



**THE APPLICABILITY OF A LEARNING ORGANISATION PHILOSOPHY FOR  
IMPROVING PROCESSES AND PRACTICES IN THE UNIVERSITIES OF  
TECHNOLOGY (UoTs) IN KWAZULU-NATAL**

A dissertation submitted in fulfilment of the requirements for the Master of Technology Degree in Business Administration: Faculty of Management Sciences at the Durban University of Technology.

Submitted by Patrick Mbongwa Mhlongo

June 2014

Supervisor : Dr R.W.D Zondo: D Com; MBA; ABP.

Co-supervisor: Dr M. De Beer: B Comm; Hons,  
M Comm; PhD.

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DECLARATION

I, Patrick Mbongwa Mhlongo, hereby declare that this project is the result of my own investigation and it has not been submitted in part or in full for any other qualification or to any other institution of higher learning. Where ideas of other people might have been used, they have been duly acknowledged.

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LIST OF ABBREVIATIONS
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ANOVA	Analysis of variance
CoP	Communities of practice
DUT	Durban University of Technology
KM	Knowledge management
KZN	KwaZulu-Natal
LO	Learning organisation
OL	Organisational learning
MUT	Mangosuthu University of Technology
SPSS	Statistical Package for the Social Sciences
UoT	University of Technology

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My colleagues at DUT who assisted with data collection, their contribution is highly appreciated.

My family for instilling the attitude and the understanding that tough times never last.

## DEDICATION

I dedicate this research project to:

My entire family for being a source of inspiration and encouraging me to always keep my eyes on a prize and not to give up, even in tough times.

## ABSTRACT

The UoTs are operating in an environment in which they have to deal with multifarious and complex challenges. Responding effectively to such challenges has become critical for UoTs in achieving a competitive advantage and in outsmarting competitors. Traditional approaches which deal with rapid changes in the higher education landscape have become obsolete. The fact is that UoTs are faced with transformational challenges - increasing student intake, the need for improving throughput rate, the need for remaining financially sustainable while producing the top graduates required by industry.

Given this background, this study investigates the application of a learning organisation philosophy for improving processes and practices in the UoTs of KwaZulu-Natal. Learning organisation philosophy has been identified as one of the best approaches for organisations in the corporate sector. It is used to achieve and sustain a competitive advantage. Learning organisation philosophy encourages the culture of continuous learning by members of the organisation, so as to achieve strategic objectives.

This study provides UoTs' perspectives of the learning organisation theory. Data was collected from employees of DUT. The sample was drawn from both administrative and academic employees. A self-administered questionnaire was used in collecting the data.

The findings of this study reveal that the application of a learning organisation philosophy will help UoTs improve their processes and practices. Based on the findings, the majority of participants indicated that they would embrace and support the application of a learning organisation philosophy at DUT. It has to be noted that in the study, DUT was used as a case study.

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## **CHAPTER ONE: INTRODUCTION AND THE BACKGROUND OF THE STUDY**

### 1.1 Introduction and background of the study

This is an introductory chapter of the entire research project. It provides the background of the study, definitions and the clarification of concepts, awareness of the problem, purpose, and objectives of the study, as well as, the division of chapters.

Organisations are facing many dynamic challenges as they strive to remain competitive and stay ahead of the competition. These challenges include global competition, technological advances, customer demands, and government legislations. Failure to respond to such challenges has led to the shrinking and disappearance of organisations that were traditionally considered powerful and dominant (Rothwell, 2010:1). Universities of Technology (UoTs) are not immune to these environmental challenges. Garrison and Vaughan (2008:143) explain that the context of higher education is changing, due to factors significantly transforming the higher education sector. Higher education institutions, especially in South Africa, are also criticised for failing to produce graduates with the necessary skills to meet the needs of corporate business. Operating in such a turbulent environment, organisations should adapt and learn continuously, in order to maintain competitiveness.

The learning organisation philosophy has become the prerequisite for survival (Fulmer in Liao,2010:3793). According to Batman and Snell (2012:323), the learning organisation philosophy encourages organisations to experiment with new approaches, learn from previous experiences, and also to learn from other organisations. Senge in Binza (2005: 106) defines the learning organisation as an organisation in which people continuously expand their capacity for creating the results they truly desire, where new and expansive patterns of thinking are nurtured, where collective aspiration is set free, and where people are continually learning how to learn together. With the learning organisation philosophy, the emphasis is on continuous improvement of organisational processes and practices. According to Robbins (2009:494) a true learning organisation is able to improve service quality and employee performance. This research project is inspired by a need to provide a different approach in the form of a learning organisation philosophy dealing with environmental challenges faced by organisations and the Universities of Technology. The

need for continuously improving processes and practices in the UoTs forms the basis of this study.

In essence, the learning organisation philosophy is used by organisations as an effective tool with which inspired organisations may pursue excellence and remain competitive. Robbins (2009: 495) raises an important point - that the members of a learning organisation sublimate their personal self-interest and fragmented departmental interest into working together to achieve the organisation's shared vision. The learning organisation philosophy discourages a territorial mind set in which units or departments within an organisation operate in isolation. He further states that the learning organisation has a collective sense of identity, a fundamental purpose of vision which is shared by every employee in the organisation. The common practise in the UoTs and traditional universities is that each department operates in isolation, and has its own vision, with no collective sense of identity across the institution; and there is no systems-thinking culture. Daft (2010:33) states that people in the learning organisation are aware of the whole system, how everything fits together, and how the various parts of the organisation interact with one another and with the environment (relevant stakeholders).

The learning organisation philosophy encourages learning at all levels of the organisation (Robbins, 2009:497). In a learning organisation, people have what Sondhi (2007:24) calls an insatiable desire for success. This attitude ensures that learning is constant. Leormans in Weeks (2010:598) states that the learning organisation philosophy is becoming increasingly relevant because of the augmented complexity, uncertainty, and rapidity of change in the business environment. Daft (2010:30) explains that the learning organisation philosophy promotes communication and collaboration, so that everyone is actively engaged in identifying and solving the problems, as well as, enabling the organisation continuously to experiment, improve, and increase its adaptability.

The UoTs and the higher education institutions, even schools, do not feature adequately in the learning organisation literature. Moloi (2010:621) states that research findings on learning organisations generally do not apply to the education sector. Garrison and Vaughan (2008:143) explain that the context of higher education is changing, as social, technological, and globalisation factors have brought significant transformation in higher education. Hence this research project intends to look into the learning organisation philosophy and the UoTs. According to Adler (2011:1), the learning organisation

philosophy plays a critical role in helping organisations create an atmosphere of trust. The learning organisation philosophy helps to reinforce a shared purpose guiding employees at all levels of the organisation in their working towards a common goal. The learning organisation philosophy inspires people to work as collaborative communities, where they continually and willingly apply their unique talents in helping the organisation achieve its strategic objectives. This research project intends to examine challenges and opportunities for the application of a learning organisation philosophy at the UoTs of KwaZulu-Natal. Hence, DUT has been used as a case study. The following section defines and clarifies the study concepts.

## 1.2 Definitions and clarification of key concepts

This section provides the definitions of terms relevant to this study.

- **Competitive advantage:** this is the ability of an organisation to produce goods or to offer services more effectively than do its competitors, thereby outperforming them (Kinicki, 2006:585).
- **Continuous improvement:** this is ongoing incremental improvements in all sectors of the organisation (Kinicki, 2006:585). Drawing from the literature review, a learning organisation philosophy stimulates the desire of organisational members to learn new, effective ways of performing work-related tasks.
- **Creativity:** this is the application of imaginative thought which may lead to new ways of seeing things; and of finding innovative solutions to a problem; or of initiating change (Mullins, 2010:825). In this study creativity is considered one of the key elements of a learning organisation.
- **Innovation:** this is the process whereby new and improved products, processes and services are developed and utilised (Bruton & White, 2011:378).
- **Knowledge Management:** this is the ability to acquire, integrate, store, and share knowledge using human and technical systems (Bruton & White, 2011:378). Although knowledge management is a different concept altogether



it is related to a learning organisation philosophy in the sense of knowledge-sharing.

- **Learning:** this is a relatively permanent change in behaviour which occurs as a result of experience (Mullins, 2010:827). In this study learning (continuously) is a critical feature of a learning organisation philosophy.
- **Learning organisation:** this is an organisation which sustains competitive advantage through learning more quickly than its competitors (Jashapara, 2011:342).
- **Productivity:** this is the performance measure which includes effectiveness and efficiency (Robbins, 2009:540).
- **Shared vision:** this is a shared picture of the future which the organisation wishes to create (Govender, 2009:368).
- **Systems thinking:** this is a way of thinking based on understanding the way in which the system's elements or parts interrelate; and how systems work within the context of larger systems (Jashapara, 2011:344).

### **1.3 Awareness of the problem**

The UoTs generally do not have a philosophy which promotes a sense of a common purpose and continuous team learning in improving productivity across the institution. The problem is that UoTs, as with many other institutions of higher learning, are designed in such a way that each department operates in isolation. As a result, there is no philosophy that is strongly internalised and incorporated into daily operations and practises across the institution. The focus of the study is not on the way in which UoTs are structured, but on a lack of an overarching philosophy driving employees to learn and share knowledge. Therefore, the study attempts to examine challenges and opportunities for the application of a learning organisation philosophy in the UoTs. The lack of an overarching philosophy connecting various departmental practices into a coherent whole in the UoTs, is the problem being investigated in this study. The strategic and operational plans for the Faculty of Accounting and Informatics at DUT state that there is a recognised need for establishing a unified institutional culture that will lead to improved intra-institutional

collaboration at DUT (Durban University of Technology, 2011: 9). Discussing the need for creating new solutions, Calantzis (2009:41) states that everywhere organisations are recognising that traditional ways of conducting business have failed, because of the complex environment and rapidly changing business world.

#### **1.4 Contribution of the study**

This research project is necessary, because it makes valuable contribution to establish opportunities and challenges for the application of a learning organisation philosophy in the UoTs of KwaZulu-Natal. The findings of this study contribute to the theory on learning organisations in general, and the UoTs in particular. The study may form the basis for UoTs' considering becoming learning organisations. Highlighted in the study are the general trends, developments in relation to the business environment in which organisations operate and the application of a learning organisation. The findings of this study may therefore provide a proper perspective of the UoTs in the context of a learning organisation philosophy.

#### **1.5 Research Question**

Will the application of a learning organisation philosophy improve productivity in the UoTs of KwaZulu-Natal?

#### **1.6 Purpose and objectives of the study**

This study aims to determine whether the application of the learning organisation philosophy will improve employee productivity in the UoTs. The objectives of this study are as follows:

- to examine opportunities and challenges for applying a learning philosophy in the UoTs;
- to assess perceptions of employee productivity resulting from the application of the learning organisation philosophy; and
- to determine whether employees in the UoTs could embrace the application of the learning organisation.

#### **1.7 Research methodology**

This section provides a brief overview of the methodology used in the study. However the methodology of the study is covered in detail in the research design section. It highlights

the influence of literature, as well as the empirical research and the study population. Pre-testing of the research instrument and the use of Cronbach's coefficient alpha to determine validity and reliability is also covered in detail under validity and reliability.

### **1.7.1 Literature review**

The relevant literature study as covered in the literature review section of this study is the main source of information in completing a conceptual framework and to decide on a research design. Different approaches were critically considered before informed decisions were made about their suitability for this study. The purpose and the objectives of this research were also considered. Various articles on learning organisation-related issues, as expanded on in the literature review, were also used in formulating questions contained in the questionnaire. The literature review comprises eleven sections covering various aspects of a learning organisation philosophy in relation to the objectives of this study.

### **1.7.2 Empirical research and study population**

This research project is quantitative in nature. A self-administered questionnaire was used as a tool with which to collect data in this research project. Structured questionnaires were distributed to staff on all DUT campuses in Durban. The questionnaire was accompanied by a covering letter explaining the aims of the study, as well as assuring the confidentiality of information gleaned from respondents. The questionnaire contained Likert-scale-type questions. A sample of 291 participants was randomly selected from a population of 1215 DUT employees. The sampling approach as outlined by Sekaran (2008:295) was used in determining the sample size. Academic and administration staff were represented in the sample. Data analysis software called Statistical Package for the Social Sciences (SPSS) was used in a data-analysis process. Descriptive statistics were used to analyse data collected from the respondents. The results are presented in the form of graphs and tables.

## **1.8 Validity**

It is important to ensure that the research instruments used in the research project accurately measures what the researcher wishes to measure. Validity is defined by Bless, Higson-Smith and Kagee (2008: 185) as a degree to which a research study measures what is it expected to measure. Best (2012: 6) explains that data collected should be relevant to the objectives of the research project; and the findings should provide a complete picture which captures relevant issues of what is being investigated. Pre-testing

of the questionnaire ensured that there were no challenges for participants when completing the questionnaire. Questions were written in a simple language and instructions were clearly understood. The research instrument proved its validity during the pre-testing stage of this study.

### **1.9 Reliability**

Issues relating to reliability of a data-collection instrument were considered in the process of developing a questionnaire. Bless, Higson-Smith, and Kagee (2008:150) describe reliability as the degree to which the measuring instrument produces the same results consistently when used repeatedly for research purposes. In agreement with other authors, Sekaran and Bougie (2013:150) acknowledge that reliability refers to the consistency of the measuring instrument used in the research project. Pre-testing results proved that the research instrument was reliable as participants clearly understood the instructions for answering the questionnaire. Chronbach's Alpha was used to measure reliability in this study.

### **1.10 Division of chapters**

This research project is divided into five chapters. A brief description and content of the remainder of chapters is provided below.

#### **Chapter 2: Literature review**

This chapter provides an extensive review of literature relevant to the study.

#### **Chapter 3: Research Methodology**

This chapter outlines the research methodology used in this study, which includes the data-collection method, the method used to analyse the data, and the research site.

#### **Chapter 4: Data analysis and the interpretation of results**

This chapter provides the analysis, interpretation, and presentation of findings for this research study.

#### **Chapter 5: Summary, recommendations, and conclusions**

This is the final chapter of the study. It provides recommendations and conclusions. It also provides the achievements of the research objectives.

## **1.11 Summary**

This is an introductory chapter which provides and outlines the background to the study, the statement of the research problem, the objectives of the study, the motivation for the study, a summary of the research design, limitations and delimitations of the study, as well as the definitions of terms relevant to the study. This chapter also outlines the breakdown or layout of the research report. The following chapter presents the theoretical framework of the study.

## **CHAPTER TWO: LITERATURE REVIEW**

### **2.1. Introduction**

The previous chapter introduced this study and outlined the aim and objectives of the study. This chapter presents an integrated summary of the reviewed literature. For the purposes of this study only literature relevant to the study was considered. The focus of this chapter is on the learning organisation philosophy in general, its components and characteristics. In the literature review process, concepts with a direct link to the learning organisation philosophy are also covered, for example, knowledge management, continuous improvement, teamwork, creativity, and innovation.

According to Khomo (2007:8), it is critically important for the researcher to have a broad understanding and good background information of the topic under investigation. A literature review is defined by Major and Savin-Baden (2010:180) as a critical overview of the relevant literature, in order to identify the current state of knowledge of a given topic. Reviewing relevant literature helps the researcher to become acquainted with the issues and latest developments around the research topic (Fox, 2007:36). Listed below are the objectives of this study:

- to examine opportunities and challenges for applying a learning organisation philosophy in the UoTs;
- to assess perceptions of employee productivity resulting from the application of the learning organisation philosophy; and
- to determine whether employees of the UoTs could embrace the application of a learning organisation philosophy.

### **2.2 Learning organisation philosophy**

In the fast-changing environment, it is critical for organisations to be market-driven and learning-oriented (Liao, 2009:3793). The reality is that environmental challenges continuously affect organisations worldwide. From the South African perspective, Gaffoor and Cloete (2010:1) note that organisations recognise the demand for more effective and efficient services. In the 21<sup>st</sup> century no organisation can prevent the challenges of globalisation and knowledge economy. Therefore, it is important for organisations to

continuously learn new ways of conducting business, being able to solve problems, create core-competences, and, more importantly, to initiate new, conducive, adaptive systems, thereby becoming highly flexible (Liao, 2010:3793). He further elaborates that an organisation of excellent performance results from the ability, responsiveness, and adaptability to challenges in the environment. Govender (2009:364) recommends a systematic, institutionalised approach, in the form of a learning organisation philosophy.

The learning organisation philosophy is regarded as a strong foundation, inspiring collective learning, in which members of an organisation pursue excellence in order to improve the performance of an organisation. Hence, Lyle (2012:221) mentions that a learning organisation philosophy influences and reinforces a continuous learning culture in order to achieve the strategic objectives of an organisation.

A critical point on which many organisational development practitioners and learning organisation theorists agree, is that the learning organisation philosophy does not only lead to organisational innovation, but also serves as the only sustainable competitive advantage. In addition the learning organisation philosophy helps to create a favourable organisational culture which leads to innovation. It improves the behaviour and the capability of employees, allowing the organisation to respond effectively to environmental challenges.

The environment in which organisations operate has become turbulent and unpredictable, learning organisation philosophy has become part of organisational vocabulary. The general understanding supported by literature is that learning faster than competitors is critical for organisations wishing to remain competitive. Bateman and Snell (2013:322) recommend continuous learning, so that organisations may respond effectively to environmental challenges. The learning organisation is described by many authors as an organisation skilled at creating, acquiring and transferring knowledge; and at modifying its behaviour in reflecting new knowledge and insights. According to Kala and Tee (2006:140) there are many definitions and perspectives of learning organisations. Antonoaie and Antonoaie (2010:106) stress that there is a common understanding of ideals and aspirations for the learning organisation philosophy.

Liao (2010: 3792) views the learning organisation as an organisation in which knowledge is fully utilised, capacity is expanded, behaviour changed, and competence gained.

Organisational members play a critical role to help the organisation achieves required business outcomes. Learning organisation philosophy is seen as a key strategic tool inspiring self-driven learning which will improve processes and practices of the organisation. As a result of implementing a learning organisation philosophy, employees continuously search for excellent ideas, thereby gaining a competitive advantage. Robbins, De Cenzo and Coulter (2013:172) describe a learning organisation as an organisation in which employees acquire, share and apply new knowledge in order to outsmart competitors. Senge (2006:3) defines a learning organisation as an organisation in which people continuously expand their capacity, so as to create the results they truly desire, where new, expansive patterns of thinking are nurtured, where collective aspiration is set free, and where people continuously learn how to learn together. Important to note is that learning organisation philosophy empowers the organisation with the ability to respond effectively to challenges. Peter Senge is regarded as the founder of the learning organisation philosophy (Hindle, 2008:303). He strongly argues that the learning organisation philosophy has been influential and powerful in the field of organisational effectiveness.

Erasmus (2010:10) explains that the learning organisation philosophy is an overarching philosophy connecting various departmental practices and processes as a coherent whole. In his discussion of a learning organisation, Slocum (2010:253) adds that a learning organisation has developed the capacity to adapt and change continually, because all members take an active role in identifying and resolving work-related issues. In a learning organisation, Slocum (2010:253) puts it succinctly that in a learning organisation employees are continually acquiring and sharing new knowledge. Members of the organisation are willing to apply the new knowledge when they perform their daily tasks. Furthermore, organisational members collaborate and share information on work-related projects throughout the organisation.

In his theory, Capezio (2010:123) points out that a learning organisation may be described as one in which employees have the capacity for anticipating customer needs, and for responding to environmental challenges rapidly and effectively. In a learning organisation people learn from every situation, focusing on reaching and exceeding the expected results. Consequently, people in a learning organisation embody creative thinking and innovation; they are open and honest about admitting mistakes. As the business environment becomes increasingly dynamic and complex, Capezio (2010:123) warns that



the successful organisation will be one which discovers how to increase commitment and capacity for learning at all levels of the organisation.

Using simple terms, Bozoiian in Conner (2004:45) explains that in the 21<sup>st</sup> century only organisations that excel in continuous learning will survive. Commitment to learning, team learning, and commitment to excellence, differentiates learning organisations from traditional organisations. The familiar question in the learning organisation is what our organisation needs to be learning in order to compete effectively; and how members of the organisation can learn best. Retna (2006:140) is of the view that learning organisation philosophy is effective in achieving organisational effectiveness and capacity development. She further puts it eloquently that the sharing of wisdom, and positive energy are factors which keep the spirit very high in the learning organisation.

Verimaak (2009:138) stresses that the development of business organisations and institutions into learning organisations is regarded as a key strategy enabling organisations to remain competitive. He maintains that not only the business organisations consider the learning organisation philosophy as a model; other sectors also consider the application of the learning organisation philosophy. In a study conducted by Verimaak (2009:138) on three rural health districts, the findings prove that the learning organisation philosophy is becoming popular and applicable to non-profit entities. The learning organisation philosophy is relatively new in other sectors, however, not new in the corporate sector (Verimaak, 2009:138).

According to Ehrhard (2007:50), there is a growing global awareness that intellectual capital is now a key intangible asset for success in the current and future economic environment. He maintains that the drivers of value creation in organisations have shifted from tangible assets in the form of buildings and fixed infrastructure to intangible assets such as intellectual capital. There is a strong indication from the literature and scholars that there is a need for organisations to focus on creating, sharing, adapting, and using intellectual capital in such a way that it becomes possible to find newer and more innovative methods for improving products and services (Pienaanr, 2009:121).

Atak (2010:3473) discusses the benefits of the learning organisation philosophy. He stresses that the learning organisation philosophy ignites and promotes organisational commitment in which employees adopt and internalise the aims, goals, and values of the

organisation. Such organisations have faith and a strong will to remain part of the organisation. Clearly, the learning organisation philosophy helps to develop a sense of belonging and of shared vision. He points out that, besides the benefits of the learning organisation philosophy, leaders within organisations still have the difficulty of transforming organisations into learning organisations. It is important to note that in his theory on learning organisations, Atak (2010:3473) outlines the requirements for the learning organisation philosophy. These include the need for people to combine their emotional, intellectual, and physical energy, as well as their commitment, thus ensuring the success of the organisation. Oberholster and Taylor in Atak (2010: 3473) explain that people with higher commitment strive and give more to help the organisation achieve its strategic objectives, and importantly, to remain competitive.

Looking at the context of the public sector in South Africa, Govender (2009:364) acknowledges that, because of the diverse workforce, managers find it difficult to promote a culture of continuous learning. Furthermore, he indicates that the learning organisation philosophy enhances organisational effectiveness. He describes the learning organisation as a strong foundation stimulating continuous learning in organisations. Interesting to note is that Govender (2009:365) outlines other concepts which add value to the learning organisation philosophy. These include knowledge management, innovation, creativity, coaching, and mentoring. Conner (2004:190) emphasises that learning organisation philosophy transforms the organisation into a high performing organisation since knowledge is shared across the organisation.

According to Daft (2010:30), the environmental forces require a new mind set. It is critical for organisations to have flexible organisational structures which allow collaboration and information sharing organisation wide. Concurring with this view, Notshulwana (2011:142) explains that, in the higher education sector, the South African government has produced policies seeking to reshape the higher education system, making it equitable, effective, and responsive. To clarify his point on dynamic and increasing challenges, Daft (2010:31) argues that failure to respond to environmental challenges has led to the collapse of organisations that were successful in a stable environment.

Heller (2009:70) is of the view that modern organisations have to respond effectively to global challenges. According to Wegner (2007: 3) the future may not be entirely predictable, however, organisations must make strategic decisions. Sondhi (2006:27)

believes that there is a need for organisations to out-think, out-learn, and outsmart their competitors. The learning organisation philosophy is all about an internalised, shared culture of continuously improving business processes. Heller (2009:70) suggests that organisations need to be continuously searching for new, effective ways of improving productivity. He also places more emphasis on the importance of improving business processes continuously, because the business climate in which organisations operate changes at a fast pace. For instance, competitors improve their products and services frequently.

Change is seen as part of organisational life in a learning organisation. Members of the learning organisation view environmental challenges as an opportunity for unlocking and maximising their potential. The good thing about the learning organisation is that there is a positive belief from members which helps them to respond effectively to challenges. Swanepoel (2009:731) confirms that the learning organisation is successful in acquiring and applying organisational knowledge. In a learning organisation, people have the willpower to work as collectives, sharing ideas, and also engaging in developing new ways of thinking. Greenberg (2008:646) provides some examples of organisations known as learning organisations, for example, General Electric, Wal-Mart, and Motorola.

According to Fry (2004:33), progressive and healthy organisations take the issue of employee commitment very seriously, investing considerably in identifying effective ways of building employee commitment. Retna (2006:142) stresses that in a learning organisation, employee empowerment is critical as it enhances commitment to the organisation. Articulating his views on employee commitment, Fry (2004:33) states succinctly that employee commitment improves productivity in an organisation. The learning organisation philosophy is believed to be effective in encouraging continuous improvement to becoming part of the organisation's philosophy, culture and values. The learning organisation philosophy is viewed as an overarching philosophy of management facilitating a way of connecting various individual practises into a coherent whole. It enables people in an organisation to persist in ensuring the success of their organisation. The learning organisation philosophy focuses on the creation of an incentivising environment (not only in monetary terms), in which empowering people, individually, or as a collective, becomes a priority (Atak, 2010:3473).

With the learning organisation philosophy, the focus is more on core priorities and bias towards the results, competitiveness, and empowerment. These factors contribute to improving quality in business operations (Binza, 2005:108). Given the current dynamic and uncertain business environment, Weick and Sutcliffe (2007: x) suggest that it is critically important to benchmark on the competitive business organisations. They highlight something very fundamental - being mindful of what is happening in the business world; also, that organisations should be well prepared for responding effectively to such challenges.

Business organisations, whether commercial or non-profit, inevitably wish to remain competitive, satisfying the needs of customers, stakeholders, and employees, while staying ahead of the competitors. Burtonshaw-Gunn (2009:1) cautions that the rate of change faced by organisations continues at an increasing pace because of advances in technology, customer demands, and globalisation. It is because of these factors, that organisations have considered the learning organisation philosophy.

The global challenges call for fundamental changes in business processes. Organisations need to rethink and redesign processes which achieve improvements. Hindle (2008:25) discusses barriers to the application of the learning organisation philosophy. For an example the hindrances for promoting a shared vision and as a result, various units operating in silos. He argues that, where there is no systems-thinking and shared vision, individual departments become very protective of the old order. The DUT strategic goals and objectives (2008:10) recognise the need for the systems-thinking approach, in which all the stakeholders will play a vital role in quality enhancement throughout the university. Although Hindle (2008:25) discusses business process re-engineering, he shares the view of the learning organisation philosophy that organisations must look at new, effective ways of operating. Organisational strategies that were effective in previous years are no longer useful, simply because of the environmental challenges.

The desire for learning is understood to be critically important for employee empowerment. Therefore empowerment is regarded as a requisite for growth of the organisation. Although it is evident that organisations recognise the need for effective response to the environmental challenges, obviously there is evidence that there are still organisations believing that what was done yesterday is what should be done today and tomorrow (The Learning Organisation, 2007:5). It has to be noted that, in the South African context, there

are organisations creating barriers, out-dated hierarchies, rigid management control mechanisms, which discourage learning in organisations.

Lyle (2012:217) states that Peter Senge is one of the authors who conceptualised and promoted the learning organisation philosophy. Lewis (2008:289) is of the view that the learning organisation philosophy has increasingly become popular in modern organisations worldwide. Modern organisations, including multinationals and small businesses, consider the learning organisation philosophy as an effective tool. He further raises a fundamental point; and that is to encourage universities, not only the UoTs to create the culture of collaboration and team learning, creating continuous learning opportunities, as well as empowering people towards a collective vision. Developing the shared vision, should involve all the members of the organisation.

Supporting and advocating the learning organisation philosophy, Ali (2011:2) mentions that organisations wishing to improve performance have seen the learning organisation philosophy as a fundamental ingredient for growth and competitive advantage. He further stresses that the learning organisation philosophy has not only received the attention of managers, employees and organisational development practitioners. Researchers have an interest in the learning organisation philosophy. He describes the characteristics of a learning organisation as an organisation possessing continuous learning and adaptive capabilities. The learning organisation philosophy is about learning at both the organisational and individual levels.

New technological developments are part of major challenges within which organisations must learn to operate. In his interesting observation, Conner (2004:2) argues that technology plays no major role in developing new patterns of thinking. However, technology changes the way in which people communicate and improving the way of performing tasks. It is on these bases that he reiterates that the learning organisation philosophy appears to be effective in helping organisations with new thinking abilities.

According to Watkins and Marsick in Ali (2011:5), learning in a learning organisation happens at three levels, for example, at individual, team and organisational levels. In his view, Ali (2011:5) provides a well-informed perception of the learning organisation philosophy in the context of higher education institutions. He concludes that the application

of the learning organisation philosophy in universities and business organisations has to be adopted and supported so as to improve competitiveness and in improving services.

Looking at schools and higher education institutions, including UoTs, Davis (2009:114) states that educational institutions have to respond effectively to the growing challenges of producing graduates thus meeting the needs of the global work force. He suggests that educational institutions should follow the lead of the industry and business organisations, in applying the learning organisation philosophy.

### **2.2.1 Learning organisation philosophy and the UoTs**

DUT research review (2011:4) acknowledges that it is necessary for higher education institutions to find ways of coping and responding to challenges. Analysing the learning organisation philosophy, Davis and Hart (2010:25) look critically at the five disciplines making up the learning organisation. These five disciplines are: systems-thinking, personal mastery, mental models, building shared vision, and team learning. All five disciplines are vitally important. However, in the context of the UoTs, systems- thinking and shared vision are critical. In the UoTs, there is no shared vision and no systems- thinking culture as each unit or department generally operates in isolation. Hence Dunnion and O'Donovan (2012:24) argue that functional specialization creates challenges in higher education institutions. Very interestingly, Davis and Hart (2010:26) describe learning organisations as organisations in which individuals are connected, and in which they work as a community.

Examining the challenges facing UoTs in South Africa, Du Pre (2009:20) outlines the necessity for the UoTs to revise educational programmes continuously, so as to meet the needs of the industry. He argues that the UoTs are now expected to have modes of delivery which are more flexible in order to respond effectively to the needs of the industry, community, and business. He also raises the issue of internationalisation of higher education, proving that it is no longer a 'business as usual' for UoTs; in particular, as the 'highly technological' world demands specialised skills. Bui (2010:236) believes that the learning organisation philosophy can be greatly instrumental in helping higher education institutions to outsmart competitors.

The intention of this research project is not to promote the learning organisation philosophy at the UoTs. However, it is evident that the environment in which higher education institutions operate warrants new thinking. The DUT's strategic goals and objectives (2008:11) indicate that there is a need for focusing on the key activities contributing to the development of the university as a learning organisation. According to Veeran (2011:1092), higher education institutions have a mandate to produce graduates who can compete with the best, globally. It is common understanding that there is a shortage of skills in the public and business sector, particularly in South Africa. Apart from the key activities which are data management and institutional research, higher education institutions are regarded as a principal source of knowledge creation, and of preparing people for the world of work.

According to Perumal (2010:303), the higher education institutions, including UoTs, are not immune to the challenges faced by business organisations of the 21<sup>st</sup> century. Higher education institutions and UoTs are part of the modern world. He further explains that UoTs must become aware of the needs and demands of society, industry, the government, and other relevant stakeholders. He suggests that UoTs in particular should respond to challenges, effectively using technology and innovation.

Given the nature of challenges in the business world, in order to survive, organisations are becoming learning organisations (Friedman, 2005:1). As is the case with corporate organisations, universities should learn that inflexibility and failure to respond effectively to challenges could lead to losses. He emphasises that in a fast-changing environment, resistance to change and inflexibility is a prescription for disaster.

As has previously been mentioned Lewis (2008:289) concludes that society, and all its institutions, are not in a stable state, but in a continuous process of transformation. The reality is that these challenges are unavoidable. Organisations wishing to remain competitive have realised the importance of learning. The learning organisation philosophy is regarded as an effective tool in connecting the organisation with its environment. Lewis (2008:289) adds that, in the context of higher education, the ground is fertile for the application of the learning organisation philosophy.

The existence of the learning organisation philosophy has long been recognised as an effective tool used by business organisations in responding to environmental challenges.

Marquardt, as cited by Yeo (2005: 373), explains the learning organisation as an organisation having the powerful capacity to effectively collect, store, transfer knowledge and continuously transform itself in line with the demands of the customers and government legislation. According to his view, Yeo (2005:373) argues that the effective use of technology is a critical element of the learning organisation because it optimises both learning and productivity. He further states that the system-thinking is one of the main components of the learning organisation. The systems- thinking approach is vitally important. It promotes the culture of seeing the big picture, associated with the overall organisational goals; not merely the individual, myopic, job functions. The lack of systems-thinking is evident in the UoTs; it is also a cause for concern, departments still operating in isolation (Kezar and Lester, 2009:66). Systems thinking stimulates collaborative culture in higher education institutions. However Kezar and Lester (2009:66) reveal that departmental silos and hierarchical structures hamper collaborative culture in higher education institutions.

Examining studies focusing on the learning organisation philosophy in the context of the higher education sector which includes UoTs, Franklin as cited in Bui (2011:229) maintains that UoTs are uniquely privileged to explore, apply, and advance the philosophy of a learning organisation in their own ways. According to Bui (2011:229), academic institutions are encouraged to adopt systems' perspective, which is a critical part of the learning organisation philosophy. This research project focuses on the learning organisation philosophy in the context of the UoTs. Higher education institutions are operating in a dynamic environment, therefore they are expected to respond effectively to complex challenges (Omerzel, 2014:112). In a rapidly changing and developing world, transforming organisations into learning organisations is critical. The ability to adapt to continuously changing higher education environment is important (Recepoglu, 2013:618). Bui states that the learning organisation philosophy has become relevant and applicable to various sectors and industries. In his study, Bui (2011:228) highlights the importance of the learning organisation philosophy in the higher education sector. Interesting to note is that, as with many other practitioners, Recepoglu (2013: 618) is of the view that systems-thinking and shared vision lead to organisational success. It is also worth noting that systems-thinking and shared vision are critical elements of the learning organisation philosophy.



It is the intention of the researcher to cover all critical elements or components of the learning organisation to a certain degree. One of the most fundamental factors in the learning organisation is a need for creating a learning culture. This is the foundation of the learning organisation. The environment in the organisation has to stimulate the willingness to learn from employees at all levels of the organisation. Analysing the attributes of the learning organisation, Echols (2009:60) focuses on both individuals in an organisation, and on the organisation itself. In the learning organisation, employees have the potential and the willingness to contribute and to help their organisation achieve positive results.

Certainly in a learning organisation, employees share the belief that knowledge and improved skills are critical both for them and the organisation. Echols (2009: 61) reiterates that the willingness to learn is a necessary condition for a strong culture of learning in a learning organisation. The positive attitude, practices, the goals, and values are some of the attributes of the learning organisation. Summarising his views on the attributes of the learning organisation, he concludes that employees must not only display the attributes, but also talk the language of the learning organisation.

Weeks (2010:597) stresses that continuous learning has become a necessity in dealing with the complexities with which organisations, communities, the industry and the government are confronted. He believes that continuous learning and knowledge go hand in hand in finding the solutions sought by organisations. He refers to organisations being caught in dangerous and complex waves of challenges. With this as a background, Weeks (2010:597) agrees with other 'gurus' that the learning organisation has been promoted as an effective tool with which to deal with challenges of globalisation, customer demands, competitors, and changing government laws.

As a result of uncertainty and accelerated change in the organisational environment, the learning organisation philosophy is increasingly becoming relevant. What seems to be the case with higher education institutions and organisations in other sectors is that there is still confusion in terms of what the learning organisation means, and how it may be realised in practise. Hamel and Valikangas in Weeks (2010:599) accentuate what has become obvious: that the rate of challenges exceeds organisational abilities. What is encouraging is that there is evidence that in South Africa, organisations in most sectors are at least aware of the learning organisation philosophy.

People in a learning organisation focus their energy and time on learning new ways of performing their tasks. As with small children, people in a learning organisation are very inquisitive when it comes to work-related learning. According to Vargas-Hernandez (2010: 187), learning can be maximised at all levels of the organisation. In learning organisations there is strong emphasis on developing the capacity of the people and on improving organisational effectiveness. It is through learning that organisations produce outstanding results (Senge, 2006:4). It is interesting to note that the learning organisation philosophy is being applied not only at organisational level, but in some countries, at the level of the consortium.

Discussing collaboration in a different context (Bozalek, 2010:1024) mentions that, because of challenges, there is a need for higher education institutions to consider innovative approaches through inter-institutional and interdisciplinary collaboration. The five disciplines of the learning organisation help to distinguish the learning organisation from the traditional organisation. The learning organisation invests more resources in employee empowerment, it is highly likely to retain a skilled workforce and to attract good employees from other organisations.

The underlying principle for the learning organisation is to galvanise people, stimulating their commitment to excellence, and assisting them to bond; to work as collectives in achieving a common goal. Learning organisation philosophy places the ability to adapt and to learn continuously as key elements of remaining competitive. Recepoglu (2013:618) articulates and accentuates in a compelling manner that the learning organisation philosophy is an option. The business environment, which is generally described as unpredictable and turbulent, forces organisations to adopt new, effective approaches. The views of the respondents in this research project remain to be seen.

The next section focuses on factors hindering the successful application of a learning organisation philosophy.

### **2.3 Factors negatively affecting the successful application of a learning organisation philosophy in the UoT**

This research project aims to highlight the most relevant aspects of the learning organisation, it is critically important to include factors hindering the successful application of the learning organisation philosophy. Lewis (2008:292) points out that, although

positives of a learning organisation philosophy far outweigh its negatives. He nevertheless discusses these negative factors. Amongst these is fragmentation which tends to discourage the spirit of the learning organisation. In addition the competition in which members compete against one another rather than working as a collective, is against the spirit of the learning organisation philosophy. This behaviour does not promote team learning, a major component of the learning organisation. The culture of reacting instead of being proactive and innovative does not help organisations wishing to succeed and remain competitive. Poor leadership which relies on outdated ways of conducting business does not support and inspire people to learn new ways of doing business.

For the application of the learning organisation to be successful, the organisation must remove barriers to learning. In a bureaucratic organisation with rigid rules and no flexibility, the successful application of the learning organisation philosophy will never be realised. A stiffly organisational environment discourages learning and sharing of ideas. A command and control style of management practise works against the spirit of the learning organisation. Implementation of outdated methods serves no purpose in the global competition (The Learning Organisation, 2007:79).

Glaser (2006:173) concurs with the views of other pundits regarding factors impeding the spirit of learning in an organisation. He further mentions that one factor discouraging members of an organisation from embracing the learning organisation philosophy is that too often workers allow others to inject territoriality and politics into organisational processes and procedures. The issue of people defending their territories is prevalent in the higher education sector, especially between the academics and the administrative staff. Glaser (2006:174) is of the view that it is critical for organisations to have a culture in which everybody is connected, in order to maintain continuous collective learning, knowledge-sharing, and transfer of skills.

## **2.4 Innovation resulting from the application of a learning organisation philosophy**

Robbins (2009:493) defines innovation as a new idea which is applied to initiating or improving a product, process, or a service. He further mentions that the concept of innovation is not only about products and services but also about production processes, technology, administrative systems, new programmes, and new structures. Innovative

organisations are avid users of committees, cross-functional teams, and other mechanisms encouraging effective interaction of people across departmental boundaries.

To prove that innovation is critical for organisations to remain competitive, Chiva (2007:10) mentions that successful organisations have rightfully made innovation a priority. To stress his point, he elaborates that, before an organisation can effectively innovate, it must be transformed into a learning organisation. As Gibson (2010:59) clearly explains, innovation can only become a true value in a company through collective learning across all the levels of the organisation. Also, for innovation to become a genuine value, it has to be internalised by all employees of the organisation. Innovation is one of the key features of the learning organisation.

There is a strong link between innovation, creativity and learning. Customer needs and expectations change constantly. Heller (2009:618) emphasises that organisations should remain innovative. Organisations wishing to remain competitive have no choice but to use innovative ideas, and consider applying the learning organisation philosophy.

In the context of the universities, innovation can no longer be ignored. According to Malerba (2010:10), universities and research organisations are in fact knowledge production entities. Working in partnership with Department of Science and Technology, academic institutions are given the mandate to play a critical role in increasing innovative abilities of small and medium-sized enterprises in targeted sectors. This is going to be achieved through the use of Technology Stations, which is a government project (Research Review, 2010:42). The need for organisations to be innovative is driven by a number of key imperatives. Considering the highly competitive environment in which organisations operate, Bhengu (2009:41) warns that failure to learn and innovate is no longer an option. The environment requires new thinking and a new approach.

The emphasis on innovation is not about changes to the current practise, but implementation of new ideas adding value to customer needs and experience. It is critical for leadership in organisations to create a conducive atmosphere which encourages people to be innovative. Bhengu (2009:41) points out that only people can innovate in organisations. Innovation is regarded as one of the core competences for organisations. According to Digue (2006:26), the business environment is changing; for instance in new

technologies, globalisation, and new regulations. These factors cannot be ignored if organisations wish to remain productive and competitive. Bhengu (2009:42) further explains that innovation only occurs when new ideas are generated, are well-positioned, promoted, and more importantly, are implemented.

Outlining the forces driving organisations to innovate, Hamel (2007:10) warns that it has become difficult for organisations to operate in an environment that is so unpredictable. Organisations that cannot keep pace with environmental changes, will simply cease to exist. The learning organisation philosophy stimulates passion, creativity, and innovation. In the modern business world, flexibility is necessary because it allows organisations to be innovative and creative. In a learning organisation, people are not manipulated - they use information and ideas willingly, by consent and in participation. According to Havenga (2008:5), innovation has become an effective tool of businesses. The learning organisation philosophy focuses on the people factor. Nel (2008:12) discusses competitive organisations. He logically states that people in organisations (people factor) determine the mediocrity or superiority of the organisation. Effectively, this means that people are the most important resource for the organisation.

Regardless of the size or type, organisations which thrive to remain competitive consider innovation as critical. Scheepers (2006:38) adds another dimension to the topic of innovation. He says that innovation is context-specific. In other words, what is regarded as innovation in one organisation may not be seen as such in another organisation. Discussing the importance of having a conducive atmosphere which stimulates innovation, Mayer (2006:37) stresses that innovation does not simply happen. There has to be a philosophy which excites and motivates people to be innovative. She argues that without innovation there will be no organisational growth.

Bhengu (2009:41) refers to the study of ecology in that, for survival, the rate of learning and ability of an organism should be equal to or greater than the rate of change in its environment. In fact Bhengu (2009:42) uses the line of thinking that encourages organisations to realise the importance of being innovative. He points out that if the rate of learning is slower than that of change in the environment, the organism dies. In the case of organisations, the organisation is either left behind, or closes down.

It is common knowledge, and organisations are now aware of this, that the environment in which an organisation operates is chaotic and fast-changing. The question is: how should organisations respond to these challenges? Expressing her views on innovation, Wildervanck (2007:18) states that the learning organisation philosophy is one way of being considered in these chaotic times. Learning organisation philosophy motivates people within the organisation to become innovative, to learn, and to be creative, having a desire to shape their destiny. She further states that, through the learning organisation, people increase their ability to learn, and leaders have the responsibility of fostering a culture of learning.

Learning organisation philosophy is also about knowledge-sharing. In organisations where there are effective ways of sharing knowledge, effectiveness is maximised (Jolly, 2008:188). Organisations are encouraged to have brainstorming sessions. This feature affords employees the opportunity collectively to suggest effective ways of improving business processes. Jolly (2008:173) suggests that training is very useful in sharing best practices across the organisation. He strongly discourages an environment in which people do not share information as this attitude will negatively affect the organisation when people resign or leave with vital information. According to Jolly (2008: 71), in many organisations, innovation is simply rhetoric, and does not actually occur.

Through the learning organisation philosophy, there is no restriction in terms of who should be part of the innovation process within an organisation (Mcafee, 2009:80). Through innovative processes, organisations promote what Jolly (2008:72) refers to as 'team thinking', that is, people as a collective, sharing their understanding of the challenges, and also creating the solution as a collective. As has been mentioned by a number of organisational development practitioners, Jolly (2008:72) explains that managers should create an environment encouraging employees to think beyond the 'here and now', and also to think beyond boundaries. It is critical that organisations create a culture which encourages people not only to challenge the status quo, but to add insight to ideas. Davilla (2006:14) makes the interesting observation that organisations without innovation cannot expect to survive, because innovation does not only help organisations to grow; it also influences the direction of the industry. He provides examples of innovative companies, such as Apple computers, Toyota, Dell, IBM, and Sony. Surprisingly, no higher education institution is mentioned.

It may be concluded therefore, that the learning organisation philosophy encourages organisations to be innovative. The learning organisation philosophy also helps organisations to become world-class, through building competencies and capabilities which out-perform competitors (Parker, 2006:26).

## **2.5 Creativity and learning organisation philosophy**

New and dynamic economic trends make it a necessity for organisations to be creative. Considering ever-increasing competition for improved products and services, organisations have to tap into and use the creative potential of employees. Consumers are spoilt for choice; knowing that organisations compromising on high quality will face negative consequences (Baer, 2010:827). Finding and implementing effective methods produces productivity and efficiency. Defining creativity Fry (2004:31) says that this refers to new and different patterns of thinking and behaviour which create desired outcome.

Creativity has become a necessity for organisations to deal with dynamic and complex challenges. Bilton (2010:181) reveals that very few organisations are able to foster and sustain creativity. It is therefore appropriate to rely on the application of the learning organisation philosophy, because it promotes and sustains creativity within an organisation. There is a lesson to be learnt from Toyota in that employees, through self-study, are pushed to the limit of their ability in addressing matters of quality (Bilton.2010:181).

Commenting on the state of education in South Africa, particularly within the UoTs, Du Pre (2009:4) acknowledges that, as in the business world, there are powerful driving forces which demand transformation of the entire sector of higher education. He further suggests that these forces will certainly affect the focus and scope of South African higher education. Against this background, there is the need for UoTs to develop strategies and concepts so as to respond effectively to these societal demands. It has been mentioned that creativity is one of the characteristics of the learning organisation. It is proper for this research to discuss creativity, albeit briefly. The UoTs, as with any other businesses, have no option but to be creative.

Sondhi (2006:26) suggests a holistic approach to providing creative solutions. Talking about creativity in the higher education sector, Garment (2007:50) points out that it is important for higher education institutions continuously to examine their performance in order to remain competitive. He notes that very little attention is given to organisational matters regarding creativity. However, he insists that creativity is critical and is the source of competitive advantage. Lumsdaine and Lumsdaine as cited by Garment (2007:51) refers to creativity as a key factor in helping organisations to adapt and succeed.

## **2.6 Continuous improvement for achieving pre-eminence**

The learning organisation philosophy stimulates continuous improvement, which is defined by Fry (2004:513) as the efforts by the business to continuously and steadily provide higher quality services or products throughout all the phases of operation. This is a process whereby the business and all staff continuously look for effective ways of changing and improving all facets of the business (Fry, 2004:513). Business organisations face continuous challenges, those which apply the learning organisation philosophy become truly successful. Kassim and Zain (2012:26) acknowledge that the learning organisations are not only capable of responding effectively to change, they are also capable of searching for better ways of improving processes and practices. Highlighting the importance of continuous improvement, Kassim and Zain (2012:26) further stress that continuous improvement enables organisations to adapt to dynamic and complex challenges.

Continuous collective improvement focuses on improving the effectiveness of operations and processes within an organisation. Armstrong (2009:232) defines collective continuous improvement as an organisation-wide process of focused and incremental innovation, sustained over a period of time. Continuous improvement is one of the main elements of the learning organisation philosophy. Business organisation are operating in dynamic environment, hence Armstrong (2009:232) suggests that continuous collective improvement is critical for organisations to remain competitive.

Ncube (2008:15) mentions that, in promoting the culture of continuous improvement, one critical requirement is that of having leaders who understand the importance of remaining competitive. He warns organisations that in order to survive, it is critical to outsmart competitors. This demands continuous improvement of both business performance and quality of products or services. It is advisable for organisations to be flexible enough for



strategic changes to be made in response to challenges. From the perspective of optimisation of potential in the organisation, Crouch (2001:6) argues that creating an environment which stimulates continuous improvement is a necessity.

Continuous improvement is about continuously improving business processes. Heller (2009: 582) stresses that organisations have no choice but to deliver what is expected, when expected. In a learning organisation, processes are reviewed on a regular basis, so as to satisfy the needs of customers. Continuous improvement allows the organisation to ascertain operational areas that must be improved across the organisation. In the context of higher education in South Africa, specifically the UoTs, Perumal (2010: iii) recommends the learning organisation philosophy as a tool for assisting UoTs to comply with national and international benchmarks.

The higher education landscape in South Africa has been through various forms of restructuring with the aim of addressing issues of funding, political considerations, and access. This proves that UoTs are not immune to environmental factors which force organisations to change their way of doing business. The UoTs are now expected not only to create knowledge, but also to disseminate knowledge. Perumal (2010:316) mentions that UoTs operate in an environment in which they must form partnerships with the corporate sector, communities, and international linkages such as student exchange programmes. The factors in the business environment do not only make a learning organisation philosophy a strategic tool, but a priority, and a necessity.

Continuous improvement allows people in the organisation to expand their capacity for producing remarkable results. Organisations are in pursuit of pre-eminence. According to Lipkin (2010), pre-eminence occurs when an organisation outsmarts competitors and becomes the benchmark by which others are judged. As with any other organisation, Ali (2011:2) states that it has become important for universities to accept change; improving their practices in order to increase their competitiveness. It has been noted that the literature on learning organisations as applied to universities is limited. Ali (2011:2) further states that universities do apply the learning organisation philosophy in improving their competitiveness as well as in enhancing services and practices.

The question usually arising in discussions around a learning organisation philosophy is whether this philosophy focuses on the physical structural design of the organisation.

Robbins (2011:143) addresses this question by stating that the learning organisation philosophy is about a mind-set in which employees are committed, willing, and continually acquiring and sharing new knowledge. Newly acquired knowledge is used in decision-making, and while employees are performing their daily operations. It is evident that there is a significant interest from organisations in considering taking on the learning organisation philosophy, because organisations must have the ability to deliver quality service. According to Marnewick (2010:249), it has become necessary for organisations to develop new and more flexible ways of operating. He further states that more than ever before, it has become imperative for organisations to develop strategies and capabilities that will help them achieve their objectives.

The learning organisation philosophy inspires employees to commit themselves to continuous improvement of business processes and practices. Liker (2011:2) is of the view that organisations still exist in which people prefer to conduct business in the same manner in which has always been conducted. The environment in which organisations operate requires new thinking and new ways of doing business. According to Liker (2011:2), continuous improvement means being committed and passionate about continuously improving every part of the business operation. The learning organisation philosophy drives organisations to develop processes and practices which help it continuously to learn (Liker, 2011:21).

Toyota is one of the companies in which learning and continuous improvement is regarded as a necessity. Discussing the value of collective continuous improvement, Liker (2011:21) refers to Toyota as an organisation in which people are not only learning how to learn, but in which people's thinking is developed, and where they are encouraged continually to challenge the current business processes and practices. In demonstrating that continuous improvement is important for organisations, Liker (2011:19) mentions that in Japan there has been incredible improvement, in that manufacturing industries once ranked as amateurs are now ranked as of the best in the world. The slogan at Toyota, 'We build people before automobiles'. This proves that Toyota as an organisation is serious and committed to continuous improvement, not only of business processes but to the way people think.

Monitoring and continuous scanning of the business environment is considered useful for organisations in identifying opportunities and risks. Sharing his views on continuous

improvement (Heller, 2009: 634) acknowledges that a continuous state of learning in organisations makes it possible for them to effectively deal with new business trends, new technology, competitor strategies and changes in customer needs. According to Wilhelmson (2011:487), there is growing interest in learning, particularly in the organisational context. Researchers are also showing a keen interest in a learning organisation philosophy. Hence more and more organisations are considering implementing this philosophy. Wilhelmson (2011:487) is of the view that collective learning encourages the sharing of knowledge across the organisation. He further states that where there is collective, continuous learning, people act as collectives and learn together.

The learning organisation philosophy is seen as a cornerstone and a tool binding together the members of the organisation. The learning organisation is described as a catalyst for outstanding productivity in organisations. According to Parker (2006:23), continuous improvement is becoming a way of life for world-class organisations. He adds that in world-class organisations people continually search for better ways of operating and they challenge the status quo.

The mission, strategy, and corporate strategy play a major role in reinforcing systems-thinking and continuous learning of a learning organisation. The systems-thinking approach influences collective learning. Yeo (2005:374) provides some examples of competitive and successful organisations where systems-thinking is part of the organisational culture. Such organisations include Shell, Toyota, Honda, and Xerox.

## **2.7 Organisational philosophy to influence productivity**

Organisations both in the public and private sectors including UoTs, need a philosophy that will condition and shape employees, instil the culture and values of pursuing excellence, learning, and remaining competitive. Liker (2011:9) puts it concisely that this philosophy is the foundation on which to build adaptive and world-class organisations. He uses Toyota as an example: the company philosophy ignites and motivates employees consistently to push the boundaries of their ability. Organisational philosophy helps the organisation not only to remain competitive, but also to add value to society and to their customers. Organisational philosophy stimulates a positive atmosphere, in which challenges are accepted with courage, a positive spirit, and positive energy (Liker ,2011:9).

The organisational philosophy is critically important because it links the strategy to a more basic understanding of the way in which the organisation seeks to operate. Schermerton (2011:381) argues that the organisational philosophy serves to link key goal-related issues with key collaboration issues, thus producing and designing ways by which the organisation will conduct its business. Toyota, as with many other organisations, has successfully implemented its organisational philosophy, known as the Kaizen philosophy.

## **2.8 Intellectual capital and the learning organisation**

This research project focuses on the learning organisation philosophy. However, it is critical to cover other concepts which are interrelated with the learning organisation philosophy. As Friedman (2005:2) points out, knowledge-sharing is important in a learning organisation. Discussing concepts which have a link with the learning organisation philosophy does not necessarily create confusion of the concepts. Friedman (2005:2) makes it clear that there is a link between knowledge management and the learning organisation philosophy. Creating knowledge in organisations is important. However, managing knowledge effectively is crucial. Hence dealing effectively with factors affecting organisations such as globalisation, new technology, increased competition, customer demand, and changing economic and political climate has become critical.

Focusing on management of knowledge in higher education, Maponya (2005:900) asserts that, as with business organisations, institutions of higher education certainly need the knowledge, experience, and the expertise of employees. Hence, effective management of knowledge in higher education institutions is imperative. According to Friedman (2005:2) the problem in the universities is that employees are loyal to their respective programmes or departments instead of being loyal to the university as a whole. This indicates lack of systems thinking culture in higher education institutions.

Knowledge-sharing in higher education institutions is important to achieve strategic objectives, Maponya (2005: 900) uses relevant examples and suggests that the sharing and distribution of knowledge allows and creates an environment in which experiences, insights and knowledge of individuals are brought together and collectively used to benefit the organisation as a whole. This means that the culture of knowledge-sharing discourages the fragmentation of organisational knowledge.

The reality is that vigorous competition is the lifeblood of the modern business environment (Slywotzky and Hoban, 2007:45). These authors highlight the importance and the value of well-managed intellectual capital within organisations. They further stress the obsolescence of outmoded business models. According to Falkenberg (2005:42), the impact of the learning organisation and knowledge management is huge. As Ehrhard (2007:50) points out, there is increasing global awareness that intellectual capital is a key intangible asset for success both in the current and the future economic environment.

## **2.9 Employee perceptions of a learning organisation philosophy**

Learning has become critical for the survival of organisations (Coetzer,2007:417) . Those who disregard the importance of learning will be ‘weeded out’ in the process of globalisation. This implies that only organisations learning faster will survive the economic revolution. Research findings of the study conducted by Dymock and McCarthy (2006:526) provide an interesting picture regarding perceptions of employees about the learning organisation philosophy. Employees who participated in the study are of the view that collective learning will improve organisational performance and competitiveness. There are also those who view the learning organisation philosophy as a tool to benefit the “company” and not necessarily the employees. In spite of the learning organisation philosophy being regarded as key for competitiveness, some organisational members feel that it is a management tool with which to control employees.

Marsick and Watkins in Dymock and McCarthy (2007:526) argue against this view, concluding that a culture which supports learning leads to excellent organisational performance. In the current and rapidly changing workplace, employee engagement in learning activities is vital for organisational effectiveness (Bezuije, van Dam and van den Berg, 2010:673). Continuous learning activities help employees to master new skills, new abilities and knowledge. According to Coetzer (2007:422), allowing employees to take part in problem-solving and in brainstorming sessions, essentially facilitates learning for employees.

Employee commitment and positive attitude play a vital role in ensuring successful application of a learning organisation philosophy in an organisation. Writing about employee perceptions towards a learning organisation philosophy, Ayupp and Perumal (2008: 22) are of the firm view that the needs of organisational members should be considered before the implementation of a learning organisation. Employees perceive a

learning organisation philosophy as effective in providing learning opportunities for individuals and teams in an organisation. Another interesting observation is that employees view a learning organisation philosophy as a tool for transforming organisations in a way that satisfies the needs of all stakeholders.

### **2.10 Communities of practice model to achieve organisational goals**

A community of practice is an effective model that has become prevalent in higher education sector. Members of the organisation who are part of the communities of practice, have the opportunity to learn from one another (Jashapara 2011:127). Hence a community of practices becomes a platform where members of the organisation acquire new skills and knowledge through interaction and collective learning. Considering the nature of challenges faced by higher education institutions, communities of practice are critical to create valuable knowledge and expertise to achieve a common goal. Communities of practice, in actual fact facilitate continuous learning in an organisation. Nistor and Fischer (2012: 114) stress that communities of practice are a group of people in an organisation who interact voluntarily with the purpose of sharing knowledge, share common goals, and experiences to achieve common goals.

In the context of both public and private sectors, communities of practice play a role in fostering the culture of continuous learning. Communities of practice allow newly employed members to gain valuable knowledge from experienced members who have been in the organisation for long time. Attebury and Henrich (2010: 160) make an interesting point that communities of practice model has been adopted to stimulate knowledge creation, and knowledge sharing to improve productivity in an organisation.

Knight (2007:536) defines communities of practise as groups of people who interact through various means with the aim of sharing knowledge and learning from each other. The reason for communities of practise in some organisations is the need to manage knowledge. According to Botha (2007:145), communities of practise foster cross-functional and cross-divisional collaboration. He also confirms that communities of practise provide a space in which, and a platform on which employees may generate and harness new ideas.

The learning organisation philosophy stimulates the culture of collaboration across the organisation. Hansen (2011:1) argues that leaders of organisations should indeed encourage organisational members to tear down silos, break across boundaries, and work

collaboratively. Through communities of practise, the learning organisation philosophy serves as an inspiration leading to innovation and transfer of best practices across the organisation.

### **2.11 Leadership in a learning organisation**

It is appropriate to capture aspects and the role of leadership in the learning organisation. In these tough times, the leadership has to provide guidance. People look up to leaders for direction and support (Blanchard, 2009:20). Key dynamic challenges and new trends in the business environment call for dynamic leadership (Nkomo, 2009:10), which must create a conducive environment and design participative practices, encouraging creativity while remaining committed to continuous enhancement of productivity. Traditional command and control does not help in modern organisations. Coetzer (2007:418) advises that managers must support and encourage learning. From her broad understanding of leadership, considering the need for dynamic and great leaders, Nkomo (2009:10) further recommends that the business education (higher education institutions) should empower students with an expansive understanding of the global business environment, equipping students with skills, knowledge and abilities required of 21<sup>st</sup> century leaders. In a learning organisation, leaders play a critical role in inspiring and igniting the desire, passion, and enthusiasm of employees for learning continuously. Conditioning employees to remain dynamic is critical in the constantly changing business environment (Gmeiner, 2009:25).

According to Tromp (2009:51), seeing the organisation as a structure with different functions working together in order to achieve a common goal, is a factor in continuous learning and empowerment. Therefore, leadership has an essential role to play in terms of creating an environment of trust, honesty, team spirit, and open communication. The reality is that more and more organisations face adaptive challenges. Botha (2009:31) states that environmental challenges require new strategies and new ways of operating. He believes that leaders are expected to mobilise people across the organisation, instilling in them the culture of learning so as to adapt when meeting the needs of the customers. Senge (2006:358), describes the business world as interconnected. It is therefore necessary for leaders of organisations to promote the culture of working as a community. He refers to the sense of working as a community as 'living together and talking together'.

According to Werner (2011:372), if organisations wish to meet the opportunities of the future, it is important to have leadership that is capable and skilled. Besides broad and general factors, he outlines several specific challenges requiring the attention of leaders in organisations, including the learning organisations, for example HIV/Aids, poverty, abuse of power, and importantly, the lack of skills. Writing about the role of leadership in a learning organisation, Senge (2006:310) highlights that leadership has the task of building systems-thinking culture and relationships across boundaries in an organisation. Systems-thinking is well-known as one of the components of the learning organisation philosophy. He further describes systems-thinking as a key strategic tool influencing the performance of the organisation. In actual fact, it is vital for leadership in a learning organisation to promote all other disciplines of the learning organisation, such as team learning, mental models, shared vision, and personal mastery.

## **2.12 Summary**

This chapter provides a theoretical overview of a learning organisation philosophy. The process of literature review was informed and shaped by the objectives of this study.

The learning organisation philosophy in general as covered in this chapter, highlights the environmental factors forcing organisations to learn as an antidote to perishing. This chapter also looks at the way in which the learning organisation philosophy helps organisations effectively to respond to these challenges. On the perspective of higher education institutions, the literature review was instrumental in placing this research project in proper context. The next chapter presents the research methodology used in this study.



## **CHAPTER THREE: RESEARCH METHODOLOGY**

### **3.1 Introduction**

The previous chapter discusses the theoretical background of the learning organisation philosophy and its elements. The purpose of this chapter is to outline the methodology used in this study. Captured in this chapter is definition and explanation of the population, the sampling method, research instrument, administration of the questionnaire, the data collection, and data analysis. Methodology is a process followed in collecting and analysing data. Silverman (2008:3790) refers to research methodology as choices made by researchers apropos cases being studied in terms of planning and conducting the actual study. This also includes methods of data gathering and data analysis. According to Khomo (2007: 30), methodology is one of the most critical aspects of the research. This research project intended to address the question relating to: whether the application of a learning organisation philosophy would improve processes and practices in the UoTs in KZN?. This research project is quantitative in nature. Fox (2010:7) explains that quantitative research deals with items which can be counted. The next section explains the site within which the study was conducted.

### **3.2 Research Site**

There are two UoTs in KwaZulu-Natal. The DUT was the only institution that participated in the study and as a result, was used as a case study. This institution (DUT) was formed after the former Technikon Natal merged with the former M L Sultan Technikon in 2002. It has six campuses, two in Pietermaritzburg, and four in Durban. There are six faculties, namely, the Accounting and Informatics, the Applied Sciences, the Arts and Design, Management Sciences, and Engineering, and the Built Environment. Various academic programmes are offered at this institution. Programmes are offered on either part-time or a full-time basis. This institution operates like other UoTs; the focus is mainly on teaching, learning, and research. The UoTs are not profit-making organisations, however, they do compete in many ways. For instance, competing for funding and academically excelling students.

### **3.3 Research design**

The research design provides an overall structure of research including procedures to be followed by the researcher when collecting and analysing the data (Leedy and Ormrod, 2010:74). This study is quantitative in nature. The identification of the purpose for the

study, decisions on the data-collection process, and validation of data were conducted during the conceptualisation phase of the study. As a result, the next sub-sections explain the method of data collection, the research instrument, target population as well as the sampling method used. The researcher chose a quantitative approach based on a number of factors, some which include statistical computer software (SPSS) that was used to analyse data. Type of data needed also informed the decision to use a quantitative approach. In a quantitative research, data can be manipulated and presented in numerical forms (Babbie, 2013:414).

### **3.3.1 Method of data collection**

The questionnaire was developed in line with the objectives of the study. The 291 questionnaires were self-administered and 203 questionnaires came back. This research project was confined to DUT campuses in Durban. It took a period of two months to collect data from the participants. As a result, a 70 percent response rate was achieved. The self-administered approach as recommended by Sekaran and Bougie (2013: 147) was adopted as it offered participants the opportunity of asking for clarity should there be the need. Another advantage of this approach (self-administered questionnaire) is that it is not expensive; and a large number of participants may be reached in a short space of time. The sampling plan was informed by the nature and the size of the target population. The researcher assured participants that their information would be used for research purposes only.

### **3.3.2 Research instrument**

For data collection purposes, the questionnaire was used in eliciting data from the participants about the learning organisation philosophy in the UoTs of KwaZulu-Natal. The questionnaire contained Likert scale type of questions. It was necessary to formulate questions relating to the learning organisation philosophy and the UoTs. The research instrument was appropriate in relation to the objectives of the study. The research instrument that is the questionnaire was carefully developed and provided the following advantages:

- to elicit respondents' behaviour and activities that would have been observed had the researcher been present; and
- to understand the emotional responses of participants in relation to their experiences, perceptions, and views on the learning organisation philosophy.

Microsoft Word was used to construct the questionnaire, which were self-administered.

### **3.3.3 Target population**

The population is generally defined as organisation units, events, persons, or case records with which the research problem is concerned. In the same line of thinking Fox (2010:52) agrees that a target population is any group of people, objects or events sharing the same characteristics and representing the whole or sum total of cases involved in the research project. In this study, the target population comprised the employees of DUT in Durban campuses. That is, the City Campus, Steve Biko Campus, ML Sultan Campus and the Brickfield Campus. It included both academic and administrative staff. With the help of the human resources department of the DUT, it was established that there were 712 staff members in the administrative sector, and 503 academics.

### **3.3.4 Sampling technique**

It is advantageous in research to restrict the investigation to a small but well-chosen group of subjects representing a wider group (Bless, 2010:97). Furthermore, he states that, in research, it is possible to reach accurate conclusions by examining a portion of a wider group. Descombe, in De Vos (2011:222) defines sampling as a process of taking a portion or a smaller number of units from the population as representing the total population. Silverman (2008:380) states that sampling has two functions: representativeness, and allowing for the researcher to make broader inferences. For this research project, a sample was taken from the population (both academic and administration staff) at DUT. A sample of 291 DUT employees was selected from a population of 1215 employees. Stratified sampling was used. Sekaran's table (Sekaran 2010:215) was instrumental in determining a sample size.

## **3.4 Data collection**

This section outlines the process of developing, pre-testing, and the administration of a questionnaire.

### **3.4.1 Drafting of the questionnaire**

In order to gain insight into and understanding of the area of research prior to writing a research report, the problem statement was developed and the research proposal formulated. The research proposal and the questionnaire were drafted and compiled at the

beginning of 2012. Various sources of information on learning organisations and related issues were used as part of the literature review process. The aim was to structure the questionnaire in a simple form. Data analysis method was considered during the designing phase of the research instrument. The nature of data solicited from the participants also informed the way in which the questionnaire was structured. The questionnaire was divided into seven sections, namely, Section A: Background Information, Section B: Bibliographical Information, Section C: Perceptions on Business Environment at DUT, Section D: Teamwork, Section E: Opportunities and Challenges for the Application of a Learning Organisation Philosophy at DUT, Section F: Commitment from Organisational Members to support the Application of a Learning Organisation Philosophy at DUT, and lastly Section G, in which general comments could be made. The focus of the study was on the applicability of a learning organisation philosophy which could improve processes and practices in the UoTs of KZN. The research proposal for this study was tabled at a departmental research committee for approval. The final draft of the proposal and the questionnaire were submitted to the Faculty Research Committee. The institutional research committee approved both the proposal and the questionnaire.

### **3.4.2 Pre-testing the questionnaire**

Zikmund (2010: 231) defines pre-testing as a process involving a trial run with a few respondents, with the purpose of rectifying fundamental problems in the research instrument. In pre-testing the questionnaire, the researcher used a self-administered approach. Ten questionnaires were distributed and collected by the researcher after they had been completed by the respondents. The feedback indicated that the instructions were clear, and questions were easy to understand. The services of a statistician were employed during the process of drafting the questionnaire. This was instrumental to ensure that there was no confusion and ambiguity in the questionnaire. The researcher was satisfied with the 100% response rate at the pre-testing stage of the research instrument.

### **3.4.3 Administration of the questionnaire**

A self-administered questionnaire approach was used in this study. Participants were assured that their responses would be used for research purposes only and as a result this encouraged them to be frank even on sensitive issues. According to Leedy and Ormrod (2010:189) self-administered questionnaire has a number of advantages. This approach saves researcher postage expenses. The process of administering questionnaires took a

period of two months. The participants were given enough time (few days) to complete the questionnaire. A self-administered questionnaire was preferred, in that the researcher was always available to give clarity should participants encounter problems when completing the questionnaire. De Vos (2005:168) concurs that there is the possibility of obtaining a good response rate with a self-administered approach, owing to such personal interaction with the respondents.

### **3.5 Steps taken to avoid bias**

In any survey, bias can distort the research results. According to Bless, Higson-Smith, and Kagee (2008:91), every research project has its particular set of problems which relate to the method of data collection. For this research project, the question and subjective bias were avoided. The approach used to avoid bias is outlined in the sections below.

#### **3.5.1 Question bias**

Question bias was eliminated with particular attention given to the sequence of questions. The common understanding is that poor layout of the questionnaire could also influence bias from the respondents. The questions in the questionnaire were presented in a logical sequence, from general questions to those which were more specific. According to Sekaran and Bougie (2010:203), this approach is known as the funnel approach. It facilitates the smooth progress of the respondents as they go through and complete the questionnaire. The use of loaded questions phrased in an emotionally charged manner was avoided. Leading questions were not used in the questionnaire as they may have the possibility to influencing the participants. The two-pronged questions were also avoided.

#### **3.5.2 Subjectivity**

Interpretation before recording research aspects was avoided. To avoid subjectivity, neutrality with respect to the phenomenon under study was maintained. The researcher avoided the interference of personal emotions and his own subjectivity during the process of interpreting the results. Conclusions and interpretation of the results are based on objectivity, not subjectivity. Being objective is critical. The literature stresses that the more objective the interpretation of the data, the more scientific the research study.

### **3.6 Study limitations**

The study focused on the UoTs of KwaZulu-Natal. The DUT was selected and used as a case study. As a result, only DUT employees on the Durban campuses participated in this

study. Logistical and financial constraints made it impossible for the researcher to include all the UoTs in South Africa. However, it is expected that the findings will reflect practises in other UoTs in the country. The learning organisation philosophy is applied mainly within business organisations. However, Vermaak (2009:138) reveals that this philosophy is applicable even to other sectors of the economy.

### **3.7 Method for the analysis of data**

Data analysis is the process of working with data, organising data in a meaningful manner, and synthesising data so as to discover what is important to share with others in the form of findings (Boeije,2010:76). Data analysis is the application of reasoning by means of which to understand the data that had been gathered by the research (Zikmud et al, 2010:648). The analysis of data will be done in chapter 4 of this study. The SPSS, which is a data-analysis computer software, was used in analysing data collected from the respondents. Gaur (2009:1) stresses that SPSS is a user-friendly programme for statistical analysis. The services of a statistician were employed to assist with data analysis. During the design of the questionnaire, the researcher was mindful that when computer software is to be used for data analysis, the questionnaire should be in proper format and well structured. Data solicited from the participants highlighted opportunities and challenges for the application of a learning organisation philosophy in the UoTs, particularly in KZN. Data analysis techniques and methods used were appropriate to ensure statistical validity and reliability.

### **3.8 Ethical considerations**

Necessary information explaining the purpose of study was given to participants prior to the commencement of study. The DUT research procedure was followed in obtaining ethical clearance and permission to conduct the study. A letter of consent was attached to the questionnaire, which had to be signed by participants as proof of their voluntary participation in the study. The letter of consent also assured participants that their information was for research purposes only. Participants were informed that their responses would be kept confidential. In line with research ethical considerations, participation in the study was voluntary and there were no financial benefits for participants. Furseth and Everett (2013:10) elaborate that it is important to obtain the consent of participants before data collection.

### **3.9 Summary**

This chapter illustrated the methodology used in conducting this research. This included the data-collection instrument, the population, sampling method and analysis of data. The next chapter presents the findings of the study.

## **CHAPTER FOUR: DATA ANALYSIS AND INTERPRETATION OF FINDINGS**

### **4.1 Introduction**

The general approach of the study and the methodology used in collecting the data were discussed in the previous chapter. This chapter presents the findings, based on the analysis and interpretation of data obtained from the participants by means of self-administered questionnaires. The data collected from the participants was analysed using the SPSS version 20.0. The results are presented in the form of graphs, cross-tabulations, tables, and figures. The questionnaires were self-administered to DUT employees. A 70% percent response rate was achieved from 291 questionnaires. Theoretical background on a learning organisation philosophy has been used in this research project in formulating the research questions, as well as in the interpretation of the findings.

According to Andreadis (2009:5) organisational effectiveness and development of competencies are some of the benefits for the application of a learning organisation philosophy in organisations. Hence there is strong emphasis on a learning organisation philosophy being effective in transforming organisational processes and practices thereby producing a competitive advantage while remaining relevant. This chapter has a direct link to the objectives of this research project. The analysis and interpretation of findings proved that the research question was answered; and the research objectives were achieved. Based on the findings, participants were optimistic about the importance of a learning organisation philosophy. They demonstrated a positive attitude towards the application of a learning organisation philosophy at DUT. It is important to mention that participants raised some concerns regarding the application of a learning organisation philosophy at DUT. However, the positives far outweigh the negatives on the application of a learning organisation philosophy in an organisation.

The main sections covered in this chapter include results and interpretations of ANOVA test descriptive statistics, ANOVA test, Chi-square and correlations.



## 4.2 Profile of participants

This section presents the descriptive statistics based on the bibliographic information of the participants of study. Participants were requested to provide their personal information and this was for research purposes. The bibliographic information solicited was categorised according to gender, length of service, sector, and qualifications. This information is presented in tables and graphs for interpretation purposes.

### 4.2.1 Sector

The sample constituted respondents from two different sectors (academic and administration), as presented in Figure 4.1 below.

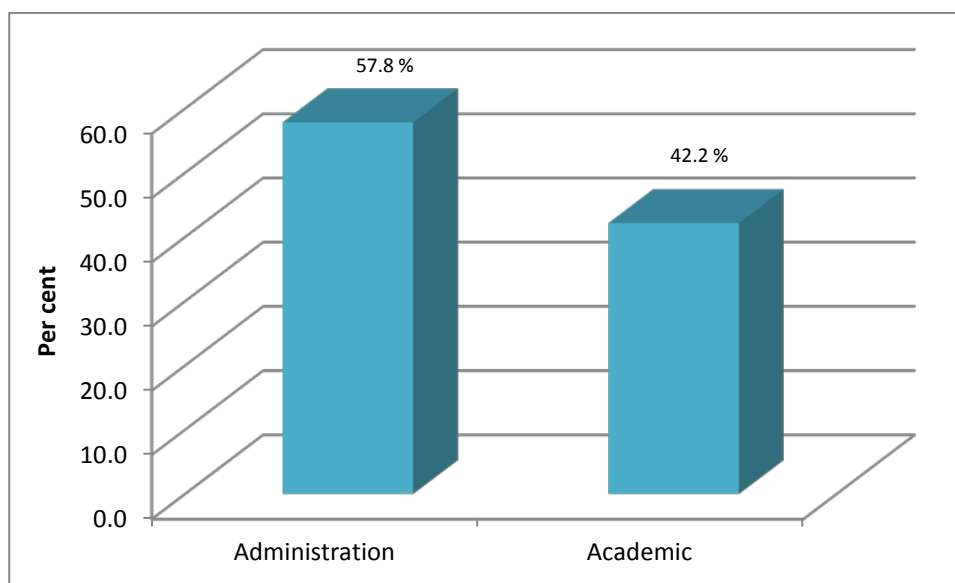


Figure 4.1 Number of participants as a percentage in the study

The DUT has a staff complement of 1215 employees. This information about administration and academic sector was necessary in achieving the perspective of both sectors, and in ensuring fair representation of the population. The results show that 57 percent of participants were from the administration sector, and 42 percent from the academic sector.

It was found that the number of respondents was almost in the ratio of 6:4 for administrative and academic sectors. Information received from the human resources department before the study was conducted, confirmed that DUT has more employees in the administration than in the academic sector.

#### 4.2.2 Qualifications of participants

The following Table 4.1 presents the qualifications of the respondents by sector at DUT.

Table 4.1 qualifications of employees

		DUT Sector		Total
		Administration	Academic	
Doctorate	Count	0	11	11
	% of Total	0.0%	5.4%	5.4%
Masters	Count	9	46	55
	% of Total	4.4%	22.7%	27.1%
BTech.	Count	58	21	79
	% of Total	28.6%	10.3%	38.9%
Diploma	Count	39	5	44
	% of Total	19.2%	2.5%	21.7%
Grade 12 (Matric)	Count	8	0	8
	% of Total	3.9%	0.0%	3.9%
Other	Count	3	3	6
	% of Total	1.5%	1.5%	3.0%
Total	Count	117	86	203
	% of Total	57.6%	42.4%	100.0%

Approximately 39 percent of the participants had a BTech degree. The findings also indicated that 49 percent of the participants had either a Master's degree or a diploma. That is 27.1 percent for Masters degree and 21.7 percent for diploma. Fewer than 4 percent of the respondents had only a matric. This information provided a clear indication that the majority of the participants had a BTech qualification. All the doctoral respondents were from the academic sector. Similarly the majority of respondents with a Master's degree were also from the academic sector. Approximately 5 percent of the participants from the administration sector had a Master's degree. This information indicated that the majority of respondents in the academic sector had Master's degrees.

### 4.2.3 Length of service

The following table presents information on the length of service (in years) of the respondents by sector.

Table 4.2 length of service

		DUT Sector		Total
		Administration	Academic	
1 - 5	Count	53	27	80
	% of Total	26.1%	13.3%	39.4%
6 - 10	Count	17	20	37
	% of Total	8.4%	9.9%	18.2%
11 - 15	Count	18	17	35
	% of Total	8.9%	8.4%	17.2%
16 - 20	Count	16	15	31
	% of Total	7.9%	7.4%	15.3%
21 - 25	Count	7	2	9
	% of Total	3.4%	1.0%	4.4%
25+	Count	6	5	11
	% of Total	3.0%	2.5%	5.4%
Total	Count	117	86	203
	% of Total	57.6%	42.4%	100.0%

Approximately 40 percent of the respondents had been employed at DUT between 1 and 5 years. This formed the largest grouping of respondents by employment period. Within this category, there were twice as many administration sector respondents than there were academic respondents. The 5.4 percent of participants indicated that they had been working at DUT for more than 25 years.

#### 4.2.4 Gender profile of participants

Information about gender was requested for the purposes of gender equity.

The table 4.3 below indicates the age (in years) of the respondents, by gender.

Table 4.3 Gender profile of the participants

		Gender		Total	
		Female	Male		
Age (years)	18 - 25	Count	11	3	14
		% of Total	5.6%	1.5%	7.1%
	26 - 33	Count	31	15	46
		% of Total	15.7%	7.6%	23.4%
	34 - 41	Count	32	30	62
		% of Total	16.2%	15.2%	31.5%
	42 - 49	Count	30	15	45
		% of Total	15.2%	7.6%	22.8%
	50+	Count	13	17	30
		% of Total	6.6%	8.6%	15.2%
	Total	Count	117	80	197
		% of Total	59.4%	40.6%	100.0%

The sample comprised more female respondents at 59.4 percent, than male respondents at 40.6 percent. It was found that 31.5 percent were between the ages of 34 to 41 years. It is evident that participants were female-dominated. The 15.2 percent of participants were over 50 years of age. Issues of gender in age were critical in ensuring that all the age groups of participants were represented in the study. The following section presents the descriptive statistics of the study.

### **4.3 Descriptive statistics**

Descriptive statistics was used to summarise and explain research data in a simple and comprehensible manner (Zikmund 2013:649). Statistical computer software (SPSS) was used to analyse and present the findings based on the descriptive statistics. The SPSS makes it easier for the researcher to analyse and present the findings. The theory on learning organisation philosophy has also been used in this chapter for the purposes of data interpretation.

#### **4.3.1 Participants' perceptions of the business environment at DUT**

This section focuses on participants' perceptions of the business environment at DUT. It provides variables that are part of the research objectives of this study. Tables and bar charts are used in illustrating responses in a simple and logical manner.

The graph on the next page provides a summary of the responses illustrating the views of participants on the business environment at DUT. These are the views on the state of affairs at DUT, for example on the way in which DUT conducts its daily operations.

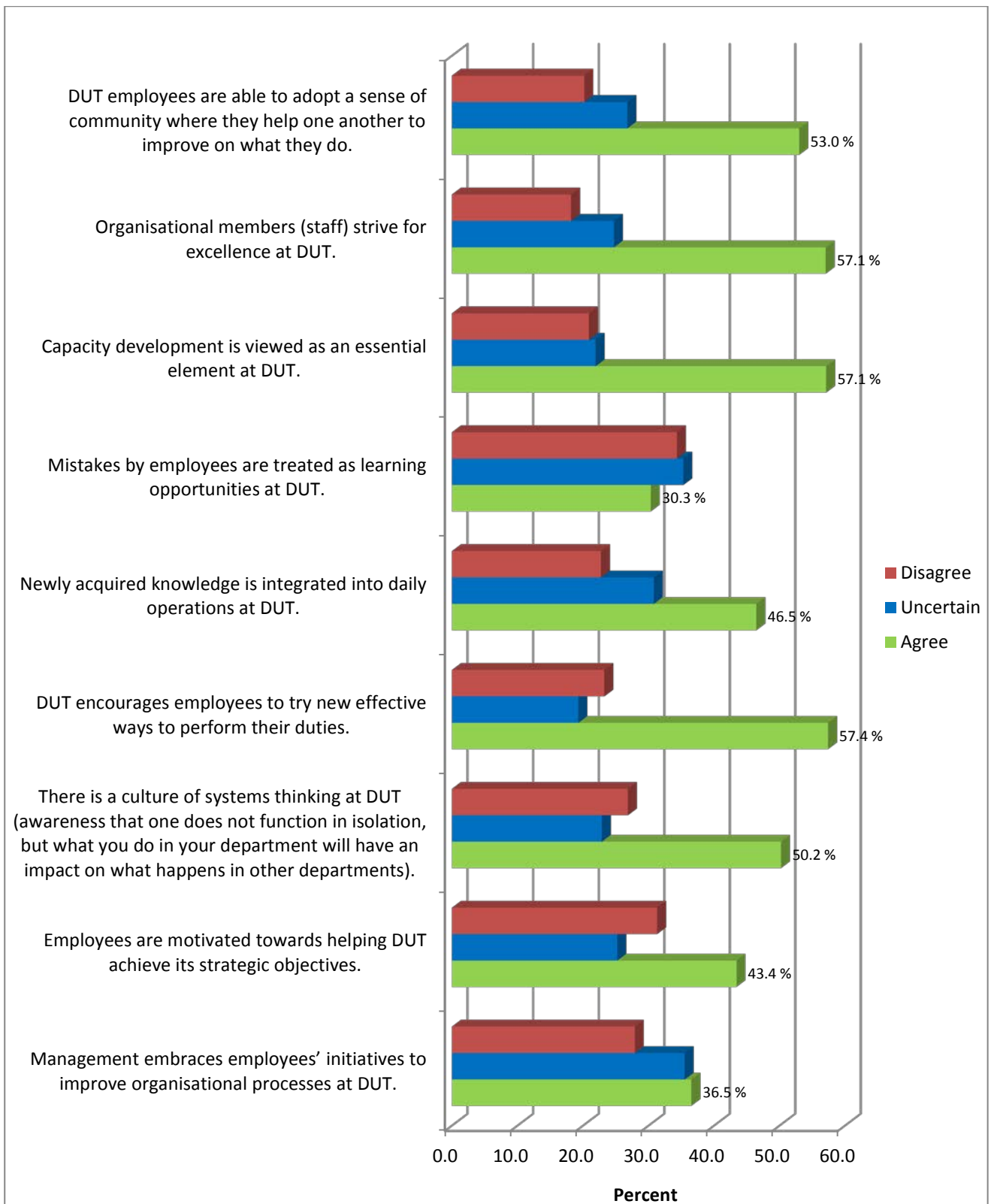


Figure 4.2 Employee perceptions on business environment

Responses, in overall, show higher levels of agreement for most statements. Comparatively, the findings indicated low levels of agreement on two statements. These include, mistakes by employees are treated as learning opportunities and management of

DUT embraces employees' initiatives to improve organisational processes. Agreement levels on both variables were at 30.3 and 36.5 percent respectively. The majority of participants indicated that DUT is an organisation where employees strive for excellence at 57.1 percent; they are encouraged to be innovative at 57.4 per cent; and capacity development is viewed as a priority at 57.1 percent.

Furthermore, there was a higher level of agreement that DUT has a sense of community, and employees are willing continuously to improve on what they do, at 53.0 percent. However from a learning organisation perspective, these figures indicate that DUT is capable of becoming a learning organisation. Learning organisation philosophy lays strong emphasis on the importance of a sense of community within an organisation. Hence Lyle (2012:217) maintains that it is critical for organisational members to be passionate and to pursue the organisation's common goal.

#### **4.3.2 Opportunities for the application of a learning organisation philosophy in the UoTs**

This section examines opportunities for the application of a learning organisation philosophy at DUT. This information was necessary in determining challenges and opportunities for DUT to apply a learning organisation philosophy. Figure 4.3 presents participants' responses on the opportunities for the application of a learning organisation philosophy at DUT.

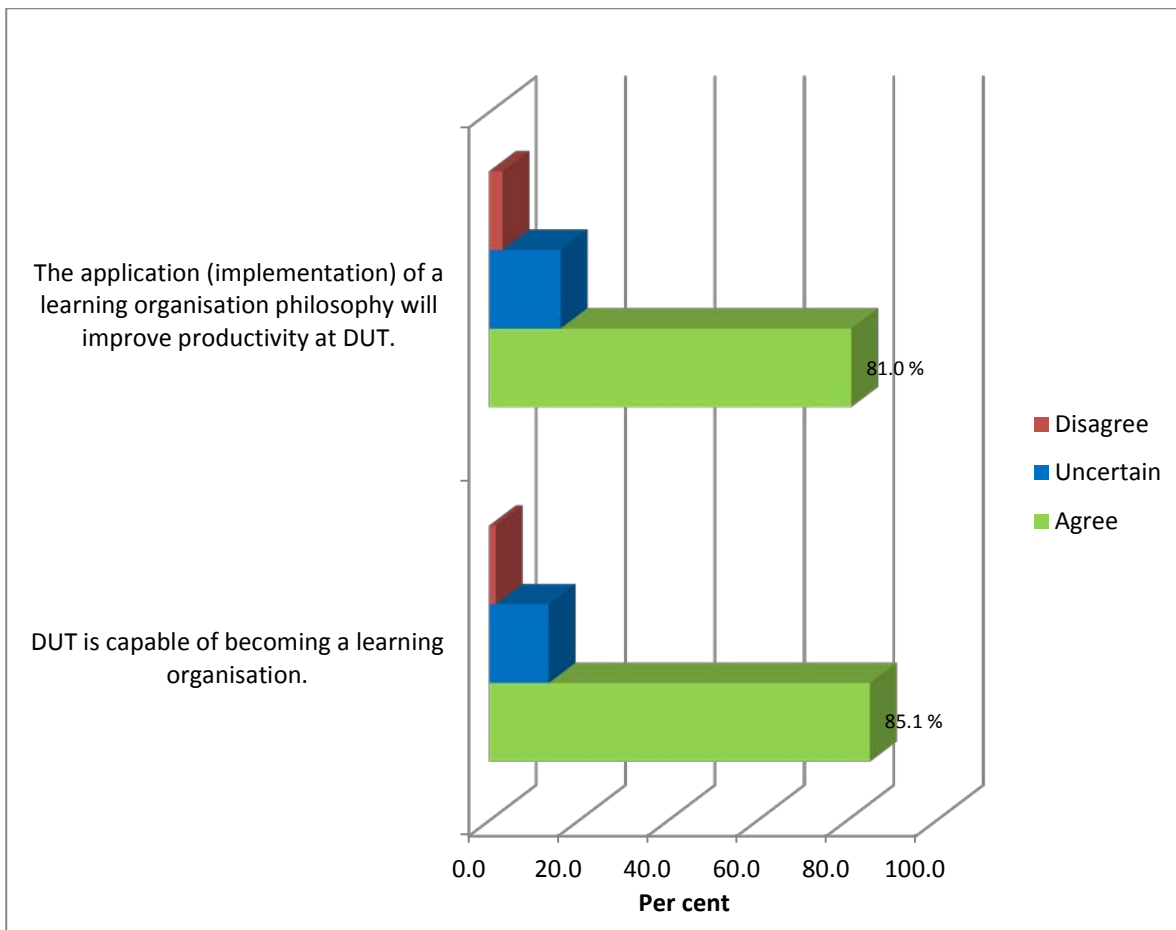


Figure 4.3 Opportunities for the implementation of a learning organisation philosophy

The majority of participants were optimistic that the application of a learning organisation philosophy would improve productivity at DUT. Approximately 85 percent of the participants were of the view that DUT is capable of becoming a learning organisation. From the graph, 81.0 percent felt that productivity would improve at DUT through the application of a learning organisation philosophy. The information was critical in offering insights and indications that the application of a learning philosophy at DUT may result in productivity improvement. Information in this section was part of the objectives of this study. Lewis (2008:290) explains that in the learning organisations, new ideas and insights are used effectively in improving performance and productivity. Based on the responses, it may be concluded that participants strongly believe that DUT could benefit immensely from the application of a learning organisation philosophy.



#### 4.4 Teamwork culture at DUT

This section deals with the teamwork at DUT. Responses to statements relating to teamwork culture at DUT illustrate that participants felt team spirit was part of the organisational culture at DUT. Information on teamwork was critical because the successful application of a learning organisation philosophy depends on a positive teamwork culture in the organisation.

The graph below presents a summary of the responses.

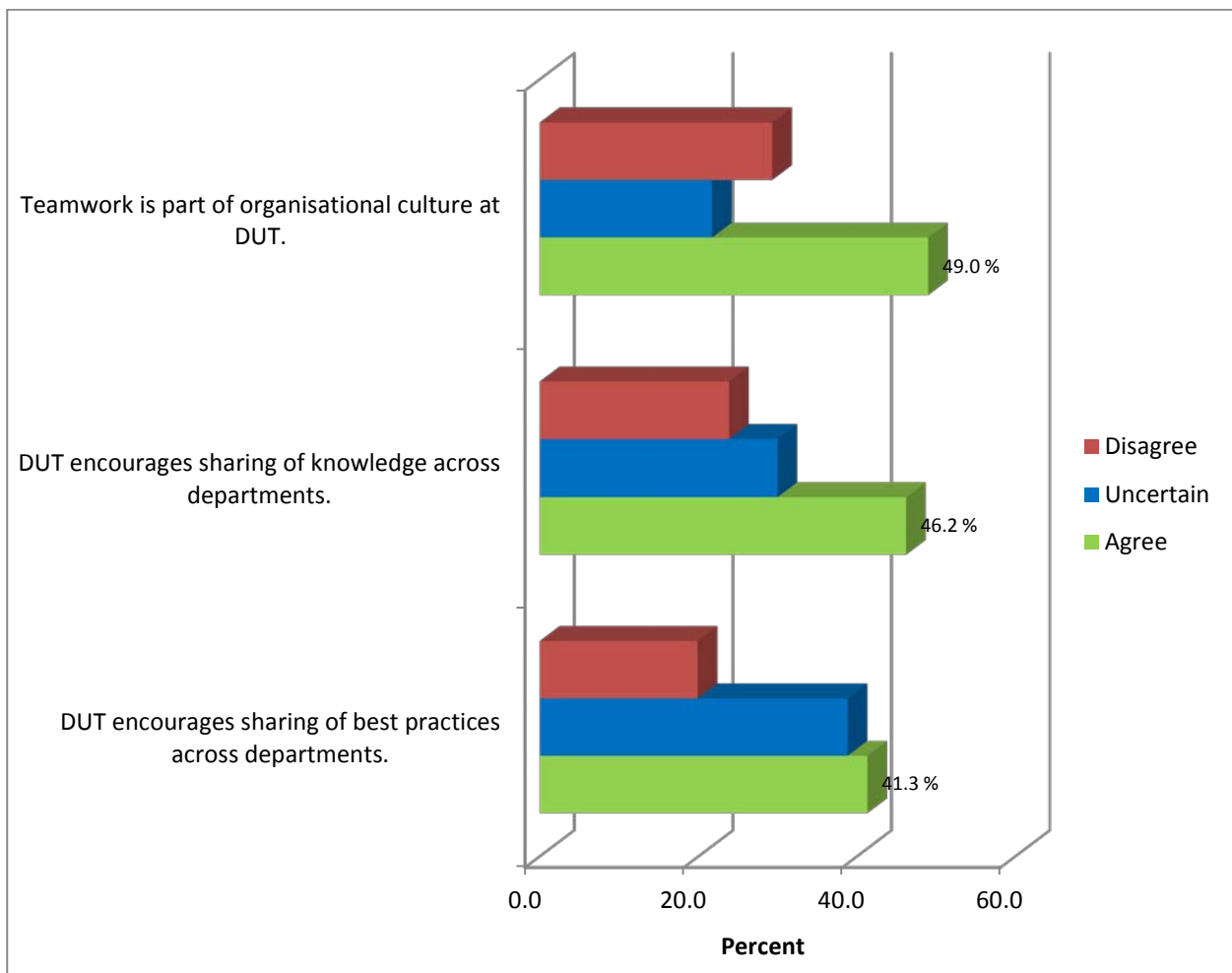


Figure 4.4 Responses to questions of teamwork.

The levels of agreement on all variables are less than 50 percent in this section. The findings revealed that participants at 49.0 percent view teamwork as part of organisational culture. Stronger teamwork culture facilitates sharing of knowledge and best practices in an organisation. Although levels of agreement to statements in this section were less than 50 percent, the information helps to provide the views of participants on statements raised

in this section. Building on the views of Peter Senge, who is regarded as the founder of the learning organisation concept, Retna (2006:2) agrees that modern organisations face complex challenges. Teamwork is critical in that no individual employee will have all the skills and knowledge required by modern organisations. He further mentions that teamwork inspires members of the organisations to innovate, working as a collective, and learning as a team. The following section provides an analysis on organisational members' commitment to support the application of a learning organisation

#### 4.5 Commitment from organisational members (DUT staff) to support the application of a learning organisation philosophy at DUT

This section is concerned with determining whether employees of DUT would support the application of a learning organisation philosophy. Information in this section was critical to establish whether employees would support, embrace, and commit themselves in ensuring the successful application of a learning organisation philosophy at DUT.

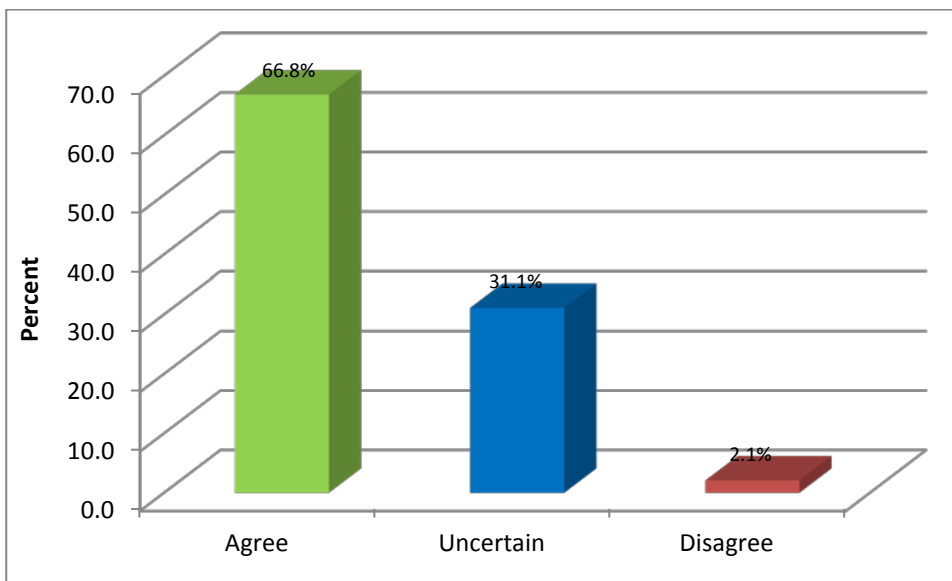


Figure 4.5 Employee commitment

The level of agreement in this section confirmed positive energy. More than 66 percent of the respondents indicated that they would support the application of a learning organisation philosophy at DUT. Approximately 32 percent of the respondents were uncertain whether they would support the application of a learning organisation philosophy at DUT, while 3 percent felt that staff would not support the application of a learning philosophy at DUT. Since the majority of respondents indicated that they would support

the application of a learning organisation philosophy at DUT, based on the responses, it may be concluded that most people would support the application of learning organisation philosophy at DUT. According to Adler, Hecksher and Prusak (2011:1) argue that in a learning organisation people work as collaborative communities in which they are committed to applying their unique talents and skills towards a collective, organisational mission. From the responses, it is encouraging to note that respondents seem to understand the benefits of DUT becoming a learning organisation.

#### 4.6 Challenges for the application of a learning organisation philosophy in the UoTs

Information presented in table 4.4 are the challenges for the application of a learning organisation philosophy at DUT, including lack of staff motivation, lack of support systems and the lack of a shared vision.

Table 4.4 Challenges for the application of a learning organisation philosophy

		Frequency	Per cent	Valid Per cent	Cumulative Per cent
Valid	Lack of staff motivation	72	35.3	39.1	39.1
	Lack of support systems	66	32.4	35.9	75.0
	Lack of a shared vision	40	19.6	21.7	96.7
	Other	6	2.9	3.3	100.0
	Total	184	90.2	100.0	
Missing	System	20	9.8		
Total		204	100.0		

Almost 39.1 percent of participants indicated that they could experience both the lack of staff motivation as well as the support systems. These are challenges that could hamper the application of a learning organisation philosophy at DUT. From table 4.4, lack of staff motivation at 39.1 percent, lack of support systems at 35.9 percent, and a lack of a shared vision at 21.7 percent, reflect some of the challenges identified by the participants. The literature review also provides possible factors that hamper the successful application of a learning organisation. Some of the challenges as stated by Lewis (2008:292) include lack of both a systems-thinking culture, competition (that is organisational members competing against each other instead of collaborating and working as a team), as well as the members reacting instead of being proactive. Beside a few issues raised by participants in terms of challenges, the findings of the study prove that participants are of the view that DUT will gain a competitive edge through the application of a learning organisation philosophy. More importantly, this section answers the research question for this study. The following section presents test results from the analysis of variance (ANOVA), chi-square, and the correlations.

#### 4.7 Analysis of variance (ANOVA) test

Analysis of variance (ANOVA) was used to test employee perceptions on the learning organisation philosophy. According to Zinkmund (2013:646), this is a hypothesis-testing technique used in determining whether there is a statistically significant difference in means occurring between two or more groups. The ANOVA is a statistical procedure using the F-ratio in testing the overall fit of a linear. In other words, it is used to test whether group means differ significantly (Field 2009:781). The interpretation of the ANOVA test results is based on the following:

1. If the **p** value is less than or equal to **0.05**, this means that there is a statistically significant difference between the two variables.
2. If the **p** value is greater than **0.05**, this means that there is no statistically significant difference between the two variables.

The ANOVA test has been used to test the significant difference between employee sectors (academic and administration) with study variables relating to the business environment at DUT. The DUT sectors, in this case, refer to academic and administration sections. Variables relating to the business environment include:

- the DUT employees are able to adopt a sense of community;
- organisational members (DUT staff) strive for excellence;
- capacity-building is viewed as an essential element;
- mistakes are treated as learning opportunities;
- newly acquired knowledge is integrated into daily operations;
- staff members are encouraged to try new, effective ways of performing their duties;
- there is a culture of systems-thinking;
- employees are motivated to help DUT achieve its strategic objectives; and
- management embraces employees' initiatives in improving organisational processes.

#### 4.7.1 Employee perceptions on business environment at DUT

Table 4.5 ANOVA test results on staff perceptions

ANOVA : Employee Perceptions						
	ANOVA	Sum of Squares	df	Mean Square	F	Sig.
DUT employees are able to adopt a sense of community in which they help one another to improve on what they do.	Between Groups	.739	1	.739	.606	.437
	Within Groups	239.301	196	1.221		
	<b>Total</b>	<b>240.040</b>	<b>197</b>			
Organisational members (staff) strive for excellence at DUT.	Between Groups	1.805	1	1.805	1.599	.208
	Within Groups	221.371	196	1.129		
	<b>Total</b>	<b>223.177</b>	<b>197</b>			
Capacity development is viewed as an essential element at DUT.	Between Groups	.209	1	.209	.171	.679
	Within Groups	236.709	194	1.220		
	<b>Total</b>	<b>236.918</b>	<b>195</b>			
Mistakes by employees are treated as learning opportunities at DUT.	Between Groups	.792	1	.792	.723	.396
	Within Groups	217.934	199	1.095		
	<b>Total</b>	<b>218.726</b>	<b>200</b>			
Newly acquired knowledge is integrated into daily operations at DUT.	Between Groups	1.244	1	1.244	1.214	.272
	Within Groups	200.917	196	1.025		
	<b>Total</b>	<b>202.162</b>	<b>197</b>			
DUT encourages employees to try new, effective ways of performing their duties.	Between Groups	1.224	1	1.224	.982	.323
	Within Groups	249.232	200	1.246		
	<b>Total</b>	<b>250.455</b>	<b>201</b>			
There is a culture of systems-thinking at DUT (awareness that one does not function in isolation - what you do in your department will have an impact on what happens in other departments).	Between Groups	14.177	1	14.177	10.407	.001
	Within Groups	271.077	199	1.362		
	<b>Total</b>	<b>285.254</b>	<b>200</b>			
Employees are motivated towards helping DUT achieve its strategic objectives.	Between Groups	.269	1	.269	.220	.640
	Within Groups	239.771	196	1.223		
	<b>Total</b>	<b>240.040</b>	<b>197</b>			
Management embraces employees' initiatives in improving organisational processes at DUT.	Between Groups	6.092	1	6.092	6.016	.015
	Within Groups	197.441	195	1.013		
	<b>Total</b>	<b>203.533</b>	<b>196</b>			

The ANOVA test results in Table 4.5 reveal that there are variables with statistical significance difference as well as variables with no statistical significance. These variables relate to perceptions of both academic and administration sectors towards business environment at DUT. Study variables with the significance difference include: there is a culture of systems-thinking at DUT, with a p value of **0.001**; and that DUT management embraces employees' initiative in improving organisational processes, with a p value of **0.015**. However the following study variables have no statistical significance difference since they have p significant values greater than **0.05** :

- the DUT employees are able to adopt a sense of community with a p value **0.437**;
- organisational members strive for excellence with a p value **0.208**;
- capacity development is viewed as an essential component with a p value **0.679**;
- mistakes by employees are treated as learning opportunities with a p value **0.396**;
- newly acquired knowledge is integrated into daily operations with a p value **0.272**;
- the DUT encourages staff to try new, effective ways of performing their duties with a p value **0.323**; and
- employees are motivated to help DUT achieve its strategic objectives with a p value **0.640**.

#### **4.7.2 Perceptions on teamwork of both academic and administration staff**

ANOVA was also used in testing the significant difference between academic and administration staff perceptions in study variables relating to teamwork amongst DUT staff. Study variables relating to teamwork include:

- teamwork is part of organisational culture at DUT;
- the DUT encourages sharing of knowledge across departments; and
- the DUT encourages sharing of best practices across departments.

Presented in Table 4.6 are the results of the ANOVA test on employees' perceptions of study variables relating to teamwork.

Table 4.6 ANOVA test results relating to employees' perceptions of teamwork

ANOVA: Teamwork						
		Sum of Squares	df	Mean Square	F	Sig.
Teamwork is part of organisational culture at DUT.	Between Groups	8.632	1	8.644	6.644	.011
	Within Groups	245.641	196	1.299		
	<b>Total</b>	<b>23.360</b>	<b>24</b>			
DUT encourages sharing of knowledge across departments.	Between Groups	9.410	1	9.410	8.362	.004
	Within Groups	219.443	195	1.125		
	<b>Total</b>	<b>228.853</b>	<b>196</b>			
DUT encourages sharing of best practices across departments.	Between Groups	3.730	1	3.730	3.796	.053
	Within Groups	195.533	199	.983		
	<b>Total</b>	<b>199.264</b>	<b>200</b>			

The ANOVA test results as shown in Table 4.6 reveal that there is a statistically significance difference between employee perceptions (both academic and administration) on two of the three study variables relating to teamwork. These include: teamwork is part of organisational culture; and DUT encourages sharing of knowledge across departments. The study variables' p significant values are 0.011, and 0.004, respectively. Study variables with no significant statistical difference relate to DUT encouraging the sharing of best practices across departments, as it has a significant p value of 0.053 which is more than 0.05. ANOVA test results therefore confirm that there is no statistically significance difference between academic and administration towards a study variable relating sharing of best practices across departments.

#### 4.7.3 Opportunities and challenges for the application of a learning organisation philosophy in the UoTs

Table 4.7 below illustrates the way in which participants responded to study variables relating to opportunities and challenges for the application of a learning organisation philosophy.



Table 4.7 ANOVA test results on opportunities and challenges for the application of a learning organisation philosophy

Opportunities and challenges for the application of a learning organisation philosophy						
		Sum of Squares	df	Mean Square	F	Sig.
The application (implementation) of a learning organisation philosophy will improve productivity at DUT.	Between Groups	1.008	1	1.008	1.538	.216
	Within Groups	129.787	198	.655		
	<b>Total</b>	<b>130.795</b>	<b>199</b>			
DUT is capable of becoming a learning organisation.	Between Groups	.005	1	.005	.010	.922
	Within Groups	112.410	200	.562		
	<b>Total</b>	<b>112.416</b>	<b>201</b>			
What would be the challenges for the application of a learning organisation philosophy at DUT?	Between Groups	2.757	1	2.757	3.828	.052
	Within Groups	131.069	182	.720		
	<b>Total</b>	<b>133.826</b>	<b>183</b>			

The ANOVA test results in table 4.7 reveal that there is no statistically significant difference between academic and administration sectors towards study variables relating to opportunities and challenges for the application of a learning organisation philosophy at DUT. The ANOVA tests indicate that the study variables have a **p** significant values that are all greater than 0.05.

- The application of a learning organisation will improve productivity = **0.216**;
- DUT is capable of becoming a learning organisation = **0.922**; and
- What would be the challenges for the application of a learning organisation philosophy = **0.052**.

#### 4.7.4 Commitment from organisational members (DUT staff)

The ANOVA test results on study variable relating to employee commitment to support the application of a learning organisation philosophy are presented in Table 4.8.

Table 4.8 ANOVA test results on commitment from organisational members.

Commitment from organisational members ( DUT staff)						
	ANOVA	Sum of Squares	df	Mean Square	F	Sig.
Organisational members (staff) would support the implementation of a learning organisation philosophy at DUT.	Between Groups	.286	1	.286	.460	.499
	Within Groups	118.937	191	.623		
	<b>Total</b>	<b>119.223</b>	<b>192</b>			

The ANOVA test results reveal that there is no statistically significant difference between academic and administration staff towards study variables relating to commitment from employees to support the application of a learning organisation philosophy at DUT. There is one study variable which has a significant value of p at **0 .499** and this is more than 0.05.

## 4.8 CHI-SQUARE TEST

The chi-square test was performed to determine whether there was a significant relationship between administration and academic sectors towards study variables relating to the business environment at DUT. The chi-square test is defined by Saunders, Lewis and Thornhill (2012:666) as a statistical test determining whether there are statistically significant associations between the observed frequencies and expected frequencies of two variables.

Chi-square test results relies on the conditions outlined below:

- 1 If the p value is less than or equal to 0.05, there is a statistically significant relationship between two variables; and
- 2 If the p value is greater than 0.05, there is no statistical relationship between two variables.

Study variables relating to the business environment at DUT include:

- employees are willing/motivated to adopt a sense of community;
- organisational members strive for excellence;
- capacity development is viewed as an essential element;
- mistakes are treated as learning opportunities;
- newly acquired knowledge is integrated into daily operations;
- the DUT encourages employees to try new, effective ways of performing their duties;
- there is a culture of systems-thinking;
- employees are motivated towards helping DUT achieve its strategic objectives;
- management embraces employees' initiative in improving organisational processes;
- teamwork is part of organisational culture;
- the DUT encourages sharing of knowledge across departments;

- the DUT encourages sharing of best practices across departments;
- application of a learning organisation philosophy will improve productivity;
- the DUT is capable of becoming a learning organisation;
- challenges for the application of a learning organisation; and
- organisational members would support the application of a learning organisation philosophy.

Table 4.9 provides the results of the chi-square tests on listed variables relating to the business environment.

Table 4.9 Chi-square test results

<b>Pearson Chi-Square Tests</b>			
	Sector	Department	
DUT employees are able to adopt a sense of community where they help one another to improve on what they do.	0.515	0.134	
Organisational members (staff) strive for excellence at DUT.	0.486	0.022*	
Capacity development is viewed as an essential element at DUT.	0.287	0.189	
Mistakes by employees are treated as learning opportunities at DUT.	0.082	0.006*	
Newly acquired knowledge is integrated into daily operations at DUT.	0.263	0.015*	
DUT encourages employees to try new effective ways to perform their duties.	0.641	0.267	
There is a culture of systems thinking at DUT (awareness that one does not function in isolation, but what you do in your department will have an impact on what happens in other departments).	0.009*	0.137	
Employees are motivated towards helping DUT achieve its strategic objectives.	0.498	0.144	
Management embraces employees' initiatives to improve organisational processes at DUT.	0.182	0.158	
Teamwork is part of organisational culture at DUT.	0.150	0.003*	
DUT encourages sharing of knowledge across departments.	0.030*	0.095	
DUT encourages sharing of best practices across departments.	0.348	0.033*	
The application (implementation) of a learning organisation philosophy will improve productivity at DUT.	0.367	0.869	
DUT is capable of becoming a learning organisation.	0.042	0.814	
What would be the challenges for the application of a learning organisation philosophy at DUT?	0.026	0.049*	
Organisational members (staff) would support the implementation of a learning organisation philosophy at DUT.	0.962	0.962	

Chi-square results in table 4.9 indicate that there is statistical significance relationship between the academic and administration sectors on the following study variables:

- there is a systems thinking culture at DUT with a p value 0.009.
- the DUT encourages sharing of knowledge across departments with a p value 0.030.
- the DUT is capable of becoming a learning organisation with a p value 0.042
- what would be the challenges for the application of a learning organisation with a p value 0.026

Chi- square results, however indicate that there are few study variables where there is no statistical significance relationship between the academic and administration sectors. Study variables with no statistical significance relationship have a **p** value which is greater than **0.05**. These include:

The DUT employees are able to adopt a sense of community where they help one another to improve on what they with a p value 0.515.

Organisational members strive for excellence with a p value 0.486

Capacity development is viewed as an essential element with a p value of 0.287

Mistakes by employees are treated as learning opportunities having a p value 0.082

Newly acquired knowledge is integrated into daily operations with a p value 0.263.

The DUT encourages employees to try new effective ways to perform their duties with a p value 0.641.

Employees are motivated towards helping the DUT achieve its strategic objectives with a p value 0.498.

Management embraces employees' initiatives to improve organisational processes with a p value 0.182.

Organisational members would support the application of a learning organisation philosophy with a p value 0.962.

Teamwork is part of organisational culture having a p value 0.150

The DUT encourages the sharing of best practices across departments with a p value 0.348

The application of a learning organisation philosophy will improve productivity with a p value 0.367.

The DUT is capable of becoming a learning organisation with a p value

Organisational members would support the implementation of a learning organisation philosophy with a p value 0.962.

## 4.9 CORRELATION TEST

Treadwell (2011:207) defines correlation as a statistical procedure for measuring the strength of association between two or more variables; and also the degree to which variables are related. The Bivariate Spearman's correlation test was also performed on the ordinal data in examining the strength of the relationship between study variables towards the perceptions on the business environment at DUT.

Positive values indicate a direct, proportional relationship between the variables; a negative value indicates an inverse relationship. All significant relationships are indicated by a \*or \*\*. Correlation between variables is considered to be perfect positive if it has a value from +1. However if the correlation between variables has a value of -1, it is considered as perfect negative correlation. Correlation test also indicates the strength of the relationship between the study variables.

The study variables include:

- employees are able to adopt a sense of community;
- capacity development is viewed as an essential element;
- mistakes by employees are treated as learning opportunities;
- newly acquired knowledge is integrated into daily operations;
- the DUT encourages employees to try new, effective ways of performing their duties;
- there is a culture of systems-thinking;
- employees are motivated to help DUT achieve its strategic objectives;
- management embraces employees' initiatives in improving organisational processes;
- teamwork is part of organisational culture;
- the DUT encourages sharing of knowledge across departments;
- the DUT encourages sharing of best practices across departments;
- application of a learning organisation philosophy will improve productivity;
- the challenges for the application of a learning organisation philosophy, and
- organisational members would support the implementation of a learning organisation philosophy.



The following table 4.10 presents correlations of test results, indicating the strength of the association between study variables.

Table 4.10 Pearson's correlation results

		DUT employees are able to adopt a sense of community where they help one another to improve on what they do.
DUT employees are able to adopt a sense of community where they help one another to improve on what they do.	Correlation Coefficient	1.000
	Sig. (2-tailed)	
	N	198
Organisational members (staff) strive for excellence at DUT.	Correlation Coefficient	.553**
	Sig. (2-tailed)	.000
	N	198
Capacity development is viewed as an essential element at DUT.	Correlation Coefficient	.459**
	Sig. (2-tailed)	.000
	N	196
Mistakes by employees are treated as learning opportunities at DUT.	Correlation Coefficient	.455**
	Sig. (2-tailed)	.000
	N	197
Newly acquired knowledge is integrated into daily operations at DUT.	Correlation Coefficient	.480**
	Sig. (2-tailed)	.000
	N	194
DUT encourages employees to try new effective ways to perform their duties.	Correlation Coefficient	.428**
	Sig. (2-tailed)	.000
	N	198
There is a culture of systems thinking at DUT	Correlation Coefficient	.371**
	Sig. (2-tailed)	.000
	N	198
Employees are motivated towards helping DUT achieve its strategic objectives.	Correlation Coefficient	.548**
	Sig. (2-tailed)	.000
	N	198
Management embraces employees' initiatives to improve organisational processes at DUT.	Correlation Coefficient	.357**
	Sig. (2-tailed)	.000
	N	197
Teamwork is part of organisational culture at DUT.	Correlation Coefficient	.426**
	Sig. (2-tailed)	.000
	N	198
DUT encourages sharing of knowledge across departments.	Correlation Coefficient	.393**
	Sig. (2-tailed)	.000
	N	197
DUT encourages sharing of best practices across departments.	Correlation Coefficient	.367**
	Sig. (2-tailed)	.000
	N	197
The application (implementation) of a learning organisation philosophy will improve productivity at DUT.	Correlation Coefficient	.228**
	Sig. (2-tailed)	.001
	N	195
DUT is capable of becoming a learning organisation.	Correlation Coefficient	.239**
	Sig. (2-tailed)	.001
	N	196
What would be the challenges for the application of a learning organisation philosophy at DUT?	Correlation Coefficient	.096
	Sig. (2-tailed)	.200
	N	179
Organisational members (staff) would support the implementation of a learning organisation philosophy at DUT.	Correlation Coefficient	.262**
	Sig. (2-tailed)	.000
	N	191

\* Correlation is significant at the 0.05 level (2- tailed)

\*\* Correlation is significant at the 0.01 level (2-tailed)

The following passages provide a brief interpretation of Correlation results as presented in table 4.10

(a) The correlation value between DUT employees are able to adopt a sense of community and organisational members strive for excellence is **0.553** which indicate a significant positive proportional relationship. Therefore the relationship between variables is moderate.

(b) Statistical analysis indicate that the correlation value between DUT employees are able to adopt a sense of community and capacity development is viewed as an essential element at DUT is **0.459**, which highlights positive proportional relationship. This reveals that the relationship between the variables is moderate.

(c) The Pearson's correlation tests highlight that there was a significant relationship between DUT employees are able to adopt a sense of community and mistakes by employees are treated as learning opportunities at DUT. The significant relationship value is **0.455**, this reveals a positive proportional relationship. The correlation value indicates moderate relationship between variables.

(d) The correlation value between DUT employees are able to adopt a sense of community and newly acquired knowledge is integrated into daily operations is **0.480**, this indicates a positive proportional relationship. Therefore the strength of the relationship between variables is moderate positive.

(e) The statistical analysis indicate that the correlation value between DUT employees are able to adopt a sense of community and DUT encourages employees to try new effective ways to perform their duties is **0.428**, which a directly related positive proportionality. This indicates moderate relationship between the variables.

(f) The correlation value of **0.371** shows a directly related proportionality between study variables DUT employees are able to adopt a sense of community and there is a culture of systems thinking at DUT. There is a moderate relationship between the variables.

(g) Statistical analysis show that the correlation value between DUT employees are able to adopt a sense of community and employees are motivated towards helping DUT achieve its strategic objectives is **0.548** which highlights a directly related and positive proportionality. The correlation test analysis indicates that there is a moderate positive relationship between the variables.

(h) The significant association between DUT employees are able to adopt a sense of community and management embraces employees' initiatives to improve organisational processes at DUT is **0.357** and it indicates a significant positive proportional relationship. This illustrates weak positive relationship between the variables.

(i) The correlation value between DUT employees are able to adopt a sense of community and teamwork is part of organisational culture a DUT is **0.426** and this suggests that there is a significant positive proportional relationship. This also indicates a moderate positive relationship.

(j) The correlation value between DUT employees are able to adopt a sense of community and DUT encourages sharing of knowledge across departments is **0.393** which means they are directly related with a positive proportionality. The strength of the relationship between the variables is weak.

(k) The statistical analysis reveals that the correlation value between study variables, DUT employees are able to adopt a sense of community and DUT encourages sharing of best practices across departments is **0.367**. This is directly related proportionality. This shows the weak relationship between the variables.

(l) Significant association between DUT employees are able to adopt a sense of community and the application of a learning organisation philosophy will improve productivity at DUT is **0.228**. This confirms that there is a significant positive proportional relationship. The strength of the relationship between the variables is weak.

The findings revealed that the correlation value between DUT employees are able to adopt a sense of community and DUT is capable of becoming a learning organisation is **0.239**,

this indicates that there is a significant positive proportional relationship. There is a weak relationship between the variables.

The statistical analysis highlight that the correlation value between DUT employees are able to adopt a sense of community and the challenges of the application of a learning organisation philosophy is **0.096**, this reveals a significant positive relationship. The strength of the relationship between variables is very strong.

The correlation value between DUT employees are able to adopt a sense of community and organisational members would support the implementation of a learning organisation philosophy is **0.262**, this shows a directly and positive significance relationship. This therefore suggests weak relationship between the variables.

In overall, correlation test results show positive significance relationship between the study variables. However the correlations vary as in some instances the positive significant relationship is strong, weak and moderate between some variables.

#### **4.10 CRONBACH'S ALPHA**

In this study, the reliability of the research instrument was measured using Cronbach's Coefficient alpha. Sekaran and Bougie (2010:162) describe Cronbach's coefficient alpha as a popular approach to measure internal reliability of a research instrument and it is based on inter-item correlations. When items are strongly connected with each other, this suggests that their internal consistence is high.

##### **Reliability**

The two most important aspects of precision are reliability and validity. Reliability is defined by Sekaran and Bougie (2010:444) as consistency and stability of the measuring instrument used for research purposes. This is achieved by taking several measurements on the same subjects. A reliability coefficient of 0.70 or higher is considered "acceptable" in research project.

The various categories were tested for reliability scores. The results are presented below.

Table 4.11 Reliability test scores

	Cronbach's Alpha
Perception on the business environment at DUT	0.885
Teamwork	0.824
Opportunities and challenges for the application of a learning organisation philosophy at DUT	0.608
Overall	0.912

The overall reliability score for the various sections that comprise this construct is 0.912. This is greater than the acceptable value of 0.70. One of the individual sections falls slightly below the acceptable value. The primary reason for this is that the construct is newly developed and comprises only three factors.

#### 4.11 Summary

In this chapter the findings were presented, interpreted, and categorised according to sections used in the questionnaire. Chi-square, ANOVA and Correlation tests were relevant hence they were performed for the purposes of determining statistical significance relationship and statistical significance difference between the administration and academic sector. The strength of the relationship between the study variables was tested by means of ath correlation test. From the data collected, the majority of participants indicated that DUT would improve its productivity if a learning organisation philosophy is applied. The overall response rate was good and participants were enthusiastic about taking part in the study. The researcher is satisfied that pre-determined research objectives were achieved, and the research question was answered. Considering the continuously changing environment in which UoTs operate and the internationalisation of higher education , there is no doubt that the application of a learning organisation will be of great benefit in the UoTs. Conclusions and recommendations for this research study are presented in the next and final chapter.

## CHAPTER FIVE: CONCLUSION AND RECOMMENDATIONS

### 5.1 Introduction

This chapter presents the conclusion and recommendations based on the main findings of the study. The previous chapter presented and explained the findings based on the analysis and interpretation of data collected from DUT employees using a self-administered questionnaire. Part of this chapter demonstrates a link between the previous chapters and the objectives of the study. The extent to which research objectives have been achieved is covered in this chapter. The study highlights positive attitudes from DUT employees towards the application of a learning organisation philosophy. From the findings of the study, the researcher drew conclusions and made recommendations.

The objectives of this research project were:

- to examine opportunities and challenges for applying a learning organisation philosophy within the UoTs;
- to assess perceptions of employee productivity resulting from the application of a learning organisation philosophy in the UoTs; and
- to determine whether employees in the UoTs could embrace the application of a learning organisation philosophy.

### 5.2 Achievement of the research objectives

Based on the findings of the study, it is important to state that the research objectives were achieved.

**Objective 1:** The study was successful in examining opportunities and challenges for the application of a learning organisation philosophy. Responses relating to employee perceptions on the business environment at DUT were positive. This demonstrates that participants understand the value of the application of a learning organisation in the UoTs. Based on the findings of the study, there are opportunities for successful application of a learning organisation philosophy.

**Objective 2:** The study was able to examine the opportunities and challenges for the application of a learning organisation philosophy in the UoTs. The findings of this study indicate that about 81 percent of the participants are of the view that DUT will benefit from the application of a learning organisation philosophy. This demonstrates that there are good opportunities for the implementation of a learning organisation philosophy in the UoTs in KZN.

**Objective 3:** The study was successful in determining whether UoT employees will embrace the application of a learning organisation philosophy. From the results of this study, 66.8 percent of participants indicated they that would support the application of a learning organisation philosophy. The results show that there is a great opportunity for the successful implementation of a learning organisation philosophy in UoTs in KZN. The majority of the participants indicated that they will embrace the learning organisation philosophy.

The critical research question of the study was:

Will the application of a learning organisation philosophy improve productivity in the UoTs of KwaZulu-Natal?

The research findings reveal that the critical research questions of this study were adequately answered. Responses to questions about whether productivity at DUT will improve through the application of a learning organisation philosophy confirm that critical research questions of this study were answered. The findings show that 81.0 percent of participants feel that productivity will improve through the adoption and application of a learning organisation philosophy at DUT.

### **5.3.Theoretical perspectives: results and the research question of the study**

The research question was formulated to establish whether indeed participants were of the view that applying a learning organisation philosophy was going to help improve productivity at DUT. The responses to question of productivity improving as a result of the application of a learning organisation philosophy are an indication that participants are optimistic. The majority of participants agree that the application of a learning organisation philosophy will enhance productivity at DUT. Responses are in line with the view of many

authors in the literature who stress that a learning organisation is the best approach for organisations to survive and to remain competitive. Drawing from the literature on learning organisations, Lyle (2012:218) stresses that learning organisation philosophy focuses on using learning as a means of improving performance and sustaining competitive advantage.

Results of this study show that there is a strong sense that employees strive for excellence. Atak and Erturgut (2010:3472) point out that the learning organisation philosophy can be effective in inspiring employees to embrace organisational goals, and to commit themselves in ensuring that these goals are achieved. According to Armstrong (2009:656), the learning organisation philosophy plays a critical role in developing a sense of purpose and a sense of belonging for employees of an organisation.

The majority of participants indicated their strong willingness to support the implementation of a learning organisation. The results clearly indicate that participants understand the importance of responding effectively to challenges faced by UoTs. The learning organisation philosophy lays strong emphasis on the creation of an organisational culture which promotes continuous learning by all employees at all levels of the organisation. Atak and Erturgut (2010:3472) stress that a supportive learning environment and employee commitment are critical for the successful application of a learning organisation.

From the results, participants were positive that DUT is the type of organisation in which employees are encouraged to be innovative so as to improve business results. Taking a closer look at the learning organisations, Hellriegel and Slocum (2012: 354) explain that employee capabilities, the ability to adapt and continuously be innovative are all critical factors. These are some of the factors distinguishing learning organisations from traditional organisations where the mindset is rigid. Complex challenges in the business environment and in the higher education sector require innovation to become part of the daily routine.

Organisational members are optimistic that implementing a learning organisation philosophy will improve productivity at DUT. Learning organisation philosophy acknowledges the need for fostering continuous improvement of organisational processes and learning capabilities of organisational members in achieving good business results (Jafari and Kalanaki 2012:5811). They further emphasize that constant learning is the best



way for organisations to remain competitive. Participants in the study demonstrated in their responses that a learning philosophy will help DUT to improve productivity.

Participants view DUT as an organisation capable of becoming a learning organisation. The reality is that higher education institutions have to adapt to complex challenges. Weeks (2010: 598) suggests that a learning organisation philosophy is the best option in responding effectively to such challenges. The results of the study show that participants were positive that DUT is capable of becoming a learning organisation. Lyle (2012:217) mentions that in a learning organisation, learning processes are designed to help facilitate the adoption of flexible ways of encouraging continuous improvement, thereby achieving the strategic results of the organisation. Coetzer (2007:422) reiterates that in a learning organisation, employees are given the opportunity of engaging with organisational processes; also the opportunity of participating in problem-solving processes.

#### **5.4. Implications of the results for UoTs**

The reality is that higher education institutions are expected to play a critical role in producing employable graduates, responding effectively to complex challenges, hence Lyle (2012:217) recommends that a learning organisation philosophy be inculcated into higher education institutions. This research project contributes to the subject of learning organisation philosophy, with a particular focus on UoTs. This study also provides evidence that the application of a learning organisation philosophy could help to improve processes and practices in the UoTs. Remaining competitive is not only essential for corporate sector organisations. The ever-changing higher education landscape forces higher education institutions, including UoTs, to adopt effective approaches similar to those used by the corporate sector in gaining competitive advantage. Oosthuizen (2008: 40) reiterates that, in enhancing employees' ability to create sustainable competitive advantage, continuous development and learning is of paramount importance. The results of the study show that those who participated in the study view learning organisation philosophy as a best option for UoTs.

#### **5.5 General overview of the findings**

Based on findings presented and discussed in the previous chapter, the study draws the following conclusions:

- DUT employees strive for excellence. This suggests that it will be relatively easy to implement the learning organisation philosophy in the UoTs. The study found that majority of the participants agreed with the statements relating to their perceptions on business environment at DUT.
- The results of the study confirm that DUT employees will support the implementation of a learning organisation philosophy. The study findings indicate that majority of the participants agreed that they will support the application of a learning organisation philosophy at DUT. The same findings could be expected in UoTs in general.
- DUT encourages employees to be innovative, continuously challenging the status quo in finding new and effective ways of improving processes and practices. This is something which must be enhanced, reinforced, and sustained through the application of a learning organisation philosophy in the UoTs.
- Organisational members are optimistic that implementing a learning organisation philosophy will improve productivity at DUT. In this study majority of the participants agreed that implementation of a learning organisation philosophy will improve productivity in the UoTs.
- Employees view the DUT as an organisation capable of becoming a learning organisation. The study found that majority of the participants strongly agreed / agreed that DUT is capable of becoming a learning organisation.

## **5.6 Limitations of the study**

The study focused on the UoTs within KwaZulu-Natal. Currently there are only two UoTs in KwaZulu-Natal, namely Mangosuthu University of Technology (MUT), and DUT. For the purposes of this study, DUT was used as a case study. From a learning organisation perspective, these findings may be generalized because UoTs are in a business of providing higher education and knowledge production. Hence the UoTs have to achieve business results in order to remain competitive.

## **5.7 Recommendations and future research**

The study has confirmed that participants are of the strong view that application of a learning organisation philosophy will improve employee productivity in the UoTs. Recommendations for future research include:

- examination of the impact of a learning organisation philosophy in the UoTs;
- application of a learning organisation philosophy in UoTs and traditional universities;
- gaining competitive advantage through the implementation of a learning organisation philosophy in the UoTs; and
- responding to business environmental challenges through the application of a learning philosophy in the UoTs.

## **5.8 Conclusion**

The aim of this research project was to determine the perceptions of DUT employees on the application of a learning organisation philosophy at DUT. Learning organisation philosophy is applied mostly in the corporate sector. However, continuously changing conditions in the higher education landscape require higher education institutions to use different approaches in order to remain competitive and relevant. Du Pre (2009:19) points out that UoTs are expected to experiment new approaches and practices to remain relevant. The learning organisation philosophy is effective in creating an environment which stimulates learning, sharing of best practices, a systems-thinking culture and shared vision within an organisation. There is also a strong emphasis that only organisations able to respond effectively to environmental challenges will sustain their competitive advantage. The findings of the study suggest that it is possible for the UoTs to operate as organisations in the private sector to achieve business goals.

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**Annexure A**

Department of Entrepreneurial Studies and Management  
Durban University of Technology  
P.O. Box1334  
Durban  
4000  
13 March 2012

LETTER OF INFORMATION AND CONSENT.

Title of study: The applicability of the learning organisation philosophy in improving processes and practices at a University of Technology in KwaZulu-Natal

Dear Participant

I am undertaking a research project that aims to investigate opportunities and challenges for applying learning organisation philosophy in the UoTs. A learning organisation is one which sustains competitive advantage through learning faster than its competitors (Jashapara 2011:342).

So as to enable me to conduct this research, I would like you to complete the attached questionnaire, which will take you only a few minutes. Participation is voluntary. You are free to withdraw from the study at any time. The information you provide will only be used for research purposes, and your identity and individual answers will be kept confidential. Should you wish to discuss this further, please feel free to contact me on 031 3735243, or my supervisor (Dr Zondo) on 031-3736831.

Your assistance will be much appreciated.

Yours sincerely

.....

P.M. Mhlongo (031-3735243)  
[patrickm@dut.ac.za](mailto:patrickm@dut.ac.za)

Please complete the following as confirmation of your willingness to participate in this research project.

I, ....., have adequately discussed the study with the researcher. I understand that I may withdraw from participating at any time without giving reasons. I agree to participate by completing the questionnaire.

Signature.....Date.....

## Annexure B

### THE APPLICABILITY OF THE LEARNING ORGANISATION PHILOSOPHY IN IMPROVING PROCESSES AND PRACTICES AT THE UNIVERSITY OF TECHNOLOGY IN KWAZULU-NATAL.

Please complete the following questionnaire as frankly as possible; and where necessary indicate your option by means of a cross (X). Your input will be greatly appreciated and your confidentiality ensured.

**Please note:** a definition of a learning organisation is in the cover letter.

#### SECTION A: BACKGROUND INFORMATION

1. Please indicate your sector at DUT.

	Sector	Select one
1	Administration.	
2	Academic	

2. In which department do you work at DUT?

.....

3. What is your highest qualification?

	Qualification	Select one
	Doctorate	
	Masters	
	B Tech	
	Diploma	
	Grade 12 (Matric)	
	Other (please specify)	

4. How long have you been working at DUT?

	No. of years	
1	1-5	
2	6-10	
3	11-15	
4	16-20	
5	21-25	
6	26+	

#### SECTION B: BIBLIOGRAPHICAL INFORMATION

5. Gender

	Gender	
	Female	
	Male	

6. Age

	Age	
	18-25	
	26-33	
	34-41	
	42-49	
	50 +	

**SECTION C: YOUR PERCEPTION ON THE BUSINESS ENVIRONMENT AT DUT.**

7. DUT employees are able to adopt a sense of community in which they help one another to improve on what they do.

	Shared vision	Select one & explain
	Strongly agree	
	Agree	
	Uncertain	
	Disagree	
	Strongly disagree	

.....  
 .....

8. Organisational members (staff) strive for excellence at DUT.

	Business environment	Select one & explain
	Strongly agree	
	Agree	
	Uncertain	
	Disagree	
	Strongly disagree	

.....

9. Capacity development is viewed as an essential element at DUT.

	Empowerment	Select one & explain
	Strongly agree	
	Agree	
	Uncertain	
	Disagree	
	Strongly disagree	

.....

10. Mistakes by employees are treated as learning opportunities at DUT.

	Experimentation	Select one & explain
	Strongly agree	
	Agree	
	Uncertain	
	Disagree	
	Strongly disagree	

.....

11. Newly acquired knowledge is integrated into daily operations at DUT.

	Innovation	Select one & explain
	Strongly agree	
	Agree	
	Uncertain	
	Disagree	
	Strongly disagree	

.....

12. DUT encourages employees to try new, effective ways of performing their duties.

	Creativity	Select one & explain
	Strongly agree	
	Agree	
	Uncertain	
	Disagree	
	Strongly disagree	

.....

13. There is a culture of systems-thinking at DUT (awareness that one does not function in isolation - what you do in your department will have an impact on what happens in other departments).

	Systems thinking	Select one & explain
	Strongly agree	
	Agree	
	Uncertain	
	Disagree	
	Strongly disagree	

.....

14. Employees are motivated towards helping DUT achieve its strategic objectives.

	Organisational members	Select one and explain
	Strongly agree	
	Agree	
	Uncertain	
	Disagree	
	Strongly disagree	

.....

.....

15. Management embraces employees' initiatives in improving organisational processes at DUT.

	Continuous learning	Select one & explain
	Strongly agree	
	Agree	
	Uncertain	
	Disagree	
	Strongly disagree	

.....

**SECTION D: TEAMWORK.**

16. Teamwork is part of organisational culture at DUT.

	Teamwork	Select one & explain
	Strongly agree	
	Agree	
	Uncertain	
	Disagree	
	Strongly disagree	

.....

17. DUT encourages sharing of knowledge across departments.

	Knowledge-sharing	Select one & explain
	Strongly agree	
	Agree	
	Uncertain	
	Disagree	
	Strongly disagree	

.....

18. DUT encourages sharing of best practices across departments.

	Continuous learning	Select one & explain
	Strongly agree	
	Agree	
	Uncertain	
	Disagree	
	Strongly disagree	

.....

**SECTION E: OPPORTUNITIES AND CHALLENGES FOR THE APPLICATION OF A LEARNING ORGANISATION PHILOSOPHY AT DUT.**

19. The application (implementation) of a learning organisation philosophy will improve productivity at DUT.

	Organisational effectiveness	Select one & explain
	Strongly agree	
	Agree	
	Uncertain	
	Disagree	
	Strongly disagree	

.....  
 .....

20. DUT is capable of becoming a learning organisation.

		Select one & explain
	Strongly agree	
	Agree	
	Uncertain	
	Disagree	
	Strongly disagree	

.....

21. What would be the challenges for the application of a learning organisation philosophy at DUT?

	Organisational philosophy	Select one & explain
	Lack of staff motivation	
	Lack of support systems	
	Lack of a shared vision	
	Other (please specify)	

.....



**SECTION F: COMMITMENT FROM ORGANISATIONAL MEMBERS (STAFF) TO SUPPORT THE APPLICATION OF A LEARNING ORGANISATION PHILOSOPHY AT DUT.**

22. Organisational members (staff) would support the implementation of a learning organisation philosophy at DUT.

		Select one & explain
	Strongly agree	
	Agree	
	Uncertain	
	Disagree	
	Strongly disagree	

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**SECTION G: GENERAL COMMENTS.**

23. If there are any general comments that you wish to make relating to the issues raised in this survey, please do so in the place provided below.

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**Thank you for your cooperation in completing this questionnaire.**