated that if attendance of such workshops bears credits towards formal qualifications, this may serve as motivation towards the attendance of such workshops.

It is however important that University of Technology Lecturers be equipped to practice teaching in a didactically accountable manner. What is important is that

the Lecturers should be always supported to conduct teaching as effectively as possible. If they do have a formal teaching qualification, this is an added advantage but it should not be a prerequisite for teaching in Universities of Technology.

7.2.4 SUBJECT CONTENT KNOWLEDGE IMPROVEMENT

Lecturers are teachers of the subjects that Lecturers specialize in. The results of the study support literature that subject content improvement does lead to improvements in teaching practice. Lecturers further indicated that they are of the opinion that broadening one's knowledge in the subject that one teaches, furthering qualifications in the subject that one teaches and conducting research in the subject that one teaches contributes towards improving teaching. Thus improving knowledge, skills and any form of expertise in the subject area, involves CPD activities. When the Lecturer expands knowledge in the subject area of expertise, or expands the knowledge on the teaching of the subject, such activities involve scholarship which was explained in literature reviewed as application of knowledge and research in the subject. Such subject knowledge improvement is an integral part of the University of Technology Lecturers' CPD as subject knowledge improvement contributes in the transformation of former Technikons from tertiary education institutions to higher education institutions with more focus also in research. The Lecturers also indicated that improving subject content knowledge is important to them as Lecturers. The results further indicate that Lecturers do acknowledge the importance of subject related conferences, seminars, discussions and the like as contributing towards Lecturers' development. Such would be discussions with colleagues in the same fields as Lecturers. And such create a number of possibilities in the development of the University of Technology movement in research activities.

On the basis of support for subject content knowledge improvement being accepted by both teaching development practitioners and the majority of

Lecturers respondents, I recommend that subject content knowledge improvement be accepted as a CPD activity that would be effective in improving teaching effectiveness. This implies that subject content knowledge development be regarded as an aspect of the model. Secondly, on the basis that Lecturers would welcome opportunities to discuss subject related matters with colleagues, I recommend that professional development activities should examine the use of subject based seminars, conferences, discussion groups, and the like, in a way to create networks where discussion on subject content, curriculum issues, research, teaching and learning issues are debated amongst University of Technology professional teaching staff so as to fully explore possibilities and improvements that may result from such networks.

7.2.5 LEADERSHIP ENHANCEMENT

Lecturers and teaching development practitioners concur that the quality of leadership provided within the Universities of Technology does have impacts on the effectiveness of teaching and learning within such institutions. Lecturers indicated that there is a need for leadership development within Universities of Technology. Added to this, Lecturers further indicated that there is lack of skilled leadership within Universities of Technology and Lecturers also indicated dissatisfaction with the kind of leadership provided by academic managers. Teaching development practitioners and literature have also indicated lack of transformation in leadership practices form former Technikons to Universities of Technology. Literature studied indicated that leadership needed focused attention in the Universities of Technology. The lack of appropriate leadership was identified as a factor that was hampering the advancement of former Technikons to the status of the Universities. This was attributed to lack of experience, qualification and academic leadership skills for managing the 'University' concept. The mind-set of academic managers from the Technikon movement with the lack of skill to manage and motivate for research development was also identified as an area that needed attention in University of

Technology leadership (Winberg 2005). Chetty (2005) indicated problems with leadership styles, poor research and scholarship, poor governance resulting in poor quality of teaching as issues that needed attention before Universities of Technology could get to where they ought to be. This brought about the suggestion that leadership development be a concerted effort to have programs within Universities of Technology that exposes individual Lecturers to leadership development where they would contribute to some extend to the overall leadership of such institutions. Teaching development practitioners further indicated that Universities of Technology should 'grow their own timber' in order to address leadership challenges within the sector. Therefore, this study support what is indicated in literature that the former Technikon movement needs to pay attention to leadership issues within such institutions. It is on the basis of these leadership challenges resurfacing that I recommend that the aspect of leadership enhancement be kept as an aspect of the CPD model developed.

The study further highlights sentiments in literature that quality of leadership in Universities of Technology lacked skilled managers more especially leading and managing the research component of University of Technology. Managers with no experience in research, no qualification, or who have not been through the rigor of research development will for instance not properly manage the research development in such institutions. This study did not exhaust all the dynamics that deal with leadership issues or challenges in Universities of Technology, yet the results of this study do support concerns in literature that attention on leadership development is crucial in order for the Universities of Technology to advance to where Universities of Technology need to be as new higher education institutions in the area of research development.

Concerns were also raised regarding leadership inconsistencies after the mini research project undertaken in this study (section 3.7). Academic managers were identified as failing to implement certain policies adopted with regards to professional development for Lecturers. Literature also indicated that there are

hickeys in some aspects of leadership within the University of Technology sector. There are different levels of leadership within the sector and one has to be careful not to assume that all is not well regarding leadership within Universities of Technology. Yet one has to admit that there are concerns within the sector's leadership dynamics that need attention so that Universities of Technology can realize the objectives set for the University of Technology sector to achieve. There are different dynamics in leadership structures which play a role in these hickeys identified in literature and in this study. This study did not in any way attempt to interrogate the leadership development dynamics and intricacies in Universities of Technology. Thus it I recommended that further research is necessary in this sector to identify the real nature of leadership problems highlighted. This research should attempt to establish, what is the nature of leadership problems within Universities of Technology? At what level of leadership within the sector are the hickeys? What dynamics within the sector influence the leadership performance? What impact do the policy dynamics within the sector have on the performance of leaders and managers within the sector? What needs to be done in order to correct some of the discrepancies in order to assist Universities of Technology to get to where they ought to be moving as new research institutions?

7.2.6 PARTICIPATION IN PROFESSIONAL BODIES

The results of the study indicate that the teaching development practitioners are of the opinion that participating in professional bodied, conference presentations, joint curricular activities by Lecturers would contribute towards the improvement of teaching practice. This is further supported by Lecturers indicating that participation with other professional bodies, communicating with other colleagues and/or conference contributes towards the improvement of teaching practice. Lecturers' data also indicates that Lecturers believe that such activities are important for Lecturers' career development, thus Lecturers further indicated that they would like to have more opportunities to share knowledge and expertise with

other professionals. Literature also indicated that there is valuable learning that takes place in communities of practice, where colleagues in the same profession share information, critique practice, discuss, built upon what they learn from others, and the like. Literature study further indicated that University of Technology Lecturers needed to improve in attending conferences, publishing or in activities of sharing of expertise as a means that would assist progression or advancement from Technikon level of expertise towards the University level of expertise in research and publications. It is therefore on the basis of the results in this study and literature recommendations that I recommend that Participation in other professional bodies be included as part of the CPD model designed.

The model suggest that involvement in these communities of practice can include either involvement in bodies of professional expertise for the subject that the Lecturer teaches, or in the body of professionals that teach the same subject as the Lecturer. Such participation should also encourage joint presentations in conferences, joint publications and the like. Parameters of this participation still need to be interrogated but Lecturers should be afforded such opportunities in order to promote collaborative efforts in academic work across institutions. Such should also encourage collaborative efforts in areas that the University of Technology sector does not have experience in, like research as an example.

7.2.7 OTHER SUGGESTIONS WITH REGARDS TO THE ORIENTATION PROGRAMMES

In this section I briefly discuss the summary of suggestions with regards to the orientation programmes followed by the implications of these on the model.

7.2.7.1 RESEARCH DEVELOPMENT

The CPD model suggests that research development be dealt with as an introduction in the orientation program. The respondents from UoT1 and UoT3

felt strongly that research development should be a separate aspect of the CPD model and not part of the orientation program. Research was indicated as an important aspect of any Lecturer's function by the teaching development practitioners while on the other hand, the lecturers viewed their main duties more as teachers than researchers. Furthermore, Lecturers do concur with literature earlier discussed that University of Technology Lecturers still viewed teaching as more important than research. This could be attributed to the pressure placed on Lecturers by educational authorities (within the University of Technology sector) to increase the throughput rate in Universities of Technology. Thus academic managers still give heavy teaching schedules to Lecturers, thus the view that teaching is more important than research.

Lecturers at Universities of Technology are however expected to conduct research like their University counterpart. The results of the study indicate that the Lecturers in Universities of Technology do agree with the claims in literature that research leads to the improvement of teaching. Lecturers in this study indicated that research is important to Lecturers, yet not as important as teaching is. The Lecturers also indicated that research in teaching and learning or research in the subject that a particular Lecturer teaches is important and should be encouraged. Subject related research for Lecturers was further viewed as important in that Lecturers who have the research experience in their subject would become catalysts in motivating students at undergraduate levels to aspire to take up postgraduate studies and conduct research. This would promote research development and encourage research outputs at Universities of Technology. Research is an important aspect of Lecturers' life as much as teaching is, yet research output in Universities of Technology is not where it is expected to be. I therefore recommend that research development be accepted and regarded as an independent aspect of the model for the University of Technology Lecturer and not as part of the orientation program as proposed when the model was initially designed.

Different factors do influence this output and all stakeholders in research development at Universities of Technology should make efforts to deal with such factors so as to improve research output. Focus should also be put on developing skills that will contribute towards improving research within Universities of Technology at all levels in terms of leadership, managerial and operational levels.

The issue of whether University of Technology Lecturers should focus on research or teaching will still remain a thorny subject for some. While the study indicates that attitudes towards research in Universities of Technology are positive, more effort is necessary to ensure that the drive for research is encouraged at both management and operational levels. Perhaps one needs to view the teaching-research commitment within Universities of Technology as a transformation issue rather than a debate issue. As Technikons were more of teaching institutions than research institutions, it will take a process of time to transform this mindset. For example, in this study Lecturers view research as an important aspect of Lecturers' duties, yet Lecturers still view their teaching functions as more important than the research function. The historic ideologies that influenced this mindset will take time to transform. The research agenda for Universities of Technology will take some time to materialize. This makes it imperative that leadership within Universities of Technology with regards to research development ensuring that transformation from teaching institutions to research institutions is 'speeded- up'. Added to this, research management should continue to put in more effort to promote a research ethos within Universities of Technology. This brings to the fore concerns raised in literature about research leadership and research management within Universities of Technology. A majority (87%) of respondents in the quantitative data indicated that there is a need for managers to be trained to manage research within their institutions. Added to this 82% of respondents indicated that they are of the opinion that there is no sufficiently skilled leadership for research within their institutions. Research leadership within Universities of Technology is an area of

concern and for Universities of Technology to be comparable with Universities as research institutions a lot of work through research leadership and research management still needs to be done. Do we attribute this concern to the lack of sufficient leadership or to the historic managerial policies/ practices that exist within Universities of Technology? I believe to make this judgment without deeper analysis and investigation would be unfair to the leadership of the University of Technology sector. It is on the basis of the discussion in this section that I recommend that further research still needs to be conducted in this regard so as to establish what needs to be done to remedy the situation with regards to research development in Universities of Technology.

7.2.7.2 CONSTRUCTION OF TEACHING PORTFOLIOS

The use of teaching portfolios as an introductory part of the orientation program did not receive support from the qualitative data collected. Teaching development practitioners (UoT2 and UoT3) felt that these should be made compulsory as they provide evidence of the quality of teaching practice. Furthermore the teaching development practitioners felt that teaching portfolios should be used in conjunction with performance management system. This was also supported by data from Lecturers where lecturers indicated that they are of the opinion that teaching portfolios should be used for performance management system. Literature discussed earlier also hinted that teaching portfolios provide information on development areas for lecturers which may need attention in order to empower Lecturers. The mini-research project conducted earlier (section 3.7) indicated that teaching portfolios were predominantly used in former Technikons for different purposes. The model suggests that all Lecturers be given a period of two to three years after appointment at a particular University of Technology to compile a teaching portfolio as part of the orientation program. This suggestion was not accepted, teaching portfolios should remain to be used as reflective tools that enhance teaching, a tool used for promotion purposes, a tool used to identify development needs when conducting appraisals for Lecturers, and the like. I

therefore recommend that teaching portfolios be left out of the model as part of the orientation program. Teaching portfolios can be used as a managerial tool to identify developmental needs of Lecturers and to improve the quality of teaching and learning.

The success of the use of portfolios depends on all users of the tool being aware of how the teaching portfolios should be used and the purpose for such a use. The study indicates that teaching portfolios have been successfully used as evidence of the quality of teaching for promotion purposes though Lecturers in this study indicate scepticism with regards to the objectivity of management in the use of portfolios.

7.2.7.3 THE USE OF STUDENT FEEDBACK

The use of student feedback is supported by both qualitative and quantitative data respondents as an effective tool for the improvement of teaching and learning. From the study there is an indication that student feedback should be used for both the evaluation of the effectiveness of teaching and as a performance management tool. The model proposes that student feedback be included in the teaching portfolio as proof of teaching that a particular Lecturer does. The discussion of results in section 6.5.3 indicates that student feedback should not be part of the requirement for teaching portfolios or orientation program compliance. Student feedback should be used as a separate tool that monitors performance management and the quality of teaching. From this performance management exercise action, the effectiveness of teaching is monitored and teaching quality improved where the need to do so is identified. The implication is that student feedback be continually conducted as part of the performance management tools to identify need for Lecturers where the Lecturers will be provided the necessary support in professional development. It is on the basis of these suggestions that I recommend that student feedback be eliminated as part of the orientation program and be used only as a tool that

monitors teaching effectiveness or as part of the performance management system.

Concerns that have been raised in literature and in this study were related to the objectivity or qualification of the students in the evaluation of Lecturers. Counter responses from teaching development practitioners and Lecturers were that students are the people who are being subjected to an individual Lecturer's teaching. Thus students are deemed objective evaluators of the effectiveness of the teaching that the students are subjected to.

The use of student feedback has been extensive in former Technikons to manage the quality of teaching and learning. Both teaching development practitioners and lecturers identified this as an available research area growth opportunity for Universities of Technology to investigate and come up with empirical evidence on the effectiveness of student feedback exercises. There is very little published on these exercises by Universities of Technology. This would also empirically justify the extensive use of student feedback within such institutions. This would create evidence of the benefits of student feedback in educational development and thus serve to validate educational theory.

7.2.7.4 MENTORING PROGRAMMES

The results of the study indicate that the mentoring concept is a good suggestion that can contribute to effective teaching by the Lecturers. Both the Teaching Development practitioners and Lecturers acknowledges that the successful implementation of mentoring programs can result in the promotion of good teaching and subsequently result in better learning opportunities for students.

The teaching development practitioners agreed that the implementation of compulsory formal mentoring programs may be problematic. The teaching development practitioners further indicated that mentoring is also problematic if

adopted as part of the orientation program (as the model suggests). Yet the teaching development practitioners indicated that mentoring, where possible should be used in order to promote teaching effectiveness and reap the other benefits inherent in mentoring programs. However, mentoring should not be accepted as the compulsory part of the orientation program. Suggestions from teaching development practitioners indicate that mentoring should be accepted as a tool that can assist in improving teaching. Mentoring was also deemed as a tool that can succeed in promoting good collegial relationships within any institution, motivation of academics and further boost staff morale. Mentoring has the potential to provide support for Lecturers where experienced members of the academic community share experiences, ideas, problems, suggestions with others in an atmosphere of confidentiality and trust, with the benefits that teaching expertise may in the process be improved. Mentoring can thus serve as an invaluable tool that promotes teaching effectiveness, promote collegiality and assist novice Lecturers in struggles they encounter in career development. It is on the basis of these mentoring benefits and results in the quantitative study that I recommend that mentoring be not discarded from the model, but be incorporated as a tool that can be used for CPD or performance management purposes.

Mentoring can be used firstly to facilitate the integration of newly appointed Lecturers into the institution they are employed in and ensure that such novice Lecturers receive help when necessary. This would ensure the smooth transition of novice Lecturer into the practice within the institution. Secondly, mentoring can be used to develop other skills of novice lecturers where the need for such skills is identified. An example may include assigning an experienced Lecturer to coach a novice in certain leadership skills necessary for the success of the novice lecturer in the academe.

7.3 IMPLICATION OF RECOMMENDATIONS ON THE MODEL

Based on these findings and recommendations, a modified model is now depicted in figure 7.1 (page 271) below. I have already indicated that research development is an important aspect of a University lecturer's job function, and thus inevitably research development should be a separate focus aspect for the Lecturers in Universities of Technology. This research should include research into teaching and learning, subject related research, joint research projects with industry, and the like.

Mentoring networks, teaching portfolio construction and student feedback were not accepted as part of the orientation programmes but as tools that can be useful in promoting teaching effectiveness. Mentoring in my opinion may be used as a tool that assists in leadership development where deliberate steps are taken to assist develop novice lecturers' skills. Teaching portfolio construction may be done by a Lecturer when need arises for a portfolio to be constructed. Yet when used for CPD purposes teaching portfolios are used as a monitoring or evaluation tool in order to identify developmental needs and address such needs. Student feedback can also be used as a tool to monitor teaching effectiveness and remedial action taken to improve teaching skills for Lecturers.

7.4 GENERAL OVERVIEW OF THE STUDY

In chapter one, an introductory overview of the study is provided. Chapter 2 gives a historic overview of the Technikons in South Africa and the mandate that Technikons possessed and how this mandate informed teaching practice. This is followed by a brief historic overview of five University of Technology systems internationally, after which a comparative analysis of these systems is conducted. From this literature study, I drew together unique features of University of Technology education and how these features inform teaching practice. Furthermore, I discussed how these features impact on teaching within the

University of Technology sector and how this impact should change teaching practice from the Technikon teaching philosophy. In chapter three I discussed theories of CPD. These include key features of CPD, how learning takes place in CPD and the role played by different stakeholders who are involved in CPD. This is followed by a discussion of theories of teaching with a focus on teaching in higher education. A study is then conducted to establish the state of CPD in Universities of Technology in South Africa. Information from chapter 2 and chapter 3 is then used to construct a CPD model for the University of Technology Lecturer in chapter four. Chapter five provides the research design for this study in order to test the model using three Universities of Technology in South Africa. The findings of this are discussed in chapter 6 and the summary and recommendations on the model are provided in this chapter.

7.5 CONCLUSION

In this study I have designed a CPD model for Lecturers with focus on assisting the University of Technology Lecturer to improve teaching practice. The model was designed from literature and mini research project undertaken in the study and thus the model is theoretically sound. The emphasis of the model is mainly to improve teaching practice for the University of Technology Lecturer. The model further defines activities that should be classified as CPD. The model was subsequently empirically tested and the results from Lecturers and teaching development practitioners served to validate the CPD activities that would enhance teaching practice. It is therefore my opinion that the adoption of the CPD model framework can contribute in directing CPD activities for University of Technology Lecturers as the model provide answers to research questions as set in the study. The model further serves to provide a guideline for University of Technology Lecturers to continually focus of continuously engaging in CPD activities that ensure that the Lecturers stay focussed on growth and development within the higher education teaching career.

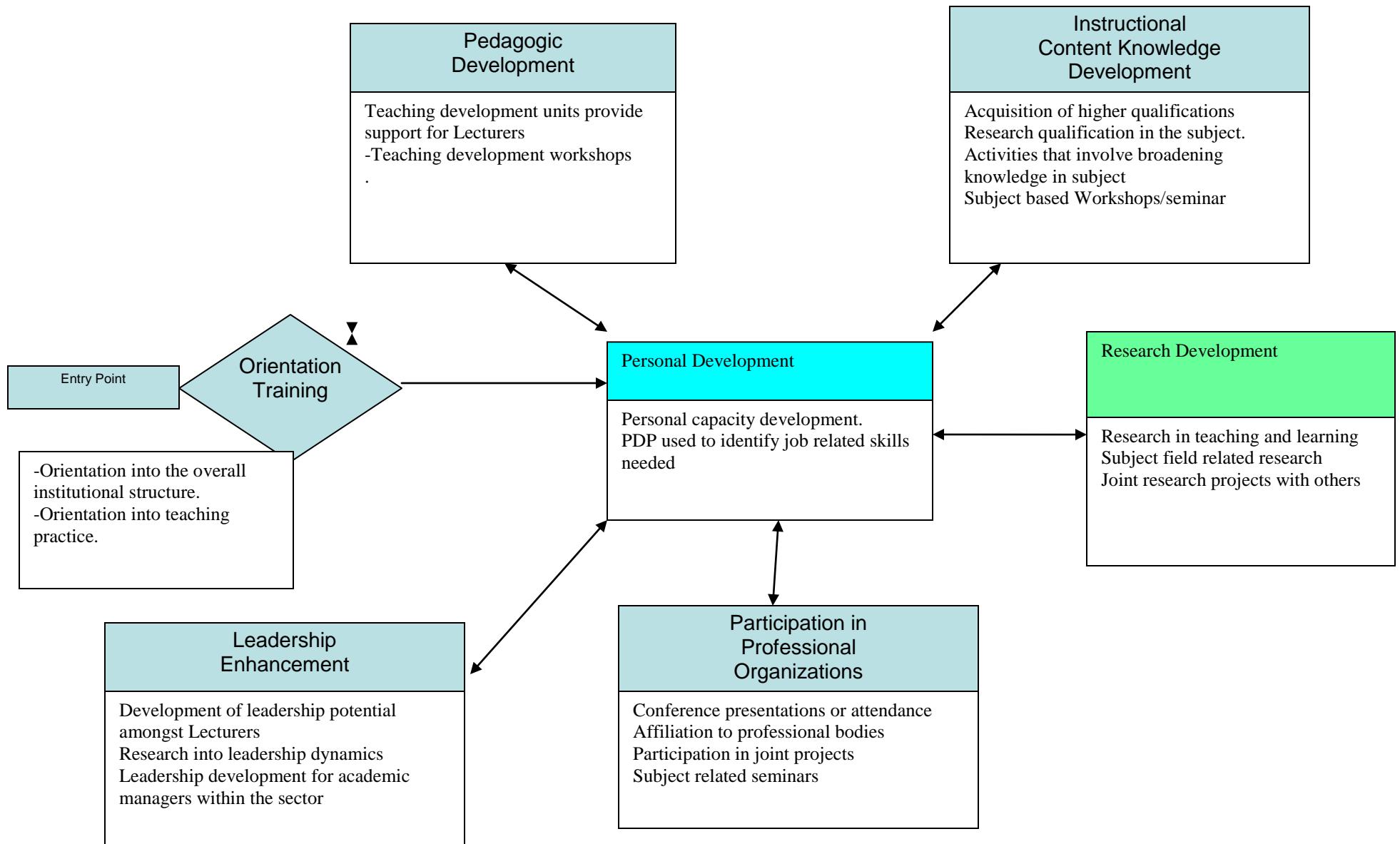


Figure 7.1

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Appendix 1

INTERVIEW SCHEDULE

ORIENTATION TRAINING

Can you comments on the effectiveness of Orientation programs in developing the teaching skills for a University of Technology lecturer?

Possible follow up questions:

- Should Orientation program for lecturers be made compulsory for all lecturers in Universities of Technology? Why/Why not?
- Do professionally qualified teachers need to attend the orientation program?
- Do you have evidence of the effectiveness of orientation programmes?

MENTORING RELATIONSHIPS

Do you think the use mentoring system (between experienced and novice lecturers) can assist in the improvement of teaching?

Should mentoring become a compulsory part of a lecturers' job?

RESEARCH DEVELOPMENT.

Do all lecturers need basic research skills?

Possible follow up questions:

- Is research important for all lecturers?
- In your opinion, do all lecturers need to be conducting research? Why?
- What if a lecturer feels they are not interested in conducting any research?

TEACHING PORTFOLIOS.

What is your opinion on the importance of a teaching portfolio for lecturers?

Possible follow-up questions

- Should teaching portfolios be compulsory for all lecturers?
- Do you think teaching portfolios contribute towards the improvement of teaching?
- Should teaching portfolios be used for performance management purposes or developmental purposes?

STUDENT FEEDBACK.

What is your opinion about the use of student feedback for lecturers?

What is the future of student feedback in Universities of Technology?

Should student feedback be used for performance management/ teaching improvement purposes? Why?

PEDAGOGIC DEVELOPMENT

Is it important for lecturers to obtain a teaching qualification in order to be effective in their teaching in Universities of Technology? Why or why not?

How do the lecturers' training workshops you provide improve teaching and learning?

Do you think accreditation of teaching development workshops will affect attendance of these workshops?

INSTRUCTIONAL CONTENT DEVELOPMENT

Do you think that the attainment of higher qualification in a specific subject field contribute towards the improvement of teaching and learning?

How do you respond to academics who imply that they have been teaching at Universities of Technology with their qualifications and they do not need to improve such qualifications?

Do you think a lecturers' further studies towards a masters /PhD would improve teaching effectiveness.

LEADERSHIP ENHANCEMENT

Do you think Institutional leadership (Management) has an impact on teaching and learning within the institution?

How important is the development of leadership potential within the lecturers in Universities of Technology?

Do you think the type of leadership within Universities of Technology play a significant role in a lecturer's professional development or the lecture's performance?

PERSONNAL DEVELOPMENT

Do you think personal development for University of Technology lecturers play a significant role in improving teaching practice?

AFFILIATION TO PROFESSIONAL BODIES

Do you think that the lecturer's affiliation to professional organizations, contribute towards the improvement of teaching and learning?

Is conference attendance important for the University of Technology lecturer?

Any question that you have for me with regards to this study or the interview?

Appendix 2

QUESTIONNAIRE ON CONTINUOUS PROFESSIONAL DEVELOPMENT FOR UNIVERSITY OF TECHNOLOGY LECTURERS

Please complete all questions.

SECTION A (Please tick the applicable box).

PERSONAL DETAILS

1. Highest Level of Qualification:

National Diploma	Bachelor's Degree
Higher National Diploma	Honours Degree
B. Tech	Masters Degree
M. Tech	PhD/ Doctoral Degree
D. Tech	Other (Specify)-

2. Years of Teaching Experience:

0-3 Years
4-6 Years
7-10 Years
11-15 Years
15 Years and more

3. Age:

21 – 30 Years
31 – 40 Years
41 – 50 Years
50 – 60 Years
60 Years and above

4. Faculty/ School:

Business Management
Engineering
Humanities
Applied Sciences
Other (Please specify):

SECTION B (Please tick the appropriate box)

Orientation Programs	Strongly Disagree	Disagree	Not Sure	Agree	Strongly Agree
1. Orientation programs ensure that lecturers have the minimum required skills to perform their teaching functions.					
2. Orientation programs are helpful in introducing novice lecturers to higher education teaching practice.					
3. Professionally qualified teachers should be exempted from attending orientation programs.					
4. Orientation programs should be made compulsory for all newly appointed lecturers.					
5. What a lecturer learns during the orientation programme influences a lecturer's teaching practice.					
Any comment on the orientation programs:					

Mentoring Programs	Strongly Disagree	Disagree	Not Sure	Agree	Strongly Agree
6. Establishing healthy mentoring relationships within universities provide an enabling environment for best teaching practice.					
7. The mentoring of novice lecturers by experienced lecturers can assist in improving teaching expertise.					
8. I feel there is a need to train experienced lecturers to serve as mentors for novice lecturer.					
Any comment on mentoring:					

Research Development	Strongly Disagree	Disagree	Not Sure	Agree	Strongly Agree
9. All lecturers need basic research skills in their teaching practice.					
10. Doing research is important to me as a lecturer.					
11. Lecturers should be given more time so as to focus more on research.					
12. Doing research in the subject that I teach is important to me as a lecturer.					
13. I view myself more as a teacher than a researcher.					
14. Research is important for my teaching practice.					
Any comment on research development in Universities of Technology:					

Teaching Portfolio	Strongly Disagree	Disagree	Not Sure	Agree	Strongly Agree
15. The construction of a teaching portfolio contributes in enhancing teaching practice.					
16. Teaching portfolios are just time consuming.					
17. Teaching portfolios should be used in conjunction with the performance management system.					
18. Teaching portfolios provide lecturers with reflective practice exercise that contributes towards the improvement of teaching.					
Any comment on the teaching portfolios:					

Student Feedback	Strongly Disagree	Disagree	Not Sure	Agree	Strongly Agree
19. Obtaining feedback from students contributes towards improving teaching practice.					
20. Lecturers should regularly obtain feedback from their students with regards to the effectiveness of their teaching.					
21. Student feedback should be used for teaching improvement purposes only .					
22. Student feedback should be used for performance management purposes.					
Any comment on student feedback:					

Subject Content Improvement	Strongly Disagree	Disagree	Not Sure	Agree	Strongly Agree
23. Acquiring a higher qualification in the subject one teaches helps one to be a better teacher.					
24. Broadening ones' knowledge of the subject one teaches contributes towards communicating content well.					
25. Developing deeper or advanced knowledge for the subject that I teach is important to me.					
26. I would like to have more opportunities to share or discuss my teaching experience with colleagues.					
27. Conducting research in the subject that one teaches improves one's teaching practice.					
28. Regular discussions with colleagues in the teaching of my subject are helpful in my development as a teacher.					
Any comment on subject content improvement:					

Teaching Skills Improvement /Pedagogic Development	Strongly Disagree	Disagree	Not Sure	Agree	Strongly Agree
29. Teaching development workshops are helpful in improving teaching skills.					
30. Acquiring a professional teaching qualification is important for University of Technology lecturers.					
31. Formalising teaching development workshops to bear credit towards formal teaching qualifications will motivate me to attend such workshops.					
32. I believe teaching, compared to research, is the most important aspect of a lecturer's job.					
33. I do not have enough time to attend teaching development workshops.					
Any comment on teaching skills improvement:					

Personal Development	Strongly Disagree	Disagree	Not Sure	Agree	Strongly Agree
34. Performance management should incorporate my personal development plan.					
35. Personal self improvement plays an important role in my career development.					
36. Personal development is helpful in improving my effectiveness in teaching.					
37. It is important to incorporate personal development plans in the management of my job performance.					
Any comment on personal development:					

Leadership Enhancement	Strongly Disagree	Disagree	Not Sure	Agree	Strongly Agree
38. I believe the quality of leadership within an institution does have an influence on teaching effectiveness within the institution.					
39. I believe there is a need for development of leadership potential in my institution.					
40. There is sufficiently skilled leadership for research development in my faculty/school.					
41. I believe there is sufficiently skilled management leadership in my institution.					
42. I am satisfied with the kind of leadership provided by academic managers in my institution.					
43. I believe academic managers in Universities of Technology should be trained to manage research development.					
Any comment on leadership enhancement:					

Participation In Professional Bodies	Strongly Disagree	Disagree	Not Sure	Agree	Strongly Agree
44. Communicating with other professionals in my field assists me in enhancing teaching for my subjects.					
45. Attending conferences will enhance my teaching practice.					
46. Sharing my subject knowledge with colleagues is important to me.					
47. Belonging to a body of professionals in my field is important to me.					
48. Communication with other professionals in my field is vital for my career success.					
Any comment on participation in professional bodies					

YOUR COOPERATION IS HIGHLY APPRECIATED - THANK YOU

Appendix 3

Department Teaching Development
Vaal University of Technology

Dear Sir/Madam

I am currently conducting research on the professional development of lecturers for a Master's degree in Educational Management. I am therefore inviting you to participate in the research project entitled: "*The Development of a Continuous Professional Development Model for the University of Technology Lecturer*". The purpose of this questionnaire is to gather data on lecturers' opinions with regards to certain aspects of professional development.

It would be greatly appreciated if you could take a few minutes of your time and complete this questionnaire. Your cooperation and participation is highly appreciated. The responses received remain confidential and will only be used for the purpose of this study. In addition, participation is voluntary.

Kind Regards

Bruce Matee

PS. After completing the questionnaire, kindly place it in the attached self-addressed envelope and forward it to me. Thank you.