

**UNIVERSITY OF KWAZULU-NATAL**

**TITLE**

**Evaluating the MBA Students perceptions about UKZN eLearning support systems  
which are Moodle and Student Central Systems**

**By**

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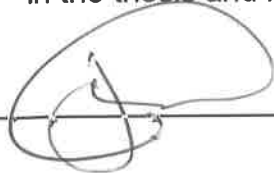
**2015**

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## ABSTRACT

Higher education institutions have a challenge to position themselves in line with the demands of education through modern technology in the 21<sup>st</sup> century. The challenge is mostly limited budget and technology resources coupled with policies that are stringent towards innovation. Information and communication technologies (ICT) have been adopted by many industries as the way of doing business and communicating with customers. Higher education institutions cannot afford to be left out in this area. There is a growing need every year for Universities to invest in learning support systems in order to enhance the quality of teaching and learning. The time has come to extend teaching and learning beyond the classroom and learning support systems compliment this concept very well.

The aim of this research is to assess the students' perceptions about Moodle and Student Central in the University of KwaZulu-Natal within the MBA program. The study also aims to evaluate the contribution made by the ICS staff, academic staff and administration staff in making these systems a success. The impact of user friendliness of these two systems is also evaluated based on students' perception.

A quantitative method was used in this research in a form of an online questionnaire which was sent to the class representatives in the 3 MBA groups via Lime survey. Respondents participated in the study voluntarily and the response rate was great. Some responses were captured manually after questionnaires were handed to the different class groups. Results were than analysed using descriptive analysis first provided by the Lime survey tool and further analysis were done in Microsoft Excel.

The findings on this study were around the MBA students' perceptions about Moodle and Student Central were discussed. This included looking deeper into the variables like gender, age and the Industry sector. Furthermore aspects of ICT support, the role of administrator and the system user friendliness were found to have an impact on the students' perceptions. Comparisons were also made to existing literature where in some cases there were agreements and in some cases there were differences.

The main recommendation were about a possible combination of the functionality from the two systems and adding tools like collaboration which were highlighted in the study as important factors when it comes to motivating students to make use of these systems for teaching and learning purposes.

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# Chapter One

## Introduction

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### 1.1 Introduction

Information technology has become a key enabler at the centre of every business. Higher education institutions cannot be left behind in this wave. Improvements in the Information Technology and Communication Space as well as the entire socio economic space are happening in a very fast pace. If the UKZN Graduate School of Business and Leadership wants to be a leader in this market they have to embrace technology to give their students a competitive advantage.

There is a vital need for continued communication between students and the lecturers, with this comes the exchange of information like notes, assignments and possible online discussions.

The ICT professionals have a strong belief that in about 10 years to come, most universities would have expanded their online courses drastically and expand the online learning space and move towards ‘lifelong learning’ models and different credentialing structures, (Anderson, 2012).

### 1.2 Motivation for the study

Online learning holds a great potential in terms of how UKZN MBA program can benefit. This also removes the barriers and limitations of classrooms, locations and productivity. With eLearning, there is a possibility of extension of the MBA program to the whole African continent as well as other countries.

The advantages of online learning in South Africa has opened up many opportunities at both school and tertiary levels, also the work place has room for eLearning especially for people who are willing to learn but do not have the time or the money to embark on costly traditional means of learning. (Aboutelearning, 2011) However, higher education institutions such as UKZN comes across as being slow to accept online training as a solution to the most pressing needs facing it. The cause of this is something that needs to be determined.

Not only the Graduate School of Business and Leadership stands to benefit from this study, but all the following stakeholders will also benefit:

- All the schools within UKZN that would like improve learning and communication with their students.
- Students looking to improve their knowledge and training in their different fields of study.
- University department like Human Resources looking to train staff on various programs can also benefit.
- UKZN ICS department will be able to use this information to better develop and package their products to the University community.
- Finally the decision makers at University Management level will have the benefit of reading this study to make a more informed choice as to how best should they implement online learning at UKZN.

### **1.3 Problem Statement**

In the higher education sector currently there is initiatives to implement eLearning solutions and currently Moodle is at the fore front as it is an open source product and UKZN has implemented Moodle and also developed an in-house system called Student Central which allows students to view their subject marks, final marks and graduation information. The researcher had an experience with both the systems since 2013 as a student at UKZN. As an IT professional the researcher has asked these questions: What is the other students' experience like with regards to using these systems daily during their studies at UKZN? What has been the students' experience with regards to receiving help from either IT department or the GSB & L administrators? These questions originated from the day to day students' difficulties in using the systems and often consulting the researcher since he is in the same class with them.

### **1.4 Focus of the Study**

This study will focus on MBA students, both block release and part time. This is a pilot study to establish those factors that affect the online training at GSB&L. The study is looking to investigate the following key factors:

- The age of MBA Students
- The gender and demographics of the MBA students
- The industry sector or background where the MBA students come from

- If all MBA students will benefit from online training.
- The students level of acceptance of eLearning
- The usefulness of information provided on Moodle and Student Central, whether is it timeous and efficient.

Desired participants in the study will be the MBA students from First Year all the way to third year. This study will not include GSB&L staff or other students within UKZN

### **1.5 Aim of the study**

The purpose of this study is to find variables that affect the perceptions' of MBA Students perception of UKZN eLearning support systems. The aim is also to establish if these systems are meeting students' needs in enhancing their learning experience during the duration of MBA studies.

### **1.6 Objectives of the research**

The objectives are as follows:

- Determine the levels of perceived usefulness of learning support systems in UKZN MBA program
- Determine the role of UKZN ICS Student LAN Support Staff in learning support systems within the MBA program
- Determine the role of administrators within the UKZN Graduate School of business and Leadership in making E-learning systems successful
- Determine the user friendliness of learning support systems at UKZN and the availability of help information.
- Identify whether the age, gender and Industry Sector of the respondent affects their perception of Moodle, Student Central and Online Registration Systems within the MBA program positively or negatively.

### **1.7 Structure of Dissertation**

This study is divided into six chapters which are briefly outlined below:

*Chapter One: Introduction*

This chapter provides an introduction to the study. It explores the background to the study and the reason for choosing this particular topic. The chapter also discusses the objectives of the study and also highlight who will benefit from this study.

#### *Chapter Two: Literature Review*

Chapter two explores various e-learning initiatives, and the advantages and the disadvantages of E-learning. The chapter also looks at the challenges of eLearning with the higher education sector and explore what other institutions have done so far. The eLearning policy framework is also explored and how it could contribute to more efficient implementation of eLearning system in the higher education sector.

#### *Chapter Three: Research Methodology*

The chapter outlines the research methodology followed in this study including data collection methods used. Data analysis is also explained as well as the population and sample size.

#### *Chapter Four: Presentation and analysis of the results*

In this chapter the results of the study are presented in the form of frequencies or descriptive analysis. This includes graphical representation and description based on the results from the dataset and statistical analyses are then performed on the data to draw conclusions.

#### *Chapter Five: Discussion*

This chapter presents the findings of the study on MBA student's perception on Moodle and Student Central. It further draw comparisons on certain aspect like gender, age and Industry sector and compares these with the respondents' perceptions and ratings.

#### *Chapter Six: Recommendations and Conclusion*

Chapter six provides a general conclusion to the study. It gives a synthesis of the study highlighting the MBA students' perceptions of the two systems. It finally makes recommendations on improving the current situation.

### **1.8 Summary**

This study will investigate factors affecting the perceptions of MBA students with regards to eLearning support systems. It also aims to establish if there is relationship between the student's age, gender, career background and their perceptions or acceptance of Moodle and Student Central.

## Chapter 2

### Literature Review

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#### 2.1 Introduction

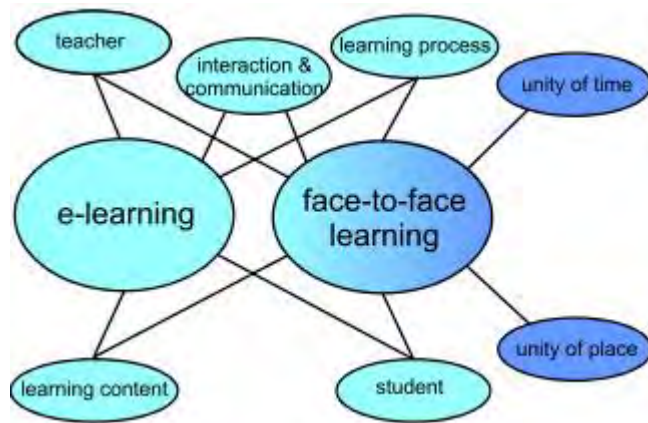
Higher education in the information age is different to what it used to be. Every industry has been influenced by ICT either positively or negatively. Higher education is not excluded in this regard. There is growing need for Universities around the world to embrace ICT tools as an aid for education and to enhance their delivery to their students. How students learn and how they are taught is very much influenced by technology. ICT can be seen as a value driver in the higher education sector since it enhances the elasticity of education delivery, since students can now access learning material wherever they are in the world. The key concept here is Easy Access to Learning material which reduces the need for printing which in return reduces the impact on the environment (Moore, Deane & Dickson-Deane, 2011).

Technology has now enabled students to browse through and read e-books, sample examination papers, previous year papers etc. ICT has also made possible the easier collaborations between students and lecturers where students can email or post questions for lecturers or tutors to assist them from wherever they are and they do not need to wait for the class or to physically go to campus and meet with the relevant lecturer. By the same token students can easily collaborate with fellow students and assist each other via various media like social networks, emails, blogs, etc. and this extends their network beyond their own University but with other universities around the world. Lecturers have also been able to use technology to their advantage, to be able to post assignments, test preps and exercises online without waiting to get to class and see the students. This has been a great enabler to fast tracked learning (Noor, 2010).

#### 2.2 The definition of eLearning

According to Moore et al. (2011) eLearning can be traced to as far back as the 1980's. It is defined as technology tools that extend learning beyond the walls of a classroom and beyond the lecture times. This field has grown so much since its inception and with the growth of technology in the 21<sup>st</sup> century the sky is the limit for eLearning. These enable students and academics to collaborate share documents and course material.

According to Vertecchi (2008) the teaching and learning elements are applicable to both eLearning and face to face learning as evidenced in Figure 2.1.



**Figure 2.1 Elements of teaching and learning**

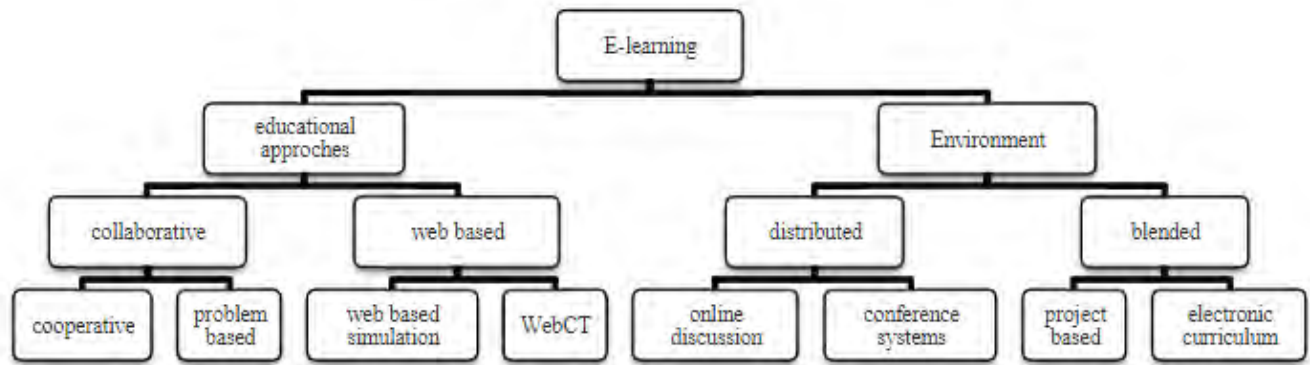
Adapted from Vertecchi (2008) **the impact of new technologies on distance learning students**. P5

According to Vertecchi (2008) this is an illustration of how eLearning extends the classroom and all the possible structures of eLearning. The important point to note in this here is how all the element are common both on eLearning and face to face teaching methods.

Another definition of eLearning by Senge (2013) says it's a way of teaching and sharing information by means of using the technology oriented tools most being web based tools. This new way of learning is seen as the new era of education that speeds up communication and enables universities offer their course to a wider community of students. It is seen as an extension of education and making distance education more practical.

According to Haghparast et al. (2013) the classifications of eLearning structures are based on two elements which are educational approaches and Environment as evidenced in figure 2.2





**Figure 2.2 Classification of eLearning structures.**

Adapted from Haghparast (2013) **Cultivating Critical Thinking Through E-learning Environment and Tools: A Review**, p530

## 2.3 ELearning Swot Analysis

This section outlines the strengths and weaknesses of e-learning and then try to find out the opportunities and threats for the same.

### 2.3.1 Strengths

According to Brown and Charlier (2012) eLearning allows students flexibility and remove the constraints of time and limitation of the classroom. This type of learning is not dependent on geographical location and this in return reduces costs for students such as travelling costs and in some studies accommodation costs. The learner has flexibility to study at their own time and this is suitable for learners that could be working fulltime and studying part time.

ELearning has an ability to allow flexibility of study material whereby there could be a combination of video of lectures, presentations, notes in a form of text and visuals and collaboration of students across the country. These features are great for courses where there is a lot of group activities and assignments. Students can also communicate with their lectures and fellow students and this could enhance their learning and understanding of the subject content (Solc et al., 2012).

A study conducted by Demiray (2010) reveals that online learning helps promote continuous learning and reduces almost 50% of stress since the learner are allowed to learn at their own pace without finding them competing with others in a classroom and in some cases finding

themselves being left behind when they have not understood that section. This method also helps students with revision as the content is always available online and can always be relooked at.

### **2.3.2 Weaknesses**

Online learning presents a challenge when it comes to technology infrastructure for implementation. This challenge could be further exacerbated by the lack of bandwidth or high costs for bandwidth and this is common in developing countries. The higher education institutions have to ensure that the systems are up and running all the time. This could be a challenge for some institutions in certain countries where there is a shortage of resources such as electricity (Clark & Mayer, 2011). While the technology can offer many advantages but on the other hand it could be a disadvantage to certain students who still cope well with the traditional way of interacting with their lecturers in the classroom (CCL, 2009).

### **2.3.3 Opportunities**

One of the opportunities that online learning can create is for higher education institutions to enrol more students as the limitation of the classroom are no longer there. They can also recruit students that are out of their geographical location since technology will allow them to continue learning at their own pace. The possibility of guest lectures from institutions from other countries could also be made possible through recorded video clips and these could be shared among students via eLearning (Liebowitz & Frank, 2011).

The other processes like assignment submissions, marking and giving feedback now can be done quicker online and this could save time and resource such as printing paper and courier costs for distance learners (Demiray, 2010).

In the days of every country seeking strategies to lower higher education costs, this could be a great tool to extend access to quality education to many students in a less costly mechanism (Wu et al., 2012).

### **2.3.4 Threats**

Close monitoring and evaluation of students can be lost and this could increase the number of dropouts in universities. Students can also lack motivation by their academics because they do not have physical contact and understanding with their lecturers. Peer to peer relationships among students could also be at risks since there is no physical contact and exchange of ideas

(Dobre, 2010). Another threat is the lack of clear policies and implementation plans from governments when it comes to eLearning. This makes every institution to be implementing eLearning in their own way that they think is best and therefore there is no uniformity with the country (Demiray, 2010).

## 2.4 E-learning today/ Growth of E-learning

According to research conducted by Docebo (2014) within the business sector, reveals that there is great acceleration of change within the workplace and this requires employees to be constantly trained and different aspects. This research also focusses on the future trends of eLearning in the coming three years in various continents around the world. The following graph shows the growth of eLearning on various regions from the year 2011 to 2016. Looking closer to the graph, it is noted that Africa is sitting at almost 16% growth rate. This is looking good for education institutions in the continent of Africa as a developing continent.

According to Docebo (2014) the highest growth rate of the eLearning happening in Asia and it is sitting at 17.3%, they are closely followed by Eastern Europe, Africa, and Latin America at 16.9%, 15.2%, and 14.6%, as evidenced in figure 2.3 below. The growth in Asea is driven by India while in Europe it's driven by Russia.

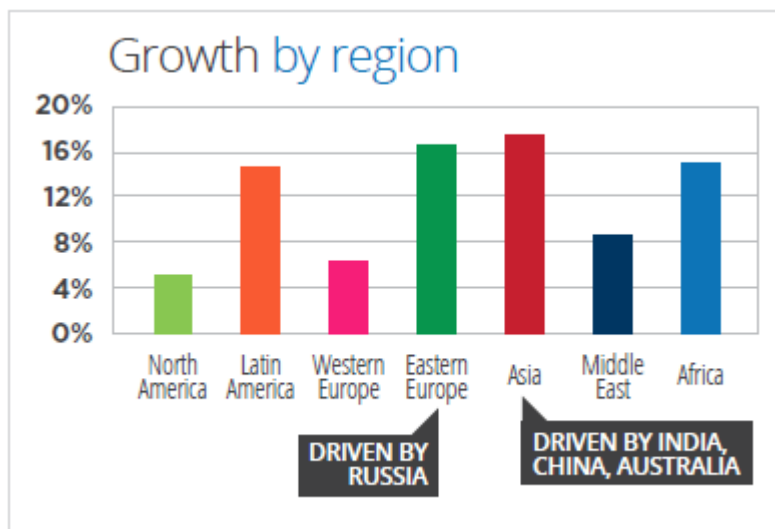


Figure 2.3 2011-2016 Growth rates by region

Adapted from Docebo (2014) **E-Learning Market Trends & Forecast 2014 - 2016 Report**, p8

According to Carmichael-Brown (2011:1) “on-line training is growing exponentially and it is anticipated that worldwide, in the next 3 to 5 years, 70% of all training will be done on-line

with the balance being provided in classrooms.” Carmichael-Brown advocated that amongst the internet applications, eLearning will be the third most used after email and searching. Carmichael-Brown predicts that “on-line learning will grow to 40% of the worldwide spend on Higher Education Training by 2014, increase to 70% by 2018 and top the US\$ 600 billion mark by 2020.”

This phenomenal growth will almost force companies to seriously consider e-learning as a replacement for traditional means of training staff. This trend will also put pressure on traditional learning institutions, such as schools, universities, and corporate trainers, to expand their product offering to include some sort of online component if they want to remain competitive in the market place.

Carmichael-Brown (2011) attributes this trend to two primary factors. Firstly, there is pressure on businesses to ensure that productivity is kept at an absolute maximum. This means that companies cannot afford the luxury of sending staff away for a course for any given period of time – whether it is for three days or three weeks. As such, e-learning is becoming an attractive option for these businesses, as employees will not have to take time off from work to learn. They learn in their own time or at the same time as performing their duties in the work place.

Secondly, business is changing at an ever increasing pace. It is imperative that companies ensure that their staff members are kept up-to-date with developments in the industries, so as to remain competitive. Cross skilling staff and ensuring that they remain at the cutting edge of their field of interest is not only beneficial for the employee, but it is also beneficial to the company in terms of competitiveness, productivity and staff retention.

## **2.5 Advantages and Disadvantages of E-learning.**

There is a vital need at this day for higher learning institutions to have up to date eLearning facilities in the developing countries to speed up access to education to a wider community. With this being said, many advantages as well as disadvantages are facing higher education institutions for many developing countries. Creating more eLearning solutions should a primary focus on students and their expectations when it comes to learning using technology (Yaghoubi, 2008).

### **2.5.1 Advantages of eLearning.**

1. If one has to consider the limitations that involved with studies mainly they are time and the actual venue for a course, eLearning breaks these limitations. All the students have the flexibility to decide when they want to study and where they are comfortable to study. According to Smedley (2010) if higher education institutions were to implement eLearning, it could afford students a huge time and place flexibility
2. Access to information in volumes is one of the key factors of eLearning and this can contribute to the students' body of knowledge in a huge way.
3. Provided the collaboration features are turned on within eLearning, these can afford students a great platform to share ideas and participate in group activities. These could be more beneficial for courses where students come from outside the location of the university. Collaboration among students could also be improved since students can overcome the fear of approaching each other face to face but can do this online. Wagner (2008) pointed out the more aspects of connectivity among students and lecturers via eLearning while the subject is being conducted.
4. Online learning can save students travelling and accommodation costs, since they do not have to go to lectures every single day but can learn at their convenience. For the Students coming from afar it can save them accommodation costs as well.
5. E-learning can afford the university to increase their intake of students since they are not limited to the classroom sizes.
6. Since learners are different in their learning preferences with some learners wanting to explore the entire course or even jump in between sections, eLearning affords them a brilliant opportunity where they are not limited to the lecturer and the pace of the entire class but they can chop and change within the course content as they please.
7. Online learning can offer a solution to the problem of shortage of academic staff. If setup correctly, experts in different subjects can be borrowed from the other institutions and share online with the students from the other institutions.

This type of learning encourages students to learn at their own pace and don't find themselves under pressure of competing with their fellow classmates as it is in the traditional classroom learning environment. Where ever they are not clear than they can engage with their lecturers and their peers (Arkorful, 2014).

### **2.5.2 Disadvantages of eLearning include the following**

1. Since eLearning encourages to students to learn on their own, there could be challenges where students lack that physical interactions and building relations among each other. A very strong will and determination is required on the student part to reduce these effects.
2. In a case where a student or a group of students are battling with a certain section of the module, it might be difficult to identify this whereas with the traditional classroom method the lecturer can address this quickly and try different examples and ensure that the whole class understands.
3. Challenges can be foreseen in the communication area for students since the classroom environment encourages students to communicate with each other, in some cases they have to stand in front of a class and present their findings. ELearning takes away this facility since everything is done online at the individual's convenience. While the students can gain excellent academic knowledge but they might struggle to present this information to others.
4. ELearning possess challenges around assessments, while this can be made possible online but the greater challenge is to control illegal activities like cheating or getting help from a friend during an examination process.
5. Online Learning can lead to other challenges like plagiarism or even piracy since a student can easily copy and paste.
6. Online learning can be seen replacing or even killing the role of lecturers and eventually make the physical universities redundant.
7. It is also important to note that not all qualifications can be offered on the eLearning mode since there an extensive practical requirement for certain courses. For an example it would be very difficult to offer a medicine degree online or even a Law degree. There is a view that suggests eLearning is feasible within the social science and humanities courses while the others could be more problematic.
8. The challenges of bandwidth especially in Africa could pose as an issue as there could be congestion in the internet traffic triggering slow response in these applications.

## 2.6 Students ICT skills in the Higher Education institutions.

According to Mdlongwa (2012) the distribution of computers in South African schools by province is as follows. What is highlighted in table 2.1 below is that on one province has just over 50% schools using computers for teaching and learning the rest of the provinces has less than 50% schools using computer for learning with some province like the Eastern Cape and Limpopo sitting at less than 10% of the schools using computers for learning purposes. A few of the other provinces are sitting just above 10% right up to 40% of schools within the province that are utilising computers for learning and teaching purposes. It must be noted that the students from these schools are feeding through to the Universities and hence contribute to university student's computer literacy.

According to Mdlongwa (2012) the highest percentage of the province with schools using computers for teaching and learning purposes is the Western Cape.

Province	Schools with computers %	Schools using computers for teaching and learning %
Eastern Cape	8.8	4.5
Free State	25.6	12.6
Gauteng	88.5	45.4
Kwazulu-Natal	16.6	10.4
Mpumalanga	22.9	12.4
Northern Cape	76.3	43.3
Limpopo	13.3	4.9
North West	30.5	22.9
Western Cape	82.4	56.8
National	39.2	26.5

**Table 2.1 Computer usage at school level**

Adapted from Mdlongwa (2012) **Information and Communication Technology (ICT) as a Means of Enhancing Education in Schools in South Africa: p3**

## **2.7 Usefulness of learning support systems in higher education**

This section explore the learning support systems and their usefulness within the higher education sector. The literature also looks at some of the challenges felt with eLearning.

### **2.7.1 Introduction**

According to Lonn and Teasley (2009) both the lecturers and students agree that ICT enhances teaching and learning in the higher education sector. Efficient communication was the highlight in findings of this study, where mostly lecturers indicated that the learning support ICT systems contributed a lot in enabling them to communicate with their students easier and faster. The content that is shared in this regard includes, assignments, notes, urgent announcement like change of lecture venues, Exam time tables, Syllabus content and discussions.

### **2.7.2 E-Learning Today**

Lately the learning support systems have migrated from just being Course Management Systems (CMS) to be more of Learning Management Systems (LMS). This migration brings the new paradigm shift, which means that learning involves more than just providing course content efficiently. The introduction of learning support systems such as Mobile Learning has pushed distance learning to another level. The increase and price drop on the mobile devices such as smart phones and tables have really expanded e-learning beyond any form of boundaries (Mbuli, 2013).

Research has revealed that students have accepted the concept of Mobile learning. They have agreed with fact that the presence of wireless networks have made it very much flexible to interact with lecturers and access course content without being physical on campus or in a laboratory. This is supported very much by the growth of smart phones and their capability of accessing internet. A great interest has been shown to use e-learning content via smart phones, laptops, tablets, etc. These e-learning resources have been seen as the best way of engaging students and lecturers and promoting high standard learning process. There is a paradigm shifted witnessed where students moved from just being passive students to be more involved in learning and their behaviour both emotional and intellectual has changed. However a challenge has been experienced with developing countries i.e. Saudi Arabia, since the devices like smart phones and data bundles are still expensive and regarded as tools for prestigious people (Al-Fahad, 2009).



### **2.7.3 Success of E-learning in higher education institutions**

The success of e-learning is primarily dependent on three critical factors and these factors are computer ownership, computer literacy or previous experience and the opinion as well as awareness of students about e-learning. When it comes to computer ownership, research conducted in the University of Ghana revealed that access to computers was quite high among students and most students owned their own laptops. Computer literacy also showed a great improvement since most of the students possessed computer skills prior to getting acceptance at the University. The students that had no computer skills were generally assisted by their friends, family in acquiring these skills. There is about three challenges highlighted by the study in the University of Ghana and these are access to computers, bandwidth or infrastructure and skills training. This is far above the fact that eLearning has been well received by the students as a tool to fast track learning. These challenges have been sighted as the most hindering issues to successful adoption of e-learning. Improvement was noted to a number of computer laboratories within the campuses but there is a need for a better strategy in resolving this matter. The other challenge related to this was internet connectivity due to the limited bandwidth available. The students attributed the slow adoption to e-learning to bandwidth and connectivity issues on campus (Tagoe, 2012).

### **2.7.4 Factors contributing to e-learning usefulness**

Research has established that the usefulness of learning support systems is influenced by various aspects such as the qualifications level whether undergraduate or post graduate level and also the purpose in which the learners enrolled for that particular qualification. Most students expressed their dependency on such systems and they mainly communicated with their lecturers through these systems. Another main use for such systems was the access to course content and lecture notes. Video based tutorials were also highlighted by students as a great enhancement to their knowledge and stimulated them to think innovatively (Aghae, 2012).

According to Njenga and Fourie (2010) people's resistance to change creates a bigger challenge than ICT infrastructure when it comes to implementing e-learning in higher education institutions. He refers to the studies conducted which aim to assess people's perceptions and adapting to new innovation. He argues that most of these studies reveal that the greatest

stumbling block is for the people, in this case ICT support staff, Academic staff and administrators to embrace the new era of online learning.

### **2.7.5 Policies on e-Learning**

The concept of online learning is still a growing field in many countries hence in the majority of the countries, there is no specific policy on eLearning. Malaysian governing have always focussed on the production of graduates that are technology inclined and competitive to other graduates from across the world. In order to achieve this they set a target for themselves by declaring that by the year 2015 about 50% of their learning material should have an element of eLearning (Subramanian, Nordin & Krishnan, 2013).

If one has to explore the research currently available, it can be established that not many countries have put emphasis on formulating and implementing policies around online learning and this is identified as one of the hindrances to eLearning's successful implementation. Universities have no framework to refer to when they are constructing their eLearning systems. They are forced to explore a combination of many different policies which leads to lack of uniformity since every institution may interpret the different policies in their own way (Czerniewicz & Brown, 2010).

The absence of clear policy on eLearning leads to the academics depending on their own discretion when they have to implement an online learning solutions. This may lead to challenges like duplication of activities and this may hinder the students to leverage the full potential of online learning systems (Rajaram & Peters, 2010).

### **2.7.6 E-Learning, the key business enabler for the MBA programme.**

Research has revealed that in the MBA program there will be great results achieved when the institution has mastered the art of fusing online learning and the traditional face to face learning that happens in the classroom. This has been proven to be the most effective way of learning and the Graduate Schools of Business around the country can benefit from this partnership. An improvement was acknowledged on MBA students when the eLearning method was embraced. It is foreseen as a widely used tools in the years to come by both Universities and the private sector companies. Having said that there are various measures that each institutions have to

take in order to achieve successful implementation of eLearning and rip the benefits (Gbadeyan & Akinyosoye-Gbonda, 2011).

## **2.8 Students' perceptions of eLearning**

This section looks more in-depth on the perceptions of students in the higher education sector and will try and gauge to what degree is eLearning accepted or rejected. The discussion here also involves some of the factors that affect the perceptions either negatively or positively.

### **2.8.1 Introduction**

It is imperative to win the support and adoption of eLearning by the students as they are the main consumers and beneficiaries of online learning.

### **2.8.2 The effectiveness of eLearning**

According to Luanan (2013) students' view eLearning as an added advantage to them since it provides them with flexibility in studying whether it's for their instructor-led or online courses. One of the features of eLearning highlighted by the students is the search facility. This was popular because it allowed them to find content that they need easily without going through pages like in the traditional textbooks. The other feature they praised was the flexibility of learning anyway and not limited to the classroom.

Online learning can be helpful in shaping creative minds which is a greatest need for the students going out of university to industry. This is achievable in eLearning through the various media content that it can offer, these could be in a form of video clips, discussions from different conferences across the world. This can expose students to a wider content which extends the knowledge gained. With the growth in ownership of devices like smart phones, tablets and laptops, the concept of virtual classes is a possibility and distance learning has been made even much more possible (Haghparsat, Hanum & Abdullahc, 2013).

A study conducted by Klementa and Dostal (2013) revealed that students are satisfied with the concept of online learning. There was consistency of agreement from the students on all the questions that were asked in this survey related to the satisfaction of eLearning. There was

about 94% of the population that agreed with this concept. Evaluating the opinions of students on eLearning it was found that from the students perspective this was great form of learning. Studying their opinion it was observed that their attitude towards eLearning was positive.

The implementation of eLearning can help to improve efficiency in courses delivered at a university. This is seen a case study done by Bandaya, Ahmedb and Janc (2013) where they observed eLearning being introduced for engineering education in the University of Kashmir in India. With this being said they cited that when eLearning is implemented this should be done with caution especially for technical courses like engineering. There is a need to ensure that the learning content is designed in such a way that it reaches out to all the students considering their different levels of intelligence.

### **2.8.2 Effects of gender, age and Industry sector on student perceptions**

The technology field is known to be a male dominant field hence most of the technology related tools are expected to be embraced by men more than women. Therefore since ELearning is based on technology and latest technology, the default expectation is that man will embrace ELearning more than women (Muthwa, 2009).

According to Cherian and Shumba (2011) even when it comes to other fields like science and engineering, there seems to be a general expectation from society that men would embrace these fields more than women would do. It was revealed by the data in this study that men have more positive perceptions on these fields than women.

However the research conducted by Marston (2011) established that 33% of the male respondents strongly disagreed or disagreed that they are more likely to seek out online training when they have to train their employees but rather they would go for the traditional face to face or what is commonly known as instructor led training methods. Females were about 50% who cited that they agreed or strongly agreed that should they need to train their employees they would turn to online learning as the first preference as opposed the face to face training. There only 20% of the females strongly disagreed or disagreed.

Gender differences continue to exist when it comes to embracing new technology. When it comes to ELearning, it has been observed that women tend to slightly embrace the concept more than man do (Chinyamurindi & Shava, 2015).

When an observation was made into the behavior of the American older citizens, it was established that they were late on embracing the new technology that has hit the markets. A

close monitoring was performed looking how many of the older generation were going online and which web based services did they subscribe to and the findings were compared to those of the previous years. It was revealed eventually that the older generation was behind the younger generation in embracing new technology. Some were found not to use technology at all and some did not even own devices like mobile phones (Smith, 2014).

The industry sector a student is practicing also has an effect on their perceptions of eLearning and how they embrace the concept. Students who come from industries that are computer oriented like engineering and ICT are more prone to accept the concept of online learning than those who come from other industries. There is a faster transition for these students since their day to day jobs revolve around using technology whereas for the other students it's a huge transition (Marston, 2011).

According to Louw (2010) women are most likely to accept and prefer electronic learning with a special emphasis on eLearning systems more than men do. It is noted in this research women are motivated by the systems' user friendliness. This comes across as the major stimuli for them to prefer eLearning more than men. This is noted for future designs of eLearning systems that making them user friendly is of utmost importance if the targeted audience consists of women.

### **2.8.3 Effects of Collaboration tools**

In order to achieve positive perceptions among students, the concept of collaboration is critical within eLearning as this is the motivator for the traditional classroom method of teaching. A need for collaboration between academic staff and students as well as collaboration among students was cited as the stimulant for acceptance of eLearning. This feature is extremely useful for courses where there is group activities and the students are not from the same geographical location (Vandenhouten, Gallagher-Lepak & Reilly, 2012).

According to Bauk (2014) students are motivated by the ability of communicating with other students as well their lectures using the eLearning tool as well as being able share the learning material like notes, study guides and discussions among each other. The group activities were cited as one element that makes them to benefit from the implementation of eLearning.

According to Cheng (2010) students have an expectation see some of the features similar to what they can do in the classroom. If the eLearning system does not offer some of these features,

the students are most likely to have a negative perception about eLearning. The collaboration that the students can do it needs to include discussion forums and allow students to interact with their lectures.

## **2.9 The role of ICT Infrastructure and Support Staff in eLearning.**

### **2.9.1 Introduction**

Higher education institutions in the later year are having a huge demand for learning support systems because of the value these systems add to the institution. These values include improvement to quality of education, operational efficiency and enlarging the access to study material beyond the classroom. However to implement these systems and have them running efficiently requires a solid ICT Infrastructure and competent support staff to maintain this infrastructure (Pyla, 2010).

### **2.9.2 The ICT infrastructure**

There is also a great need to expand the network facilities and implement wireless networks across campuses to enable students to access these systems remotely using their personal devices like smart phones, tablets, laptops, etc. With this requirement for wireless networks comes another challenge of data security since the University systems have now been made available to wider community. There is often a need for walk in centres to be created for students to receive help on how to connect to these systems with their personal devices. There is also a need for competent helpdesk support staff to be available on call for students phoning in from outside campus (Pyla, 2010).

According to Hattingh (2013) there is difficulties in communities from the townships and rural areas when it comes to access to technology. In most schools computer lessons are taught from a theoretical perspective only because the lack of ICT infrastructure. As a result of these challenges, the students that enter universities from under privileged communities like these have not ICT skills and they usually battle with the requirements and understanding eLearning.

The most commonly used ICT tools among universities are the person computers within a lab and internet. This emanates from a study conducted by Egoeze, Misra, Akman and Colomo-Palacios (2014) in the University of Nigeria where they served among the students to establish what ICT infrastructure is available to the university community and students. This research

cited that there is huge benefits for the university when the ICT infrastructure is implemented properly and the recognition of the university is improved based on their utilization of ICT infrastructure.

### **2.9.3 The ICT Support Staff**

The human resources are the greatest contributors to success of any ICT projects. This speaks about the competences at an individual basis to make up a team that is successful. There is great need to get the individuals within the ICT department in higher education institutions to rise above self-interests but work more as a team to achieve a good success rate for ICT infrastructure and support learning support systems (Colomo-Palacios, 2010).

According to Ali, Haolader and Muhammad (2013) Universities need to phase out the old manual ways of teaching and learning but invest more into technology learning tools as they have been found to improve the quality of teaching and learning in a drastic way. It is acknowledged though that for successful implementation of these tools a solid ICT infrastructure is needed supported by competent support staff.

According to Minnaar (2010) students in the higher education institutions using eLearning systems are human beings and they need to get in touch with ICT support staff when they have technical problems and they also require to interact with their subject lectures. In this study it was emphasized that technical support as well as academic support are vital components for eLearning systems to be successful. Other important elements were cited, like Africa' ICT infrastructure challenges for an example, one of them being the availability of enough bandwidth that can allow video materials like lecture presentations, discussion forums, etc. It can be noted that in most instances these type of files can be such a problem to view online and in some cases you have to reboot the system a couple of times. This often prompts other students to lose faith in eLearning systems and they lose sight of their full potential.

### **2.9.4 ICT Awareness and skills**

There is very much low awareness about ICT services and technology tools from general public. In the universities as well this is a regular where by students get to university without even seeing a computer in some cases let along knowing how to operate one. This therefore lowers the demand for technology use. A very small population is aware that a computer can do many things other than just playing games and one the things could be online learning and

sharing of information. These challenges of lack of awareness are aggravated by our gender and age norms within our societies especially in the African communities where there is a general perception that only a certain gender can do certain things (Attwood, Diga, Braathen & May, 2013).

According to Chatama (2014) students in the University of Tanzania in the Dar Es Salaam Campus, had no information about ICT training opportunities that were offered within their campus. In this institution there was not enough being done to assist ICT user support staff to up skill themselves in order to improve the service that they offered to students. It was then recommended that higher education institutions should invest more in the ICT infrastructure and more qualified ICT personnel in order to improve customer service given to students. This was highlighted as the key factor for eLearning to be successful.

### **2.9.5 System Performance**

The user community of eLearning technologies are motivated to use eLearning when the systems are running efficient and within optimum time. The users would be discouraged if they have to click and wait whenever they have to download content. It is acknowledged that aspect is also linked to other factors like the availability of more bandwidth and faster hardware. Research has shown that eLearning technical compliance is one of great motivators to positive student perceptions about eLearning (Ismail et al, 2012).

### **2.10 The role of Administrators in making eLearning a success.**

Since there is huge emphasis on online learning and educational support systems, the administrators within the higher education institutions have critical role to play in making these systems worthwhile. Some of the challenges facing institutions of higher learning are a growth in enrolment figures each year and the constant change in the technology world. On top of these challenges the institutions have to meet the demands of industry while maintaining affordability. There is a vital need for administrators to play an active role in managing content for e-learning systems. Administrators should understand the University needs from academic perspective as well as understand the students' needs in order to facilitate quality education through online systems. Administrators are the most critical contributors to the success of learning support systems, they also need to be aware that they are the front line support for the



students and therefore they need to ahead in terms of the knowledge of these systems and should be available at all times to support the students and academic staff (Yang, 2010).

Both the academic staff and administrators have to be trained continuously in order to enable them to provide adequate support to students with regards to learning support systems. There is great need for administrators to constantly improve their ICT skills so that the quality of teaching and learning can improve on the systems. There is also a requirement for them to upload the subject content information and lecture notes on time and gather this material from the academic staff if not available. If the information is not available timeously on the learning support systems, this could act as a deterrent to students resulting in them losing interest in using such systems (Ali, Haolader & Muhammad, 2013).

According to Okem (2010) University of Kwazulu Natal school administrators were not perceived to be passionate about eLearning. When a survey was conducted among students on their perceptions of administrator seriousness when it comes to eLearning, majority of the students who participated in the survey cited that administrators were not serious about supporting students on eLearning related matters. This is in spite of the university's efforts to implement systems like Moodle, Student Central, etc.

## **2.11 User friendliness of learning support systems**

Most research has shown that learning support systems have a positive effect on teaching and learning, but the question usability of such systems always remain. The degree of user-friendliness can make these systems successful or fail. If the students and academic staff cannot use the system it remains not useful no matter how much rich content it has to offer. It has been shown that the presence of knowledge or site maps within the e-learning systems helps the users and therefore increases the usability of the system. There is a strong suggestion to knowledge maps which are based on virtualised concepts and they use a lot of graphical content. This has been proven to be more easily understood by learners and therefore makes them interested in using the learning support systems (Shaw, 2010).

According to Siegenthaler, Wurtz and Groner (2010) providing an option to change the font size on e-learning content influences the users' perceptions positively as different users have different eyesight requirements. This research highlights that the readability of content in e-learning systems can influence the objectivity of the user. Even if the user like the concept of

e-learning but when they struggle to read the content they might end up not liking the system. The other highlight of this study is the accessibility of the system, which talks to how easy it is to gain access and how flexible the system is with regards to features like forgotten passwords and usernames and the technical support.

These days one cannot talk about web applications without including social networks especially when students are concerned. The incorporation of the social media element in e-learning seems to give high impact to the students and lecturers. The main reason for this is social media in e-learning allows the two way communication between students and lecturers in a form of chat session and allows them to exchange ideas. This encourages the students to be actively involved in e-learning, log on regularly to the system to check any of the latest developments. This aspect of social networking is proven to be very useful in learning types where there is group work involved and therefore there is a great need of collaboration among group members who may be sitting across town. (Wahita & Mohd, 2013)

A study by Westbrook (2014) highlights online collaboration among students and lecturers as one the contributing factors that leads to student's positive perception. This was viewed not only as a contributor to their acceptance of eLearning but also as an improvement tactic to enhance the students' problem solving techniques as they share the knowledge with one another online.

According to Jakovljevic (2009) some of the barriers to successful implementation of eLearning were the lack of online help available on the eLearning systems and lack of access to technical information on the system. Another barriers was lack of communication tool within the system to allow students to contact ICT technical staff as well collaborating with the academic staff was cited by the students in this research as a motivator for acceptance of eLearning.

## **2.12 E-Learning at UKZN**

This study is about Moodle and Student Central which are the learning support systems at the University of KwaZulu-Natal. Therefore this leads to exploring UKZN eLearning strategy or Policy around the implementation of eLearning. The institution made a commitment that they will support the idea of eLearning and the technologies that surrounds eLearning. University affirmed this goal when it holds that UKZN "will optimise the use of Information Technology

in improving teaching and learning by integrating IT networks and communication protocols into learning environments” (Strategic Plan, 2007).

The higher education sector in South Africa has had different strategies on implementing eLearning on their campuses. Majority of the South African universities like University of Cape Town, Stellenbosch, Wits and University of Pretoria have already formulated policy documents on how to implement online learning. This has enabled these university to offer fully online accredited courses and with this initiative they have been able expand their student population especially targeting those students that cannot study full time. These courses are offered in parallel to the full time course content. Contrary to these institutions looking at UKZN where currently there is no formal strategy that specific to online learning. (Czerniewicz, 2007).

With this being said, it does not imply that UKZN has not implemented eLearning technology since they made a commitment in their strategy document that they will continue to commit to using technology to enhance teaching and learning. This merely highlights that there is no formal policy framework in place for eLearning. This commitment can be found in the University’s documents and policy statements such as the *Strategic Plan 2007-2016* and the University’s *Policy on Teaching, Learning and Assessment* (2008).

According to Czerniewicz and Brown (2009) there is not much effort that has been put from a research perspective to investigate university’s e-learning policies. To an extent there not much done about ICT and teaching and learning policies in general in the higher education sector. If there are policies at a national level, they are not saying much about eLearning and ICT implementation at universities all that is available is the various policy documents such as the Draft White Paper on Higher Education and the National Plan for Higher Education

In the past OLS was used at the University of Kwazulu Natal for eLearning and when the university moved from OLS, then Moodle came about. This speaks to the model of incremental implementation as explained by researchers such as Lindblom (1959) and Hogwood and Peters (1983). The formulation and implementation of policy, according to this view, is not usually a rational process; it is based on experiential learning. Through learning, policy-makers and implementers modify existing policies and models of implementation in the light of new discoveries and challenges. The move from OLS to Moodle was because of the learning emerging from the context of implementation and the challenges which OLS poses to e-learning at UKZN (Okem, 2010).

### **2.13 Summary**

It has been presented in the literature review that learning support systems enhance the quality of education and extend learning beyond the classroom. The various stakeholders have also been highlighted from the ICT infrastructure and support staff as well the school administrators. All these stakeholders need to collaborate in order to make e-learning a success. There was an element of user friendliness which incorporated adding the social network aspect to e-learning.

## **Chapter 3**

### **Research Methodology**

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#### **3.1 Introduction**

This research aims to assess the perceived usefulness of learning support systems in the University of KwaZulu-Natal within the MBA program. The learning support systems being evaluated in this study include but not limited to, Moodle and Student central with reference to other contributing systems like wireless networks (Wi-Fi) and the audio visual facilities available in venues for teaching and learning. The study also aims to evaluate the contribution made by the academic staff and administration staff in making these systems a success.

#### **3.2 Target population and location of the study**

The participants of the study was all students in the MBA program from first years to third years at the University of KwaZulu-Natal, Graduate School of Business and Leadership.

#### **3.3 Data collection strategies**

The study was conducted using an online questionnaire designed and made available on lime survey. Emails were sent to all the MBA Students. The questionnaire was made available for three weeks and the desired number of respondents was all MBA Students with a good mix of ages, genders, business sector. Another set of questionnaires were manually filled by the respondents in various classes after being handed to those that were willing to participate in the study.

#### **3.4 Research design and methods**

##### **3.4.1 The literature review and objectives of the study**

To better understand the concepts of online learning, computer based training and e-learning, a literature review was conducted to ascertain what information was available on these aspects, and also to understand what research had already been conducted in these areas.

The literature review chapter did not discuss the areas being investigated but actually gave the theoretical perspective emanating from previous research.

The following aspects were discussed in the literature review:

- The usefulness of learning support systems in the higher education sector.
- The growth of the online learning phenomenon, the history of the concept and methodologies.
- How learning support systems impact learning and the quality of education
- Different platforms for online learning. The speed of changing technology and business process is such that multiple platforms for online learning are available, despite the relatively recent emergence of the concept.
- The role of Administrators and ICT support staff in making learning support systems a success

### **3.4.2 Qualitative versus quantitative research**

The advantages and disadvantages of qualitative and quantitative research is a much debated topic. Quantitative research is the analysis of numbers and samples from a population (the size of which is generally known) to derive conclusions based on the responses of the sample set (Business Dictionary, 2014).

Qualitative research is used to understand human behaviour, thought processes and reasoning behind decisions, trends and social observations. Therefore, in qualitative studies, a smaller sample is sought so that more in-depth analysis can be conducted on this sample (Business Dictionary, 2014).

This study was conducted using the quantitative research technique and data was collected using a questionnaire. One of the goals of this study is to set a foundation for further study. This study attempts to create an understanding of the factors to consider when constructing learning support systems and who are the key stakeholders to make it work. It also aims to establish the current students' perceptions of these systems currently in place within UKZN.

### **3.4.3 Piloting of questionnaire**

The questionnaire was first given to a sample of ten MBA Students to complete and to provide feedback and recommendations that could be used to improve the effectiveness of the instrument. The test questionnaire is perceived to be very successful and much to be gained from the knowledge of the MBA students. Once the questionnaire is finalized and ready to be sent to respondents, the result set from the pilot was then discarded, and the participants in the pilot were included in the sample for the finalized questionnaire. Every MBA student were be chosen because they interact with the learning support systems at UKZN almost every day of their learning during the MBA program.

All respondents that participated in this study did so under their consent and they were made aware that at any point during their participation they can pull out should they wish to do so. The purpose of the questionnaire is transparent and was be explained to the respondent prior to commencement. Each respondent was presented with a tick box where he/she had to tick and acknowledge that they are participating in this study under their free will and choice and they accept the reasons for the questionnaire. Additionally, the participant were guaranteed anonymity by not capturing the name of the respondent or the company for which they worked.

### **3.4.4 Analysis of the data**

After collecting the data, the next procedure to be done was data cleaning. According to Diamantopoulos and Schlegelmilch (1997) data cleaning is very important since it helps to identify omissions, ambiguities and errors in the responses. Bertram et al (2010) define analysis as a process that includes three main steps that the researcher needs to undertake. The first step is to analyse or to ask what the data say, the second step is to interpret or to ask what the data mean, and the third step consists of presenting the analysis to readers. As noted above the study will use qualitative methods of data collection, therefore the analyses of this data is discussed below.

### **3.4.5 Analysis of quantitative data**

Quantitative data, also known as numerical data, is the data measured or identified on a numerical scale. Quantitative data is essentially analysed using statistical methods, and results can be displayed using tables, charts, histograms, and graphs. Therefore data are something we collect and interpret in order to reach the research conclusions (Blaikie 2003). According to May (1997) it is very important to code the questionnaire in order to classify responses into analysable and meaningful categories. In this study data will be initially analysed by Lime survey website. Once Lime survey has done the initial analysis then further processing or statistical analysis was performed using a statistical calculation with assistance of Microsoft Excel 2013.

### **3.4.6 Hypothesis Testing**

The following hypothesis will be tested in this study.

- There is no significant difference between males and females with regards to their perceived effectiveness of Moodle and Student Central within the MBA program. The alternative hypothesis will then be males are more likely to regard these systems as effective more than the females would.
- The age of the respondents does not affect their acceptance of e-learning as the vital tool in education. An alternative hypothesis being the age of the respondents has an effect on their acceptance of e-Learning.
- There is no difference between respondents from engineering and IT industry sectors and the other respondents from other sectors when it comes to their perceptions of Moodle and Student Central. The alternative being that the student from technical fields will have a different perceptions of Moodle and Student Central then those from other industry sectors.

### **3.5 Ethical Considerations**

The participants in this study fully understood the nature of the study and the fact that their participation was voluntary. Confidentiality of recovered data will be maintained at all times, and identification of participants was not available during or even after the study. Ethical clearance was obtained from the research office and it is attached at the end of this document.



### **3.6 Summary**

The research methodology and methods that were be used to address this research problem were discussed in this section. This includes the data collection methods and data analysis used in this study. Important aspects such as research design, population, and data collection instruments, piloting of the questionnaire were discussed.

## Chapter 4

### Presentation and analysis of the results

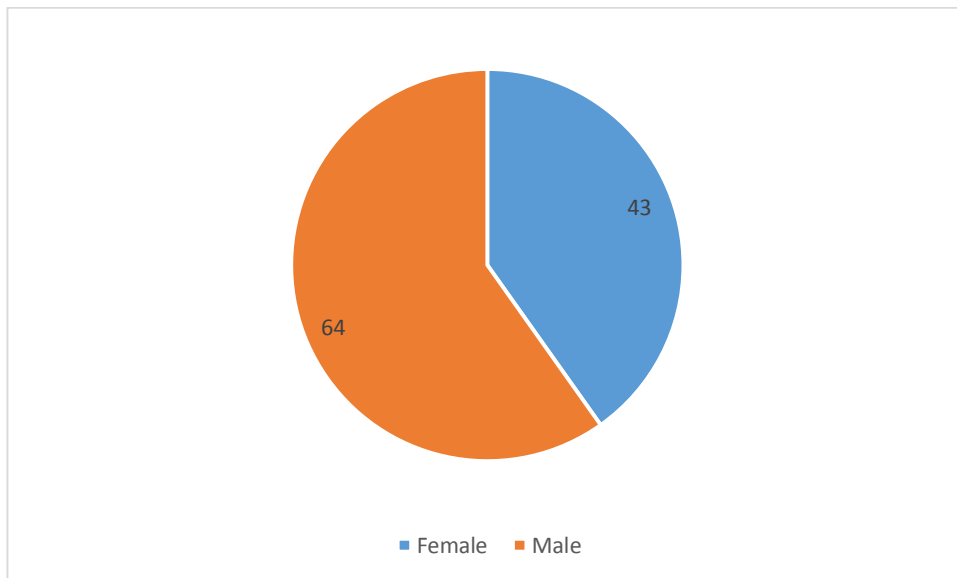
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#### 4.1 Introduction

In this chapter the results of the study will be presented in the form of frequencies or descriptive analysis. This will be in a form of graphical representation and description based on the results from the dataset. Further statistical analyses are then performed on the data to draw conclusions regarding the population of MBA students at Graduate School of Business and Leadership.

#### 4.2 Gender

The questionnaire was answered by 107 MBA students. As indicated by Figure 4.1, 43 respondents were female making up 40.19% and 64 respondents were males making up 59.81%



**Figure 4.1 Respondents by gender.**

As presented above the female respondents were less than male respondents. This does not come as a surprise, according to Gellman (2015) women representation within the MBA program is between 34 and 39 percent.

#### 4.2.1 *The effect of gender to the respondent's perception of Moodle and Student Central.*

The null hypothesis (H0) is that there is no significant difference between males and females when it comes to their perceived effectiveness of Moodle and Student Central within the MBA program. The alternative hypothesis is that males are more likely to regard these systems as effective more than the females would.

Respondents were then asked this question: Please rate your perceived effectiveness of Moodle and student Central systems into the MBA program.

Table 4.1 represents the answers broken down according to the gender.

<b>Effectiveness of Moodle and student Central systems in the MBA program.</b>	<b>Female</b>	<b>Percentage</b>	<b>Male</b>	<b>Percentage</b>	<b>Grand Total</b>
Effective	33	76,74 %	40	62,50 %	73
Ineffective	4	9,30 %	7	10,94 %	11
Very Effective	1	2,33 %	10	15,63 %	11
No opinion or Neutral	2	4,65 %	6	9,38 %	8
Very Ineffective	3	6,98 %	1	1,56 %	4
<b>Grand Total</b>	<b>43</b>	<b>100,00</b>	<b>64</b>	<b>100,00</b>	<b>107</b>

**Table 4.1: Respondents by gender and their perceived effectiveness of Moodle and Student Central**

To test the null hypothesis we therefore applied a non-parametric test, chi squared test is applied to this data as follows: Table 4.2 below shows the respondents data broken down according to gender the expected values

	Female	Male	Grand Total
Effective	33	40	73
<b>Expected</b>	<b>29</b>	<b>44</b>	
Ineffective	4	7	11
<b>Expected</b>	<b>4</b>	<b>7</b>	
No opinion or Neutral	2	6	8
<b>Expected</b>	<b>3</b>	<b>5</b>	
Very Effective	1	10	11
<b>Expected</b>	<b>4</b>	<b>7</b>	
Very Ineffective	3	1	4
<b>Expected</b>	<b>2</b>	<b>2</b>	
<b>Grand Total</b>	<b>43</b>	<b>64</b>	<b>107</b>

**Table 4.2 Respondents by gender and expected**

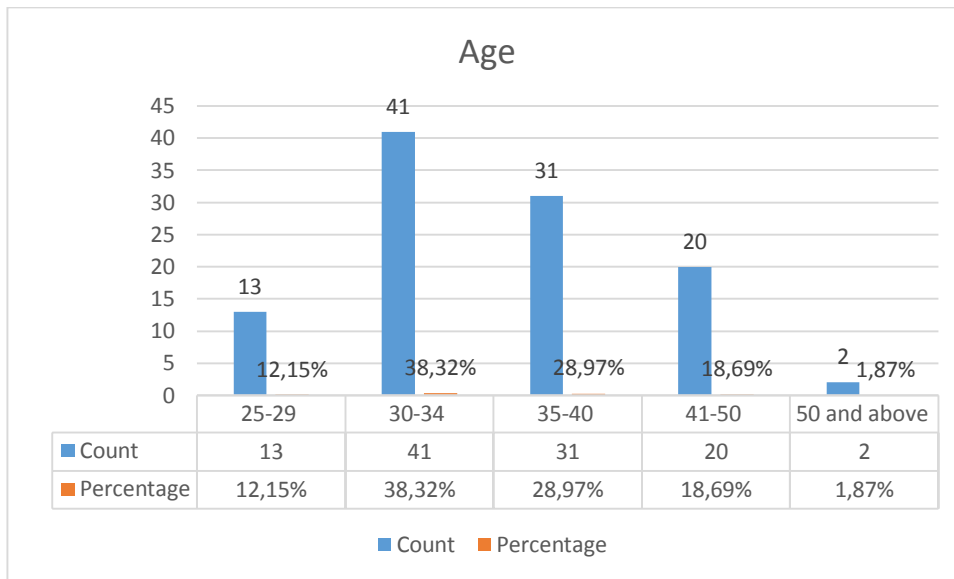
Applying the chi squared test on the above data

$$\sum \frac{(O-E)^2}{E}$$

The result is **5.97**, based on the degrees of freedom table where degree of freedom is **4** i.e. (no of row – 1) translating to 5 – 1 times (no of columns – 1) translating to 2-1. Therefore the critical value in this case **9.488** and **5.97** is therefore below the critical which means we accept the null hypothesis, meaning that there is no significant difference between males and females when it comes to their perceived effectiveness Moodle and Student Central.

### 4.3 Age

In order to establish the significance of age on the respondents' perceptions when it comes to eLearning systems being the vital tools in today's education, respondents were asked to select their age group. The results of these questions are as shown below in figure 4.2



**Figure 4.2 Respondents Age**

As the results show out of a total of 107 respondents, 38.3% were in age range of 30 to 34 years, followed by 28.97% in the age range of 35 to 40, next is 18.69% of respondents were in the range of 41 to 50, followed by 12.15% were in the age range of 25 to 29 and finally 1.8% of the respondents were in the age range of 50 and above.

The wide spread belief is that older people tend to not embrace the latest technology trends and technology in general and this same notion was brought to this study. (Marston, 2011)

Response	25-29	%	30-34	%	35-40	%	41-50	%	50 and above	%	Grand Total
Agree	7	53.85	14	34.15	13	41.94	8	40.00	0	0.00	42
Disagree	0	0.00	0	0.00	1	3.23	0	0.00	0	0.00	1
No opinion or Neutral	1	7.69	1	2.44	4	12.90	0	0.00	0	0.00	6
Strongly Agree	4	30.77	25	60.98	8	25.81	8	40.00	1	50.00	46
Strongly Disagree	1	7.69	1	2.44	5	16.13	4	20.00	1	50.00	12
<b>Grand Total</b>	<b>13</b>	<b>100.00</b>	<b>41</b>	<b>100.00</b>	<b>31</b>	<b>100.00</b>	<b>20</b>	<b>100.00</b>	<b>2</b>	<b>100.00</b>	<b>107</b>

**Table 4.3 Respondents by Age group and response to E-learning as a vital tool.**

The null hypothesis here is, the age of the respondents does not affect their acceptance of e-learning as the vital tool in education. To test this theory, a comparison was made between respondent's age groups and their agreement or disagreement to e-learning as the vital tool in education. This question was asked to respondents, "Please state to what extent do you agree or disagree with the following statement, E-learning is a vital tool in education" The above

table shows their response to this question against their age group. This data indicates that 30.77% and 60.98% of the respondents in age groups 25 to 29 and 30 to 34, strongly agree to this question. A further 53.85% and 34.15% within these two age groups agree with this statement. Only 7.69% and 2.44% Strongly Disagreed.

Age groups 35 to 40 had 16.13% of respondents who strongly disagree with a further 3.23%, disagree, while 41 to 50 had 20% of their respondents who strongly disagree and then 50 of respondents above 50 strongly disagree. Only 25% strongly agrees in the age group 35 to 40 with another 40% in the group 41 to 50 that strongly agrees.

In summary these figures tell us that majority of the respondents that either agree or strongly agree with e-learning being the vital tool in education are below the age of 35 while the majority that disagree with this notion are above the age 35 and more so as the age groups increased. Therefore according to this data, it becomes prevalent that the younger MBA students are rather embracing e-learning more than the older age group students.

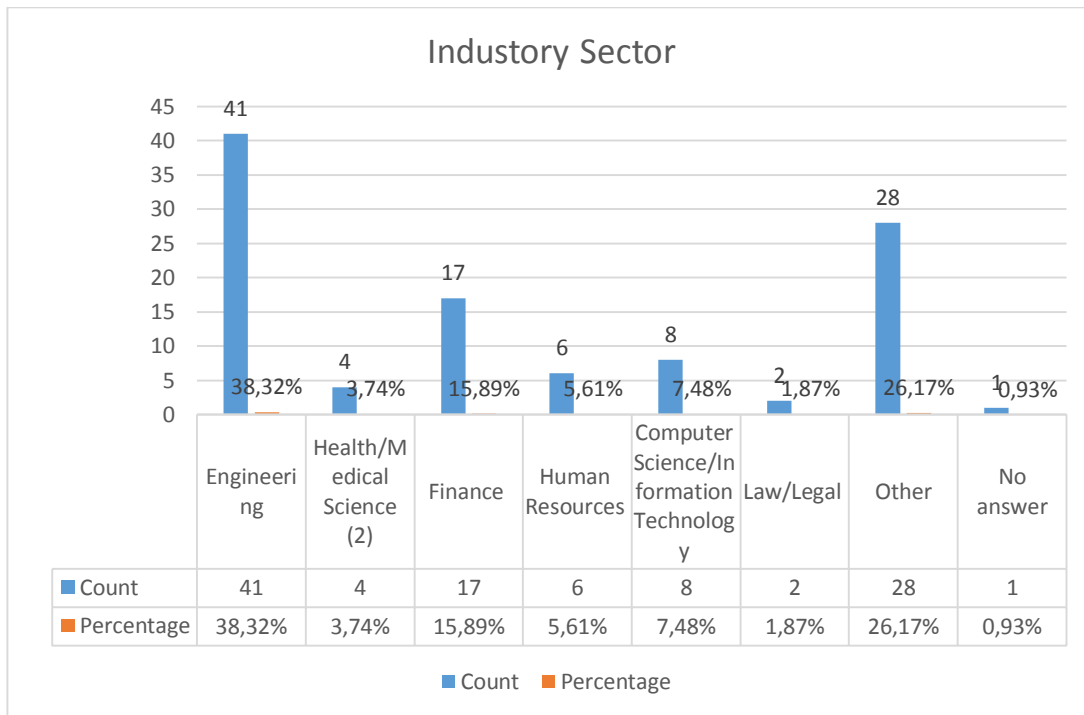
#### **4.4 Industry Sector**

This study investigated the MBA student's perceptions on Moodle and Student Central as the learning management systems at the University of Kwazulu Natal. One of the hypotheses was that students that are from industries that are more involved with computer usage (in terms of personal and individual business use) are more likely to have a positive perception of Moodle and Student Central systems and also accept these systems as the key business enabler for the MBA Program. To ensure that this hypothesis could be tested, it was necessary to ensure that the respondents represented a vast pool of industry sectors. The respondents were asked to select from nine options, the one that best describes the industry sector they operates in. The options provided were:

- Engineering
- Health/Medical Science
- Finance
- Human Resources
- Computer Science/Information Technology
- Law/Legal
- Other

- No answer

The results are presented in Figure 4.3 below.



**Figure 4.3 Respondents Industry Sectors**

This figure shows that out of the total of 107, only 41 (38.32%) of respondents are from the engineering sector, followed by 17 (15.89%) coming from finance. Another fraction of 8 (7.48%) is from computer science/information technology.

The rest of the respondents were spread across other departments as follows, 5.61% human resources, and 3.74% from the health/medical science sector and 1.87 from the law/legal. The bulk remainder of 26 respondents rather selected other as an option when they were asked to select their industry sector. A further comparison is conducted below, comparing the respondent’s industry sector with their perceptions as well as their view of Moodle and Student central being the key business enabler for the MBA program.

The null hypothesis here is that there is no difference between respondents from technical industry sectors which are engineering and IT and the other respondents from other sectors when it comes to their perceptions of Moodle and Student Central.

#### 4.4.1 The effect of Industry sector on students perceptions

Respondents	Engineering and IT Respondents	%	Other	%	Grand Total
Average	22	44.90	23	39.66	45
Excellent	2	4.08	4	6.90	6
Good	19	38.78	23	39.66	42
Poor	3	6.12	7	12.07	10
Very Poor	3	6.12	1	1.72	4
<b>Grand Total</b>	<b>49</b>	<b>100.00</b>	<b>58</b>	<b>100.00</b>	<b>107</b>

**Table 4.4 Respondents industry sector and their perceptions**

To ascertain the respondent's perceptions of Moodle and Student Central, respondents were asked the following question: Please rate the current state of Moodle and student Central systems in terms of being useful in the MBA program and their responses are presented in table 4.4

The data on table 4.4 reveals that 44.90% of the Engineering and IT respondents and 39.66% from other sectors rated the two systems to be average. 4.08% of respondents from Engineering and IT had a 4.08% rating while the other sectors, 6.90% rated the systems excellent. A further 38.78% from Engineering and IT had a good as a rating while those from other sectors, there was another 39.66% that rated the systems as good. The 6.12% of Engineering and IT rated the two systems Poor and another 6.12% rated these systems very poor. On the hand 12.07% of respondents from other sectors rated these systems poor and 1.72% rated these systems to be very poor.

In order to perform statistical test and test the relationship between the two variables in case the industry sector and the student perceptions. A chi squared test is used and the table to follow illustrates the actual values and the expected values for response and industry sector. Then the value of P is calculated and compared the benchmark figure for chi squared test



<b>Respondents</b>	<b>Engineering and IT Respondents</b>	<b>Other</b>	<b>Grand Total</b>
Average	22	23	<b>45</b>
<b>Expected</b>	<b>21</b>	<b>24</b>	
Excellent	2	4	<b>6</b>
<b>Expected</b>	<b>3</b>	<b>3</b>	
Good	19	23	<b>42</b>
<b>Expected</b>	<b>19</b>	<b>23</b>	
Poor	3	7	<b>10</b>
<b>Expected</b>	<b>5</b>	<b>5</b>	
Very Poor	3	1	<b>4</b>
<b>Expected</b>	<b>2</b>	<b>2</b>	
<b>Grand Total</b>	<b>49</b>	<b>58</b>	<b>107</b>

**Table 4.5 Respondents by Industry Sector with Expected Values**

Applying the formula for chi squared test on the above data

$$\sum \frac{(O-E)^2}{E}$$

The result is **P = 0.57547900**, we then compare this answer to 0.05 as the benchmark for a chi squared test and we found that it is greater than 0.05 and therefore this means that we accept the null hypothesis, meaning there is not enough compelling evidence that suggest that respondents from Engineering or IT have different perceptions of Moodle and Student Central when compared to those from the other industry sectors.

4.4.2 *The effect of Industry sector on students accepting Moodle and student Central as a key business enabler in the MBA program.*

To ascertain the acceptance of the Moodle and Student Central being the key business enablers for the MBA program, respondents were asked the following question: Please state to what extent do you agree or disagree with the following statement, Moodle and student Central systems are key business enablers for the UKZN MBA program. Their responses are presented in table 4.6 below

Respondents	Engineering and IT Respondents	%	Other	%	Grand Total
Agree	19	38.78	34	58.62	53
Disagree	3	6.12	3	5.17	6
No opinion or Neutral	14	28.57	7	12.07	21
Strongly Agree	11	22.45	13	22.41	24
Strongly Disagree	2	4.08	1	1.72	3
<b>Grand Total</b>	<b>49</b>	<b>100.00</b>	<b>58</b>	<b>100.00</b>	<b>107</b>

**Table 4.6 Respondents industry and their acceptance of Moodle and Students as business enabler for the MBA program.**

The data on table 4.6 reveals that 38.78% of the Engineering and IT respondents and 39.66% from other sectors agree. 6.12% of respondents from Engineering and IT disagreed while 5.17% from other sectors disagreed, 28.57% from Engineering or IT and 12.07% from other sectors had no opinion or they were neutral. A further 22.45% from Engineering and IT strongly agreed, while from other sectors, there was 22.41% that also strongly agreed. Lastly 4.08% of Engineering and IT strongly disagreed and 1.72% strongly disagreed.

Respondents	Engineering and IT Respondents	Other	Grand Total
Agree	19	34	<b>53</b>
<b>Expected</b>	<b>24</b>	<b>29</b>	
Disagree	3	3	<b>6</b>
<b>Expected</b>	<b>3</b>	<b>3</b>	
No opinion or Neutral	14	7	<b>21</b>
<b>Expected</b>	<b>10</b>	<b>11</b>	
Strongly Agree	11	13	<b>24</b>
<b>Expected</b>	<b>11</b>	<b>13</b>	
Strongly Disagree	2	1	<b>3</b>
<b>Expected</b>	<b>1</b>	<b>2</b>	
Grand Total	49	58	<b>107</b>

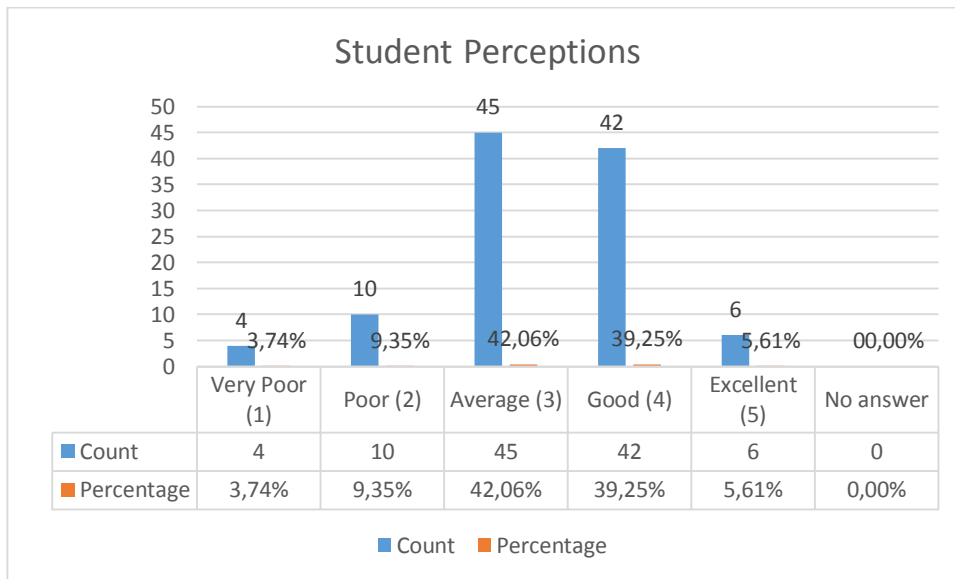
**Table 4.7 Respondents by Industry sector and expected values vs they acceptance**

Applying the formula for chi squared test on the above data

$$\sum \frac{(O-E)^2}{E}$$

The result is **P = 0.173388825**, we then compare this answer to 0.05 as the benchmark for a chi squared test and we found that it is greater than 0.05 and therefore this means that we accept the null hypothesis, meaning there is not enough compelling statistical evidence that suggest that respondents from Engineering or IT have different perceptions of Moodle and Student Central when compared to those from the other industry sectors.

#### 4.5 Overall Student Perception on Moodle and Student Central



**Figure 4.4 MBA Student’s perceptions on Moodle and Student Central**

The data presented on figure 4.4 shows that out of a total of 107 respondents, the highest number of the respondents which is 45 (42.06%) respondents rated Moodle and Students Central to be average, followed by 42 (39.25%) who rated these two systems to be good while 6 (5.61%) rated these systems excellent. A further 10 (9.35%) rated these systems to be poor with another 4 (3.74%) which rated them to be very poor. Collectively this data tells us that only 44.86% of the respondents have a good to excellent perception on Moodle and Student Central. The remaining 55.15% of the respondents have an average to very poor perception Moodle and Student Central.

#### 4.6 ICT Support

While there is a significant journey that has being travelled in the area of eLearning in the higher education institutions within South Africa, there is no uniform approach being adopted by South African universities. This then brings an element of concern and creates a loophole for not exploring the full potential of eLearning and what it can offer both students and academics (Kalema, 2014).

Therefore it was critical to evaluate the UKZN ICT support in order to make Moodle and Student effective and deliver to the students and academics.

#### 4.6.1 Competency of ICT support personnel

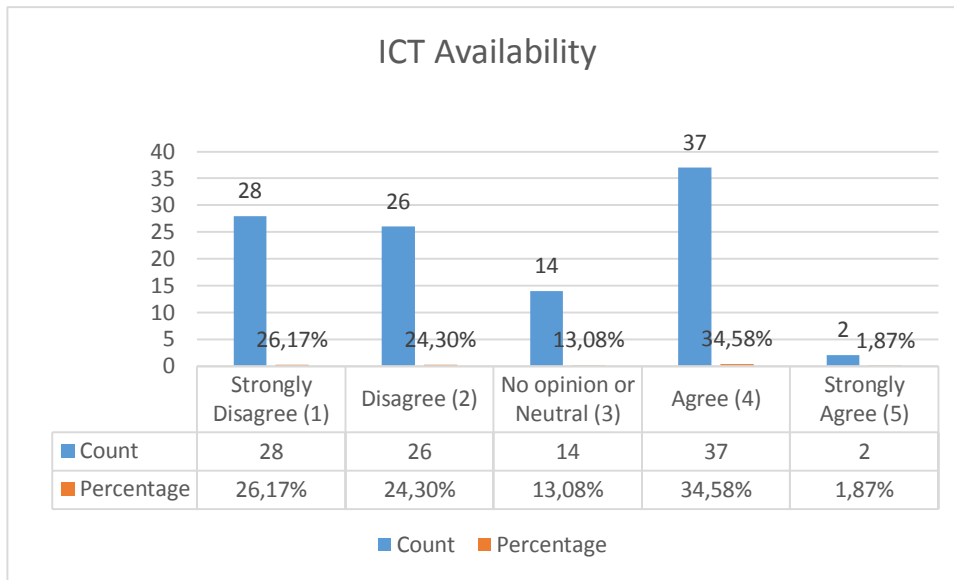
Respondents were asked the following questions which were answered in a Likert scale style. The questions and responses are presented in table 4.8 below, together with the descriptive statistics results.

	Very Poor	Poor	Average	Good	Excellent
Please rate the customer service/manner of approach you received from IT support staff with regards to support for Moodle and student Central systems help.	2	24	36	37	8
Please rate according to your perception the technical competence of the IT support personnel that you have dealt with when requiring help with the learning support systems. i.e. was the problem resolved first time around?	3	12	31	52	9
<b>Mean</b>	2.5	18	33.5	44.5	8.5
<b>Standard Error</b>	0.5	6	2.5	7.5	0.5
<b>Median</b>	2.5	18	33.5	44.5	8.5
<b>Standard Deviation</b>	0.71	8.49	3.54	10.61	0.71
<b>Confidence Level(95.0%)</b>	6.35	76.24	31.77	95.30	6.35

**Table 4.8 Respondents perceptions of the ICT support staff**

The questions as indicated in table 4.8 were about rating the customer service as well as the technical competence of the ICT support personnel in relation to Moodle and Student Central user support. The results reveal that on average between 2 to 3 respondents rated both these aspects very poor, this is based on the mean of 2.5 (2.8%). It is also important to note the standard deviation of 0.71 which refers to the distance between the mean value and the rest of the respondents' count that rated very poor and since the standard deviation is closer to 0 than this means that the two counts of respondents on both the questions are quite close to the mean. Again looking at the mean, about 18 (16.8%) respondents on average rated the service and technical competence ICT support staff personnel poor. Between 33 and 34 (31.78%) respondents rated the service and competence on average based on the mean with a standard deviation of 3.54. An overwhelming 44 to 45 (42.05%) respondents on average rated competence and service good. On average about 44 (41.12%) respondents selected the rating of good for both measures with a standard deviation of 10.61. Lastly between 8 and 9 (8.41%) respondents selected a rating of excellent with a mean of 8.5 and standard deviation of 0.71. This data tells us that in overall based on means for each rating, about 50% of respondents, rated between good to excellent the service/manner of approach and technical competence of ICT support personnel. While the other 50% rated these two measures from average to very poor.

#### 4.6.2 ICT Support Availability

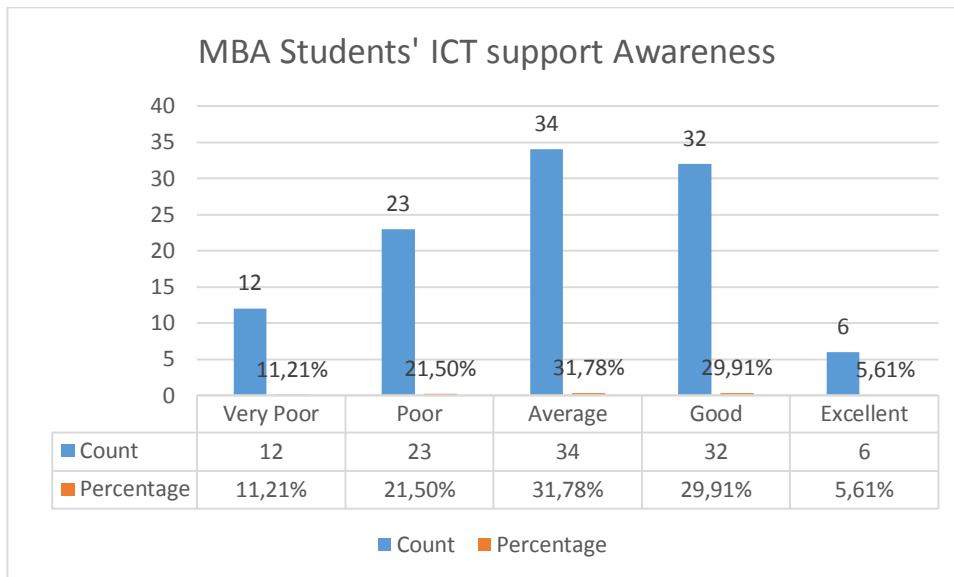


**Figure 4.5 Respondents perceptions on the availability**

A question was posed to the respondents that read: Whenever you needed assistance with Moodle or Student Central, the IT user support personnel were available to assist. I.e. was the phone answered within a minute? The results of the respondent’s answers are illustrated in figure 4.5 above. The data reveals that out of the total or 107 respondents, 37 (34.58%) respondents agrees with this statement with a further 2 (1.87%) that strongly agreed. There was 14 (13.08%) that were neutral or had no opinion with regards to this question. It is also noted that 26 (24.30%) respondents disagreed with this statement and a further 28 (26.17%) respondents strongly disagreed with this statement. In summary this data representation establishes that 50.47% of the respondents disagrees that ICT support is available timeously when you call them. Only 36.45% agreed that the ICT support is available timeously.

#### 4.6.3 MBA Student’s Awareness of ICT Support

Respondents were asked the following question to establish their general awareness of ICT support available: Please rate your awareness of the IT support available to MBA Students with regards to Moodle or student Central systems. The results are shown on figure 4.6 below.



**Figure 4.6 Respondents awareness of ICT support available**

According to the data, out of a total of 107 respondents, 12 (11.21%) rated their own awareness of ICT support available to be very poor, while 23 (21.50%) rated their awareness as poor. The majority of 34 (31.78%) respondents indicated that their awareness is average. Another 32 (29.91%) rated their awareness as good while the remainder of 6 (5.61%). This tells us on average that collectively 35.52% of the respondents have a good to excellent awareness of the ICT support services available and about 64.49% of the respondents have average to very poor awareness of ICT support available.

To analyze the respondent's awareness further the following questions were asked to respondents to establish if they have contact information for ICT support and whether they know where to find the ICT support offices. The results are displayed in table 4.9 below together with descriptive analysis.

	Yes	No	Neutral
Do you know the telephone numbers for contacting IT support telephonically or do you atleast know where to find their numbers, if you have problems accessing Moodle or student Central systems	70	32	5
Do you know which building you can go to for accessing the IT walk in centre within your campus, should you need assistance with Moodle or student Central systems.	62	42	3
<b>Mean</b>	66	37	4
<b>Standard Error</b>	4	5	1
<b>Median</b>	66	37	4
<b>Standard Deviation</b>	5.66	7.07	1.41
<b>Confidence Level(95.0%)</b>	50.82	63.53	12.71

**Table 4.9 Respondents awareness of the ICT support staff contacts**

The emphasis on these two questions was to test the respondent's knowledge of ICT user support available to students when they have technical challenges on Moodle or Student Central. The data shows that about 66 (61.68%) respondents on average responded with yes for both the questions meaning they know where to find ICT support both telephonically and physical by going to the walk in center at their respective campus. The standard deviation for the yes responses was 5.66 which means the count of respondents that selected yes on both question is about 5.66 to the mean, the closer the standard deviation to zero actually reveals that all the counts for yes responses are within a close distance to the mean. A further 37 (34.57%) of respondents on average responded No to both the questions with a standard deviation of 7.07 which is also very much not far from zero, while 4 (3.74%) respondents on average remained neutral for both questions.

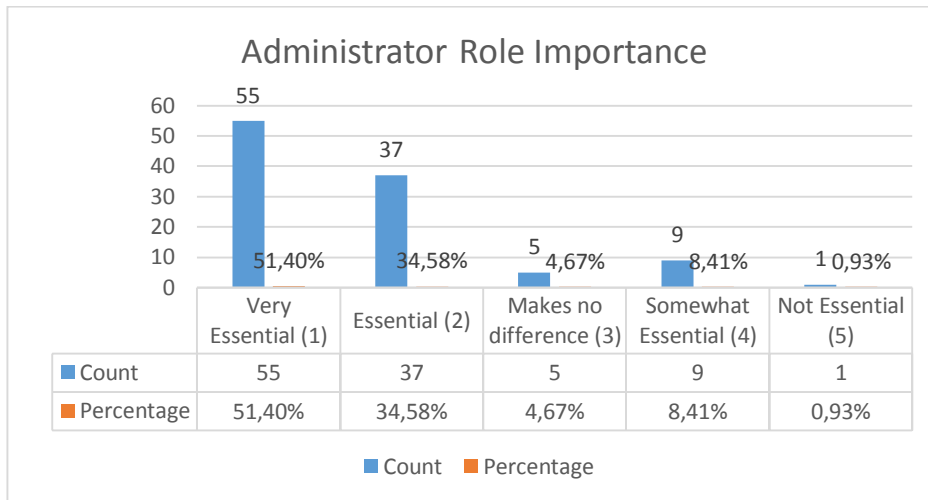
Based on these figures it is shown that majority of MBA students using Moodle and Student Central are aware of ICT support available and they also aware how to access ICT support personnel either via telephone or by physically going to the walk in center.

#### **4.7 GSB & L Administrators**

One of the important champions of eLearning is the administration staff that support these learning management systems. Their role is quite critical in a sense that they are the liaison between academic staff and students and they provide first line support for both students and academics. They ensure that the learning material is uploaded to the system on time and the relevant communication has gone out to the students about the latest set of information now available on the system (Beukes-Amiss, 2011).



#### 4.7.1 GSB & L Administrators role significance



**Figure 4.7 Respondents perceptions on the importance of administrators**

Respondents were asked to rate their perceived role of the GSB & L administrators in making Moodle and student Central systems service MBA student’s needs with regards exchange of lecture notes, assessment marks and registration. The data is presented in figure 4.6 above. Out of a total of 107 respondents, 55 (51.40%) respondents views GSB & L administrators very essential in making Moodle and Student central function accordingly while another 37 (34.58%) felt the administrators were essential. The remainder of the respondents which were 5 (4.67%) that felt administrators make no difference and 9 (8.41%) felt administrators are somewhat essential with only 1 (0.9%) respondent who felt the administrators were not essential in making Moodle and student central functional.

In overall the overwhelming majority of the respondents which were about 85.98%, felt that GSB & L administrators are quite essential in making Moodle and Student Central functional. Only 14% felt they make no difference or somewhat difference or may be even not essential.

#### 4.7.2 Accuracy and timing material posted by GSB & L Administrators

	Very Poor	Poor	Average	Good	Excellent	No answer
Please rate the accuracy of the notes, announcements and registration documents uploaded by GSB & L Administrators into the Moodle and student Central systems	17	10	24	47	8	1
Please rate the timing of uploading of notes, announcements and registration documents by GSB & L Administrators into the Moodle and student Central systems	19	26	38	21	3	0
<b>Mean</b>	18	18	31	34	5.5	0.5
<b>Standard Error</b>	1	8	7	13	2.5	0.5
<b>Median</b>	18	18	31	34	5.5	0.5
<b>Standard Deviation</b>	1.41	11.31	9.90	18.38	3.54	0.71
<b>Confidence Level(95.0%)</b>	12.71	101.65	88.94	165.18	31.77	6.35

**Table 4.10 respondent’s perceptions on accuracy and timing of administrators**

Respondents were asked to rate the accuracy of material being posted by GSB & L administrators as well as the communication they received from administrators. The results of their responses are displayed in table 4.10 above together with some descriptive analysis.

On average 18 (16.82%) of the respondents rated both these measures very poor, this average is based on the mean and the standard deviation of 1.41 meaning total count of respondents who selected very poor are only 1.41 to the mean. Another 18 (16.82%) respondents on average selected poor on both the measures with a standard deviation of 11.31, while 31 (28.97%) on average rated both measures to be average, with the standard deviation of 9.90.

The majority of the respondents which were about 34 (37.77%) on average rated both the measures to be good, however the standard deviation is 18.38, meaning both counts of respondents that selected good are far away from the mean by 18.38. Both the counts were not so close to each other and therefore this prompted for a look at the individual counts on both the variables. In the first question 47 (43.92%) of the respondents rated the accuracy of the notes, announcements and documents to be good while only 21 (19.62%) respondents rated the timing of uploading notes, announcements and registration documents good. It is further observed that on average between 5 and 6 (5.6%) the respondents rated both the variables excellent, with a standard deviation of 5.5

#### 4.7.3 GSB & L administration support and Communication

Respondents were asked to rate the administrative support they received from the GSB & L administrator with regards to Moodle and Student Central. They were also asked to rate the effectiveness of the communication done by GSB & L administrators. The results are presented in table 4.11 below together with descriptive analysis.

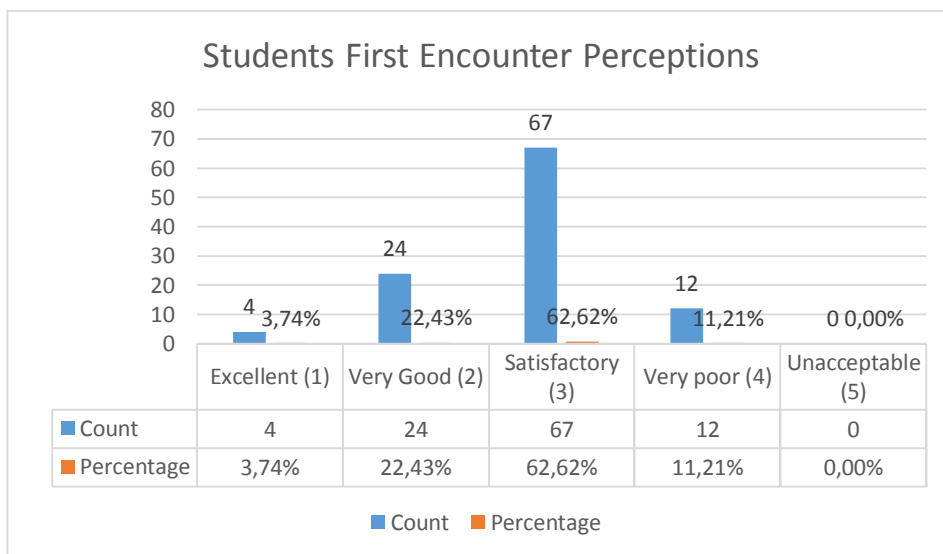
	Excellent	Very Good	Satisfactory	Very Poor	Unacceptable
Please rate the administration support you received as a student from the GSB & L Administrators with regards to Moodle or student Central systems	21	21	38	20	7
Please rate the effectiveness of communication done by GSB & L administrators in updating students about the latest information uploaded into Moodle or student Central systems	2	17	50	21	17
<b>Mean</b>	11.5	19	44	20.5	12
<b>Standard Error</b>	9.5	2	6	0.5	5
<b>Median</b>	11.5	19	44	20.5	12
<b>Standard Deviation</b>	13.44	2.83	8.49	0.71	7.07
<b>Confidence Level(95.0%)</b>	120.71	25.41	76.24	6.35	63.53

**Table 4.11 Respondents perceptions on support and communication**

The data shows that about 11 to 12 (11.21%) of the respondents rated both measures excellent with a standard deviation of 13.44 which translate to fact that the counts of respondents for both the questions who select excellent are quite far apart. On the first question that aimed to measure the perception about the administrative support, 21 (19.62%) respondents selected excellent rating, while on the second question measuring the effectiveness of communication only 2 (1.86%) respondents selected a rating of excellent. About 19 (17.76%) respondents on average selected a rating of very good and the standard deviation was 2.83 which means that the distance between the mean and counts that of respondents who selected very good is 2.83, therefore they are very close each other. Majority of the respondents which are on average about 44 (41.12%) have selected satisfactory for both measures with a standard deviation of 8.49, this standard deviation is still acceptable as it's not so far from zero meaning both the counts closer to the mean by 8.49. About 20 to 21 (19.62%) respondents on average have selected very good for both measures with a standard deviation of 0.71. A few of the respondents which are about 12 (11.21%) on averaged rated both measures to be unacceptable with a standard deviation of 7.07. All in all about 29.9% of the respondents rated the support they received from the GSB & L administrators and communication done by the administrator very poor to unacceptable. About 41.1% of the respondents rated the support and communication from the administrators satisfactory, while the remaining 28.50% of the responded rated these measures very good to excellent.

## 4.8 User Friendliness

### 4.8.1 User First Encounter Perceptions



**Figure 4.8 Respondents first encounter perceptions**

Respondents were asked to rate their first time impressions of the two systems and the results are presented in figure 4.7 above. Out of a total of 107 respondents, the 67 (62.62%) respondents felt these systems were in a satisfactory state, while 24 (22.43%) of the respondents rated these systems to be Very Good and 4 (3.74%) rated them excellent. A handful of 12 (11.21%) rated these systems to be very poor. It can therefore be said that about 88.79% of the respondents rated these two system satisfactory to excellent while about 11.21% rated these systems very poor to unacceptable based on their first encounter with them.

#### 4.8.2 User Navigation around the systems

The following four questions were asked to all the respondents to try and ascertain Moodle and Student Central’s user navigation experience based on their first time encounter with the systems. The results of the respondent’s selections are presented below in table 4.12 together with some descriptive analysis of the data.

	Yes	No	Somewhat	No answer
In your first encounter with Moodle were you able to navigate your way around the system?	58	21	28	0
In your first encounter with student Central were you able to navigate your way around the system?	69	14	24	0
In your first encounter with Moodle did you get what you required without assistance?	48	37	22	0
In your first encounter with Student Central system did you get what you required without assistance?	61	26	18	2
<b>Mean</b>	59.00	24.5	23	0.5
<b>Standard Error</b>	4.34	4.84	2.08	0.50
<b>Median</b>	59.50	23.50	23.00	0.00
<b>Standard Deviation</b>	8.68	9.68	4.16	1.00
<b>Confidence Level(95,0%)</b>	13.81	15.40	6.62	1.59

**Table 4.12 Respondents first time encounter experience with Moodle and Student Central**

The data presented reveals that on average about 59 (55.14%) respondents have responded with a yes to all the four questions, indicating that in their first time encounter with Moodle and Student Central they were able to navigate around the two systems and they were able to get the information they needed on the system without assistance. The standard deviation for these respondents counts is 8.68 meaning all the respondents counts are only far by 8.68 to the mean and this is not far from zero. The closer to zero the standard deviation, the more close to each other is the data observed. About 24 to 25 (23.36%) respondents selected No on all the four questions. This has a standard deviation of 9.68, meaning all respondents’ counts have an equal distance to the mean of 9.68. A further average of 23 (21.49%) respondents selected the

somewhat option, meaning that their navigation experience on first time encounter was neither a definite yes nor a definite no. The standard deviation here was 4.16 relating the distance to the mean for all counts. Therefore this data is more close to each other. There was about 2 (1.86%) respondents who select the no answer option on the above.

### 4.8.3 Navigation to Student Central and Moodle

The following two questions were posed to the respondents with the aim of establishing the accessibility of Moodle and Student Central from the main university website and whether the process to access these systems was clearly communicated to the MBA students. The idea here is to access how easy it is to access these systems from a student’s perspective. Respondents were asked to state to what extent they agree or disagree with the statements that Moodle and Student Central was easily accessible from UKZN website and whether or not the process to access these systems was clearly communicated. The responses are presented in table 4.13 below together with some descriptive analysis.

	Strongly Disagree	Disagree	No opinion or Neutral	Agree	Strongly Agree
Please state to what extent do you agree or disagree with the following statement, Both Student Central and Moodle are easily accessible from the UKZN Main Page.	6	19	16	55	11
Please state to what extent do you agree or disagree with the following statement, The process to Access Student Central and Moodle is clearly communicated to MBA Students.	6	31	23	41	6
<b>Mean</b>	6	25	19.5	48	8.5
<b>Standard Error</b>	0	6	3.5	7	2.5
<b>Median</b>	6	25	19.5	48	8.5
<b>Standard Deviation</b>	0	8.49	4.95	9.90	3.54
<b>Confidence Level(95.0%)</b>	0	76.24	44.47	88.94	31.77

**Table 4.13 Respondents navigation experience within Moodle and Student Central**

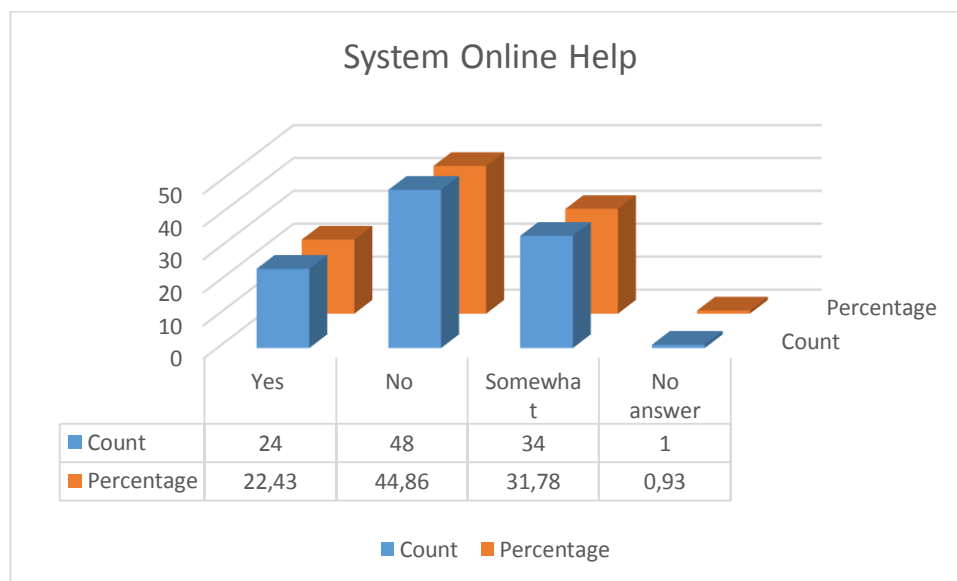
The data shows that about 6 (5.61%) respondents strongly disagreed with both statements with a standard deviation of 0 meaning the count for respondents who strongly disagreed were exactly the same for both the questions. On average about 25 (23.36%) of the respondents also disagreed with both statements, with a standard deviation of 8.49 which means both counts of respondents who disagreed were about 8.49 distances to the mean, therefore the counts for both the questions. About 19 to 20 (18.69%) respondents opted to remain neutral on both these questions with a standard deviation of 4.95 which is even closer to zero, denoting their distance to the mean. Another 48 (44.86%) respondents on average agreed with both the statements and

had a standard deviation of 9.90. Finally about 8 to 9 (8.41%) respondents strongly agreed with both the statements with a standard deviation of 3.54.

On overall, about 52.80% percent of the respondents selected agree to strongly agree with both the statements meaning they are of the view that navigation to these systems as well communication of information about these two systems is good. About 18.22% of the responded remained neutral and had no opinion. The remainder of the respondents which was about 28.97% opted for disagree to strongly disagree.

#### 4.8.4 Availability of online help

The respondents were asked to indicate whether was there adequate online help material to help them understand these systems? The results are presented in figure 4.8 below



**Figure 4.9 Respondents perceptions on online help available**

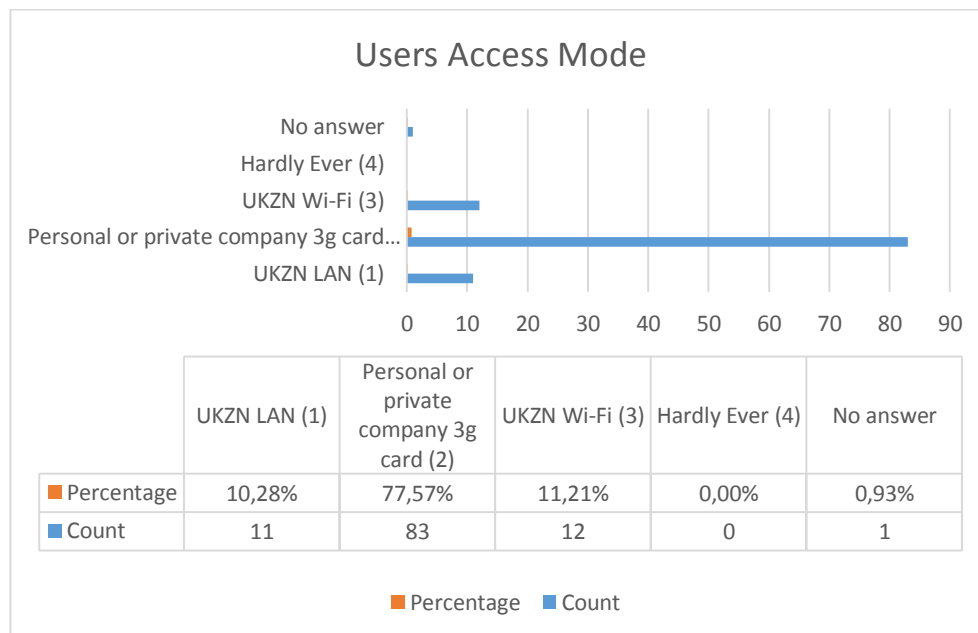
This data shows that out of a total of 107 respondents, the 24 (22.43%) respondents have responded with a yes to this question. They agreed that there was adequate online help available to them in these two systems. The 48 (44.86%) responded with a no to this question, they actually disagree that there was adequate online help available for both Moodle and Student Central. Further 34 (31.78%) respondents felt that there was somewhat online help available

but probably not sufficient for them to firmly agree that it was adequate. There was only one respondent who opted not to respond this question. The highlight is on the fact that the majority of the respondents which is about 44.86% felt that there was no adequate online help available for Moodle and Student Central.

#### 4.9 Access Mode

Respondents were finally asked to indicate their mode of access to both Moodle and Student Central. The aim was to understand which medium is used the most by the MBA Students.

The data for the student’s selections is presented in figure 4.9 below.



**Figure 4.10 Respondents access modes**

The data reveals that an overwhelming majority of the respondents which is 83 (77.57%) actually indicated they use their personal or company 3g cards to access Moodle and Student Central. A small group of 12 (11.21%) respondents indicated that they use the UKZN Wi-Fi and a further 21 (10.28%) indicated that they were using the UKZN LAN to access Moodle and Student Central. There was one respondent that opted not to answer this question.

What stands out in this data is observed in this particular question is that majority of the MBA students use their own private internet access to access Moodle and Student Central while there is a very small percentage that uses UKZN internal mediums provided like UKZN Wi-Fi and the UKZN LAN to access Moodle and Student Central.

#### **4.10 Summary**

In this chapter the results from the questionnaire were presented and analyzed. Application of descriptive analysis was also applied and presented. Chapter 5 will discuss the findings from this chapter and compare them with the literature available as well as other studies that have been conducted.



## Chapter 5

### Discussion

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#### 5.1 Introduction

In order to achieve the aim of this study, which was to Evaluating the MBA Students perception of UKZN eLearning support systems which are Moodle and Student Central Systems, the following hypotheses and aspects were investigated and tested:

- There is no significant difference between males and females when it comes to their perceived effectiveness of Moodle and Student Central
- The age of the respondents affect their acceptance of e-learning as the vital tool in education
- The students that are from industries that and more involved with computer usage (in terms of personal and individual business use) are more likely to have a positive perception of Moodle and Student Central systems and also accept these systems as the key business enabler for the MBA Program.
- MBA Students' perceptions about Moodle and Student Central
- The availability of ICT support, competency of ICT support personnel and MBA student's awareness of the ICT support that available to them.
- The significance of GSB & L Administrators and the accuracy plus timing of the material uploaded on Moodle and Student Central
- GSB & L Administration support and communication to MBA Students with regards to latest material posted on Moodle and Student Central
- Students First Encounter Perceptions and their navigation experience around Moodle and Student Central.
- Systems online help and MBA student's access mode to Moodle and Student Central.

#### 5.2 Difference between males and females on their perceptions of Moodle and student Central

This study observed responses from both females and males of which out of all the respondents about 40% was females and 60% males. When both genders were compared based on their perceptions on the effectiveness of Moodle and Students to the MBA program, it was

concluded that there was no significant statistical difference between male and female perceptions.

These findings are contrary to the finding on the research conducted by Marston (2011) where he explored the factors influencing the acceptance of online training and qualifications in IT Departments in KwaZulu-Natal. It was established in this study that 33% of the male respondents strongly disagreed or disagreed with the statement that they are more likely to seek out online means for training their staff rather than relying on traditional training methods. On the other hand about 50% of females indicated that they agreed or strongly agreed that they more likely to consider online training for their staff rather than the traditional training methods. Only 20% of the females strongly disagreed or disagreed with this statement.

Similar findings were also observed on the study conducted by Louw (2010) where it was established that women accepted and preferred electronic learning with a special emphasis on eLearning systems more than man did. What was observed in this study as the motivating factor for women to favor this type of learning was ease of use of the systems that were evaluated. It was noted that the ease of use or user friendliness of eLearning systems were important considerations by women who participate in this study. It was therefore concluded in this study that when an individual or an organization designs an eLearning application, if they have an intention to attract females to use it, ease of use is one of the priorities on the female perceptions.

The study by Tagoe (2012) agrees with the finding on this study with regards to gender differences where in the University of Ghana when a survey was conducted on student's perceptions about eLearning, it was found that there was no striking differences between male and female students' perception on eLearning but however cited a strong relationship between how long the individual has been using computers and their positive perceptions towards eLearning.

### **5.3 Age and acceptance of eLearning as a vital tool in education**

The findings on this study established that majority of the respondents that were below the age of 35 most likely accepted and embraced eLearning as a vital tool in education. The respondents that were above the age of 35 had the majority either disagree or strongly disagree with this

belief. This trend was seen to be prevalent even more in the higher age groups. The younger MBA students were more prone to be in favor of eLearning than those that were older.

A study conducted by Smith (2014) support these findings. In this research a trend was observed where the senior citizens of America were late adopters of new technology. A percentage of adults that go online was observed and compared to those of the previous years. It was established that adults were lagging behind the younger generation when it comes adopting new technology some to an extent that about 41% of the respondents in this survey did not use the internet and a further 23% did not use cellphones.

#### **5.4 Industry Sector and perceptions on Moodle and Student Central**

In this study respondents were grouped into two groups, one group consisted of engineering sector and IT while the other group consisted every other sector combined. The aim here was to examine those that are in computer related fields like engineering and IT and test if they have a different perception about Moodle and Student Central than those in other sectors. Perceptions on these systems as the key business enabler for the MBA program were also observed.

On both tests it was established there was no compelling statistical evidence that suggest that Industry sector has an effect on how the respondents from different sectors view these systems. Also on viewing Moodle and Student as key business enablers for the MBA program, there was no evidence suggesting that the respondent's industry sector had an influence on their agreement to this view.

Contrary to these findings, the research that was conducted by Marston (2011) concluded that respondents from computer related industry sector were most likely to consider online training more than those respondents from other industry sectors. In the survey used in this research only 20% of respondents from computer related industries disagreed or strongly disagreed with a statement that said they would be more likely to seek online training methods while the other 66% either agreed or strongly agreed. The other industry sectors only 44% agreed with this statement and about 32% either strongly disagreed or disagreed.

According to Al-alak and Alnawas (2011) the perceived ease of use and perceived usefulness are significant, but not the strongest constructs to predict behavioral intention. Experience and computer knowledge were the strongest indicators among other constructs to predict behavioral

intentions. Therefore it was concluded that when a new technology is compatible with users' prior experience, work style and existing work practices then it is easy to be adopted, and hence, this could explain why experience was among the strongest indicators of behavioral intention to adopt e-learning system

### **5.5 Students perceptions about Moodle and Student Central**

The respondents were asked to rate the current state of Moodle and student Central systems in terms of being useful in the MBA program. It was established in this study that about 44.86% of the respondents had a good to excellent perception on Moodle and Student Central. The remaining 55.15% of the respondents have an average to very poor perception Moodle and Student Central. This tells us that the majority of MBA students who participated in this research have an average to negative perceptions on these two systems. This could be attributed to many aspects like the efficiencies of administrators, the ICT support and the user friendliness of these two systems, all these aspects were observed and will be discussed in the following sections in this chapter.

The research conducted by Ali and Ahmad (2011) looked into the key factors that attributed to student satisfaction with online learning at the University of Iraq. The online learning system that was evaluated here was for a distance learning program and it had lecture videos, discussion forum facilities, lecturer interaction and delivery of the course material to students. These facilities that were available in this system are the major motivating factors for the students in the distance program to have a positive perception on eLearning system. The majority of students who participated in this study cited lecturer engagement and discussion, the accessibility of coursework like assignment and video lectures as the motivating factors.

The aspect of discussion within the eLearning systems is further echoed by the research conducted by Bauk (2014) where an experimental study was conducted among the students based on the expectation they have of an efficient eLearning system and what features they would like to see. This concept of research was based on of the Kano's model (Kano, 1984) which speaks about evaluating users expectations from an imaginary or ideal e-learning system which students would like to have. On the communication with the e-learning system students were seen to be motivated here by the fact that they can simply communicate with the other students and lecturers and be able to share content and ask questions.

## **5.6 ICT support, competency and MBA student's awareness of the ICT support**

This section of the study included a few aspects ranging from the availability of ICT support to MBA students, the competency of ICT support staff and the students awareness of ICT support services available to them.

When it comes to ICT support availability, the emphasis was on their availability telephonically since majority of the MBA students are not always on campus and some are even from out of the country especially those that are enrolled in the block release program. Therefore when respondents were asked about the support being available timeously. They had to indicate if the phone was answered within a minute whenever they had to call for assistance. Majority of the respondents which were about 50.47% either disagreed or strongly disagreed with this statement with only 36.45% agreeing.

The second aspect this study aimed to address was the competency of ICT support personnel and therefore the respondents were asked to indicate on their perceived skills of ICT staff. They had to indicate on whether was the problem resolved first time around and also on their service and manner of approach to clients in this case students. The results tells us that about **50%** of respondents, rated the service/manner of approach and technical competence of ICT support personnel good to excellent. While the other 50% rated these two measures average to very poor.

The third aspect of this section on ICT support was evaluate the student's awareness of ICT support services available to them.

This included asking the students to indicate if they knew the telephone numbers for ICT support and also whether they knew which buildings can they go to in their respective campuses to access ICT support or the walk in centers. The results revealed that about 61.68% of the respondents know where to find ICT support both telephonically and physical by going to the walk in center at their campus. Only about 34.58% of the respondents indicated that they did not know how to get hold of ICT support. It was then concluded that the majority of MBA students using Moodle and Student Central are aware of ICT support available and they also aware how to access ICT support personnel either via a telephone line or by physically going to the walk in center

Availability of ICT user support is of utmost importance in higher education institutions for eLearning to be successful. This is supported by the study conducted by Minnaar (2010) which

established that the students using eLearning systems are human beings and do require human interaction with ICT support staff when they have technical problems and they also require interaction with the lectures. This study highlighted the element of support both technically and academically to be included in the eLearning system. This study further highlights the ICT infrastructure problems making reference to the bandwidth in Africa where by a video lecture could be interrupted multiple times and a student at times has to log off and logon again to access the material and in some cases the student gives up because the material takes too long to load.

A study by Chatama (2014) concurs with this study on the aspect of student awareness about the ICT services available with their university. This research established that students in the University of Tanzania in the Dar Es Salaam Campus, were not aware of the ICT training services that were available on campus. It also emerged that there was a lack of investment in the institution on up skilling the User support personnel so that they could service the students better. This study made recommendations that include more focus on higher education institutions to ensure that there is adequate facilities and infrastructure to enable better leverage of ICT. The need for more qualified ICT staff was also highlighted as a great contributor to the success of eLearning.

ICT support for eLearning to be more effective at universities needs a huge commitment from senior management of these institutions. A study conducted by Aralu and Adetimirin (2014) agrees with this where one of the findings in the University of Lagos was a call to management to implement eLearning policies and ensure that they implemented accordingly. ICT support was identified in this study as one of the major administrative support in making eLearning successful. There was a strong relationship between ICT system support and the student's perceptions of eLearning systems. In agreement with this study, the lack of prompt ICT support and their availability to students was identified in the University of Lagos as one of the factors that influence eLearning negatively. This was very much related to the experience of MBA students as most of them are not on campus and requires telephonic support from ICT user support. This particular study was conducted among distance learning students and the cited the availability of prompt ICT support as a critical factor in making eLearning successful.

## **5.7 The role of GSB & L Administrators**

The first aspect observed in this section was the significance of the GSB & L administrators in making Moodle and Student Central serve its purpose in the MBA program. Upon observing the respondents' responses it was established that an overwhelming majority of the MBA students which were about 85.98%, felt that GSB & L administrators are quite essential in making Moodle and Student Central functional. Only 14% felt they make no difference or somewhat difference or may be even not essential. This emphasizes the role of administrators to be very essential and to be one of the factors that determine the students' perspective on these systems.

The second aspect that this study focused on under this section was the accuracy and timing of information including notes, marks, announcements and general updates about course the administrators' posts on Moodle and Student Central. There was a reasonable number of almost 32% of the students that rated these aspects very poor although the majority rated them good. There was a concern however on the timing of uploading notes by the administrators where only 19% of the respondents rated this aspect good. Majority of the respondents cited that notes were not uploaded timeously and this is a contributing factor to their perceptions of these two systems.

The third aspect on administration that this study looked at was the administrative support and communication provided by GSB & L administrators to MBA students. The data revealed that the majority of the respondents rated both these aspects to be good and excellent. However there is a concern about almost 30% of the respondents who rated these between very poor and unacceptable. This talks to customer satisfaction of the MBA students from the service they have received from GSB & L administrators.

The findings on the significance of administrators is in line with the literature on this study where the literature cited that eLearning administrators are the most contributors to the success of eLearning. They are actually presented as the frontline support of eLearning systems to both students and academics and their role is presented to be very critical (Yang, 2010).

The findings on the second aspect of this section is the efficiency of administrator, are supported by the research conducted by Okem (2010) where a survey was conducted among UKZN students about the university policy on eLearning and one of the questions focussed on whether the UKZN administrators take eLearning seriously. The data on this research revealed that about 61% of the respondents remained neutral on this question and a further 19.2% cited

that UKZN administrators were not serious about eLearning even with a considerable investment that has been done by the institution's management towards eLearning.

### **5.8 User friendliness and student first encounter experiences**

The finding on the user friendliness of Moodle and Student Central were categorised into two categories, the first one was about student's first encounter experience and whether they could find the information they needed without assistance. The second category was about navigating to these systems from the main university website.

There is general observation made on this study that the majority of the students had a positive perception about the ease of use of these systems where about 88% of the respondents rated these two systems satisfactory to excellent. This perception was based on how the respondents responded to the question that asked them to rate their first time impressions of the two systems.

The findings on first time encounter and being able to get what reveals that about 60% of the students were able to navigate around Moodle and Student Central without assistance and they were able to find what they needed. This talks to the ease of use around these systems and it is supported by the study conducted by Alshibly (2014) which revealed that there is a strong relationship between eLearning systems usability and the students' acceptance of eLearning system. In this research the respondents cited that they found the eLearning system easy to use and they were able to find information.

It is concluded by highlighting that when eLearning systems are designed, the ease of use is one of the critical factors for the students to have a positive perception. There was a similar feeling when they interviewed the educators as well where they also cited that the ease of use of the eLearning system has a huge impact on the attitude or perception about that system. These findings are related to the finding on this study where majority of the MBA students found both Moodle and Students easy to navigate and they were able to find what they wanted without assistance on their first encounter with both the systems.

The second aspect of this section looked at the accessibility of Moodle and Student Central from the main website and the provision information on how to access these systems. Just over 50% of the students cited that these systems are accessible and the process on how to access them was clearly communicated. This highlights the importance of accessibility of eLearning systems and its impact on the students' perception and acceptance of these systems. This is



supported by the literature of this study where the readability of content and accessibility of the eLearning system was raised as a critical factor. It was cited in the literature that even if the students had already embraced the concept of eLearning but if accessibility and readability is a problem, this can influence the students to have a negative perceptions of eLearning (Siegenthaler, Wurtz & Groner, 2010).

A study by Westbrook (2014) supports the findings on this study from a perspective of online collaboration as a contribution to student's positive perception. It was highlighted in this research that the ease of online collaboration among students and with their lecturers was observed as the greatest motivator to students' acceptance of eLearning. This feature did not only enhance the students' love for eLearning but also improved tremendously their problem solving skills as they shared the knowledge online among each other.

### **5.9 Systems online help and MBA student's access mode**

The section dealt with the availability of online help within Moodle and Student Central. The data observed from the respondents' responses did reveal that majority either said there was no adequate online help with further smaller percentage that indicated there was somewhat online for both these systems. Online help has been seen as the important aspect and does influence the student's perceptions of Moodle and Student Central.

These findings are supported by the research of Jakovljevic (2009) where a study was conducted at the University of Witwatersrand about creating an effective eLearning solution and highlighting the barriers to eLearning being embraced by the students. In this study some of the more prevalent barriers were the lack of help available on the eLearning systems and lack of access to technical information on the system. The facility to contact ICT technical staff as well collaborating with the academic staff was cited by the students in this research as a motivator for acceptance of eLearning.

Another aspect reviewed in this study was the MBA students' access mode to Moodle and Student Central. The aim of this review was to establish which access medium does the MBA students are using to access University systems. The data has revealed that an overwhelming majority of MBA students which are about 77% are using their personal or company 3g cards to access Moodle and Student Central. It has been observed that a very small percentage are using the university mediums like the UKZN Wi-Fi and the UKZN LAN. These findings

should be viewed with an idea in mind that majority of the MBA students are out of campus most of the time and some even out of the country especially those from the block release classes. Having said that though these findings still send a message to the University that the ICT network facilities that they have made available is under-utilized and a further in-depth study should be done to establish the reasons why MBA students prefer to use their own 3g access instead.

Research conducted by Khan and Bhatti (2011) observed the use of ICT by the students in the faculty of education at the University of Bahawalpur. A survey was conducted and it was found that the majority of the students were using ICT for educational purposes and they accessed the ICT systems almost daily. To access these systems the data revealed that the students used the lab that was provided by the university which was situated within their faculty.

### **5.10 Summary**

Online learning is becoming a popular tool in education and the South African higher education institutions can benefit from it. In this chapter the MBA students' perceptions about Moodle and Student Central were discussed. This included looking deeper into the variables like gender, age and the Industry sector. Mappings were done based on these variables and how they influence the students' perceptions.

The role of ICT infrastructure and support was also discussed with emphasis on availability of ICT support staff as well as their competence. Students' perceptions of ICT support available were also tested. The other objective tested was about the role of the GSB & L administrators in making eLearning successful and how their efficiency contribute to students' perceptions.

Finally this chapter explored the user friendliness of Moodle and Student Central. The variables here were the first time encounter experience of students with these two systems, the availability of online help was also discussed. All these discussions were compared to existing literature.

Chapter 6 concludes this study and makes some recommendations for possible future study about eLearning at the University of Kwazulu Natal.

## Chapter 6

### Recommendations and Conclusions

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#### 6.1 Introduction

This chapter actually concludes the study aimed at evaluating the MBA students' perceptions on Moodle and Student Central. Online learning remains an important tool to enhance education in South Africa but however it is still an underutilized resource in the institutions of higher learning including the University of KwaZulu-Natal. In this study the different variables were explored with the aim of determining how much they affect the students' perceptions about Moodle and Student Central. This chapter also aims to highlight the implications of this research as well as outline possible further research areas that could be explored to gain an in-depth insight into eLearning at the University of Kwazulu Natal.

#### 6.2 Implications of this Research

One of the major implications of this study is that it has revealed that eLearning is a vital tool in the MBA program in fact it's a key business enabler. However, this is not limited to MBA but to higher education as a whole. Factors that influence the students' perceptions were explored and it can be concluded from this study that gender and age do not have an impact on the students' perceptions about Moodle and Student Central. This research has shown that the majority of students' who participated in this study have a perception that is between average, poor and very poor about Moodle and Student Central. It was noted that about 40% have a positive perception which is good to excellent.

It has been shown in this research that for eLearning to be successful at UKZN there are other aspects that should support Moodle and Student Central. It has been shown that in the area of ICT support especially when it comes to customer service and being available promptly on the telephone line, has a need for great improvement in order to influence the students' perceptions positively. The element of the phone not being answered within a reasonable time, like a minute has a negative bearing on the students perceptions about Moodle and Student Central.

The other implication of this research has managed to show the importance of the system administrators for these systems. In the case of the MBA, a closer look at the GSB & L Administrators with regards to their uploading of course material on time for the students was

achieved. Administrators were cited as one of the most critical contributors in making Moodle and Student Central functional.

The final implication of this study was that it showed that the ease of use on an eLearning system is another great positive contributor to students' perceptions. This is accompanied by the availability of online help. The issue of collaboration was also cited in this study and a positive stimulus for students' positive perception.

### **6.3 Recommendations to solve the research problem**

Online learning is the way for future in education and it has been identified as the key business enabler for the higher education institutions. However this must be handled with the understanding that there are critical factors that affect the users in online learning as they have been highlighted in this study. It is with this notion that the recommendations to the University of Kwazulu Natal Moodle and Student Central.

- The Telecommunication to ICS student helpdesk needs to be relooked as currently reflected in this study to be unacceptable. A possible suggestion here is implement a call login system like Heat or any other. This would assist in collecting stats for ICS managers and monitor how many students are assisted and how many calls are dropped before even being answered. The customer service of ICS student support personnel needs to be improved as their service has a strong contribution to the success of Moodle and Students and all the other systems that support learning at the University of Kwazulu Natal.
- ICS can also train system champion within schools and with the libraries on different campuses to also assist students with minor technical challenges like an expired password which needs a reset. If for an example the administrators at GSB & L can have limited access to perform some of these tasks, it can help alleviate some of the barriers to these ICT services.
- While the change of password is for safety purposes a recommendation would be to implement a notification service that will send out emails with a reminder when the password is about to expire to avoid the situation where a student wants to use the system and only to find that his/her password has expired without any notification to that effect. Another possible is implement a self-service password reset similar to usual

forgot your password option available with most websites where it asks you relevant questions provided the answers are correct it then gives you an option to set new password.

- As this study has revealed that the upload of course material to Moodle and Student Central by the administrators needs to improve. The recommendation here is the effective and timely upload of information and useful material by GSB & L administrators on Moodle and Student Central. This material includes notes and the course outlines which entail assignment topics and timelines.
- To help speed up the process of uploading course material even faster, training the academic staff as well around the functionality of Moodle could assist. This can allow them to post their own notes instead of sending everything to the administrators
- Since the MBA program revolves around a lot of group work and currently some of the classes are made up of students from across the country and some even from outside the country. Even those students that are based in Durban from time to time they are required to travel for business purposes and therefore their physical contact with graduate school of business is not always possible. A recommendation will be leverage the collaboration features of Moodle and possible enhancements could include groups being able to share documents similar to what OneDrive or Dropbox can do. The university can also extend collaboration software such as Lync or Skype to students to help distant students to easily communicate and host group meeting remotely. Also lecture rooms equipped with recording equipment to record lectures, these should be used and videos placed on Moodle for students who missed lectures. At MBA level, physical attendance is difficult, and the current systems do not make it easy.
- Another recommendation is that on Moodle a section could be made available for administration items that not specific to any module. A possible suggestion would be to create a news forum tab where items like assessment calendar, change of lecture venues, change of assignment/test dates can be posted under this section
- Online learning is great tool especial for programs like the block-release MBA programs and therefore a feature to submit assignments online would be a much needed enhancement for Moodle or Student Central. This should enable students from all around the country or outside the country to upload their assignments' and send them for marking. To further enhance this process if academic are trained well on online learning, they can access the assignment straight from there and the system allows to

comment and put in the final mark for that assignment. This could promote the concept of a paperless GSB & L and promote the school to go green and save the environment.

- Finally a training demo or video could be made available with Moodle and Student Central to assist students on navigation challenges and general features of the system. Communication from the GSB & L administrators is also very essential this feature should not be limited to only student emails but a feature could be created where the students select their preferred communication medium like their private email and capture that email.

#### **6.4 Recommendations for Future Studies**

The following are the recommendations for future studies that could be done within this area of online learning within the higher education institutions starting with the University of Kwazulu Natal

- The current study looked at the student's perceptions on Moodle and Student Central, a further in-depth study could be conducted among the academic staff and possible conduct a qualitative study with aim to establish their perceptions on eLearning at UKZN and how Moodle and Student Central can be improved for the institution to remain on a competitive advantage.
- A study to evaluate the GSB & L perceptions on these two systems and let them highlight the problems that they have experienced.
- Another further research that could emanate from this current study would be to explore a possibility of combining Moodle and Student Central together with their functionalities. The aim of this study could be a motivation to create a single platform for students where all the systems they need is on one platform or what is widely known as single sign on.
- An in-depth study on students' preferred communication medium could be conducted and the outcomes of these could help improve the current findings about timeous upload of material and communication by the GSB & L administrators.
- Lastly a further study could be extended to also evaluation of other online systems at the University of Kwazulu Natal. These could include the online registration systems, RMS systems for an example the ID Cards and access to various GSB & L sections. This study can attempt to measure the students' perceptions about those other systems and processes and compare them to the finding on Moodle and Student Central.

## **6.5 Summary**

It is noted that online learning has got huge advantages for the University of Kwazulu Natal and in particular to the MBA program. Online learning systems which are Moodle and Student Central are a key business enabler for the MBA program. With this being said the road ahead is still long in making these systems appeal to students and meet almost all their needs. This chapter outlined the implication of this research and put forward the recommendations to improve Moodle and Student Central and finally concluded by outlining possible researches that could be conducted to further gain an understanding.

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## Appendix 1 - Questionnaire

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### **Evaluating the MBA Students perception of UKZN eLearning support systems which are Moodle and Student Central Systems**

The aim of the study is to establish the variables that affect the perception of MBA Students perception of UKZN eLearning support systems in particular Moodle and Student Central

The Objectives of the research are as follows:

- To determine the levels of perceived usefulness of learning support systems in UKZN MBA program
- To determine the role of UKZN ICS Student LAN Support Staff in learning support systems within the MBA program
- To determine the role of administrators within the UKZN Graduate School of business and Leadership in making E-learning systems successful
- To determine the user friendliness of learning support systems at UKZN and the availability of help information.

I, **Joyous Mduduzi Miya**, Student no. **213570639**, an MBA student, at the Graduate School of Business, at the University of Kwazulu Natal would like to invite you to participate in a research project entitled: Evaluating the MBA Students perception of UKZN eLearning support systems which are Moodle and Student Central Systems.

Through your participation, I hope to understand your perceptions and challenges as well as the assistance provided by both Moodle and Student central with regards to your studies during the MBA program. I guarantee that your responses will not be identified with you personally. Your participation is voluntary and there is no penalty if you do not participate in the study. Please accept the terms and conditions and continue to the survey. The questionnaire will take approximate 10 minutes to complete.

There are 32 questions in this survey

**NB:** *Please note the Gate keeper's letter and ethical clearance approval is available on request.*

1. **Please select your gender**  
 Female  Male
  
2. **Please select your age group**  
 25-29  30-34  35-40  41-50  50 and above
  
3. **Please select your MBA Class**  
 MBA 1 Part-Time  MBA 1 Block-Release  MBA 2 Part-Time  
 MBA 2 Block-Release  MBA 3 Part-Time  MBA 3 Block-Release
  
4. **Please select your race group**  
 African  Asian/Indian  Coloured  White  Other
  
5. **Please select your career sector**  
 Engineering  Health/Medical Science  Finance  Human Resources  
 Computer Science/Information Technology  Law/Legal  Other
  
6. **Please state to what extent do you agree or disagree with the following statement, E-learning is a vital tool in education.**  
 Strongly Disagree  Disagree  No opinion or Neutral  Agree  Strongly Agree
  
7. **Please rate your perceived effectiveness of Moodle and student Central systems into the MBA program.**  
 Very Ineffective  Ineffective  No opinion or Neutral  Effective  Very Effective
  
8. **Please state to what extent do you agree or disagree with the following statement, Moodle and student Central systems do contribute to the success of the MBA learning programme**  
 Strongly Disagree  Disagree  No opinion or Neutral  Agree  Strongly Agree
  
9. **Please select how often you interacted with Moodle and student Central systems during each semester of your learning within the MBA programme**  
 Hardly Ever  Occasionally  Sometimes  Frequently  Almost always
  
10. **Please state to what extent do you agree or disagree with the following statement, Moodle and student Central systems are key business enablers for the UKZN MBA program.**



Strongly Disagree  Disagree  No opinion or Neutral  Agree  Strongly Agree

**11. Please rate the current state of Moodle and student Central systems in terms of being useful in the MBA program.**

Very Poor  Poor  Average  Good  Excellent

**12. Please rate the customer service/manner of approach you received from IT support staff with regards to support for Moodle and student Central systems help.**

Very Poor  Poor  Average  Good  Excellent

**13. Please rate according to your perception the technical competence of the IT support personnel that you have dealt with when requiring help with the learning support systems. i.e. was the problem resolved first time around?**

Very Poor  Poor  Average  Good  Excellent

**14. Whenever you needed assistance with Moodle or Student Central, the IT user support personnel were available to assist. i.e. was the phone answered within a minute?**

Strongly Disagree  Disagree  No opinion or Neutral  Agree  Strongly Agree

**15. Please rate your awareness of the IT support available to MBA Students with regards to Moodle or student Central systems.**

Very Poor  Poor  Average  Good  Excellent

**16. Do you know the telephone numbers for contacting IT support telephonically or do you at least know where to find their numbers, if you have problems accessing Moodle or student Central Systems?**

Yes  No  No Opinion or Neutral

**17. Do you know which building you can go to for accessing the IT walk in centre within your campus, should you need assistance with Moodle or student Central systems?**

Yes  No  No opinion or Neutral

**18. Please rate your perceived role of the GSB & L administrators in making Moodle and student Central systems service MBA student's needs with regards exchange of lecture notes, assessment marks and registration.**

Very Essential  Essential  Makes no difference  Somewhat Essential  Not Essential

**19. Please rate the accuracy of the notes, announcements and registration documents uploaded by GSB & L Administrators into the Moodle and student Central systems**

Very Poor  Poor  Average  Good  Excellent

**20. Please rate the timing of uploading of notes, announcements and registration documents by GSB & L Administrators into the Moodle and student Central systems**

Very Poor  Poor  Average  Good  Excellent

**21. Please rate the administration support you received as a student from the GSB & L Administrators with regards to Moodle or student Central systems**

Very Poor  Poor  Average  Good  Excellent

**22. Please rate the effectiveness of communication done by GSB & L administrators in updating students about the latest information uploaded into Moodle or student Central systems**

Excellent  Very Good  Satisfactory  Very Poor  Unacceptable

**23. Please reflect on your first encounter with Moodle or student Central systems. What were your perceptions about the two systems?**

Excellent  Very Good  Satisfactory  Very poor  Unacceptable

**24. In your first encounter with Moodle were you able to navigate your way around the system?**

Yes  No  Somewhat

**25. In your first encounter with student Central were you able to navigate your way around the system?**

Yes  No  Somewhat

**26. In your first encounter with Moodle did you get what you required without assistance?**

Yes  No  Somewhat

**27. In your first encounter with Student Central system did you get what you required without assistance?**

Yes  No  Somewhat

**28. Was there adequate online help material to help you understand these systems?**

Yes  No  Somewhat

**29. Please select your level of computer literacy**

Basic  Intermediate  Advanced

**30. Please select the data communication medium you used in most cases to access the Moodle or student Central systems**

UKZN LAN  Personal or private company 3g card  UKZN Wi-Fi  Hardly Ever

**31. Please state to what extent do you agree or disagree with the following statement, Both Student Central and Moodle are easily accessible from the UKZN Main Page.**

Strongly Disagree  Disagree  No opinion or Neutral  Agree  Strongly Agree

**32. Please state to what extent do you agree or disagree with the following statement, the process to Access Student Central and Moodle is clearly communicated to MBA Students.**

Strongly Disagree  Disagree  No opinion or Neutral  Agree  Strongly Agree

08 July 2015

**Mr Joyous Mduduzi Miya (213570639)**  
**Graduate School of Business & Leadership**  
**Westville Campus**

Dear Mr Miya,

**Protocol reference number: HSS/0735/015M**

**Project title:** Evaluating the MBA students perception of UKZN eLearning support systems which are Moodle and Student Central Systems

**Full Approval – Expedited Application**

In response to your application received on 12 June 2015, the Humanities & Social Sciences Research Ethics Committee has considered the abovementioned application and the protocol have been granted **FULL APPROVAL**.

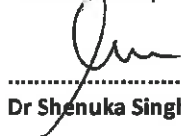
**Any alteration/s to the approved research protocol i.e. Questionnaire/Interview Schedule, Informed Consent Form, Title of the Project, Location of the Study, Research Approach and Methods must be reviewed and approved through the amendment/modification prior to its implementation. In case you have further queries, please quote the above reference number.**

PLEASE NOTE: Research data should be securely stored in the discipline/department for a period of 5 years.

**The ethical clearance certificate is only valid for a period of 3 years from the date of issue. Thereafter Recertification must be applied for on an annual basis.**

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

Yours faithfully



.....  
**Dr Shenuka Singh (Chair)**

/ms

Cc Supervisor: Professor Manoj Maharaj  
Cc Academic Leader Research: Dr Muhammod Hoque  
Cc School Administrator: Ms Zarina Bullyraj

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