STUDENTS' PERCEPTION TOWARDS THE INTRODUCTION OF OPEN AND DISTANCE LEARNING IN TECHNICAL COLLEGES IN MALAWI

MASTER OF TECHNICAL AND VOCATIONAL EDUCATION THESIS

PATRICIA NOTHALE-LIWAMBANO

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By

PATRICIA NOTHALE-LIWAMBANO

MTVE- University of Malawi

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DECLARATION

I, the undersigned, declare that this dissertation is my original work. It is being submitted for partial fulfilment of the requirements of Master of Technical and vocational degree and has not been submitted before for any degree or examination in any other college or university. Where other people's work has been used, acknowledgements have been properly made by means of references.

PATRICIA NOTHALE- LIWAMBANO

Name

Signature

Date

CERTIFICATION OF APPROVAL

The undersigned certify that this thesis represents the student's own work and effort and has been submitted with our approval.

Signature: _____ Date: _____

Name: _____

Main supervisor

Signature: _____ Date: _____

Name: _____

Co- Supervisor

Signature: _____ Date: _____

Name: _____

Head of Department

Signature: _____ Date: _____

Name: _____

Dean Of Post Graduate Studies

DEDICATION

To the father of my children, Lovemore, whose advice and guidance had been a source of inspiration throughout the ladder. To our three girls, Comfort, Praise and Joyous for the encouragement and having confidence in mum that this course could be accomplished.

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ABSTRACT

The study was conducted to assess students' perceptions towards the introduction of Open and Distance Learning (ODL) as a mode of teaching and learning in technical colleges. Using questionnaires which were administered at Soche, Nasawa and Lilongwe technical colleges. Data were collected from three random selected technical colleges. A total of 90 questionnaires were sent and 71 were returned. Students were selected through simple and systematic random sampling techniques. Data gathered from closed ended questions were tabulated into Statistical Package for Social Scientist (SPSS). Data gathered from open ended survey questions were categorised and brought up themes and sub themes. The key findings revealed that students perceive ODL as an alternative educational mode in technical colleges.

Students perceived face-to-face contact as an important element in the teaching and learning process. However, they showed a positive perception towards ODL because of its flexibility in terms of time, space, pace and geographical location of students. These findings give insight to TEVETA and other open and distance learning institutions to take into consideration the possibility of offering technical courses through ODL or including ODL as a mode of delivery in technical colleges in order to increase access to technical and vocational education. In addition, scholars in the field of technical and vocational education may carry out further research in technical colleges to establish whether other colleges have the similar perception about ODL if introduced in technical colleges.

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ABBREVIATIONS AND ACRONYMS

CBET   Competency Based Education and Training

COL   Commonwealth of Learning

DE   Distance Education

GoM   Government of Malawi

ICT   Information and Communication Technology

IGNOU   Indira Gandhi Open University

MGDS   Malawi Growth and Development Strategies

NESP   National Education Sector Plan

ODL   Open and Distance Learning

SAIDE   South African Institute of Distance Education

STRIDE   Staff Training and Research Institute of Distance Education

TVET   Technical and Vocational Education and Training

TEVETA   Technical Entrepreneurial Vocational Education and training Authority

UNESCO   United Nations Education, Scientific and Cultural Organisation

VET   Vocational Education and Training

APPENDICES

CHAPTER 1

1.0   Introduction

This chapter discusses the background to the study of students' perceptions towards the introduction of open and distance learning in technical colleges as a mode of lesson delivery. The discussion dwells much on a brief explanation of open and distance learning (ODL) and technical vocational entrepreneurial education and training (TEVET) in Malawi. It highlights some of TEVET challenges and opportunities. The discussion further brings in ODL as a solution to the challenge of access to skills development in Malawi technical colleges but bearing in mind that the implementation of a programme is affected by the perception that the intended users have on the program. The chapter provides the purpose and justification of the study and the research questions that drive the study. It explains the importance of this particular study and its beneficiaries.

1.1   Background to the study

ODL is becoming an acceptable and indispensable way of offering education at all levels. It is driven by the high demand for education in conventional institutions. ODL makes learning accessible to a wider population. It has the capability of engaging all spaces of learning, more than the conventional education. The word open in the term ODL signifies inclusivity and accessibility, encompassing all (Commonwealth of Learning [COL], 2005). It is a planned learning that offers a high degree of flexibility as learners are free to learn from places convenient to them (Staff Training and Research Institute of Distance Education [STRIDE], 2000). One of the characteristics of ODL is the distance, the physical separation of a teacher from a learner. Distance education is one form of ODL.

Distance education in Malawi is not a new phenomenon. The Malawi government recognises the potential of ODL and established the first distance education institution in 1964. The history of education in Malawi shows that the first distance education institution was the Malawi Correspondence College which was established in 1964 (Banda, 1982). The government of Malawi (GoM) wanted to give chance to school dropouts, out of school children and all those who did not have an opportunity to attend conventional education to find other means of continuing with their school (Banda, 1982). Since that time, distance education in Malawi has been offered in primary, secondary and tertiary education through different media like print, radio, telephone, internet and other media of communication. The

focus has been on the traditional subjects unlike skills development. ODL has not been fully integrated into technical and vocational colleges despite being introduced in 1964.

There is a new trend in ODL in Malawi which has been driven by thirst for knowledge and skills that is growing at all age groups and levels of education. New opportunities in ODL have opened up with advances in information and communication technology (ICT). There is an increase in the number of ODL institutions across Malawi but ODL has not been integrated in technical colleges despite the acute challenges of low participation due to limited spaces in technical colleges. In other countries, more conventional institutions are transforming from single mode to dual mode, recognising the importance of ODL in providing greater accessibility and up to date educational resources (Malaysian Qualification Agency, 2011).

1.2   Definition of terms

Perception- According to Marzano and Pickering (1997), perception is the way people sense and interpret the world around them.

Distance education -is a method of education where students study on their own time, at the place of their choice (home, work or learning centre), and without face-to-face contact with a teacher. Technology is a critical element of distance education (Hampel, 2013).

Distance learning - is defined in this study basing on Indira Gandhi National Open University [IGNOU] (2006) as an individualized study in which the learners work entirely away from an educational campus and contacts with tutors are usually by telephone or mail (including e-mail). In some cases, distance education has been used interchangeably with distance learning.

Open learning - is considered in this study as an organised educational activity, based on the use of teaching materials, in which constraints on study are minimised in terms either of access, or of time and place, pace, method of study, or any combination of these (South African Institute of Distance Education [SAIDE], 2003).

Open and distance learning - is an umbrella term to cover educational approaches that reach students in their homes and work places, provide learning resources for them, or enable them to qualify either without attending college in person or with minimum face to face interaction with lecturers, no matter where or when they want to study.

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Technical colleges - are referred to as institutions that offer Technical Entrepreneur Vocational and Training (TEVET) in Malawi.

1.3   Perception

Perception is the way one thinks about or understands someone or something. Arnould, Price, and Zinkhan (2002) defined 'perception' as an idea, a belief or an image one has as a result of how s/he sees or understands something. Perception is the way people sense and interpret the world around them. According to Marzano and Pickering (1997), students' attitudes and perceptions impact the learning they achieve. This is why the research dwelt much on the students' perception towards the introduction of ODL in technical colleges. The students' perception will determine the possible acceptance of ODL in technical colleges. Bukaliya & Musika, (2011) state that different people perceive advantages of ODL differently. The perception influences their attitudes towards acceptance and use of ODL in education system.

1.4   Technical colleges

Technical colleges are institutions that offer Technical Entrepreneur Vocational and Training (TEVET) in Malawi. These institutions are regulated by the Technical Entrepreneurial and Vocational Education and Training Authority (TEVETA). Formerly technical colleges were under the Ministry of Labour until when TEVETA was formed in 1999. TEVET system emphasises on skills training and uses the competency based education and training (CBET) which is tailored to meet the industrial labour skill requirements (United Nations Education Scientific and Cultural Organisation and International Labour Organisation [UNESCO & ILO], 2002). It focuses on imparting practical skills to the learner. TEVET system plays important roles in contributing to the improvement of productivity of a national labour market and in assisting individuals to improve their employment prospects in a rapidly changing socio-economic environment (Idris, 2010). Hollander and Mar (2009) emphasized that TVET's aim is to prepare people for self-employment and to be a medium of evolution for people to the world of work by making individuals to have a sense of belonging in their communities. They further indicated that TVET is seen as an instrument for reducing extreme poverty. TVET in Malawi can, therefore, contribute to production of high quality goods which can compete on the global market and help in transforming Malawi into an exporting country (Malawi Growth and Development strategy [MGDS], 2010). Despite TEVET being regarded as a drive to economic improvement of a country, technical colleges in Malawi are characterised by the increase in cost of education and expenditure, limited access for the disadvantaged learners from rural areas, existence of inequality of educational opportunities,

inadequate bed space, inadequate classrooms and lack of teaching staff (Chafa, 2003). These challenges have resulted in the majority of the youth being trained as apprentices in the informal sector and others get no training at all. Many secondary school dropouts have no routes for a return to education (TEVET policy, 2010). This lack of capacity in conventional technical education institutions may necessitates the introduction of ODL as an innovative and cost effective approach to the education and training (COL, 2005; Innes, 2002). Students' perceptions and attitudes matters in the success of a programme, the researcher thought it is pertinent to assess the perceptions of students who are in technical colleges. Currently, all technical colleges in Malawi use traditional face to face mode of delivery, which is restricted to classroom environment, specific place for study and follows strict timetables. This conventional education has denied many people the opportunity to gain technical and vocational skills. TVET institutions, therefore, can respond to different training needs of industry and learners from different socio-economic and academic backgrounds through ODL.

Malawi TEVET is facing many challenges including limited access in school, ODL, though an alien concept in TEVET is proving to be the right route to take as it is currently working in Zambia, Zimbabwe and Botswana. There is, therefore, need for a deliberate move to incorporate ODL in technical colleges to increase access to skills development in Malawi (National Education Sector Plan [NESP], 2008).

Mugridge and Moran (1993) stated that perceptions of the distance learning system in the instructional process is influenced by an individual's beliefs about the advantages of distance education, for himself/ herself, as a student, as an employer (whose employees are also distant learning students), or as an educational planner (desirous of providing potent solutions to educational problems). Hanny and Newvine (2006) asserted that perceptions of stakeholders about ODL, which may influence their attitude and commitment towards its implementation have evaded most research studies and the accurate assessment of students' perceptions have influenced attitudes towards the acceptance of the use of ODL in the education system. However, Idris (2010) stressed that ODL being a new and unfamiliar system of inculcating knowledge to students as opposed to the conventional schooling, it is important that an assessment of student perceptions is carried out before its introduction. Hence the need to carry out this survey bearing in mind that students' perception is a crucial factor that could have an impact on the success of the programme in technical colleges. An ODL programme could be affected by how it is viewed by the individuals who would be using it. Technical and

vocational training in Malawi is offered through the conventional system which uses face to face mode. The expansion of traditional models of skills delivery is unlikely to be able to meet present and future demand. Consequently, the use of distance learning compatible with the region's existing technical capabilities and infrastructure should be considered as an important strategy. In other countries, open and distance learning is hailed as the answer to African governments' problems of educational provision and claims have been that ODL can improve access to, quality of, educational provision and at a lower unit cost (Richardson, 2012). The introduction of ODL in technical colleges could come with mixed reactions, ODL may be perceived towards quality, access or flexibility. Access could be affected positively or negatively by attitude of students. This could influence perception of students towards enrolling for ODL. Different people perceive the advantages of ODL differently, and their perceptions influence attitudes towards acceptance and use of ODL in the education system (Ojo & Olakulehin, 2006). It is, therefore, from this perspective that students' perceptions are assessed before the introduction of ODL in technical colleges. The kind of attitudes and perceptions that students have toward a programme plays a very crucial role in assessing the impact of the program and its effectiveness (Chabaya, Chidamoyo & Chiome, 2011). The study has helped the researcher to understand students' ideas about ODL being introduced in technical colleges of Malawi.

1.5   Introduction to the Problem

Malawi has seven government TEVET institutions that train apprentices. The recruitment numbers in these colleges have been very low if the numbers of applicants are taken into consideration. This is attributed to limited spaces in the colleges. However, government wants to increase access to education in TEVET by the year 2017 (NESP, 2008). TEVETA has responded to the need by incorporating some private sector institutions to participate in training the apprentices. As a way of increasing access, TEVETA assists nine private technical colleges apart from the seven government owned institutions. Despite all these efforts, TEVETA still experiences high demand against available places both in private and public technical colleges. TEVETA national pre- apprenticeship selection report shows that in 2014/2015 academic year, TEVETA received 9141 applications from which 5319 applicants were shortlisted. These shortlisted applicants were to compete for 1230 places available in seven government technical colleges and nine private colleges.

Statistics obtained from TEVETA shows that even in 2013 academic year only 9% of the total applicants were recruited. Figure 1.1. is a graphical presentation of the recruitment statistics for 2013 academic year.

2013 APPLICANTS VS SELECTION
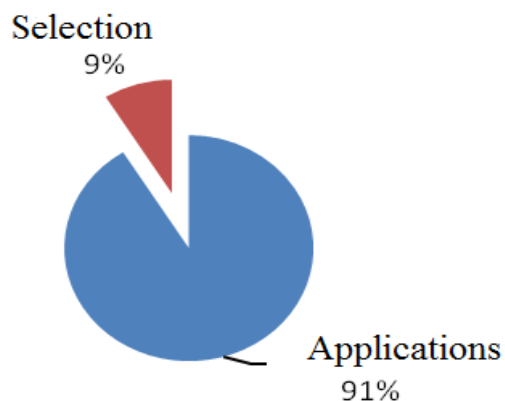
Figure 1.1: 2013 recruitment statistics. Source: TEVETA selection statistics 2014

Statistics clearly show that the demand for technical and vocational courses is so high and each academic year TEVETA receives many applications from secondary school leavers and about 91% of the eligible candidates are left out. Table 1.1 shows recruitment trend from 2005 to 2013.

Table 1.1: Recruitment trends 2005 – 2013. Source: TEVETA recruitment report (2014**)**

No.	Year	Males	Females	Total recruits
1	2005	224	88	312
2	2006	525	244	769
3	2007	521	209	730
4	2008	493	205	698
5	2009	385	209	594
6	2010	973	373	1,346
7	2011	890	272	1,162
8	2012	1,127	453	1,580
9	2013	782	302	1,084

The recruitment trend in technical colleges has led to many school leavers failing to secure places for furthering their studies and improving technical skills. This trend has led to the creation of a huge gap between technicians and the unskilled labourers in the Malawi industry. Worse still, this has denied the nation an opportunity to train skilled people who could participate in the informal sector of the country's economy and create jobs. Competition

created by the informal sector catalyses quality enhancement in the formal sector so as to compete on the global market thereby turning Malawi into a predominantly exporting nation (MGDS, 2010).

The challenges of access in education and training in technical colleges can be alleviated through ODL which has the potential to improve access to education in Malawi (Susuwele, 2010). If ODL is introduced in TVET, it has the capacity to provide education of comparable standards in a flexible and learner friendly manner, particularly to those who could not get access to the formal system of education (Common Wealth of Learning [COL], 2005). The only thing to sustain or predict the success of the programme is the perception of those who will be involved in the programme especially on how they perceive ODL in technical colleges as students have different perceptions towards quality, access or flexibility. Elsewhere in the SADC region, countries are delivering TEVET through ODL but the success of any programme depends on several factors one of them being the attitude of learners who will use the programme (Ojo & Olakulehin, 2006). More often than not, perceptions of the distance learning system in the instructional process is influenced by an individual's beliefs about the advantages of distance education, for himself, as a student, (Chabaya et al., 2011). Students have different reasons for enrolling with ODL institutions such as getting the opportunity to do the job and study simultaneously, being able to put the learnt material to immediate use while on the job, acquiring both experience and the professional qualification at the same time on the job. Factors leading to the young adult`s choice of distance education as opposed to the conventional system may range from personal, social, academic to situational. These factors may influence students` intention to enrol for programmes offered by ODL institutions as indicated by Walker and Lowenthai (1981), which may impact the access to education hence ODL.

1.6   Statement of the problem

Technical colleges in Malawi are faced by different challenges including limited access for students due to limited spaces the colleges have. Literature show that different factors continue to fuel the demand for ODL, one of it being the inability of conventional institutions to provide for the educational needs of teeming populations desirous to acquire education (Biao, 2012). One way of solving the challenge of access is through the introduction of open and distance learning which has the capability of enrolling masses. ODL is being adopted in many educational institutions in developed and developing countries. Howell, Williams, and

Lindsay (2003) stipulated that many educational institutions are shifting from purely a campus centred model of tertiary education to ODL model using information and communication technologies. Both developed and developing countries are adopting ODL to meet the demands of students and the communities. Musingafi, Mapuranga, Chiwanza and Zebron, (2015) wrote that ODL is known by its capability to provide for an increase in access to education for those who otherwise would have no other opportunities due to work, family or physical limitations. ODL is flexible as regards location of study as most open and distance learning can be done from home and anywhere in the world. Open and distance education is more of learner centered where by responsibility for learning is with the learner who must be more active and self-directed. ODL gives an opportunity to develop technology competencies for instructors and learners and also gives chance to learners and instructors to have access to global resources and experts via internet communication and Internet resources. Lastly but not least, it also allows for the internationalization of learning opportunities.

Despite all the advantages, there are also disadvantages that raise questions about ODL such as quality issues where people question how quality is achieved since there is minimal interaction between learner and tutor. Other issues are of time and frustration involved in for example how to get on-line for novices, the turnaround period for assignments and delays in getting feedback, feelings of isolation harbored by learners due to less group support. It also demands for large effort and cost to develop appropriate materials. Learning in ODL is dependent on individual motivation and initiative. All the challenges make people doubt ODL, and others become afraid of enrolling through ODL, and these feelings mostly bring different perceptions towards ODL amongst users. The challenge is that we are not aware of how students in technical colleges would perceive the introduction of open and distance learning in technical colleges as a way of increasing access to technical and vocational education and training if is to be introduced. The perceptions may affect the acceptance of the programme, this is why the researcher felt it wise to assess the perceptions of students towards ODL in technical colleges before its introduction.

1.7   Purpose of the study

The purpose of this descriptive survey design study was to discover the opinions and perceptions of students if open and distance learning is to be introduced as a mode of delivery for technical and vocational education and training programmes in technical colleges.

1.8   Specific objectives

Specifically, the study addresses the following objectives:

- Examine students' understanding of Open and Distance Learning.
- Explore students' attitude towards ODL programmes.
- Assess students' preference for learning technical skills through ODL and traditional method.

1.9   Research questions

The overall guiding question for this research is: What are the perceptions of students on the use of ODL mode as a tool of content delivery in technical colleges?

The research answered the following specific questions:

- To what extent are the students aware of ODL?
- What are the students' perceptions and attitudes towards learning technical skills through ODL?
- What are the students' learning preferences for acquiring technical skills?
- What could be the challenges of ODL in TVET

1.10   Significance of the study

The study is of significance to the domain of technical entrepreneur and vocational education and training as well as ODL as it will extend knowledge base that exists currently in these fields. The concept of ODL is relatively new to the majority of educational institutions that offer technical and vocational education. The institutions from Malawi and other neighbouring countries that chose to embrace the concept of ODL and implemented it have welcomed the benefits. This study gives a picture of students' perceptions towards the use of other modes of teaching and learning apart from the traditional conventional system that they are familiar with. The study assesses the possible challenges and opportunities of ODL in TEVET and recommends strategies that can be used to adopt ODL in technical colleges. The study, therefore, can have direct implications on integrating ODL in technical colleges. Above all, it is important for researchers and educators to constantly gather data from the students on what they think and prefer (Haney, 2002). Unless we do this, we cannot attain what we want from technical and vocational education and training.

1.11   Chapter summary

Chapter one has set the background to the problem, the statement of the problem itself and the purpose of the study. In the next chapter, literature review related to perceptions about ODL and TEVET will be outlined. The chapter begins with literature about perception of students towards ODL and TEVET in general then theoretical framework. Literature about ODL and specific studies on perceptions about ODL are discussed. This follows literature about perceptions towards TEVET. Finally, the study reviews literature on prospects and opportunities of integrating ODL in TEVET.

CHAPTER 2

LITERATURE REVIEW

2.0.   Introduction

This chapter focuses on a review of existing literature on students' perception towards open and distance learning in Technical and Vocational Education and Training (TVET). The themes included in the chapter are: Perception of students towards ODL, perception of students towards TVET and finally, challenges and opportunities of ODL in TEVET are discussed.

2.1.   Perception of students towards ODL and TEVET

More often perception of the distance education (DE) learning system in the instructional process is influenced by an individual's belief about the advantages of DE for him/herself as a student, as an employer or educational planner. On perception, Needham and Papier (2010) asserted that the young people's perception of vocational education is shaped by their outsider and insider views as cited in City & Guilds Centre for Skills Development (2011). The outsider view includes what students believe at school, in families, communities and at workplace of vocational education. The insider views are held by students and lecturers in vocational learning institutions. It is important to note that the outsider and insider view about vocational education can either be negative or positive. These have an effect on each other.

2.2   Theoretical framework

In this study, the researcher is of the view that people react to different issues in different ways and they hold different attitudes that influence the way they perceive certain things. In the same manner, students may hold different perceptions on ODL and TEVET which could either be positive or negative; their perception could have an impact on their adoption of ODL if introduced in technical colleges. Figure 2.1 shows the researchers' view on perception that people hold.
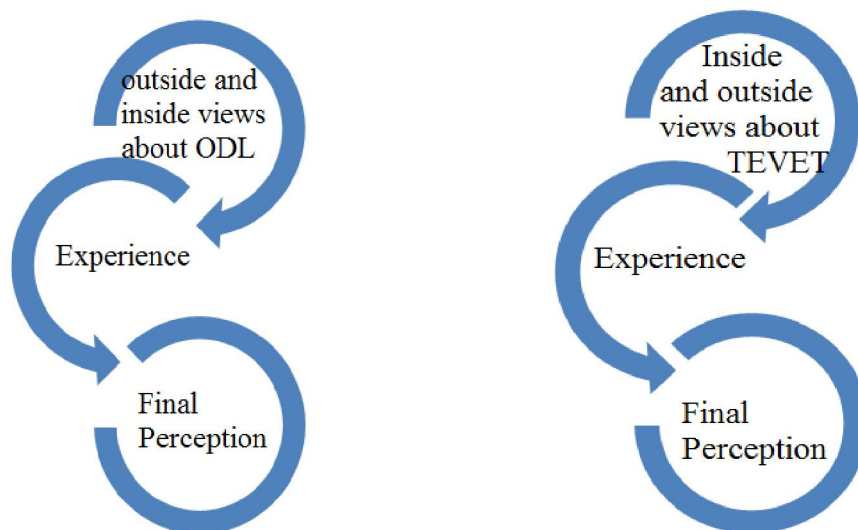
Figure 2.1: Views-Perception circle arrow

The researcher discusses her stances in this survey through the lenses of human-capital, theory of transactional distance and core and periphery of social identity theories.

These researchers' views can be related to human capital theory by Edward Wolff who explained human capital as having the capacity to adapt. This approach in human capital is especially dealing with disequilibrium situations or more generally with situations in which there is changing environment and people have to adapt to that. Combs and Skill (2003) suggested that human capital theory has recast learners as economic units required to be individually proactive as opposed to reflexively view of themselves as economic beings. Alternatively, Beck, Fuller, and Unwin (2006) noted how young people absorbed strong messages about continuing full-time academic education, rather than ODL.

This study also adopted Moore's theory of transactional distance (Moore, 1993) which states that "distance education is not just a geographic separation of learners and teachers, but, more importantly, is a pedagogical concept". The concept describes the universe of teacher-learner relationships that exist when learners and instructors are separated by space and/ or by time. This separation creates psychological and communications space. Moore (1993) explains that when referring to distance education, there is more than a geographic separation of learners and teachers; there is also a distance associated with understanding and perception also partially caused by geographic distance. It is the perception that students hold for the separation of teacher and learner in open and distance learning that has been explained in this study.

Student's perception is also related to the idea of core and periphery of social identity theory. More specific to this study is Social Identity Theory, which Korte (2007) argued is a moderating factor that influences individual behaviour in groups, and is, therefore, a critical factor in influencing learning in organisations. Korte (2007) further noted that social identity theory was developed with the purpose of understanding how individuals make sense of themselves and other people in the social environment. Individuals get their identities partly from people they associate with and the groups they interact with. Korte (2007) described social identity as an ongoing process of interaction between the individual and the focal group (in-group), and between the individual and other groups (out groups). In his view, it is a process not an entity or label. This explains that identity, in effect, depends on the situation and the relative strengths of internal and external views at a particular time.

The perception on ODL and perception on TEVET plus the experience/ interactions is what will make the final perception of students on the use of ODL in technical colleges.

Dambudzo (2013) indicated that governments today increasingly see education, and in particular TVET, as having the key role to play in the economic success and social stability of a country. In his paper, Dambudzo (2013) investigated strategies for regional collaboration in the integration of academic and TVET training through ODL and industry. It was a qualitative study and document analysis and interviews were used to collect data on what had been done and said about integrating academic and industry through ODL. It was found that the industry as the consumer of skilled labour is very clear in expressing its need for the staff that are skilled as they grow in the industry and trying to increase productivity. Nowadays, employees are becoming aware of the importance of acquiring necessary qualifications and skills that will increase their potential of being employed and or being self-reliant in future. It is against all these perceptions of the importance of TVET by buyers and users, that an increasing range of these agencies and decision makers see open and distance education (ODL) as a realistic way of extending TVET to a much wider public (Dambudzo, 2013). Literature shows that there is a demand for academic and TVET hence the scope for ODL is immense. Countries need to broaden and standardise their VET programmes to support clients need and economic progress of the country. The trend has caused significant economic, social and cultural challenges. Technical and vocational education and training (TVET) professionals are particularly challenged to develop, adapt or re-design strategies to address the needs of workers and society (Rojewski, 2009).

The central principle of distance education and flexible learning is to achieve equitable distribution and access to education to as many people as possible. Programmes offered should, however, be equivalent in status and quality to traditional modes of education and training, and that distance education should be well supported by government with adequate infrastructure in collaboration with relevant partners (Dambudzo, 2013). Dambudzo (2013) further argued that the challenges facing nations in a global economy requires increased attention to TVET since most individuals may change careers in their lifetimes. This means that each career change will require new knowledge and skills. ODL will help the workers in acquisition of relevant skills, at a reasonable cost without disrupting their ordinary working and family lives.

The multinational corporations tend to move their operations to where labour are cheapest stringent labour and environmental laws and regulations are less demanding. Under such conditions, it is only the nations capable of competing successfully which invest in worker training and adult. This translates to labourers who continue developing their skills in their workplace while gaining knowledge through open and distance learning. The researchers view is that if ODL is to be introduced in technical colleges, because of its flexibility, it will increase access and more skilled people will contribute towards improving economy of the whole country. If this happens then more people will accept the concept. Figure 2.2 shows a step-down process to ODL in technical and vocational education.
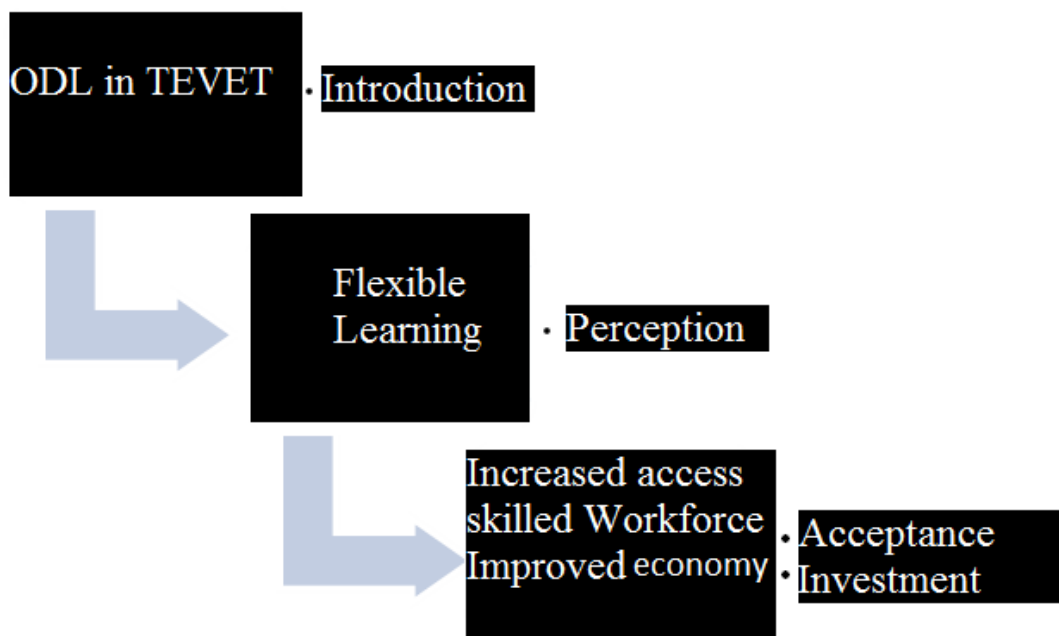
Figure 2.2: A STEP-DOWN process to ODL in TEVET

2.3 Open and Distance Learning (ODL)

ODL is an acronym which stands for open and distance learning. ODL is the combination of distance learning and open learning. Distance learning is defined by IGNOU (2006) as an individualized study in which the learners work entirely away from an educational campus and contacts with tutors are usually by telephone or mail (including e-mail). Open learning is considered as an organised educational activity, based on the use of teaching materials, in which constraints on study are minimised in terms of either access, time and place, pace, method of study, or any combination of these (SAIDE, 2003). Learners in ODL have freedom to study at a time, place and/or pace which suits them best. It may involve self-study at home or work at convenient times supported by telephone or face-to-face tutorials and practical work. UNESCO (2002) expressed that the term open and distance learning represents approaches that focus on opening access to education and training provision, freeing learners from the constraints of time and place and offering flexible learning opportunities to individuals and groups of learners. In summary, SAIDE (2003) wrote that "open and distance learning" is used as an umbrella term to cover educational approaches that reach students in their homes and work places, provide learning resources for them, or enable them to qualify without attending college in person, no matter where or when they want to study IGNOU (2006) and UNESCO (2002) emphasised that basically, open and distance learning has a philosophy that emphasises giving learners' choices about:

- Medium or media, whether print, on-line, television or video;
- Place of study, whether at home, in the workplace or on campus;
- Pace of study, whether closely paced or unstructured;
- Support mechanisms, whether tutors on demand, audio conferences or computer-assisted learning;
- Entry and exit points.
- Two-way communication which allows learners and tutors to interact.
- Possibility of face-to-face meetings for tutorials, learner–learner interaction, library study and laboratory or practice sessions.

2.3 Students perception towards ODL

Literature shows that different people are seeking access to training nowadays than before. People have the perception that the increase in school dropouts and unemployed youth is huge at present. There is also the perception that many who are in school going group are

demotivated. Yet, there is another group of mid-career adults seeking to enhance their job skills or to acquire new ones who have also gained prominence. In most sub-Saharan countries, providing opportunity for skills training is increasingly being seen as an important route for addressing issues of poverty alleviation and relief from social deprivation (Kangai, 2011). ODL offers that opportunity for skills development.

Several studies have been conducted on the perception of students towards all kinds of ODL. Mugridge and Moran (1993) wrote that perceptions of the distance learning system in the instructional process is influenced by an individual's beliefs about the advantages of distance education, for himself/ herself, as a student, as an employer (whose employees are also distant learning students), or as an educational planner (desirous of providing potent solutions to educational problems). This means that perceptions may vary, it may be positive or negative depending on what a person believe in.

A study by Saroha (2014) assessed attitudes of students towards distance learning with respect to its utility, accessibility, learning outcomes and future prospects offered. The researcher used an open-ended questionnaire of 21 items. Common themes were identified during content analysis. The findings demonstrated a more positive attitude towards distance learning among female students than male. The female students attributed the attitude to the ease with which they fulfil their educational aspirations through ODL while they are taking care of their families. On the other hand, male students attributed their attitudes to lack of interaction with fellow learners as well as the absence of face to face interaction with teachers.

Another study by Sahin and Shelly (2008) used distance education students' satisfaction model which was estimated as a structural equation model. The aim was to understand better what predicts students' satisfaction. Data was collected from 195 undergraduate students and used exploratory factor analysis. Statistical Package for Social Sciences was used. The findings indicated that students' perception was positive. Students perceived usefulness and flexibility of distance education.

A study conducted by O'Malley (1999) on students perceptions towards ODL found that students perceive that content taught in ODL is the same content they would learn in conventional education. This is in agreement with Ojo and Olaklehin (2006) who assessed the attitudes and perceptions of distance teaching and learning by students enrolled in the

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conventional universities. A structured questionnaire entitled the students attitude and perception rating of open and distance learning institutions inventory (SAPRODLII) was developed to elicit subjects' opinions found on the Attitudes and perceptions of Nigerian students to ODL.They found out that, students have positive perception and attitude towards ODL and they perceive that there is no significant difference between learning outcomes that can be attained at traditional institutions and distance learning.

Russell (2012) did a comparison study in academic performance between distance learning and traditional on campus students in allied health care education. The study included 252 students. The researcher used quantitative design to determine if there were differences in academic performance between traditional on campus students and distance learning students. Data was collected from two groups of students. The research found that there was no difference in academic performance between traditional on campus students and open and distance education students.

On learners' performance, it was noted by Gagne and Shepherd (2001) and Russell (2012), that there is equal performance by ODL students and conventional students. Students from both systems have the opportunity of performing equally. ODL is popular and has gained support; students have positive perception towards ODL that if one is learning through ODL, s/he can save time for attending classes. It is also possible for one to take more courses through ODL because of the freedom of management of time. Components of ODL that are popular include access to online tutorials, interaction with instructors, flexibility in learning methods, flexibility in learning pace as most important facilities in teaching and learning at a distance (Nugraheni, Zuhaira, Sajati, & Isman, 2012) . They further noted that students perceive that there is a component of human rights issues in ODL, as students have the right to learn and engage in formal study for a wide range of age and geography.

Awan (2010) conducted a study on preparing future teachers through distance learning, in which the purpose of the study was to analyse the preservice teacher training programme for the distance learners of Allama Igubal Open University (AIOU) Pakistan. The researcher used a survey method and adopted multistage sampling. Five out of 36 regional centres were selected and 100 students were randomly selected. The results were that female students perceived ODL as a catalyst for increasing the female literacy rate. This was attributed to ODL course materials which are easy to understand and are self-explanatory. Female students found it easy to study the materials while they were doing other roles. This is in agreement

with what Chabaya, Chadamoyo, and Chiome (2011) found, that female students found ODL helpful especially the study guides that are provided in ODL. They said it was easy to progress with their study as they perform their domestic chores. In TEVET, there is also a challenge of low participation of female students. ODL may help to improve on the numbers of female students that would be enrolled as they will not be required to abandon their houses just to study and acquire skills in TEVET.

There are others with different perception altogether about ODL. These believe that ODL compromises quality and that traditional teaching methods are superior to ODL (Bates, 2015). This perception is commonly held by people who have never had experience in ODL, who resist change and believe that teaching and learning can only be achieved through traditional face to face method.

Krishnan (2001) investigated the perception and utilization of ODL services by the learners of a distance education institution in Kerala. Interview schedules for students were the main tool for collecting data. Secondary data was also collected. Data was analysed using statistical techniques. It was established that students prefer ODL because of difficulties in getting admission in regular colleges. Students also prefer ODL because of its flexibility as those working, study while working, do not have to quit their jobs. For administrators, the institutions succeeded in providing opportunities for learning to many disadvantaged persons. These include those who stay far away from the college, those deserving students who did not have chance to enrol in conventional institutions because of demand and other factors.

A quantitative study by Islam and Jahan (2009) assessed the perceptions and experiences of secondary and higher secondary learners and tutors towards the quality and standard of support services provided by the Bangladesh Open University. The study used a comprehensive questionnaire consisting of both open ended and structured questions to collect data from learners and tutors. It was revealed that both tutors and learners selected in the study had positive perceptions about the quality of course materials in terms of its presentation style, language and contents. However, some of them made observations that the delivery time of the materials supplied to them was erratic.

A qualitative study by Gagne and Shepperd (2001) about effects of distance learning – Perception of course materials in access to learning for professional development, found that

students taking distance learning courses perform as well as students taking courses in conventional face to face.

Saroha (2014) did a research with the aim of assessing attitudes of the subjects towards distance learning with respect to its utility, accessibility, learning outcomes and future prospects offered. Open ended questionnaire consisting of 21 items was used. The common themes were identified using content analysis. Results demonstrated a more positive attitude towards distance learning among women compared to males. Female respondents attributed to the ease with which they fulfil their educational aspiration through distance learning. while males attributed to lack of interaction with fellow learners as well as absence face to face interaction with teachers and class mate.

As regards the perceptions of distance students of Andhra Pradesh Open University (APOU) Krishnan (2012) found that course materials and counselling sessions were highly useful to the students, but the library facilities and audio-video programs were very poorly used.

Krishnan (2002) analysed students' perceptions of instructions and instructional impact in terms of students' satisfaction with the delivery of college credit correspondence courses at the Pennsylvania State University. The study has shown that didactic conversation with the instructor contributed significantly to the satisfaction of students. There is a component of didactic conversation in distance education which is believed to likely influence students' attitudes (Rumble & Oliveira, 1992). Holmberg described this style which encourages students to think aloud when reading self - learning materials as a guided didactic conversation. Tyagi, Poonam, and Sahoo (1992) found out that IGNOU students find the study materials in ODL which most of the times follow didactic conversation tricks, easy to follow.

Krishnan (2012) investigated the perception and utilisation of ODL services by the learners of distance education institution in Kerala. The researcher used interview schedules for students as the main tool for collecting data and some secondary data were used. The data were analysed using mathematical and statistical techniques. It was found that a majority of students believe that the main advantage of joining ODL program was to improve qualifications followed by enhancing professional opportunities. This means that ODL if introduced in technical colleges could also help in improving the skills of people who are on

full time job and those who did not have chance to pursue with their education due to different challenges such as school fees.

Mishra (1998) found that, to a large extent, IGNOU's Bachelor Degree Program learners were satisfied with the quality of the materials and presentation of the content. Students noted that quality of materials used in ODL system need to be of high quality since many students' study at their own. ODL students do not have chance of asking questions to their teachers as it is done in conventional system. A study by Bisciglia and Monk-Turner (2002) mentioned that the learners found the study materials in ODL user -friendly and appropriate. The learners also got adequate support from administrative staff and tutors. When comparing the attitudes of tutors and learners towards distance learning, Daley, Watkins, Williams and Courtnay (2001) found that tutors had conflicting attitudes about distance education while they were willing to teach a distance learning class, they rated the courses as equal as or lower in quality than traditional courses taught on campus. On the other hand, learners were satisfied with ODL program. This calls for another research on lecturers' perception towards ODL in technical colleges. Unfortunately, this research paper only concentrates on the views from students disregarding views from lecturers and other stakeholders.

A study done by O'Malley (1999) about students' views on ODL indicated that it is possible to learn the same amount of stuff in ODL that is taught through convention. Students asserted that they save time in ODL especially time to be in class. Learners study at their own time while doing other things. For example, they do not have to quit their work to go and study; they study while working.

Students' value in ODL is also based on teaching and learning. Nugraheni, Sajati, Pictt, and Isman (2012, p. 5) said access on online library, tutorial interactions with instructors, flexibility in the learning methods and the flexibility on learning pace are some of the most important facilities students perceive positively in ODL. In their study, students also indicated that they felt more comfortable and independent learning using any kind of distance education faculty support rather than learning on face to face instruction the reasons given was that it was difficult for them to attend classes at the university physically because they leave far from the institutions that offer that training. They also said ODL considers the human rights issues, the right to learn and engage in formal study for a wide range of age, geography and time.

Awan (2010) paper on preparing future teacher through distance learning: An empirical study on students' perception of teachers' education program used a survey method of collecting data. The researcher used a multistage sampling to select 5 out of 36 regional centres as a convenience sample and 100 students were randomly selected. The results indicated that distance education (DE) plays an important role in increasing female literacy rate. This is because most of the female prospective students fail to attend formal conventional schools because of many tasks they have to perform at home, for example, taking care of family chores and nursing children and their fathers. Conventional learning is inconvenient to them so they prefer ODL because they read at their own pace and at a time when they are free. The other factor was that course materials used in ODL are easy to understand and are self-explanatory.

The descriptive research by Chabaya, Chadamoyo and Chiome, (2011) used questionaire wich had both open and closed ended questions which helped to yield qualitative data.They had a sample of 92 which was extracted using the stratified random sampling, they found out that study materials and academic supports are some of the elements that make ODL friendly to many students. Female students regard study guides as more helpful as they can progress in their studies as they perform their domestic chores. They further said the perceptions of students in ODL are that of getting the opportunity to do the job and study simultaneously, being able to put the learnt materials to immediate use while on the job, acquiring both experience and the professional qualification at the same time on the job. Chakwera (2008) contributed that learners pursue their studies without withdrawing their services as it tends to be the case when serving employees are admitted in a conventional face to face programme.

2.4   Technical, entrepreneur vocational education and training (TEVET)
2.4.1: Definition of TEVET
There is no universally accepted definition of technical and vocational education and training (TVET). As a field, it is continually changing, usually in response to the demands made upon it (Maclean & Wilson, 2011). TVET is concerned with the acquisition of knowledge and skills for the world of work. UNESCO defined TVET as'….a comprehensive term referring to those aspects of the educational process involving, in addition to general education, the study of technologies and related sciences, and the acquisition of practical skills, attitudes, understanding and knowledge relating to occupants in various sectors of economic and social life' (TEVET policy, 2010).

TVET is practiced almost all over the world. It is said that many countries are counting on TVET to increase their economy and reduce the poverty of its people (Afeti, 2010). It is observed that different countries use different acronyms for technical and vocational education and training depending on their choice. Some countries use VET- Vocational Education and Training and others TVE - Technical, Vocational Education. In some quotas, they use a term that covers both vocational education and skills development as TVSD - Technical and vocational skills development, which refers to the specifically work-oriented skills acquisition, taking place in multiple locations (King, 2009). Malawi uses the acronym TEVET- Technical Entrepreneurial, Vocational Education and Training. In essence all these acronyms have the same meaning. Basically, all TVET have the following important features as indicated by (UNESCO & ILO, 2002):

- orientation towards the world of work
- the emphasis of the curriculum on the acquisition of employable skills.

TVET can be delivered at different levels of sophistication. For example, learners from different social economic and academic backgrounds and can also respond to the needs of the industry. Skills development in Malawi is important for economic development, poverty reduction, and social inclusion. This means that TEVET has a big role to play on the economy of Malawi. TEVET can also contribute to sustainable development and is recognised as a priority area of development intervention, as reflected in the MGDS (2010) and NESP (2008) policy documents. Therefore, there is need for TEVET to reach out to many from different backgrounds by opening access to training to different people from all corners of life. This can be achieved through provision of ODL in skills development. As appreciated earlier on, VET in Malawi is referred to as TEVET. Technical education is defined as the development of skills and knowledge to be applied in practical situations. Vocational education is defined as the demonstrated and acknowledged development of knowledge, skills and attitudes necessary for a place in the workforce, at levels ranging from pre-trade to paraprofessional. An entrepreneurial is the identification of an opportunity where by an entrepreneur creates a new business in the face of risk Zimmer,Scarborough and Wilson (2007) and uncertainty for achieving profit and growth. From the definitions of technical, vocational and entrepreneurial, it can be concluded that the role of TEVET is supplying skills requisite for improved workers' productivity, economic competitiveness, occupational integration, raising income levels and expanding opportunities for employment (Bennell, 2000; Budría & Telhado-Pereira, 2009). Malawi government established TEVETA in 1999 by an act of parliament to establish and promote an integrated, demand driven, competence based, modular technical, entrepreneurial

and vocational training system in Malawi so as to monitor and fill any skills gaps to support the adoption and application of appropriate technologies; to promote managerial and business skills and create a culture of entrepreneurship in Malawi (TEVET policy, 2010).

TEVET's goal is to create a skilled, productive and efficient human resource that should positively contribute to economic growth and poverty reduction in Malawi (IEC TEVETA). Masson and Fretwell (2009) stated that TVET aim is to contribute to equity and access to training, and social responsibility by stimulating competitiveness and entrepreneurship to realise life-long learning concepts. Equity and access to training is a big challenge to TEVET as it is surrounded with challenges of shortage of equipment, shortages of classrooms, inadequate teaching staff and inadequate funding. TEVET is expected to be producing skilled people required in industries. The youth and other members of society are expected to acquire entrepreneurial skills which help them to establish their own enterprises thereby contributing to the economic development of the country and reduce poverty in the long run.

2.4.2 Students perceptions of TEVET

A study by Mwiria (2001) found that there is poor VET participation. He argued that VET is poorly funded. Atchoarena and Delluc (2001) in their book revisiting technical and vocational education in subsaharan Africa: an update of trends, innovations and challenges agreed that there is low participation of VET due to poor attitude by public towards vocational education and training. People regard VET as leading to low-status occupations, and students who enrol into VET are considered failures.

Ngure (2013) examined perceptions of technical and vocational education and Training, the case of Kenyan micro and small enterprise. The researcher developed a protocol technical and development for use to analyse the stakeholders' perceptions. Data were collected using interviews and focus group discussion. Findings indicated that TVET plays a vital role in furnishing its learners skills that are required by the employee.

There are different perceptions about TEVET by different stakeholders. The Malawi Labour Market Survey Draft Report (2014) emphasises that "Technical and vocational education and training is often regarded as inferior, or as a second choice after professional education, regardless of the student's interests or passions and abilities they have towards the courses" Afeti (2010) also asserted that there is poor public perception about TVET. He further commented that in Africa, TEVET has been considered as a career path for those who are

weak academically. This perception grows by the low academic requirements for admission into TVET programmes and there are limited prospects for further education and professional development (Afeti, 2010). Afeti further stated that there are negative attitudes and perceptions that are triggered sometimes by governments. Government creates the impression that the primary objective of the vocational education track is for the dropouts from the basic and secondary school system and those who fail to secure places in tertiary education to have something to do, rather than project TEVET as an effective strategy to train skilled workers for the employment market.

Chafa (2003) indicated that TVET students and graduates are frustrated because they cannot further their education. TEVET is associated with low pay and that in many countries technical and vocational education has a poor reputation that many people see it as being dead end, one cannot progress in education if they choose TVET path (Chafa, 2003). It is believed that TVET is for those who are unable to continue to higher education. (Afeti, 2010).

A research by Ngogo (2014) revealed that there are mixed views about TVE. Some are positive while others are negative. He found that some perceive TVET as useful that it contributes to development; others perceive it as useless that discriminates and promotes unemployment. King (2009) also found that students regard TVET as for second- class, low socio-economic status and as for failures. Teklehaimanot (2002) reported mixed attitudes towards vocational education, students indicated that the vocational education they participated in was "very useful" or "somewhat useful" later in their life. While other quarter of respondents complained that the program prepares them for jobs "not too well" or "not at all". It is good that there are mixed perceptions towards TVET.

Usman and Pascal (2005) stated that declining TVET participation, results, in part from "the public's attitude towards TVET and he feels it is a challenge", because courses in TVET are undervalued by students from all backgrounds. Technical and vocational education has been considered as education designed for low achievers or failures and for second-class citizenship as Teklehaimanot (2002) reported. In explaining the misconception, Wanacott (2000) wrote as "the most enduring belief about vocational education is that it's only for non-college bound, the potential dropouts, or other students with special needs and this belief is not confined to students and their parents; it is often shared by other educators and policy makers" (Rojewski, 2009).

Despite the negative perception about TEVET, there are also positives perceptions. In his own views, Uwaifo (2009) said that technical education is the training of technically oriented personnel who are to be the initiators, facilitators and implementers of technological development of a nation. He further said that, this training of citizenry on the need to be technologically literate, would lead to self-reliance and sustainability. He stressed that technical education more than any other profession has direct impact on national welfare, hence, the need for increase in intake in technical colleges. Furthermore, technical education contributions are widespread and visible. Consequently, technical education can serve as change agents not only for technical systems but also for many other societal changes. The practical nature of technical education makes it unique in content and approach thereby requiring special care and attention.

A study on what young people think about vocational education in South Africa by City and Guilds (2011) indicated that some school students in the urban areas felt that vocational would result in low salaries and learning pathways that excluded them from further study. On a positive note, VET students had an impression that they would easily have access to jobs than others pursuing non-technical courses. They attributed this to the fact that their courses involved practical workplace learning which provides students with more experience than other students. They felt that they were being trained in areas where there is a shortfall in skills and that increase chances of getting a job. Students felt that route to inferior and 'practical' knowledge was not only a preferred pedagogy choice, but also offered them a sense of purpose: as some students indicated that 'I know what I am studying for.' This desire to learn theoretical knowledge practically is in line not only with a broad career orientation but with a broader theoretical movement for a 'working to learn' approach rather than a 'learning to work' approach to VET (Unwin & Wellington, 2001).

Dissertation by Ngure (2013) which was aimed at analysing stakeholders' perception of vocational education and training in the micro and small enterprises (MSE) in the Kenyan motor vehicle repair and service industry (MVRSI) discovered a positive attitude on TVET that it plays a vital role in furnishing its learners skills that are required in the industry. On the other hand, Ngure (2013) further pointed out that there is a negative perception nurtured by parents including those with TVE background, they tend to encourage their children be trained for white colour rather than TVET courses, because white colour jobs have potential for better job opportunities and more income. This negative view has a negative effect on the development of TVET (Ngure, 2013).

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People and governments perceive TVET highly that they think TEVET according to Barasa and Kaabwe (2001) has to respond to numerous challenges, such as a rapidly increasing in population, growing youth unemployment, the high cost of education against stagnating resources, rural urban migration, rising social and economic insecurity, reduction in jobs due to economic liberalisation and new technologies, as well as the people's clamour for accountability.

Afeti (2010) studied into reasons for non-performance in the vocational programmes conducted in South Africa whilst not directly examining student attitudes. The study found that many students enrolled because they sought to learn things 'practically' (Afeti, 2010). Students now found defending practical learning as a methodology by which one can learn knowledge and not a route to inferior and 'practical' knowledge. This desire to learn theoretical knowledge practically is in line not only with a broad career orientation but with a broader theoretical movement for a 'working to learn' approach rather than a 'learning to work' approach to VET (Unwin & Wellington, 2001). It was discovered that students who were studying vocational education had positive attitude about vocational education. They think they are given chance to focus on what they want to be in future and gain experience of their work. It was indicated that the students know very well the relationship between knowledge and skills, and they were aware of skills shortages in industry.

2.5   Delivery of TEVET programmes via ODL (prospects)

It is arguable that there are some key principles that are used in ODL that are similar to that of a competency-based approach to TVET. According to UNESCO (2002) the key feature of open learning is that it seeks to remove all barriers to learning, most notably barriers of time and place of study. It is clear that ODL seeks to give learners optimum control over their own learning. In ODL emphasis is placed on the needs of the learners rather than on the requirements of institutional structures.

Challenges that are faced in TEVET need to be addressed if countries are to improve their economies through skills development. ODL as the mode for education and training in TVET allows vast numbers of people, hitherto unreached, to take advantage of education and training opportunities. John (2002) supports delivery of TEVET through ODL; he argued that potential learners who would benefit from TVET programmes offered through ODL cut across a wide range of educational, social and economic levels. It has been noted that within

the developing world, there is a big group of illiterate people; any planned ODL programmes for potential learners will have a substantial impact on their economies.

Research has shown that implementing TVET programmes through ODL would not only transform the economic power of the beneficiaries, but also curb the level of unemployment among the youth which is very high. TVET programmes offer better opportunities for skills training where beneficiaries could become self-employed or established in family enterprises. TEVET through ODL will have an impact on the long-term plans. The implication is that training offered in a variety of locally targeted but employable job possibilities could equip a large proportion of illiterate and unskilled people with employable skills (John, 2002).

Dodds (1994) noted that in Namibia, groups of illiterate and literate beneficiaries (both men and women) acquired skills in areas such as basic agriculture and animal husbandry, thereby transforming lives of social and economic vulnerability to economic empowerment. The same mode has been applied to impart skills training in carpentry, and building technology among displaced peoples.

TVET programmes offered through ODL need not apply to so many areas, the importance of policies has been emphasised that Potential learners could therefore be better provided for where education policies, either at national or regional levels, endeavour to implement TVET programmes using ODL as part of the general education provision. It is worth noting that many countries have potential to offer TVET programmes by ODL using less sophisticated delivery mechanisms that are effective for their local conditions (Dodds, 1994). ODL offers enough flexibility that potential learners anywhere can benefit from TVET programmes, whether on a large scale or not (Aslam, 2000).

Distance learning is rapidly transforming the delivery of education at all levels within developed and developing countries. Key trends that are associated with its application in the more advanced economies include its rapid rates of growth and adoption, the trend towards technology convergence on the Internet, innovations in content creation, and the move towards horizontal integration. These are necessary organizational strategies that can be employed to sustain distance learning systems. More developed countries are in the process of using distance learning as a primary strategy in TVET reform. These initiatives are being driven by a recognized need for more efficient and effective human resource development

strategies in response to the forces of international competition and globalization (Goel, 2012).

The fact that teaching practical skills is very different from teaching knowledge or theory and it requires some special considerations cannot be over emphasised. In conventional set up, the learning of practical skills is done in workshops and laboratories and associated with specialist materials and equipment, smaller class sizes and, frequently, longer blocks of time for practice or rehearsal. In ODL environment, the teaching of practical skills is more difficult than the teaching of knowledge and theory. In ODL, print based illustrations with step by step procedures are used for teaching practical lessons. This is not a perfect method but can be supplemented by other modes of delivery like video and interactive multimedia on CD-ROM. Learning practical lessons can be facilitated through the establishment of learning centres where the community can benefit by supporting a joint educational facility. This can include primary secondary technical institute and universities combining resources with a local government fund to jointly fund a local facility use. TEVETA already works hand in hand with private sector in Malawi. This is helpful as it encourages workplace training, on-job training, work-based learning, work experience and the adoption of technology to support self-paced learning in a range of environments (Hampton & Bartram, 2011).

2.6   TVET opportunities and challenges

The expansion in TVET is pertinent in Malawi. ODL approaches increase the access as the traditional methods have not made it possible to reach everyone who needs skills training. A more flexible and blended approach, using technology would be a good place to start with to address the challenges of lack of access and quality in TVET **(**Richardson, 2012**)**.

One of the most important features of TVET is its orientation towards the world of work and the emphasis of the curriculum on the acquisition of employable skills (David, Rotimi, & Kayode, 2006). TVET delivery systems are, therefore, well placed to train the skilled and entrepreneurial workforce that Africa needs to create wealth and emerge out of poverty (Munro, 2007). A skilled workforce is a basic requirement for driving the engine of industrial and economic growth, and TVET holds the key to building this type of technical and entrepreneurial workforce (Ngure, 2013).

Wagonhurst (2002) observed that any country uses education and training as mechanisms of reducing poverty. As such any economy has to nurture its labour force with the view to producing necessary technical and generic skills required in various sectors of the economy.

TEVET can provide student the skills to become productive entrepreneurs and engender creative and innovative ideas that would enlarge the nation's economic pie, and increase personal freedom (Friedman, 1982). In particular, vocational training is expected to produce innovative and adaptive human resources with appropriate skills, attitudes and values for wealth creation, employment and prosperity.

It has been noted by many researchers that vocational education is designed to offer training to improve individual's general proficiency, especially in relation to their present or future occupation. The provision of vocational and technical schools has a long history. Before Malawi independence in 1964 missions were the principal sources of vocational education. Societies were involved in different handwork and other vocational education (Banda, 1982).

2.7   Conclusion

In conclusion, the importance of vocational education has never been felt before as it is today. Malawi needs citizens with skills to turn the economy around. The rapid change in economic structure of the market, which lays emphasis on knowledge and professionalism, has driven people to acquire and upgrade their technical skills to improve their performance as well as compete in the global world. ODL in vocational education will not only help the educated sections of the society to enhance their skills for employment, improve their job mobility and efficiency of labour, but it will also enable the illiterate section of the society to train themselves for self- employment and financial independence. As the world becomes small and globally localized, education is the only means for a better standard of living and to build a sustainable economy in today's knowledge based society (Lama, 2012). It is a trend that whenever people have to make a choice, they tend to move towards a general educational qualification rather than a specialised form of education. There are many reasons for their choice but mostly it is because of negative perception they have towards technical and vocational education. ODL can no longer be considered as supplementary form of education in comparison to the traditional mode of education. Open and distance learning institutes have now a greater responsibility of producing a large number of productive human capital. It has the ability to empower the youth of the society, whether they belong to any remote areas or to any ethnic origins. Basu (2010) in his article, "Open University – An Agent of Change", discussed the potentiality of the Open Universities for offering vocational courses. He argues that there has to be an interface between the Open University and the industry and involvement of professionals should be encouraged for preparing the curriculum, policy regarding vocational education. He suggested that the apprenticeship programme of the

conventional mode should be extended to the distance mode. Thus, indeed what is required to be done, in order to increase number of skilled labour in the country.

CHAPTER 3

RESEARCH METHODOLOGY

3.0.   Introduction

This chapter discusses research methodology that was used in gathering and analysing data to answer the research questions. The chapter starts with research design followed by sampling techniques and the methods that were deployed in selecting the sample of the research. This is followed by the research instruments that were used to gather data and analyse the perceptions of the students towards the introduction of ODL as a mode of delivery in technical colleges. Then, the data collection and analysis methods are discussed. The chapter ends with the limitations faced during the study and ethical issues that were followed in the study.

3.1.   Research Design

Research design is the framework or plan for a study used as a guide in collecting and analysing data (Churchill, Brown, & Suter, 2010). Research design is a detailed outline of how an investigation took place. It includes how data were collected, what instruments were used, how the instruments were used and the means of analysing data that was collected. Leedy (1993) confirms that design for a research project literary shows how the study was conducted.

Descriptive survey design was adopted and questionnaire comprised of both closed ended and open ended questions which were administered to the sample population of technical college students. Burns & Bush (2010) marked that descriptive research is done to obtain useful information about decision making; hence the findings of the research provided information that would be used in making a decision on whether it is necessary to introduce ODL in technical colleges and in education department. The researcher chose a survey research design, in which the main purpose of survey research is to collect primary data. Literature indicates that survey provide a quick, inexpensive, efficient and accurate means of assessing information about population. They are quite flexible and when properly conducted, they are extremely valuable (Zikmund, Babin, Carr, & Griffin, 2010). Surveys are pre-set and organised in a particular arrangement on a questionnaire, and all respondents are asked the same questions and are exposed to the response options for each question (Burns & Bush, 2010). Surveys are also easy to administer as sometimes respondents may fill in the questionnaire unattended, hence the researcher chose survey with respect to the advantages.

3.2. Population sample

Sampling involves decisions about which people from the population to be included in the study (IGNOU, 2009). The population for this study consisted of students from government technical colleges. Data were gathered from students who were pursuing TEVET courses in technical colleges. Students are crucial in TEVET, in terms of training and consumption of skills and knowledge, the researcher thought that they were best placed to give the most appropriate information on the mode of delivery they would prefer in technical colleges. Since the scope of this study cannot accommodate examination of all TEVET students, only students from three government technical colleges were involved for convenience sake. The three technical colleges which consisted of the population of the survey are Soche, Lilongwe and Nasawa. IGNOU (2009) said that convenience sampling becomes convenient in terms of obtaining units and it is easy to collect the intended data. In this case, the three colleges were conveniently allocated and were easily reached out by the researcher.

3.3. Sampling method

Participants of this study were sampled through the stratified random sampling technique where by sampling takes into account the stratification of the main population into a number of sub populations, each of which is homogeneous with respect to one or more characteristics. In this survey study, sex and programme of study (trade) were used as stratification criteria characteristics components. Three trades were selected from each technical college. The students were placed into strata, according to programmes and they were grouped further according to their sex. Respondents were drawn through simple random sampling in order to accord each of the TEVET programmes in technical colleges a proportional representation in the study. In simple random sampling, each unit included in the sample has a known and equal chance of being selected for study. Again, every combination of population elements is a sample possibility (Churchill et al., 2010).

3.4. Sample size

The sample for this study consisted of a total of 90 students, 30 from each college. These students were pursuing TEVET courses at Soche, Nasawa and Lilongwe technical colleges at the time the survey was being conducted. The initial plan was to have 10 students; 5 males and 5 females from the identified three trades but it was difficult to find equal numbers of male as well as female because most of the courses in technical colleges are dominated by male counterparts.

3.5. Instruments

A questionnaire was developed. Close ended and open ended questions were carefully and clearly constructed for respondents to easily read, understand and complete. Johnson and Christensen (2008) stated that a questionnaire is a self-reporting data collection instrument that each research participant fills out as part of a research study. The questionnaire was utilised to obtain primary information from participants in the study about the thoughts, feelings, attitudes, beliefs, values and perceptions personality and behavioural intentions of research participants.

In this survey study the questionnaire was developed and used to find out students'9 perception towards the introduction of ODL as a mode of delivery in technical colleges. The questionnaire was chosen as a vehicle that was used to present the questions that the researcher desired respondents to answer. Burns and Bush (2010) indicated that it is an inexpensive way to cover a large geographical area. Questionnaire responses can be highly structured and easily coded and covering the answer to the specific questions and that provides data necessary to explore the area defined by the objectives (IGNOU, 2009). The questionnaire was designed in a way that some questions were closed ended items and others questions were open ended in which participants were required to elaborate on points of interest.

The questionnaire consisted of items that covered the research questions and respondents' demographic variables. The questions were divided into sections according to the research questions. This helped the researcher to be focused on the topic of study so to fetch the required data. Some questions in the questionnaire were likert type scale in which students were asked to indicate their degree of agreement or disagreement on a symmetric agree-disagree scale for each of a series of statements. Flat or plain statements were used and the respondents were indicating the intensity of their feelings by using agree-disagree responses in a continuum position. The scale helped in capturing the intensity of student's feelings towards the statements claim or assertion (Burns & Bush, 2010).

3.6. Pilot testing

To ensure that the questions were relevant to the study and that they were going to generate the required data, the questionnaire was pilot tested before being administered in a real study. Pilot testing is necessary as many researchers have stressed the importance of pilot testing in

determining that the subject is capable of completing the survey and that they understand the questions (Creswell, 2003). Berg (1989) indicated that pilot testing helps the researcher to assess how effectively the questionnaire will work and whether the type of information being sought will actually be obtained. Based on the feedback, the questionnaire was revised and modified accordingly before it was used to collect data on the perceptions of students towards the introduction of the use of ODL in technical colleges as a mode of delivery.

Two steps of pretesting recommended by Berg (1989) were followed. The steps are;

- The researcher identified professional experts in research, who were familiar with the subject matter under study to critically examine the questions and give feedback. Basically, at this stage the professionals 'task was to look for problems like difficulties with questions wording, leading questions and a bias due to question order. This method ensured the validity of the instrument.
- Then the questionnaire was tried out to 5 students before the actual administration was done.

It was noted that some questions were just a replica of other questions, which made the questionnaire to be too long; these questions were removed. Questions that were deemed ambiguous as identified by respondents were rephrased.

3.7   Data collection

The study used survey design method approach. Open and closed ended questions were deployed. Open-ended questions gave participants chance to answer the questions in their own words. These questions were useful in terms of eliciting respondent feelings, and they provided depth to issues identified by respondents. This helped in giving the detailed description of the perceptions of students towards ODL as a mode of delivery in TEVET. The closed ended questions provided the respondent with a defined set of answers. The response set included categorical and scaled responses.

The questionnaire was divided into sections according to the research question. The participants' age, sex and trade were gathered. An inclusion of the background of the participant helped the researcher to understand participants' awareness of Olathe researcher had in mind that the collection of data by means of questionnaire is highly complicated and depends on the researcher's effort (IGNOU, 2009). The quality of data depends on the skills in which the tools are administered. The questions were set and ensured that it collected the desired data; the language of the question was made as simple and less ambiguous as possible. The data collected helped the researcher to get an insight of student's perception on the use of

ODL in technical colleges. The researcher captured what students from technical colleges responded on the questions posed towards the introduction of ODL in technical colleges as a mode of delivery. In chapter 4, the detailed description of their perceptions towards ODL as a mode of delivery in TEVET has been discussed. The researcher had in mind that the collection of data by means of questionnaire is highly complicated and depends on the researcher's effort (IGNOU, 2008). The quality of data depends on the skills in which the tools are administered. The questions were set and ensured that it collected the desired data; the language of the question was made as simple and less ambiguous as possible.

In chapter 4, the detailed description of   their perceptions towards ODL as a mode of delivery in TEVET has been discussed.

3.8.   Data analysis

After data collection, the questionnaire items with closed ended questions were coded and responses were entered into the statistical package for the social sciences (SPSS). Frequency distributions were run to facilitate discussion of the data. The data obtained from the closed ended question were analysed using the descriptive statistics obtained from statistical package for social scientists (SPSS). Data analysis was guided by the research questions and descriptive statistics had been used to elaborate and classify some issues. Tables were used to summarise the information and percentages were used to provide answers to research questions. The results are presented using tables and graphs in the next section, for ease viewing.

In this study, data from the open-ended questions were analysed using inductive data analysis where by patterns, themes and categories of analysis emerged out of the data that was collected from students. A simple colour coded system of highlighting was used to code themes pre-identified in the literature as likely to emerge. Data were coded using different categories that were identified. A description of patterns and themes from perspective of the participant were done with an attempt to understand and explain these patterns and themes (Merriam, 1998). The process of data analysis involved preparing the data for analysis, conducting different analyses, critically analysing and understanding the data, representing the data and making an interpretation of the larger meaning of the data.

3.9.   Limitations of the study

Due to financial constraints, the study was restricted to the three technical colleges. Soche, Nasawa and Lilongwe which are conveniently positioned to the reach of the researcher. The second limitation is that these colleges do not offer ODL yet and have no experience in ODL so the findings may be biased as most respondents had no experience in ODL being utilised in institutions offering technical and vocational education and training. Lack of experience may have an implication on respondents as it was difficult for them to understand some of the issues in ODL. The other challenge was that the researcher was overloaded with work, school and family commitments, so these affected the researcher in meeting the deadlines of the study as all these loads equally required researchers' attention.

3.10.   Ethical issues

Concerns about research ethics revolve around various issues such as the issues of harm, consent, privacy and confidentiality of data that are crucial in research (Punch, 1986).Punch further said that researchers must ensure the rights of privacy and welfare of the people and communities that form the focus of the study. For this reason, the participants of this study were told clearly the objectives of the study and they willingly gave consent to participate in the study by signing the consent paper.

Berg (1989) agrees with the issue of voluntary involvement in the research studies that Subjects should be voluntarily involved. The researcher prepared the informed consent slips which accompanied the questionnaire. They were informed of their right to choose whether to comply or not. They had their freedom to be left alone or to break off the interview at any time. The participants were assured of the confidentiality and they remained anonymous throughout the research.

Confidentiality is defined as an active attempt to remove from the research records any elements that might indicate the subjects' identities while anonymity means the subject remains nameless (Berg, 1989). The participants, therefore, were informed very clearly about the objectives of the research, the procedures and implications of the research findings according to Evans, Terry and Victor (1996) hence sampled participants' names for this study do not appear anywhere in the report.

CHAPTER 4

RESULTS AND DISCUSSION

4.1. Chapter overview

This chapter presents data from the survey carried out concerning the perception of students on the use of ODL as a mode of delivery if introduced in technical colleges. The chapter starts by presenting profiles of the respondents involved in this research. Then in Section 4.3, there is a presentation on the discussion of the findings of the first research question which is on students' awareness of open and distance education.

In Section 4.4, findings of the students' attitude towards learning technical skills through ODL are presented. Then in Section 4.5, the students' learning preferences for acquiring technical skills is discussed as outlined by learners. Further, challenges, advantages and opportunities of ODL in technical colleges are discussed. The questionnaire was administered on site at each technical college to preclude a low response rate. The participants were drawn from three government technical colleges: Nasawa, Soche and Lilongwe technical colleges. A total of 90 questionnaires (30 per college) were sent to each technical college and 71 were returned, which gives a 78.8% of the respondents and all incomplete questionnaires with a few missing data points were not discarded considering each item could be answered as a stand-alone item.

4.2. Demographic information

There were 7 items related to demographic characteristics of the sample. The purpose of the section was to gather demographic data that could be important in understanding the student's perception on the use of ODL in technical colleges. Of all 71 participants who completed questionnaires, 52 were male respondents and 19 females. This could be due to the fact that technical courses are dominated by male students. Female participation in TVET is overly lower than for males.

Participants' age ranges varied. Table 4.1 shows participants age group, 50 of the respondents were between the age range of 21-25.

Table 4.1: Participants age group

Age group	15-20	21-25	26-30	31-34	35-40
Frequencies	10 (14.1)	50 (70.4%)	8 (11.3%)	1 (1.4%)	2 (2.8%)

Table 4.1 shows that the group aged between 15 -25 dominated and made 84.5% of the respondents. This is a group of secondary school leavers who apply in multitude into different programmes at TEVETA. This shows that the majority of technical college students are youths within the school going age. In Malawi at least at 17 years of age, one is expected to be at tertiary level. TEVET tends to be focused on youth rather than retraining adults or second chance learners.

The researcher also inquired on whether the respondents ever participated in ODL. This was just to check on their knowledge of ODL. It was revealed that 42% of the respondent ever participated in ODL before and 35% participated at secondary level the rest participated at primary and at tertiary level. There was another question to check on whether any of the participant's members of family ever participated at any level in ODL and 52% of respondents' indicated that their family members had ever participated in ODL. This means that ODL is not a new phenomenon to many participants. They have either participated before or seen members of their family studying through ODL.

4.3.   Students awareness of ODL

One of the specific objectives was related to the exploration of the students' awareness of ODL. A series of questions were asked. Participants were required to give a "Yes" or "No" answer by ticking in the required box. The first question on awareness was asked to find out if participants ever heard about ODL, 64(90.1%) of students admitted that ODL was not new to them; they had ever heard about it before. This means that to many students, ODL is not a new phenomenon, this may be because distance education has been there since 1964 and Open schools which is a form of ODL is almost at each and every government owned secondary school in Malawi. The participants heard about it though it is difficult to know the depth of participants' knowledge in ODL.

Further questions from item 9-20 which were responding to the research objective number one on participants' awareness of ODL were asked just to check if participants really have an understanding of what ODL is all about. The items and responses are presented in Table 4.2

Table 4.2: Students responses on the awareness of ODL

ITEM	YES	NO
ODL for working class	29 (40.8%)	42 (59.2%)
ODL gives freedom to learners to study at their own time	57 (80.3%)	14 (19.7%)
ODL gives freedom of studying at owns pace	59 (83.1%)	12 (16.9%)
For those failed to secure a place at a conventional school	22 (31.0 %)	49 (69.0%)
ODL can only work in primary education	15 (21.1%)	56 (78.9%)
ODL can only work in secondary education	8 (11.3%)	63 (88.7
ODL is for those who cannot do well in conventional education	5 (7.0%)	66 (93.0 %)
ODL for all	68 (95.8%)	2 (2.8%)
It is possible to learn technical subjects through ODL	53 (74.6%)	17 (23.9%)
OD Learners meet teachers at times	52 (73.2)	13 (18.3%)
Possibility of learning technical skills through ODL	54 (76.1)	16 (22.5 %)

The subsequent questions in Table 4.2 were basically posed to assess the learners' awareness on basic characteristics of ODL. From the results, 59% of the participants refuted that ODL is only for those who are working, but it is open to everyone in respective of their status. The students are aware of the freedom that open and distance learners have and this was supported by 83.1 % of respondents indicating that open and distance learners have an advantage of working at their own time and pace. Learners are aware that ODL can work at any level of education from primary to tertiary. Ninety three percent (93%) refuted that ODL is for those who cannot do well in conventional education and 95% of respondents admitted that ODL is for all.

The conclusion drawn from the findings of the survey indicate that technical college students are aware of some of the characteristics of ODL and the results show positive attitude towards ODL regardless of students experience in face to face. Technical college students do not regard ODL as a mode that is meant for failures. The results are similar to what Darley et al (2001) found, that students perceived the courses taught in face to face as being equal to what is taught on campus. Students are optimistic that technical skills could be learnt through ODL.

4.4. Attitude of learners towards learning technical skills through open and distance learning

Questions 21 to 32 were meant to source information about the attitude towards learning technical skills through ODL. Participants' response options were made using 5 point Likert scale. To assess responses to the statements related to overall attitudes of learners towards learning technical skills, the questions and responses are outlined in Table 4.3.

Table 4.3: Attitude of learners towards learning technical skills through ODL

ITEM	5	4	3	2	1
ODL in TVET can compromise the quality of education in technical colleges	6 (8.5%)	6 (8.5%)	3 (4.2%)	33 (47%)	23 (32%)
Possibility of learning any technical course through ODL	22 (31%)	30 (42.3)	5 (7%)	6 (8.5)	8 (11.3%)
Learning technical skills through other media i.e. internet/ computer	23 (32.4%)	23 (32.4%)	9 (12.7%)	7 (9.9%)	7 (9.9%)
Learning technical skills through ODL is difficult	5 (7%)	12 (16.9%)	13 (18.3%)	18 (25.4%)	22 (31%)
ODL can give chance to students of doing more practical work	14 (19.7%)	14 (19.7%)	20 (28.2%)	14 (19.7%)	9 (12.7%)
ODL can help increase access in technical colleges	14 (19.7%)	26 (36.6%)	14(19. 7%)	11 (15.5%)	6 (8.5%)
Can perform equally in ODL as in conventional	11 (15.5%)	36 (50.7%)	8 (11.3%)	9 (12.7%)	7 (9.9%)
Possibility of acquiring skills from the industry or community apart from college	25 (35.2%)	27 (38%)	6 (8.5%)	5 (7%)	8 (11.3%)
Possibility of attending face to face sessions once in a while	10 (14.1%)	35 (49.3%)	7 (9.9%)	12 (16.9%)	7 (9.9%)

From the responses in table 4.3, 79% (23+33) participants disagreed that ODL can compromise the quality of education and 74.7% of the participants thought that it is possible to learn technical skills through ODL. This is in line with what Idris (2010) found out that ODL can be used for a variety of learning situations: like basic, post basic, tertiary and

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vocational or even non-formal education. When asked if whether technical skills could be learnt through other media, about 64.8% of learners were optimistic about the possibility of learning technical skills through other media technology, for example internet, computers and other technologies while the some of the participants were not sure whether it is possible or not to learn technical skills through other medium and yet others totally disagreed that one can learn through other medium. Currently, there is a rapid development of ICT and more people are going towards getting more knowledge. This has created new challenges and opportunities for the design and delivery of education. By its nature, technical and vocational education is more of practical lessons, so with open and distance education, technology would play a big role in ODL as some of the practical lessons can first be demonstrated on video clips and then students could do physical practical work after they already seen on videos. From the responses, it is concluded that students realize the opportunities that ICT brings in education. The students in technical colleges see technology as something that could help them learn new things. In the world of technology, information is everywhere, people are not restricted to get information from teachers only. This is an opportunity for integration of TEVET with ODL.

When asked what they think about learning technical skills through ODL, although 56.4% of the participants were of the view that learning technical skills is not difficult, teaching of practical skills through ODL could be more challenging compared to teaching of theory. 37.4% think that ODL could give students chance of doing more practical work as compared to full time conventional mode. This could be because TEVET open learners would require on the job training sites for acquiring practical skills and work experiences which means they will inevitably require to be attached to the industry or to some experienced people who have the skills to guide them in their practical work. That support from human beings and machines, that will help them to indeed have more time for practical work. On widen access, 66.3% of participants were optimistic that ODL could increase numbers of students in technical colleges. Idris, 2010 indicated that for students, integrating TVET with ODL means increased access and flexibility as well as the combination of work and education. This is true because ODL is popular with its magic in providing the opportunity for the masses, giving chance to those disadvantaged because of time, space and distance and it also gives opportunity for the empowerment of those most disadvantaged.

Participants were asked if they thought they would perform equally in ODL as in conventional. Over 66% of participants were confident that their performance would not be

affected whether studying through ODL or traditional way and students perceived themselves performing equally in ODL as in conventional learning. The findings confirmed what advocates ODL indicate that there is no significant difference between learning outcomes that can be attained at traditional institutions and distance learning. Russell (2012) also found that there is equal performance by ODL students and conventional students and students from both systems have the opportunity of performing equally. ODL students, with support, and good learning materials could perform as good as their friends in conventional institutions, The only difference is just the mode of delivery.

Participants of this study identified the possibility of acquiring technical skills from elsewhere apart from the college. Over 73% recognised the community and industry as other places where one could learn skills from, apart from institutional colleges. It is good that students recognise the role of the community and industry in imparting knowledge and skills. ODL students could be attached to industries or to the skilled people in the community for attaining the competencies to perform at work place. The person would act as an instructor to provide the appropriate feedback to the institution on the performances of the learner. On study materials, over 60% agreed that learning can still take place given study materials and be meeting lecturers once in a while as they are studying through ODL. One of the big components in ODL is the study materials. Khrishnan (2012) also found that course materials and face to face sessions are highly important to students. Many researchers advise to have self-study materials that are of high quality and user friendly (Biscilia et al, 2002). Self-learning materials are very important in ODL. They comprise the course content, therefore students in ODL need to be self-motivated, they should acquire study skills for them to excel through the programmes. From the results, it is concluded that technical college students are interested in studying through open and distance mode. This is encouraging, since attitude is one of the driving forces towards achievement of any programme. It shows that students have a positive attitude towards ODL

4.3.   Preference for acquiring technical skills

Learners were asked to indicate the likely hood of them attending the same course they were pursuing through ODL. Their response ranged from moderately likely to extremely likely. The pie chart below shows the learners responses.
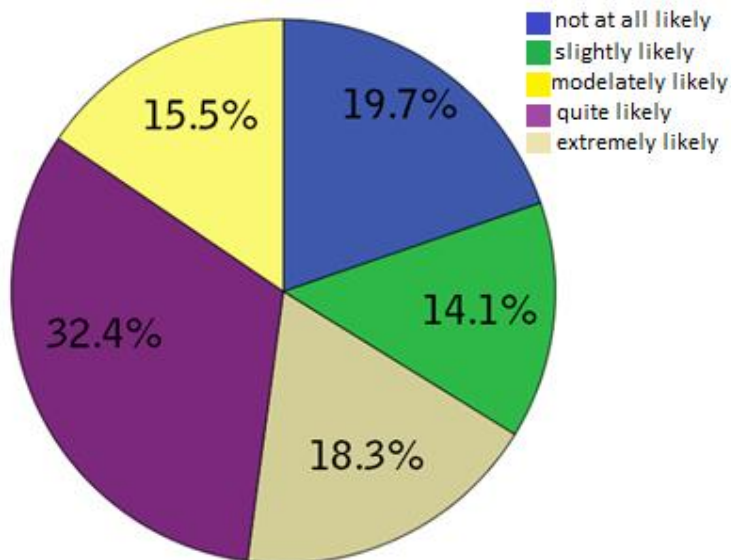
Figure 4.1: Likelihood of attending the same course through ODL

From Figure 4.1, the opinion and perception of participants on the likelihood of attending the same programmes they are enrolled into through ODL were that they wouldn't lose that chance. It is concluded that students in technical colleges do not mind doing the same course through ODL given that chance; they would quickly grab it and take the challenge. Although they responded positively on the likelihood of doing the same course through ODL, 73.2 % confided that they would prefer learning through face to face. These contradicting ideas are nurtured because many students are used to face to face mode, and the fact that ODL is not introduced yet in technical colleges, they were not sure of how ODL could be used in Technical colleges. Therefore, it is difficult to appreciate a thing that one has never used.

There was a follow up question in which the researcher wanted to find out the reason for the learners' choice of preferred mode. This question also helped in gathering qualitative data. The responses were coded and the researcher came up with the following themes: immediate feedback and human interaction, resources and interaction with fellow students.

4.4.1. Immediate feedback and human interaction

The majority of respondents indicated immediate feedback from lecturers as the main important thing they prefer face to face to ODL. Some of the responses were:

R 22 ......*'it is easy to ask questions directly to the lecturer whenever I am in doubt'*.

R50 ...... *'you get instant help from lecturers'*.

R43 ...... *'you get support from teachers when in dilemma'*.

R 13…... *'concepts are clarified easily and effectively by lecturer and I easily understand ideas'*

The responses show that learners are motivated by immediate feedback they get from lecturers. Students' enthusiasm is also uplifted when they meet lecturers daily. They are motivated to learn the content they are given by their lecturers. Here are some of the responses from learners.

(R10) ………. *'You get sound information about the programme in face to face'*

(R65) ……… *'it is easy to understand concepts'*

(R67) ……. *'easy understanding of technical words'*

(R64) …….. *'encouragement from lecturers'*

R57 ………*'increases enthusiasm amongst student'.*

R46………. *'One needs to be taught directly through face to face and I think ODL can work for those with technical background knowledge'*

R39...……. *'y*ou get full attention from lecturer and they easily monitor learner progresses.*

The other issue that came out frequently is the interaction among students. Learners emphasised the importance of group work. R34 wrote that 'sharing *of ideas with fellow students is easy'.* R29 said *you have enough time for interaction with friends and lecturers.* Several respondents indicated that it is easy to do group work in face to face. Group work can also be organised in ODL whereby learners meet their fellow learners either in study circles or they can meet during face to face sessions.

Students clearly show their appreciation of human presence in the process of teaching and learning. Fortunately, ODL respects the importance of human interaction by incorporating a component of face to face in ODL where learners are required to meet lecturers once in a while. This finding is in line with what Mishra (2012) mentioned about establishing study centres, which are used for tutoring an individual student or a group of students as one way of interacting with learners. Human interaction saves students from the feeling of loneliness that most of ODL students suffer from. In order to have a successful ODL, it is advisable to have student support services well established and especially because technical colleges have more courses that are practical in nature, the human interaction is inevitable.

4.4.2. Access to learning resources

As far as the preferred mode of delivery is concerned, students preferred face to face because of easy access to resources for practical lessons. Students indicated that in face to face sessions, one is exposed to resources that are available at the college, unlike when the student is separated from college, participants expressed doubt on how a student who is separated from college would have access to the workshop and other learning resources. However, Keith (2012) said a well-designed curriculum will lead naturally to the acquisition or development of appropriate learning resources. Respondent R34 pointed out that 'there *are heavy machines at college and the lecturers guide students on the use of these machines that can only happen in face to face'*.

The responses show that students are in doubt of how practical lesson would be conducted through ODL, but Ochiwerei, et al (2013) indicated an alternative to access of learning resources like video demonstrations and online simulations. These could show how to do something, provide cost-effective practice with feedback, and thus decrease the time necessary to work with the real thing but cannot fully replace the benefits of working with actual equipment and tools. They further indicated that distance learning also supports learning in workplaces where the equipment is being used, and ICT can enable learners and workplace assessors to demonstrate competence using various techniques, such as online interviews and audio or video recordings.

On the contrary, 35.2 % of the respondents preferred ODL to face to face, This qualitative data collected were categorised in terms of flexibility, experience, new technologies and economic value.

4.4.3. Flexibility

Flexibility in ODL was mentioned highly as the reason for preferring ODL to face to face mode. Respondents indicated that ODL gives one enough time for study and do practical work. Some of the responses were:

(R26)………. 'More time for practical work in industries and will gain more experience'

(R54)………… 'You do more things because you have enough time at home'.

Many respondents praised the flexibility of ODL especially on attending to other tasks while studying. One cannot be restricted to be on compass for a specified period while other things are not attended to at home. Some of the responses that were given are outlined as follows:

R8… '*more time of reading and understanding concepts, studying and doing other things'.*

R5……….. '*ODL gives chance of working while studying.*'

R63……… '*more time for practical work and do other things.'*

From the responses, it shows that students perceive ODL as a mode that offers enough time for doing practical work outside the campus. Students further said that ODL will give them chance of learning new things and new technologies that are being used in the industry. They also believe that the use of different medium of communication will open up the opportunities of learning new ideas from other countries and definitely they will be updated with new technologies in the industry. Below are some of the responses from learners:

R60 …'*wide experience and will find a lot of knowledge through reading and googling   and do more practical work'.*

R2 ……..'*You meet different kinds of study materials and do practical as the technology grows'.*

R 66 …….'*more time for practicals means vast experience'.*

From the statements, students expect that if they were to study through ODL, they would achieve vast experience and gain the required skills. They attributed this to the time they would have for practical work. The use of technology in ODL would expose students to vast resources from the internet and other sources rather than waiting for their teacher to give them information. This is supported by the World Bank report (2012) that stipulates that the primary benefits of open and distance education are increased flexibility and reduced opportunity costs for the trainees and employers and efficiency gains for technical / vocational training systems resulting from decreased institutional training time.

4.4.4. Economic Value

Learners contemplated that ODL is economic considering that in ODL, there is no need of moving from their homes and camp at an institution. This means no boarding fees and no pocket money and other expenses that accompany boarding schooling. In Malawi, technical colleges are designed to accommodate specific number of students. Selection depends on spaces that are available in the schools. R32 said that '*No need for more money for one to learn.'* This means that one has to pay for tuition fees but for boarding fees and other expenses accompanying boarding facilities will be trimmed. ODL is also economic when it

comes to numbers, the government can save enough if those to study through ODL are large in numbers. However, the cost of the design and development of learning materials can only be recouped if the materials are used by enough learners (Jeong, 1999). According to Cadler (2001), governments today increasingly see education and in particular TVET as having the key role to play in the economic success and social stability of a country. ODL can benefit both individuals and the government.

There were series of questions to guide the learners' opinion on their preference of acquiring technical skills. The learners were asked to respond to basic questions concerning basic characteristics of ODL. Figure 4.4 is a table with the summary of the responses which were made using a 5 point Likert scale

Table 4.4: Students learning preference for acquiring technical skills

ITEM	SD	D	NS	A	SA
Prefer learning technical skills through face to face	9	7	3	24	28
Preferring learning at owns pace	19	10	5	27	10
Comfortable learning technical skills through ODL	10	20	4	23	14
Would prefer using internet or phone to Communicate with lecturers	21	15	3	24	8
Learning with minimum guidance from lecturers	16	19	7	23	6
Preferring meeting lecturers daily	14	12	7	9	29

From the results, 73.3% of respondents prefer learning technical skills through face to face. Researchers recognized that human presence is very important in ODL, as it is a way of reducing the loneliness that students feel when they are studying through ODL. The Vocational Open learner inevitably needs the support of human beings to assist them to perfect the skills required. It is concluded that although students are confident that ODL could be integrated in TEVET they also have doubts especially on how practicals could be achieved. With a good learner support structure, and availability of ICT and a combination of face to face sessions, learning of practical skills is possible. Fifty two percent of respondents prefer working at their pace. In ODL, students are given chance to work at their own pace, considering that most of the students who enroll in ODL have multiple tasks. ODL does not encourage strict timetables, students work at their own space and pace. When asked if respondents would be comfortable learning technical skills through ODL, 42.3% indicated

that they would be comfortable learning through ODL though the majority would prefer face to face. This means that if given chance to study through ODL, they take up the challenge positively rather than staying home. Respondents were positive about the use of internet during their study as 50.6 % indicated that they would prefer using the internet during their study period. Only 40.9 % of respondents indicated that they would prefer working with minimum guidance from their lecturers and 49.3% would seek close guidance and supervision by the lecturers. From the responses, it can be concluded that some students enrolled in technical colleges are self motivated and there is potential in technical colleges that if they open up for more learners, some students would be willing to work with minimum supervision, and they would be willing to use the technologies for their learning. In ODL, technology is much used as different platforms are used for interaction i.e moodle platform. This can be taken as a positive development that there is potential in technical colleges that learners would do the courses through ODL. For them ODL, will give them space and other freedom.

4. 5.   Utilisation of ODL in technical colleges

The researcher wanted to find out if students think that ODL could be utilised in technical colleges parallel to conventional face to face mode and 48 out of 71 (67.6 %) of respondents perceived that it was possible to utilised ODL in technical colleges. There was a follow up question in which the researcher wanted to get an insight of the reasons for the respondents' answers. This question helped the researcher to collect qualitative data from respondents as they were free to express their attitude towards ODL. The responses were coded and the following themes came out from the responses: Increased skilled labour, time, increase access and independence.

4.5.1.   Increase skilled labour and access to programmes

Findings from the question gave an additional insight about the positive perception that students have towards ODL. Some students observed that ODL in technical colleges would increase skilled labour in Malawi. R1 observed that *ODL can increase number of skilled labour*. R2 was confident that *technical skills can be increased*.

Many respondents indicated that ODL would boost enrolment in technical colleges, as more people would be admitted into various programmes through ODL. There is evidence that number of students enrolled with TEVET to pursue different courses in technical colleges is determined by the number of spaces available in the colleges. It is also clear that a lot of prospective students apply for courses in technical colleges but only a few are considered for

enrolment see chapter 1. ODL being flexible and does not consider the geographical distribution of its learners, and other characteristics of ODL would help in increasing access. Here are some of the responses from students:

R4 ……... *enrolment will be increased and many will have a chance of learning.*

R9……. *'More people will have access to education even those living in villages'.*

R 37…… *'those who fail to secure a place in technical colleges will have chance and ODL 'could reduce number of youths doing nothing'*

Universities hope to save money by delivering education to students that are unable to attend classes because of time or distance. The theory is that class size increases while the overhead remains the same. Bollag and Overland (2001) say that developing countries are turning to state run distance education programs to take the place of ever increasing enrolments and a lack of physical building space.

R39 concealed that *(ODL) will provide access to more students in approved institution.* There is high demand of education and skills acquisition in the country and this has led to rapid births of briefcase colleges in the country which are not credible. The accredited institutions have limited spaces, so people opt for private institutions which are not reputable at all. Therefore, opening up for open and distance learning in these institutions will save the country from bogus education. It is said by Dambudzo (2013) that ODL would help acquisition of relevant skills at least cost without disrupting their ordinary working and family lives. Countries need to do more to clarify policy on the subject, and lend support to the initiative for its success.

Atchoarena et al. (2001) observed that workers need the training before joining the labour force and also need in service training to maintain up to date skills. If introduction of ODL would improve the access to technical colleges, then more people would be trained before joining labour force. In this case, ODL would even give chance to those who are working to upgrade and be trained while on the job.

4.5.2. Utilisation of time and space

Respondents perceive that in ODL time would be utilised fully by both teachers and students. R12 indicated *that other people don't have time and chance of attending normal classes'.* Many people are deprived of education due to barriers like their geographical allocations, age,

work, other commitments like attending to other tasks at home, for example, females taking care of the family by doing house chores and nursing babies.

R34 indicated that *more work will be done because time will be utilised fully.* Backing up this R17 indicated that *the schools can be used for ODL during holidays*. This is substantiated by Rowntree (1992) in which he indicated that the emphasis of ODL is on opening up opportunities by overcoming barriers that result from geographical isolation, personal work commitments or conventional course structures which have often prevented people from gaining access to the training they need.

4.5.3. Independence

Respondents hailed ODL as a mode that would give learners independence. There is no fixed timetable, one would choose to be working while studying and make decision on when and what time to read. Some of the responses from learners are outlined below:

R70:   ' *hard working spirit will be cultivated as students will be independent'*

R68:   ' students will be more responsible, will gain more skills and no dependency'

In ODL, learners are responsible and independent and learning is more individualised, learner centred approach take place. It takes the initiative of the learner to learn unlike in traditional face to face.

There were responses that showed negative perception towards ODL. Respondents who nursed these perceptions responded that ODL could not be utilised in technical colleges. Respondents were concerned about the absence of human presence, time limitation on interaction with teachers, quality of education and the perception of students. 32.4% of the learners were of the view that ODL could not be utilised in technical colleges.

4.5.4. Absence of human presence

Some of the responses from learners indicated that it is not possible to utilise ODL in technical colleges. Below are some of the responses from learners

R13………'*there are more practicals involved in technical colleges with guidance from lecturers, that can only be done during face to face.*

R56……… 'it is easy to understand concepts in face to face session'

Some learners also felt that it is not easy to learn or gain skills through ODL as R19 responded that *'more experience can be gained through face to face alone'.*

R40…… 'Some practical skills need to be demonstrated by the teacher, so ODL cannot work'.

R32…….*it will be difficult to communicate with others who are doing the same course.*

R51…… '*Need for interaction between teacher and learner to boost knowledge'.*

From the responses, it shows that human interaction is very important in learning. Since learners have a diversity of learning styles, some understand better when they see, when others touch and others use feelings so teachers need to think of all these varieties in order to accommodate all learners. The beauty about ODL is that there is this human interaction which is included. Learners have to meet their teachers once in a while to feel that gap that is there between the learners and their teachers. It was also discovered that distance learners feel lonely, they need to meet teachers and fellow students to encourage each other and discuss some issues.

4.5.5. Quality of education

Learners pointed out that the quality of education standards may be compromised if ODL is to be introduced in technical colleges. Some responses were:

R 50 ……'*ODL will bring problems to other students as we depend on each other*.

R48……. *'there is slim opportunity of gaining experience through ODL. Materials involved are expensive, ODL will comprise quality of education that one gets at college,'.*

The learners think that ODL could compromise the quality of education, for them the quality can be achieved from college through face to face. This may be because learners are used to traditional teaching but research suggests that the effectiveness of distance learning is based on preparation, the instructors understanding of the needs of the students, and an understanding of the target population (Omoregie, 1997).

4.5.6. Time Management

Time was mentioned as one of the reasons why students think that ODL could not be utilised in technical colleges. Students were of the view that it would be difficult to manage time.

R30……. '*Those with other commitments apart from study, may find it difficult to concentrate, they will be busy attending to their businesses and fail exams.'*

R58…… ' *time will be limited in terms of practicals*.'

R60 ……. ' *there is need for more time and ODL students will have less time of interaction so that may affect their education*.'

When time is lost, it will never be gained; it is important to manage time all the time.

4.6.   Challenges in ODL

This is another question that brought qualitative data in this research. Learners had divergent views on the challenges of ODL if introduced in technical colleges.   The responses from learners were coded and categorised in the following themes: Time, distance, perception, quality and materials.

4.6.1. Time Limitation

Some learners believe that time for practical sessions, group work and other discussions will be a big challenge in ODL. Some of the responses from students are outlined below:

R52 stipulated that……. *No enough time for group work, discussions and time for meeting lecturers is limited.*

While R38 indicated that   *management of time for study and doing practical lessons will be difficult in ODL as learners will have chance of making decisions on when to study and what to study* Some learners also thought that time would not be enough for their lecturers as R28 said that '*Time to attend to each student will be a challenge'*. R52, 'Teachers *will be over loaded with work and would not manage to combine conventional and ODL'*. Hardy and Boaz (1997) found that compared to most face-to-face learning environments; distance learning requires students to be more focused, to be better time managers, and to be able to work independently and with group members.

4.6.2. Appropriateness and Efficacy / Quality of education

Distance education is generally regarded as most appropriate for post-secondary technical level studies rather than manual skills at the vocational level (World Bank, 2012). Learners are of the opinion that only theory can work in ODL and not practical work, and some are afraid that if ODL is introduced in technical colleges, '*people may think that those teaching ODL are not educated enough'* R33.

R8………... '*Learners in ODL will lack knowledge and skills and there will be poor communication …*'.

Some learners expressed the fear that ODL could compromise the quality of education standards in technical colleges. R29 expressed the fear of meeting a mentor who does not have enough experience that will comprise the quality of education.

R36 said that quality *will be compromised because lecturers are not enough in the colleges* and R50 echoed that quality can be compromised while R55 argues that *ODL can bring the downfall of learning skills in technical colleges, and technical skills cannot be acquired through ODL.* The findings are in line with what Cadler (2010) who found that there is a challenge in provision of manual / psychomotor skills but this can be overcome through blended program models that incorporate practical workshop-based components.

Learners also mentioned the challenge on the media that are used in ODL for example, computers, internet television and other electronic gadgets that may be affected with persistent power blackouts. Here are some of the responses from students:

R 25…… '*Black out and network failure may compromise the quality of education'.*

R66……. '*quality and quantity of content will be less in* ODL'.

R68………. '*it is difficult to gain knowledge and skills through ODL'.*

R1 …….... '*most challenges will come when doing practical work student s will lose focus and in retain gain few skills'.*

R69…….... '*Poor quality of education'.*

R 61…….... 'Failure *of exams'.*

R4 ……… '*Students may lose focus and make themselves busy with other things*' stated'.

R48………. '*Network breakdown communication'.*

 R25……. '*black outs and network failure'.*

From the responses, it is clear that learners have misconceptions that ODL is an inappropriate methodology for imparting vocational and technical skills. Their responses may be because they are used to conventional way of education and they believe that learning or acquiring of skills can only be done through face to face. They also believe that quality of education standards can be accomplished through face to face. They are also afraid that they will be taken as second class, anything associated with ODL is of low quality. Research indicated that

another challenge is that of social acceptance of ODL products. If the programme is not accepted, it becomes a problem.

4.6.3. Scarcity of resources

Learners expressed a concern that ODL could have challenges of resources like materials for workshop practices, human resources, learning materials and even financial resources. Some of the responses were as follows:

R24……. '*Scarcity of materials for practicals'*.

R18………. '*Learning material shortage in the workshop'*.

R56……… '*Lack of supervisors, to supervise practical work'*.

R20 ……... '*funding problem'*.

Scarcity of resources is the general challenge in technical and vocational training. There is need to have enough resources in order to have an effective ODL in technical colleges.
Learners are scared if in conventional schooling they face challenges of material, human and financial constraints, what will happen in ODL. The other issue could be that learners feel that ODL being open and that more people would enrol through ODL, the materials would not be enough for all learners. In technical colleges, it is characterised by the shortage of resources ranging from human to materials. So, increasing the intake means scrambling for resources. To avoid these challenges, a special arrangement with the industry can be made. Manual skills components can be provided within traditional institutional settings or, as in the case of models established in New Zealand, the U.K., Canada and Australia, within the workplace in partnership with employers and industry bodies. This may minimise the challenge of materials, finance and human resources in technical college (World Bank, 2005)**.**

4.7. Advantages of ODL

Learners outlined a number of advantages of ODL and their responses were categorised into the following access, acquisition of new skills, time, improved quality of resources and independence.

4.7.1. Increased access

Some participants indicated that if ODL is to be used in technical colleges there would be a creation of spaces in colleges, therefore, more people would have access to education. Learners agreed that those working but without certificates or want to upgrade would have

chance of studying and acquire the certificates through ODL. More young people would be employed after acquiring skills through ODL because many are left out due to lack of bed space in colleges. Some of the general comments from the participants were:

R 36……… 'more *people will have chance to learn*. R 50, *ODL will give chance to those willing to learn.*

R 46……… 'those *working will be able to pursue with the courses of their need'.*

R 3………... '*more access, more people will be independent'.*

R33………. '*give chance to many people to access education, hence reduce poverty, increase employment rate'.*

R30.….….... '*there will be reduction of congestion in classroom and workshops'*

R9………… '*many learners will be enrolled to gain skills therefore mor*e *skilled labour'*

Learners stipulated that ODL have the capacity of increasing access in technical colleges. Many school leavers apply for the courses in different colleges but they are not picked because of limited spaces in these colleges. Distance education is believed by many to hold promise in addressing critical problems facing skills development at present, such as the need to greatly increase the delivery of skills training on a wide scale, and the need to deliver training at much lower unit costs owing to constraints on financing (World Bank, 2005).
ODL seems to give hope to the scenario at hand. More people, those eligible candidates will have chance of acquiring skills through ODL; no need to leave their homes and their jobs for them to study.

In their article, Bollag and Overland (2001), say that developing countries are turning to state run distance education programs to take the place of ever increasing enrolments and a lack of physical building space. As a result of this shortage of places in African universities, many qualified candidates turned their search for tertiary educational opportunities towards other educational structures including, ODL institutions (Biao, 2012).

4.7.2. Gain of new skills
Some respondents foresee ODL as an opening door to the world and new technologies.
 R24 indicated that *new skills, new technologies can be learnt through ODL.*
R2 wrote '*more knowledge will be gained through ODL.*

R58 indicated that *more practical work will be acquired.*' R66 said that *'more skills will be learnt'*. R11 indicated that 'more skills/new skills will be acquired will keep students updated of the new technologies in the field.'

R64, indicated that 'more new staff will be learnt and people will be independent that will improve employment rate'.

R38 cited that 'more time for practical work which means more experience. R1 'more skills and new skills will be learnt and practiced.'

It is clear that learners have expectations that ODL will offer new opportunities in their learning that is to say if they are to be engaged in industries they would be updated with what is happening in the work world. There is an element of using other technologies in ODL that can also bring new ideas, as learners are searching for information on the internet, they would be discovering new ideas and new technologies about their trade that would keep them seasoned and these could make them compete at an international level.

4.7.3. Quality Improvement

Learners who participated in this study specified that ODL will give chance to students of learning more from the industry as R26 stated that *ODL will give learners more chance of learning practical work in industries and* R19 also said *quality of education will be improved.* It is presumed that as the learners spend more time in the industry, they will be mentored by those people who have hands on experience which means by the end of a particular internship, students will have a hands on experience therefore the quality of the graduates will be improved with skills.

4.7.4. Flexibility in terms of time and independence
Time

Time factor was mentioned as an advantage of studying through ODL. Here are some of the responses.

R 66……. "more time for other personal issues"

R2……… "more free time for study and doing other things"

R 8……… "more time for study"

R3………. "time will be saved for other things"

R52………. "will give time for research and study"

R46……. "more time for theory".

The responses indicated that time is regarded highly by respondents in ODL as an advantage, the fact that learners leave their homes and go for studies does not mean that each and every hour allocated for classes is used or they meet the teacher each time. Sometimes they find themselves lingering around the premises with nothing to do. The same time if they were home or at work could be utilised by doing other things like farming or doing piece work or any other activity that could help in the development of their community.

Independence

Indeed, in ODL there is independence in terms of where and when one wants to study. It could be in a train, on a mountain, at home or at work that would depend on the learners' independent decision.

R63 indicated that '*ODL gives freedom of learning without disturbances'*. R57 asserted that, '*one can work while studying* and R37 alluded to that '*ODL gives advantage of studying what you want'*.

In ODL, learners choose what they want to study. For example, one is not restricted to study all subjects at once. Any ODL institution should have a provision that learners should study components considering that many of them have other commitments.

Resources

Learners indicated that in ODL, materials would be used to the maximum. That means if ODL is to be used parallel to the traditional classes, the materials like workshop equipment would not be underutilised. This means that during holiday, when traditional classes are on holiday, the workshops could be used by ODL learners to do other practical work instead of leaving the equipment's idle. Students' responses were:

R46…….. '*resources will be used to the maximum'*.

R68…….. '*students will be encouraged to work hard since lecturers will not be close to the learners'*

It is true that ODL could encourage students to work hard. They give themselves time to study knowing that there is no teacher to spoon feed them with information.

4.8. Opportunities for ODL in technical colleges

The researcher wanted to find out practices in technical schools that could be opportunities for the establishment of ODL. A series of questions were asked pertaining to use of notes or handouts, frequency of meeting lecturers, use of computer, internet and short messages as modes of communication with the lecturers. It was disclosed that 66%of students are given notes or hand-outs by their lecturers. The results show an opportunity that learners can also study any self-learning study materials in ODL.

When asked how frequently learners meet their lecturers, 60% of learners indicated that they meet lecturers 2-3 days a week and this shows that students do not meet their lecturer the rest of the days. As such, it is possible to arrange for specific days to meet lecturers.

The researcher wanted to know if learners have an opportunity of using computers, internet and SMS to communicate with their lecturers. They indicated that 21% use a computer at least 5-7 days a week, 14.1% indicated that they use 3-2 days a week and 29.6 % indicated that they use it once in a week. On the use of internet, 47.9 % indicated that they always use the internet and 26.8% indicated that they rarely use it. This means that students in technical colleges are already exposed to the use of the computer and the internet so they can be oriented on how to use the same for education purposes.

Again, the students were asked if they think they could learn technical skills from elsewhere apart from the college, 88 % of the learners were optimistic that they could learn technical skills anywhere apart from college. They mentioned industry (47.9%) as the main source of skills development followed by the community (21.1%), home 16.9% and internet was the least with 2.8% of respondents. It was also agreed by 77.5% of students that during their time of study, they were attached or would be attached to the industry for practical.

Students were asked if they find notes from the internet, 73.3% confided that they find some notes on the internet. In technical colleges learners also use group work as a teaching and learning method this was shown by 84.5% of respondents who indicated that they do group work with classmates. Further, the researcher wanted to find out if learners use the internet and SMS to submit their assignments, 80.3 % denied that they submit assignments through the internet and 49.3% denied communicating with lecturers through SMS. This shows underutilisation of technologies as mentioned by Biao (2012) as a challenge concerns the low level of utilisation of Information Communication Technologies (ICT) within the area of ODL in Africa.

4.9. Summaries of the findings

From the discussions above, it is imperative to summarise that TEVETA should open up to use ODL in technical colleges in order to increase access. Lecturers in technical colleges should be trained in technical and distance learning philosophy. The National technical colleges can serve as a starting ground for giving technical and vocational education through ODL. TVET through Distance education can be more attractive by providing the students with the required resources for training, for example, latest equipment and trained personnel, among others. The industry can work together with technical colleges and distance education institutes for providing hands-on experience vocational courses and programmes.

ODL is regarded as a way of increasing access in technical colleges. It is known that technical colleges are hit by inadequate resources and space is very limited, that only a few who qualify for admission are given chance of studying in these colleges. If ODL is introduced, it would save time of many students who would prefer working while studying.

From the findings, students show positive perception towards ODL in technical colleges, as observed by other writers earlier on, perceptions and attitude could influence the acceptance of the newly introduced education programme. Lesson learnt from the findings is that ODL could be accepted by students in technical colleges, therefore introducing it in technical colleges could be received by students.

CHAPTER FIVE

CONCLUSIONS AND RECOMMENDATIONS

5.1.   Introduction

This chapter discusses how research objectives were achieved. It starts with an overview of the research findings, followed by the discussion in on the contribution the research has made to the theory and practice, recommendations for further studies then suggestions for the future.

5.2.   Overview of the findings

The objectives of the research were outlined in Section 1.5. The main objective of the study was to assess the perceptions of students on the use of ODL as a mode of delivery in technical and vocational education and training programmes in technical colleges. In addition to the main objectives, the study also had sub objective which also needed to be addressed. The first objective was to determine the students' awareness of ODL. The second sub objective was to determine the students' attitude towards learning technical skills through ODL. The third was to find out the students' learning preference for acquiring technical skills and lastly it was to determine the possible challenges of ODL in TVET.

Based on the focus of the research, the results of the study revealed that students have positive perception about ODL being integrated with TVET. The results further revealed that students perceive ODL as being flexible in terms of time, space, and pace at which one studies. Literature shows that in ODL constraints on study are minimised in terms either of access, or of time and place, pace, method of study, or any combination of these (SAIDE, 2003). It is therefore concluded that ODL is not a new phenomenon to technical college students. The results further revealed that students are aware that ODL can be offered at any levels of education and ODL is not of second class or for failures. Students also are aware that in ODL, students only meet their teachers occasionally as opposed to conventional face to face. Students were optimistic that one can learn technical subjects and acquire technical skills through ODL. This can be concluded that students have a positive attitude towards the use of ODL as a mode of delivery in technical colleges.

On the issue of quality, the analysis revealed that students regard ODL as important and of quality as the conventional system. It is encouraging that students have positive perception about ODL. Students were also aware that they can acquire skills from the community, industry apart from the college. Sixty-six percent of respondents were of the view that their performance cannot be affected if they were to study through ODL the same course they were studying. This shows that students are aware and have confidence that content taught in ODL is the same content they would learn in conventional education (O'Malley, 1999).

Students perceive ODL as equal as face to face conventional learning despite their specific distinctions in their structures. This might be because of the birth and growth of technology in the country, it can be concluded that the attitude towards the use of technology in education is being accepted little by little. It can be concluded that students see ODL as another viable opportunity for offering TVET and skills development.

The results also showed that despite learners' awareness about ODL and their positive attitude they displayed towards learning technical skills through ODL, they still feel face to face is very important in learning. The survey revealed that immediate feedback from the lecturers, the human interaction that is always there when doing face to face, the interaction amongst students, the availability of training resources is one of the reasons for learners' preference of face to face. It can be concluded that face to face sessions in ODL are very important to students. When designing an ODL programme, it is advisable to include student support services that would help learners in their study just to make sure that they find alternatives of what they like in conventional face to face. That means ODL programmes should deliberately include face to face sessions on their schedule. Students perceive face to face as an important element in the process of teaching and learning. The responses of students might have been affected by their experience because ODL is not introduced yet in technical colleges so students are only familiar with the long-time tested conventional learning. For ODL to be effective in technical colleges, it should include a component of face to face which will help to minimise the gap in ODL that is created between the lecturer and students.

Students mentioned the importance of training resources if ODL is to be established in technical colleges. They said students would be studying through distance away from college which means away from teachers, workshops and other learning resources. It is important to note that training resources are of primary importance regardless of the mode of delivery whether ODL or face to face conventional. Training resources should always be available and

be accessed by all learners. In ODL, an arrangement should be made to make sure that learners are accessing the resources for training in order to acquire the skills at a particular level.

In terms of pace of study, 52 percent of students' respondents confided that they would prefer working at their own pace. About 42.3% of the students involved in this study said they would be comfortable learning through ODL while 50.6 % indicated that they would prefer using the internet during their study period while 40.9% would prefer working with minimum guidance. Based on the analysis, it is concluded that students from technical colleges are positive about the packages in ODL. Many students would prefer using basic strategies used in ODL comfortably; this is a sign that ODL could be attractive to the students. This implies that there is potential in technical colleges that learners would also learn through ODL if introduced in technical colleges.

When asked on the feasibility of ODL in technical colleges, the results show that 68% of learners perceive ODL as a venture that can utilised. Students were of the view that increased skilled labour, proper utilisation of time and independence are the main reasons ODL could be utilised in technical colleges. There is a growing body of literature highlighting the potential for open, distance and flexible learning (ODFL) approaches to increase access for marginalised students (Unnterhalter, Hopperss, & Hoppers, 2000). The implication is that increased access means more people trained in TVET then increased skilled labour in the market. According to Dambuzo (2012), decision makers see ODL as a realistic way of extending TVET to a much wider public. This can be concluded that ODL can also help increase numbers in the technical school. TEVETA can improve on the numbers they enrol per year (Table1.2). Students perceive increased access, improved quality, flexibility and independence as the advantages of ODL. On the other hand, some students had a different opinion totally on the use of ODL in technical colleges. Time limitation for face to face sessions, quality of education to be offered and scarcity of training materials are some of the challenges that students anticipated if ODL is to be used in technical colleges. It can be concluded that some students have negative attitude towards the use of ODL, they think that ODL is second class, this idea is mostly hosted by students because they have never tested ODL in technical colleges.

The results also revealed that access and the flexibility in terms of time, space and geographical location of students which ODL can offer as the main advantages of integrating

ODL in technical colleges. According to Lama (2012), TVET institutions can respond to the different training needs on learners from different socio-economic and academic backgrounds, and prepare them for gainful employment and sustainable livelihoods. Therefore, it is imperative that the ODL be integrated with TVET because of its capacity to provide education of comparable standards in a flexible and learner friendly manner, particularly to those who could not get access to the formal system of education and the un-reached group. Looking into the trends of education in Malawi, the role of ODL is seen to be very significant for the socio-economic development of the country. Many people are enrolling in different institutions that are offering ODL in Malawi. This shows that ODL is no longer considered as supplementary form of education in comparison to the traditional mode. Distance education institutions have a greater responsibility of producing a large number of productive human capitals in the world over. It has the power to empower the youth of the society, irrespective of their geographical location of residence or any ethnic origins.

5.3. Contribution to theory and practice

The research was conducted to consider the perception of students towards the introduction of ODL in technical colleges. As stated in the literature review (Section 2.1) more often perception of the DE learning system in the instructional process is influenced by an individual's belief about the advantages of DE for him/herself as a student, teacher, policy maker or employer. The findings of this study have added knowledge to TEVETA and education system as a whole especially on how technical college students think about the introduction of ODL as an alternative mode of study apart from the most popular traditional face to face. The participants spoke not only about how ODL would increase access but also on the freedom and flexibility that ODL bring to learners. The findings have brought in new knowledge in education sector on how students are harbouring the positive perceptions towards ODL being integrated in the teaching and learning of technical skills. The results have implications for TEVETA, curriculum developers, ODL practitioners and all concerned in skills development, it is time to think of ways of increasing access in technical colleges by utilising the same resources that are already available in the institutions. If ODL is to be utilised in technical colleges, the implication is that many school leavers will be trained in skills development rather than being overflooding in the courses that encourage white colour jobs. The youths would be self-dependent if equipped by skills, they can venture into small scale businesses instead of waiting for someone to employ them. The study has also revealed how students wish to be studying while working. This may give chance to those who are working to upgrade without necessarily abandoning their jobs. The research will help

TEVETA to strategize on a more convenient and less expensive way of multiplying numbers of trainees without necessarily compromising the quality of delivery.

The research will make educators and policy makers to engage in the reflection on the integration of ODL in technical colleges and help in curbing some of the challenges faced in technical colleges in Malawi. The study informs stakeholders on the importance to adopt ODL as a mode of teaching and learning to ease the challenge of access to technical colleges. It has also added knowledge to distance education institutions to include or not include technical subjects when developing self- learning materials. The information will also lead to further research in ODL in technical and vocational education (SAIDE, 2003).

As seen in the findings, then the introduction of ODL in technical colleges would mean increase in access. TEVETA need to reflect seriously on the use of ODL in giving the opportunity for training idle youths who are in the communities to be independent and engaged in entrepreneurial activities to sustain their lives. The study provides rich data to improve on the mode of study in technical college to reduce the unbalanced demand and supply of education in technical colleges. The study provides ideas that can shape the understanding of teachers and curriculum developers by knowing the perception that the students hold towards the introduction of ODL in technical colleges. The study also gives insights into the teaching and learning preferences of students and their ideal way of learning technical skills. The research has revealed that ODL can be utilised in technical colleges may be because of the growth of technology which is promising the future of ODL.

5.4. Recommendations

Based on the findings, the researcher made these recommendations that could inform the TEVETA and ODL practitioners on perceptions of students towards the introduction of ODL in technical colleges. It is strongly recommended that TVET should be integrated with ODL in technical colleges that will provide solutions to address some of the challenges that are faced in Malawi technical colleges such as limited access in skills acquisition among others. Therefore:

- TEVETA should carry out an assessment study on the needs of students with respect to use of ODL in technical colleges
- TEVETA should engage experts in ODL and TVET to map the way forward on how best ODL could be integrated in technical colleges to improve access.

- If ODL starts, TEVETA should work with distance education institutions to build capacity of its staff through training of technical college lecturers on teaching and learning through ODL in TVET

- A similar study should be carried out in order to assess the perception of lecturers in the use of ODL as a mode of delivery if introduced in technical colleges

- The colleges should encourage learners to use the available ICT facilities that are in technical colleges so that students be familiar with the facilities

- Training resources should be made available so that if ODL is to be introduced, both ODL and conventional students should have access.

- If Malawi economy is to improve, it is imperative to invest much more in technical and vocational education. Educators, policy makers should consider integration of ODL with TEVET as a way of increasing access to colleges and increase numbers of skilled labour in the country.

5.5.   Suggestions for further research

In future, the study needs to be replicated using other colleges in order to find out the perception of the students towards the introduction of ODL as a mode of content delivery. This will help to find out whether similar findings would be arrived at. It is also suggested that a sample should be drawn in which there will be equal numbers of students from all trades so that a congruent conclusion can be drawn on who have positive perception towards ODL in technical colleges amongst the trades. It is recommended that an interview guide be used to collect data to supplement the questionnaire in order to validate data.

5.6.   Evaluation of the study

The study has been informed by students from Soche, Nasawa and Lilongwe Technical Colleges only, as the researcher considered them conveniently located to her. Therefore, it is not appropriate to generalise the findings of the study to the total population of technical colleges in Malawi. The study focuses primarily on technical college students who are in government colleges; nevertheless, there are many technical colleges in Malawi in which they might also have similar or different opinion towards ODL. It would be very useful to study a broader spread of students including those in private technical colleges. Adding to this group both in terms of breath and number would facilitate the generalisability of the findings.

As part of this research, the sample at individual colleges could include those from parallel programme as these are part of the students who either were not selected by TEVETA or they are pursuing courses that TEVETA does not offer at a particular college. However, this study

has been successful in investigating what students hold as perceptions on the use of ODL in technical colleges. It has been established that students can still enrol through ODL and do the same courses they are doing. The other thing is the research objectives mentioned in chapter 1; they were achieved within the specified site and among the selected participants. Data that was collected represents the reality of the experiences of the participants on the phenomenon of ODL in TEVET.

5.7. Conclusion

Technical colleges in Malawi are facing a number of challenges although they are grounds for training skilled labour that would help in changing the economy of Malawi in the near future. TEVETA is trying to bring in new interventions to increase on access and improve on numbers of skilled labour in Malawi. The study was aimed at finding the perceptions of student towards the introduction the introduction of ODL in technical colleges. It highlighted the importance of using ODL in TVET as being flexible in terms of pace at which one studies, freedom of time to study, chance of doing multiple tasks, inclusiveness in terms of no restrictions on age and geographical position that students are residing. This study will help TEVETA to make a sound decision on how to incorporate ODL in all technical colleges since the sampled study participants showed that they possess positive perception about ODL mode of study.

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Appendices

Appendix A

Request for consent - letter

Perceptions of students on ODL in Technical colleges

Dear student,

In recent years, developments in education have presented the possibility of transforming the way we teach and learn. One of the new phenomenon in education circles is open and distance learning (ODL) characterised by learners having freedom to study at a time, place and/or pace which suits them best. It may involve self-study at home or work at convenient times supported by telephone or face-to-face tutorials and practical work. Students are separated in space and time with their teacher. I want to find out your perceptions on ODL if it is introduced in technical colleges. Hope you will take a few minutes to complete this questionnaire as your views will help so much. Please be assured that any information you provide will be confidential and all data will be presented as required. Personal details are not required.

CONSENT

I understand the aims of the project, the benefits and potential risks and that my participation is voluntary. I realise that I can withdraw at any time. I understand that all information I have provided is confidential and will not be used for any other purposes.

Signed: _____

Date: _____

Appendix B

Questionnaire 2015

Perceptions of students towards the introduction of ODL in technical colleges

I am Patricia Liwambano a student at the Polytechnic. I am conducting a study **Perceptions of students on ODL in Technical colleges**. As part of research, I am administering this questionnaire. Please, answer the questions as honestly as possible referring to your own innovativeness. This questionnaire contains statements about your participation in this technical and vocational training. You will be asked to express your opinion on each statement. There are no "right "or "wrong" answers. Your opinion is what is wanted. Think about how well each statement describes your opinion.

INSTRUCTIONS

1.   Tick where appropriate

2.   Provide clear explanations in the appropriate spaces

3.   Ask for assistance if you cannot understand any question or statement

Section A. Background information of participants

1.   What is your gender?

No	gender	Tick
1	Female	
2	Male	

2.   Which age bracket best suits you (please tick)

1	2	3	4	5	6	7
Below 15	15-20	21-25	26-30	31-34	35-40	Above 40

3.   What is the name of your college?

   _____

4.   What trade are you pursuing?

_____

5. Have you ever participated in ODL at any level?

1	Yes	
2	No	

6. If you have replied yes to question 5, at what level?

1	Primary	
2	Secondary	
3	College	

7. Did anybody in your family enrol in any Open and Distance Learning?

1	Yes	
2	No	

Section B. To what extent are the students aware of Open and Distance Learning

8. Have you ever heard about open and distance learning (ODL)? (Tick which one is applicable)

1	Yes	
2	No	

In your own understanding, agree or disagree to the statement in the box below?

No	Item	Yes	No
9	Open and distance learning is meant for people who are working		
10	Open and Distance Learning gives freedom to learners to study during their own time		
11	Open and distance learners have freedom of studying at their own pace		
12	Open and distance learning is for those who have failed to		

	secure a place at a conventional institution		
13	Open and Distance Learning can only work in secondary and primary education		
14	Open and distance learning is for those people who cannot do well in conventional education.		
15	Anyone can learn through ODL regardless of race, age or geographical location where one stays.		
15	It is possible to learn technical subjects through Open and Distance mode		
16	In open and distance learning, the learner is fully separated from the teacher		
17	in ODL learner meet their teachers at times		
18	It is possible to learn technical skills through open and distance learning		
19	Any other (specify)		

Section C: Students attitude towards learning technical skills through ODL

For each statement below, circle the number to the right that best describe your opinion on the importance of the issue, use the scale given to match your opinion

1	2	3	4	5
Strongly disagree	disagree	Unsure	Agree	Strongly agree

No	Item					
20	ODL can be utilised in technical colleges	1	2	3	4	5
21	Introducing ODL in technical colleges can compromise the quality of education in technical colleges	1	2	3	4	5
22	It is possible to learn any technical course	1	2	3	4	5

	through ODL					
23	I can learn some skills through any other media technology e.g. computer/internet	1	2	3	4	5
24	It is difficult to learn technical skills through ODL	1	2	3	4	5
25	Learning technical skills through ODL is easy	1	2	3	4	5
26	ODL can give students chance of doing more practical work.	1	2	3	4	5
27	ODL can help increase access in technical colleges	1	2	3	4	5
28	I can perform equally in ODL as in conventional	1	2	3	4	5
29	I can equally learn using study materials and meet lecturers once in a while	1	2	3	4	5
30	I can learn practical skills from industries or the community apart from here at college	1	2	3	4	5
31	I can attend face to face sessions once in a while during the period of my study	1	2	3	4	5

Section D: Students learning preference for acquiring technical skills

32. How likely are you to pursue the same course through ODL?

1	2	3	4	5
Not at all likely	Slightly likely	Moderately likely	Quite likely	Extremely likely

33. What would you prefer as a mode of study ODL or face to face? (tick where appropriate)

1	ODL	
2	Face to face	

34.   Give reasons to your answer

_____
_____
_____
_____
_____
_____

For each sentence below, circle the number to the right that best describe your opinion on the importance of the issue, use the scale given to match your opinion.

1	2	3	4	5
Strongly disagree (SD)	Disagree (D)	Unsure (U)	Agree (A)	Strongly agree (SA)

No	Statement	SD	D	U	A	SA
35	I would learn the same course through ODL without problems	1	2	3	4	5
36	I would prefer working while studying through ODL	1	2	3	4	5
37	I would prefer learning at my own pace	1	2	3	4	5
38	I would feel comfortable learning technical skills through ODL	1	2	3	4	5

39	I would prefer using a phone or internet to communicate with my lecturer	1	2	3	4	5
40 4 3	I would prefer studying on my own with minimum guidance from lecturers	1	2	3	4	5
·41	I would prefer meeting lecturers' daily	1	2	3	4	5

42. Do you think ODL can be utilised in technical colleges parallel with traditional class?

1	Yes	
2	No	

43. Briefly, explain your answer

_____

_____

_____

_____

Section E: Challenges in open and distance learning

44. What could be the challenges of teaching through open and distance learning (ODL) in technical colleges?

_____

_____

_____

_____

_____

45. What could be the advantages of ODL to you if offered in technical colleges

_____

_____

_____

_____

_____

Opportunities in ODL

46. How often are you given notes/ handouts to read?

1	Always	
2	Usually	
3	Rarely	
4	Never	

47. How frequently do you meet your lecturers?

1	4-5 days a week	
2	3-2 days a week	
3	Once a week	
4	Rarely	

48. How frequently do you use a computer?

1	5-7 days a week	
2	4-2 days a week	
3	Once a week	
4	Never	

50. How often do you use the internet?

1	Always	
2	Usually	
3	Rarely	
4	Never	

51. Do you learn practical skills for the course elsewhere apart from the college?

1	Yes	
2	No	

52. If yes to question 51, indicate the source of practical skills

1	Industry	
2	Home	
3	Internet	
4	Community	

For the statements below, tick where the statement best describes your opinion, use the scale given to rate your opinion.

1	2	3		4	5
Strongly disagree	Disagree	Unsure		Agree	Strongly agree

No:	Item	SD	D	U	A	SA
53	At some point I was attached or I will be attached to the industry	1	2	3	4	5
54	I find notes about my course on the internet	1	2	3	4	5
55	I do group work, with my class mates	1	2	3	4	5
56	I submit assignment through email	1	2	3	4	5
57	I can communicate with my lecturer through short message using my phone	1	2	3	4	5

Thank you for taking your time to respond to this questionnaire.

Appendix C

All correspondence to be addressed to the Principal

University of Malawi – The Polytechnic
Private Bag 303
Chichiri
Blantrye 3, Malawi
Tel: (+265) 1 870 411
Fax: (+265) 1 870 578
E-Mail: principal@poly.ac.mw

PRINCIPAL
Prof Grant Kululanga, PhD. Eng., MSc. Eng.,BSc. Eng., MASCE

Our Ref.:
Your Ref:
Date: 11th January, 2015

TO WHOM IT MAY CONCERN

Dear Sir/ Madam,

DATA COLLECTION REFERENCE LETTER FOR MRS PATRICIA LIWAMBANO

This is to certify that **Patricia Liwambano** is our Masters student in the department of Technical Education pursuing Master of Technical and Vocational Education programme.

As part of the requirements for the award of the degree, she is supposed to submit a Thesis which she is currently working on, titled **Students' perception towards introduction of open and distance learning in Technical colleges in Malawi.** As such she is required to collect data through questionnaires and interviews. Any assistance rendered to her to enable her objectively complete her Thesis will be greatly appreciated.

Yours faithfully,

D. P. Mtemang'ombe (Mrs)
Head of Technical Education Department

DPM/lm