SCHOOL OF EDUCATION

MANAGING EDUCATIONAL RESOURCES IN A TVET CONTEXT: A CASE STUDY OF CAMPUS MANAGERS

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This dissertation has been submitted with my approval.

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Abstract

This research aimed at exploring how campus managers manage educational resources in a Technical Vocational Education and Training (TVET) college in KwaZulu-Natal (KZN), South Africa. The study focused on campus managers' understanding and experiences of managing educational resources in a TVET context. The study explored this resource management through the perspectives of three campus managers from three different campuses in one TVET college. The objectives of this study are: to establish campus managers' understanding about their role of managing educational resources in a TVET college; to understand challenges faced by campus managers in their role of managing educational resources in a TVET college; and to understand how campus managers overcome challenges experienced in managing educational resources in a TVET college. This is a qualitative study located within the interpretive paradigm. The participants were purposively selected. The study used semi-structured interviews as a method of collecting data. Due to COVI-19 regulations, interviews were conducted through the ZOOM platform to observe social distancing. The study employed thematic data analysis to analyse the generated data from the participants.

The findings revealed that campus managers that participated in this study have a clear understanding of their role in managing resources. However, they experienced challenges such as the procurement process which is too long and stringent, the inadequate supply of educational resources, the lack of funds and poor maintenance of educational resources. The strategies used by campus managers to mitigate challenges included the following: planning ahead for educational resources; making a lot of follow up on acquired resources; collaboration with other campuses and colleges; and communicating with all stakeholders. The study recommended the following: the policy on managing educational resources in TVET colleges should be made available; college management should ensure that procurement unit accounts for acquired educational resources; remodelling of the procurement process and decentralisation of management of resources and procurement process to campuses; Adequate funds should be made available and college management should mobilise more funds for colleges to have sufficient resources; college management should account for the shortage of educational resources, and educational resources should be maintained.

List of acronyms

CATEs   Advanced Technical Education

DHET   Department of Higher Education and Training

DoE   Department of Education

FET   Further Education and Training

IT   Information Technology

HODs   Head of Departments

HTs   Head Teachers

KZN   KwaZulu-Natal

NCV   National Certificate Vocational

NQF   National Qualifications Framework

TVET   Technical Vocational Education and Training

UNESCO   United Nations Educational, Scientific and Cultural Organisation

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CHAPTER ONE

INTRODUCTION AND BACKGROUND TO THE STUDY

1.1 Introduction

Educational resources can have a negative or positive impact on the quality of education (Nigussie, 2017); hence, they require proper management (Moochi, 2012; Yara & Otieno, 2010). This study aimed at exploring the management of educational resources in a Technical Vocational Education and Training (TVET) college in KwaZulu-Natal (KZN), South Africa. The focus was on campus managers' understanding and experiences of managing educational resources in a TVET context. This is the first chapter that introduces the study. In introducing the study, the chapter provides an orientation to the study and it commences by providing the background to the study, the statement of the problem, the rationale and the significance of the study. This is followed by the statement of the research aims and the questions, followed by the demarcation and the organisation of the study.

1.2 Background to the study

In the context of South Africa, TVET colleges are higher educational institutions that provide access to post-school education to many country's citizens. TVET college education is aimed at imparting knowledge and skills to maximise efficiency in the world of work, sustainable livelihood, personal enhancement and socio-economic development, which promotes proper knowledge adjustment in the economy and the work environment that is rapidly changing (Okorafor, 2017). Additionally, TVET colleges offer broad training, technological studies and related sciences, such as the procurement of practical skills, attitudes, understandings and knowledge concerned with occupations in different areas of economic and social life (Okorafor, 2017).

Prior to the 1994 democratic elections in South Africa, the country had technical schools and technical colleges. Technical colleges provided post-school vocational courses (Government Gazette, 2017). As time progressed, some technical colleges were transformed into colleges for Advanced Technical Education (CATEs) which aimed at addressing the shortage of skilled employees of high level (Government Gazette, 2017). In 1979, the CATEs were renamed

Technikons and were placed under higher education (Government Gazette, 2017). In the post-1994 democratic elections era, three types of institutions in the higher education system were recognised, namely, universities, technikons and colleges offering qualifications that were aligned to the new National Qualifications Framework (NQF) (Government Gazette, 2017). Technikons were regarded as institutions that provided career-orientated qualifications in the form of diplomas. These institutions were later renamed universities of technology. The Further Education and Training (FET) Act of 1998 pronounced the merger of 150 colleges to form 50 FET colleges (Government Gazette, 2017; Kraak & Paterson, 2016). These mergers formed part of bigger reforms that consisted of the recapitalisation of Further Education and the sector. Recapitalisation is concerned with funding all 50 TVET colleges by DHET through grants (Government Gazette, 2017; Kraak & Paterson, 2016). Such recapitalisation was aimed at addressing the issue of infrastructure, resources, and capacity challenges (Government Gazette, 2017; Kraak & Paterson, 2016). In 2014, the FET colleges were again reconceptualised and renamed TVET colleges, and a new National Certificate Vocational (NCV) programme was introduced.

TVET colleges, like any other educational institutions, are expected to provide quality education. This requires that TVET colleges must have appropriate training equipment and tools, adequate training material supply, practice and other requirements such as textbooks, training manuals and qualified instructors with enterprise experience (Ayonmike, Okwelle & Okeke, 2015; Union, 2007). Therefore, it can be argued that quality education cannot be realised without adequate provision and effective utilisation of educational resources. Hence, quality education in TVET colleges or similar institutions is dependent on physical facilities or resources and material resources which are predictors for the academic achievement of students (Indoshi, Wagah & Agak, 2010; Kigwilu, 2017; Moochi, 2012; Yari & Otieno, 2010). Similarly, quality education is reliant on the human capacity that is skilled to effectively utilise such resources (Gebremeskel, 2020; Macharia, Chui & Edabu, 2020; Maobe & Peng, 2020). It should be noted that in every field, the management of resources is needed to carry out activities and schedules effectively and efficiently (Maobe & Peng, 2020). Management of resources is a process that entails acquisition, allocation, utilising and evaluation (Bush & Bell, 2002). Inadequacies in the management of educational resources would compromise the provision of quality education (Akinfolarin, Ajayi & Oloruntegbe, 2012; Aworanti, 2015; Ayuba & Gatabazi, 2010; Hailu, 2007; Indoshi et al., 2010 and Mupinga, Busby & Ngatiah, 2006).

TVET colleges are guided by the Asset Management Policy and the Supply Chain Management Policy on the management of educational resources (Department of Higher Education and Training [DHET], 2015). The Asset Management Policy aims at enabling the management in establishing a sound asset management function and at achieving the required level of utilising assets in the most cost-effective way, which is attained through management of the asset life cycle (DHET, 2015). The objectives of this policy are to provide a structured process of planning and control over the acquisition, utilisation, safeguarding and disposal of assets to achieve the following: maximise the service potential of existing assets by ensuring that they are appropriately used, maintained, safeguarded and that risks are mitigated; optimise the life cycle costs of owning and using these assets by seeking cost-effective options throughout an asset's life cycle; reduce the demand for new assets through optimal use of existing assets; and to establish clear lines of accountability and responsibility for the performance of assets (DHET, 2015). The Supply Chain Management Policy aims at promoting efficient and effective procurement and provisioning systems and practices that will enable the colleges to deliver the required quality and quantity of services to their students (DHET, 2015). It is also aimed at the establishment of uniformity in the procedures, policies, documentation and contract options, and the implementation of sound systems of control and accountability, which should form the cornerstone of the college supply chain practices (Ambe & Badenhorst-Weiss, 2012). This implies that the college management team, including the campus managers, need to ensure that these policies are implemented to achieve their desired outcomes.

The college structure that is responsible for educational resources comprises the accounting officer (The TVET college principal), Deputy Principal: Finance, Asset Manager, Asset custodians including campus managers (DHET, 2015). This structure plays a leadership role in ensuring that adequate resources are made available and are effectively and efficiently utilised at the college. The College structure plays a strategic role in aligning funds, human and material resources of the college (Balkrishen & Mestry, 2016). The campus managers in TVET colleges are accounting officers responsible and accountable for the management of educational resources at the campus level (Balkrishen & Mestry, 2016). The campus managers as leaders play a crucial leadership role in setting direction, the vision articulation, fostering the collaborative culture, empowering colleagues, developing organisational culture and oversight in managing educational resources (Balkrishen & Mestry, 2016). The campus managers' roles and responsibilities include procuring goods and services for the campus, managing the human resources of the campus, and mobilising resources in a manner that is

consistent with college goals (DHET, 2006; DHET, 2015). This may entail proactively negotiating and accessing resources outside one's immediate domain when necessary. Campus managers are perceived to be not succeeding in managing in terms of mobilising these resources.

1.3. Statement of the problem

TVET colleges are guided by the Asset Management Policy and the Supply Chain Management Policy on the management of educational resources as discussed in the background above. The intended outcome of these policies is to ensure that educational resources are managed in a way that best supports the provision of quality education in TVET colleges. This is in line with the view that effective management of resources in terms of provision and utilisation enhances the quality of education (Gebremeskel, 2020; Macharia, Chui & Edabu, 2020; Maobe & Peng, 2020). Owoeye, Usman and Madudili (2011) assert that facilities improve student achievement and that for effective teaching and learning to happen, adequate resources need to be made available and be utilised efficiently and effectively. At the heart of the provision and allocation of resources are campus managers. Campus managers have the role and responsibility to procure goods and services for their campuses, manage the human resources, and mobilise resources consistent with college goals and the aforementioned policies (DHET, 2015; DHET, 2006). Campus managers need to be conversant with the Asset Management Policy and Supply Chain Management Policy, have managerial competencies, knowledge and understanding of resource management (DHET, 2015). Campus managers also need to put into practice their managerial competencies, knowledge and understanding of resource management to achieve quality education for their students (DHET, 2015; Department of Education [DoE], 2016). Anecdotal evidence based on my personal experiences suggests that some campus managers are not succeeding in achieving these outcomes.

There are studies (e.g. Biel, 2019; Edokpolor, 2016; Gamede, 2019; Kigwilu, 2017; Konayyuma, 2019; Marcus & Janse van Rensburg, 2020; Serumu, 2014; Shodeinde, 2020; Thomas, 2019; Wilson, 2019;) that report mismanagement, shortage and underutilisation of resources in some TVET colleges in developing countries. The findings of these studies indicate that some TVET colleges face several challenges including, a low supply of resources, inadequate teaching and learning material, lack of physical resources, inappropriate workshop

equipment, inadequate supply of training materials and the lack of facilities and equipment needed for teaching and learning. In some cases, funds are not directed to pre-determined purposes. For example, the study conducted by Kigwilu (2017) in Kenya concluded that in some community colleges, teaching and learning resources were inadequate, and the little they had was underutilised. It is noted that such inadequacies in the management of educational resources negatively affect teaching and learning which also affect student achievement (Akinfolarin et al., 2012; Aworanti, 2015; Ayuba & Gatabazi, 2010; Hailu, 2007; Indoshi, Wagah & Agak, 2010; Mupinga et al., 2006).

Some South African TVET colleges are not an exception on issues of mismanagement, shortage and underutilisation of resources. Dlamini (2015) asserts that South African TVET colleges carried a historical record of underfunding, lack of physical infrastructure maintenance and lack of life cycle planning. Nhlapho (2017) identified a lack of management skills, poor performance, and inequitable resources, and where resources are available, they are not being used properly and the managers are unable to account. Balkrishen and Mestry (2016) note the persistent tension between the management in TVET colleges and argue that the government needs to focus on improving the management and leadership in these colleges. Terreblanche (2017) claim that more than 60% of TVET colleges have weak management and leadership structures that are unable to deal with the present challenges in the TVET college sector. Similarly, Sibiya and Nyembezi (2018) argue that TVET institutions have weak management and leadership structure. Tytya (2017) cite the lack of competent managers as the reason for poor management in the TVET colleges across the country.

The evidence presented above suggests a problem in the management and leadership structure of several TVET institutions in South Africa. The media has also exposed the conditions of the TVET colleges, including, poor performance, infrastructure, and ineffective administration. The current study focuses on one sector of the management structure of TVET colleges. It explores how campus managers in a TVET college in South Africa manage educational resources. It looks at issues around managerial competencies, knowledge and understanding of resource management, challenges and mitigation strategies initiated by campus managers.

1.4 The rationale for the study

As a student, I experienced the plight of studying science without necessary resources at the high school level. In science, there is theory and practical components. The practical part consists of experiments that are conducted in a science laboratory. In my case, the school did not have a science laboratory, and experiments were read in the book. The lack of practical experiments impacted negatively on my science results. I remember that I wanted to be an Engineer, but my science results hindered me to pursue the Engineering path. I believe there is a possibility that other students were affected as well, due to the lack of science laboratory and ended up changing their careers as I eventually took the teaching path.

Based on my personal experience as a Lecturer and an Education Specialist in the TVET sector, I have witnessed lecturers conducting lessons without proper resources for practical work. Assessment Guidelines and Integrated Summative Assessment Task (ISAT) documents for vocational subjects, specify that a student is expected to do theory and practical components. For example, for Office Administration programmes, practical work is conducted in the simulation room and for Engineering programmes, practical work is conducted in workshops (DHET, 2007; DHET, 2016). For a student to qualify for the external examination in the NCV programme, he or she is expected to meet the minimum requirement for the theory and the practical aspects respectively (DHET, 2007). I have observed that the simulation room and workshops do not have the proper equipment. The lack of these resources is impacting negatively on student achievements. The disturbing issue that has surfaced in the year 2020, is the late provision of textbooks which led to students' unrest. These experiences have developed an interest in me to find out why the above-highlighted issues are happening in our institution and understand what drives or underpins their recurrence. I had hoped that lessons drawn from the study may assist in generating possible solutions to the problem.

As highlighted elsewhere in this chapter, educational resources ought to be properly managed to enhance quality education and improve student achievement (Bush, 2002; Indoshi et al., 2010; Moochi, 2012; Osarenren-Osaghae, 2012; Nigussie, 2017; Usman & Madudili, 2019; & Yara & Otieno, 2010). Proper management of educational resources entails ensuring adequate availability, effective and efficient utilisation and maintenance of educational resources (Bush & Bell, 2002; Lockheed & Verspoor, 1991; Usman, 2016; Urama, 2017). Performing management functions and following a proper resource management process is key in

managing resources effectively (Ogbuanya, Nweke & Ugwoke, 2017; Nigussie, 2017; Strydom, 2008). Management functions usually entail planning, organising, coordinating, monitoring and control of resources (Bush, 2003; Ogbuanya et al., 2017; Nigussie, 2017; Strydom, 2008). Moreover, planning is significant since it is a starting point for the educational resource management process where most decisions are taken about the types, the quantity, the quality, and maintenance of resources (Hailu, 2007). On the other hand, the resource management process involves the acquisition, allocation, utilising and evaluation of resources (Bush & Bell, 2002). Thus, adequate resources are expected to be provided by the college management, distributed equally, and supplied on time, utilised efficiently by the end-user, monitored and controlled by everyone involved (Hailu, 2007 & Mengistu, 2014). However, what is actually happening is sadly the opposite. There is an unequal distribution of resources, no timely supply of material resources, lack of control measures on material resources and lack of maintenance of physical resources. This made me wonder how the management and leadership structures understand and perform their duties.

My interest in pursuing this study also emanates from the gap in the literature that I have read. There is a substantial amount of literature (e.g. Akinfolarin et al., 2012; Hailu, 2007; Moochi, 2012; Osarenren-Osaghae & Irabor, 2012; Oguntuase, Awe & Ajayi, 2013; Owoeye & Yara, 2011; Yara & Otieno, 2010) that focuses on the impact of resource adequacy and utilisation for curriculum implementation in TVET sector. There is another literature (e.g. Chepkonga, 2017; Chukwunwendu, 2015; Dhakal, 2017; Edokpolor & Dumbiri, 2019; Kigwilu & Akala, 2017; Munguti, 2016; Musyoka, 2018; Ogbu, 2015; Omae, et al., 2016; Ubulom & Ogwunte, 2017; Urama & Enzeani, 2017) which focuses on assessing the level of adequacy and utilisation of resources for effective teaching and learning in a TVET sector. However, little is known on how campus managers manage educational resources in a TVET college in terms of knowledge, understanding and practice.

1.5 Significance of the study

This study hoped to benefit stakeholders in the TVET sector by contributing to the knowledge base relating to the practice of effective management of educational resources at a TVET college. It may create an understanding of TVET college management and campus management administration work. Such understandings might be invaluable in the efforts to bring about improvement in the way educational resources are procured and distributed in

TVET colleges. The findings of this study may assist TVET college management and campus management and all stakeholders involved by providing insights in this regard.

1.6 Objectives of the study

The objectives of this study are:

1. To establish campus managers' understanding of their role in managing educational resources in a TVET college.
2. To understand challenges faced by campus managers in their role of managing educational resources in a TVET college.
3. To understand how campus managers overcome challenges experienced in managing educational resources in a TVET college.

1.7 Key research questions

1. What do campus managers understand about their role in managing educational resources in a TVET college?
2. What challenges do campus managers experience in their role of managing educational resources in a TVET college?
3. How do campus managers overcome the challenges they experience in managing educational resources in a TVET college?

1.8 Clarification of key terms

In this part of the study, key terms are introduced briefly explained to facilitate easier orientation to the study. A detailed discussion and clarification of key terms are made in Chapter Two as part of the review of the literature.

Technical Vocational Education and Training (TVET): TVET refers to the combination of education, training and skills development, relating to a wide range of occupational fields, production, services and livelihoods.

Management: Management refers to a process of coordinating work activities effectively and efficiently or a process of planning, organising, leading and controlling all activities of the organisation to achieve the set goals.

Educational resources: Educational resources refers to all physical and material resources that are used by both lecturers and students to enhance quality teaching and learning in TVET colleges.

1.9. Delimitations of the study

This study focuses on the campus managers' experiences in the management of educational resources in one TVET college in KwaZulu-Natal. The study is confined to campus managers of a TVET college since campus managers are deemed to be knowledgeable about the management of educational resources in a TVET college context, and they are responsible for their management and mobilisation where feasible.

1.10. Organisation of the study

The study comprises five chapters, and the overview of each chapter is discussed below.

Chapter One

This chapter provides an orientation to the study, which covers the background, problem statement and rationale and motivation of the research, the significance of the study. The objectives of the study, including the critical questions are clearly outlined. The key concepts are clarified, and the delimitations of the study are described. It concludes with the layout or structure of the study.

Chapter Two

The focus of this chapter is on reviewing literature that pertains to educational resources and management of educational resources, as well as, the theoretical framework (systems and collegial models) that underpin the study is explained in detail.

Chapter Three

The chapter provides a detailed discussion about the methodological issues of the study. The research paradigm, design and methodology used in undertaking this study are discussed in this chapter. Issues of sampling, data generation, data analysis, trustworthiness, ethical issues and limitations are also examined.

Chapter Four

This chapter presents and discusses findings from the data generated in this study. The data that was generated is then discussed thematically.

Chapter Five

This is the last chapter and it presents the conclusions drawn from the findings and makes recommendations drawn from these conclusions.

1.11 Chapter summary

This chapter was an orientation to the study, and it provided the background and other critical components of the research as outlined in the layout of the study above. The next chapter provides a review of literature on resources management, resources mobilisation by campus managers and similar managers in TVET colleges or similar institutions.

CHAPTER TWO

LITERATURE REVIEW AND THEORETICAL FRAMEWORK

2.1 Introduction

The previous chapter provided an orientation to and background of this research study. This chapter provides a review of selected scholarly literature that was explored for this study. This chapter comprises two sections, namely, a literature review on the management of educational resources and the theories that provide a framework that underpins this study. The chapter covers the conceptualisation of the key concepts, discussion of management functions and management of educational resources, challenges, how challenges were addressed, and the theoretical framework which underpinned this study.

2.2 Conceptualising educational resource management

Educational resource management is a fascinating area of study which has a variety of key constructs that explain the practice. In this section, I provide a breakdown of the phenomenon of educational resource management to clarify its meaning and how it is used in this study to explain the problem.

2.2.1 Resource

A resource can be defined as something usually made available or designed for usage to cater for a need (Amos & Magad, 1999). Hailu (2007) refers to educational resources as anything in the college that keeps the teaching and learning process in operation. Gizaw (1987) asserts that resources are intentionally organised for the students to acquire information, skills and knowledge from. Therefore, a resource can be conceptualised as anything that can be made available and be utilised for educational purposes for the benefit of students in the TVET College.

2.2.2 Educational resource

The term educational resources give a bit of confusion since some scholars use different terms to refer to educational resources. Such terms are teaching and learning support material, material resources, instructional material, educational material and assets, to name a few. Educational resources have been conceptualised by scholars (e.g. Edokpolor & Dumbiri, 2019; Odigbo, 1999; Seaman & Seaman, 2017; Usman, 2016) as fixed or movable objects, equipment, supplies and facilities that may be converted for education purposes to achieve set goals. This includes all humans and materials that are available in an academic space which facilitate school administration and simplify teaching and learning (Usman, 2016). Seaman and Seaman (2017) conceptualise educational resources as the list of items that need to be provided to all students as required by the course syllabus. Educational resources are tangible assets that are sufficiently provided by institutions to be used by lecturers and students for effective teaching and learning to occur in TVET colleges (Edokpolor & Dumbiri, 2019). Therefore, in the context of this study, educational resources refer to all physical and material resources that are used by both lecturers and students to enhance quality teaching and learning in TVET colleges.

2.3 Classification of educational resources

The main types of educational resources are the following: human, material, physical, financial, time and information resources (Hailu, 2007; Uko, Umoseb & Caleb, 2015). Hailu (2007) asserts that college management needs to ensure that colleges are supplied with the above-mentioned types of resources and are adequately used in due course of time before the management and evaluation of a performance can be done.

2.3.1 Human resources

According to Usman (2016), human resources play an important part in any institution. They are also vital for an institution's effectiveness (Nwabueze, 2016). Human resource in a TVET system consists of lecturers, support staff, students and community members (all stakeholders who have direct /indirect interest in the institution) (Usman, 2016). Human resource' responsibility is to plan, organise, coordinate, control, manipulate and maintain other forms of resources (Usman, 2016). For effective and efficient college administration, not only the

availability of the human resource is required, but their quality and quantity (Usman, 2016). Hailu (2007) defines a human resource as people who are directly or indirectly involved in performing the tasks and activities related to teaching and learning. Human resource in an educational institution includes workers (teaching and non-teaching staff) and students. Hailu (2007) also suggests that managers in educational institutions need to manage this resource properly since people are a prime factor in maintaining teaching and learning activities. Nwabueze (2016) also asserts that managers are obliged to perform management functions to control the activities of the institution's members. Thus, managers should provide a conducive environment for provoking interest and increasing the work capacity of employees to achieve educational goals. In the next section, I describe various forms of resources from the perspectives of various scholars.

2.3.2 Material resources

There is a broad convergence among scholars about what constitutes material resources although some slight variation in their articulation. For instance, Nwabueze (2016) refers to material resources as all non-human resources that are utilised by human resources to achieve organisational goals. However, according to Hailu (2007), material resources include designed, modified and prepared materials that help in teaching and learning activities. Material resources include textbooks, reference books, teaching guides, manual programmed instructions, audio-visual aids, television, radio, films, projects and so forth. These resources are scarce and expensive; therefore, proper management, proper utilisation and control are required, and information about resource acquisition, allocation, distribution and application to the directed objectives and control should be done by both teaching and non-teaching staff (Hailu, 2007; Nwabueze, 2016).

In the context of TVET colleges, there are training materials (tools, supplies, and equipment), curriculum and modules and reference and reading materials (references, books hand-outs, manuals, magazines, newspapers and other curriculum-based reading materials). Scholars classified material resources differently. For example, Hailu (2007), categorises and classifies material resources for TVET colleges as training materials, curriculum and modules, and reference and reading materials. On the other hand, Nwabueze (2016) classifies material resources as educational facilities; instructional materials and finance which involve school buildings; classrooms, furniture, libraries, recreational equipment, apparatus and other

instructional materials. In the context of this study, I am leaning more on Hailu's (2007) classification because it talks to material resources for TVET colleges. The role of campus managers is invaluable in ensuring effective and efficient material resources management and mobilisation.

2.3.3 Financial resources

Usman (2016) refers to financial resources as the funds required for the smooth running of an institution. Funds are required and necessary for the procurement of facilities, equipment, electronics and communication gadgets, and salaries. Financial resource allocation enhances the achievement of goals and sustainability (Usman, 2016). Hailu (2007) refers to financial resources as the essential resource needed and used by TVET college to purchase goods and services needed to carry out teaching and learning operations. Therefore, financial resources in a TVET college ought to be carefully managed in order for education to be run smoothly, and campus managers play a critical role in this regard.

2.3.4 Physical resources

Hailu (2007) refers to physical resources as any college facilities and their surroundings when organised and used properly to effect quality teaching and learning activities. The physical resources enhance teaching and learning activities (Gizaw, 1989). These resources are, among other things, classrooms, laboratories, libraries, offices, auditoriums, workshops, recreational and sports fields. The college physical environment includes rivers, hills, plains, valleys, rocks, roads, buildings. Physical resources assist in mediating teaching and learning interactions (Hailu, 2007). According to Usman (2016), material/ physical resources are tangible resources that are prominently visible and observable in an institution. The physical resources include the structure, machines, raw material, vehicles, classrooms/ lecture rooms, staff office, health centres, library, laboratory and other tools that can assist in the facilitation of activities and processes of the institution (Usman, 2016). Therefore, evidently, Usman (2016) does not make any distinction between material and physical resources like Hailu (2007) seems to suggest.

2.3.5 Time resources

Usman (2016) regards time resource as the unique and scarce resource known to man. Similarly, Adedeji (1998) regards time resource as an expensive resource since it is non-recoverable. Time utilisation is the proper allocation of time to different tasks and administrative activities (Usman, 2016). Hailu (2007) asserts that time is used to carry out performances, time resources assist college management to set sequential instructional arrangements or period allocation. Time as an educational resource is important at both individual and organisation levels since it is unique, scarce and irreplaceable and cannot be bought or sold. For the provision of standard and quality of intended training, practical and theoretical time allocated as per curriculum is regarded as an educational resource and should be managed like other material resources. Again, campus managers have a huge responsibility in ensuring that time is efficiently utilised.

2.3.6 Informational resources

Information resource entails discovering and using information and knowledge within the organisation, from external sources and developing an efficient system for making useful information available at any time to those people who need it (Hailu, 2007). Usman (2016) defines information resources as a diverse set of technological tools and resources used for communicating, creating, disseminating, storing and managing information. Those technological tools are computers, the internet, radio, television and telephone. This resource is important in any institution mostly for planning, policymaking, decision making and communication within and outside.

The resources discussed above are significant for TVET education programmes delivery. The availability of these resources without adequate and efficient utilisation cannot promote effectiveness and efficiency. It remains the duty of the campus managers to ensure that there is an adequate provision and efficient usage of information resources to improve student learning and performance. That is why the focus of this study is on the experiences of campus managers in managing physical, material and other resources such as information resources

2.4 Contribution and significance of educational resources to students' learning

Educational resources are very significant for any educational institution in providing an environment for teaching and learning to occur which, ultimately benefit and maximise the students' benefits (Bush & Bell, 2002). Thus, the acquisition and allocation of resources is critical (Bush & Bell, 2002). This implies that for students to benefit from the educational experience, educational resources need to be made available, be effectively and efficiently utilised. The availability concept in the context of this study is consistent with Urama's (2017) definition, where he refers to educational resources as available if they are in good condition, up to date and accessible to lecturers for optimal utilisation. In his conception, if the resources are not in a condition whereby they can be utilised, they are not available. This conception puts campus managers in a tight spot where they cannot just focus on acquisition but also on effective utilisation of resources. Utilisation in the context of this study is consistent with the conception of Urama (2017), who refers to utilisation as a degree to which lecturers take advantage of available educational resources in teaching and learning delivery. Educational resources are essential, not only for the educational field but are also needed in every management field to carry out activities and schedules effectively and efficiently (Bassman, 1990).

Educational resources contribute towards student learning, and thus, enhance it (Bünning, 2013; Osarenren-Osaghae, 2012). TVET colleges largely offer skill-based courses which are aimed at developing skilled manpower (Osarenren-Osaghae, 2012). For skill-based courses to be effective, the necessary educational resources need to be provided to the teachers for the benefit of students (Osarenren-Osaghae, 2012). According to Bünning (2013), teaching and learning strategies that employ experimental learning has a positive influence on student achievement. This has implication for the environment within which teaching and learning occurs.

There is a convergence of ideas among many scholars that the environment broadly, and the learning environment enhance student academic achievement. Akande (1985) argues that learning takes place when a student interacts with his or her environment and therefore, that the environment is an educational resource. Viewed as such, the learning environment needs to be properly managed. In the same vein, Usman and Madudili (2019) believe that a learning

environment ensures quality teaching and learning and ultimately, improves the students' achievement. The learning environment for the students needs to be designed in a manner that allows them more opportunities in observing and be able to work with various educational resources which are significant in promoting the understanding of the content. Thus, a conducive environment is the vital input element for the educational programmes and, also, a useful input component to enhance student achievement.

Educational resources such as facilities are vital in the accomplishment of educational goals and objectives through satisfying physical and emotional needs for both the staff and the students (Akpabio, 2015). Literature (e.g. Akpabio, 2015; Asiabaka, 2008; Usman & Madudili, 2019) points out that the facilities and the effective management of facilities enhance the quality of teaching and learning. Educational resources such as institutions' facilities are significant since they are utilised for a variety of activities, including, observation and inquiry; to illustrate concepts; to provide the opportunity for the first-hand experience; for experimentation and demonstration; for scientific investigation and discovery; to provide a diversity of thoughts; for development of scientific attitudes and skills; and to protect the individual and also provide comfort (Akpabio, 2015; Asiabaka, 2008).

There are also indirect teaching support facilities such as offices, cafeteria, acoustics, toilets, laundry, common rooms, cleaning materials, grounds and similar items which satisfy an individual's physical and emotional needs (Akpabio, 2015; Asiabaka, 2008). These resources are used for numerous activities critical for the operation of a TVET college. These include increasing instructional effectiveness; improving the cleanliness, orderliness and safety of facilities; reducing the operational and life cycle cost of a building; extending the useful life of a school building; increasing efficiency and effectiveness of the staff and students; and improving building appearances (Akpabio, 2015; Asiabaka, 2008). Kong (2009) and Ajoke (2017) reveal that resources play a significant role and contribute immensely in enhancing effective teaching and learning. Kong (2009) further argues that site-based planning of resources enhances effective teaching and learning. This suggests that adequate availability and effective utilisation of resources improve curriculum delivery. Therefore, adequate educational resources like workshops, functional equipment, competent teachers and facilities should be provided and the lack of these resources hinders the progress of skill-based courses. The management of educational resources is crucial.

2.5 Management

The term 'management' is central to this study as it focuses on the management of resources by TVET college management, particularly, campus managers. The term 'management' is described differently by different scholars, although at its core is the notion of maintaining the operation of institutions running for the achievement of their goals. For example, management can be described as the art of working with and through staff, students, and assets to achieve hierarchical objectives (Smith, 1995). Bush (2003) refers to management as a set of activities aimed at effectively and efficiently utilising the resources to attain the goals of an organisation. Tarig (2008) and Strydom (2008) refer to management as a process of coordinating work activities effectively and efficiently through a process of planning, organising, leading and controlling all activities of the organisation in order to achieve the set goals. Management can also be defined as the process of effectively and efficiently getting things done (Sourish, 2013). Therefore, management is the art of performing management functions to effectively and efficiently achieve the goals of the organisation. In the context of TVET colleges, campus managers are crucial for this efficiency to occur.

2.5.1 Management goals

Management goals include the three basic management objectives, namely, to ensure that the goals and targets of the organisations are achieved with the least cost and minimal waste, to look after the health, safety and welfare of the staff and lastly, to protect the machinery and resources of the organisation, including human resources (Olum, 2004). The goals of every manager can be categorised into three components; firstly, to create an environment in which people can achieve group goals with the least resources (time, money, material and staff dissatisfaction) utilising available resources. Secondly, to be productive. Lastly, to promote the effective and efficient performance of the individual as well as of the organisation (Olum, 2004).

2.5.2 Management functions

It is crucial to provide insights on the management functions of a manager to bring more understanding to these functions. Scholars seem to have a common understanding of the

management functions to include planning, organising, leading, motivating and controlling, and these are briefly discussed below.

2.5.2.1 Planning

Planning as a management function involves the selection of mission, objective and also actions to attain the selected mission and objectives (Ogbuanya et al., 2017). In the planning stage, the decision is taken about what will be done, how it will be done, who will do it, which resources will be needed and how performance will be controlled (Bush, 2003). According to Nigussie (2017), planning starts with determining the purposes and objectives up to the detailed actions to be taken for the attainment of the goal. The decision is made during planning about choosing future courses of action from various alternatives and drafting a detailed plan which covers the overall goal and objective to be accomplished, as well as, the actions to be taken. The plan can exist as a real plan when the decision has been made about human and material resources to be used. As for activities to be carried out, the human factor is required (Nigussie, 2017).

2.5.2.2 Organising

In an organisation, mostly, people work together as teams or groups to attain the goals and objectives of the organisation (Olum, 2004). Hence, the roles of people who would be working as groups need to be defined and be structured by someone to ensure that individuals contribute in a particular way to group effort (Olum, 2004). Organising is that management component that is concerned with the establishment of roles and structure for people to perform organisational tasks (Bush, 2003; Strydom, 2008). The established roles assist in preventing confusion on who does what and eliminate the conflict that might emerge due to the unclear role that an individual has to play to achieve the organisational goals.

2.5.2.3 Staffing

This management function is also concerned with ensuring that competent people are appointed to a vacant position and that positions are always filled. Staffing involves the identification of workforce requirements, the inventory of available workforce, the recruitment, selections,

placing, appraisal, compensation, career planning, training and retraining of staff to effectively and efficiently perform their tasks (Ogbuanya et al., 2017; Olum, 2004).

2.5.2.4 Leading

Leading as a managerial task involves influencing people in a particular way to perform their duties effectively and efficiently as to contribute to organisational goals (Bush, 2003). This function is predominantly concerned with the interpersonal aspect of managing. Leading include motivation, leadership styles and communication (Strydom, 2008).

2.5.2.5 Controlling

Controlling is a management task that entails measuring the performance of subordinates against predetermined goals and plans to check if the events and the performance conform to the plans (Bush, 2003 & Nigussie, 2017). Ideally, if there is a negative deviation from the plan, corrective measures are instituted to correct the deviation to ensure that the plan is accomplished (Bush, 2003 & Nigussie, 2017). It should be noted that planning precedes controlling and plans need to be carried out by people. Managers are guided by plans on resource utilisation to achieve specific goals and to determine whether actions conform to plans (Olum, 2004; Strydom, 2008). To ensure that activities conform to the plan, managers have to identify individuals responsible for the deviating results from the plan and identify the necessary action to be taken to improve performance (Strydom, 2008). By controlling the actions and performance of people, ultimately, the outcome of the organisation is indeed controlled (Strydom, 2008).

2.5.2.6 Coordination

Coordination is regarded as the essence for managers to achieve harmony among individual efforts towards group goals' accomplishment (Bush, 2003). Since individuals are different in the manner in which they interpret similar interests and their efforts towards mutual goals would obviously be different. Therefore, the managers' main task is to restore harmony among individuals' approaches, timing, efforts and goals which contribute to the achievement of organisational goals (Bush, 2003). The management functions discussed above deal with

internal performance within the organisation, but the manager ought to interconnect with the external environment (Bush, 2003). Thus, managers need to have an understanding of the elements of external environments and be responsive to external environmental factors like economy, technology, society, politics and ethics that directly and indirectly affect their area of operation.

2.6 The concept of educational resource management

Different scholars conceptualise educational resource management differently. For example, Ogbuanya, Nweke and Ugwoke (2017) define educational resource management as a decision making process on how educational resources can be procured, managed, utilised, and maintained to develop vocational education. Bush and Bell (2002) define the management of educational resources as a process that entails acquisition, allocation, utilising and evaluation. According to Ogbuanya, Nweke and Ugwoke (2017), educational resource management is the act of planning, organising, coordinating and controlling educational resources of an institution. Therefore, educational resource management refers to a decision-making process on how educational resources can be acquired, allocated, utilised, maintained and evaluated through using managerial functions of planning, organising, coordinating and controlling to develop vocational education (Ogbuanya, Nweke & Ugwoke, 2017).

2.7 Educational resource management in TVET colleges

Effective and proper management of educational resources entails adequate provision, effective and efficient utilisation of limited resources (Kigwilu, & Akala, 2017; Usman, 2019). The management of educational resources involves, among other things, planning, allocation, distribution, proper use, controlling and maintenance of resources, and these are discussed next.

2.7.1 Planning for educational resource

College management together with the teaching and non-teaching personnel need to design guidelines that guide them on effective utilisation of resources and to ensure that acquisitions are done ahead of time and be based on the demand of the college staff (Hailu, 2007). Rules

and regulations of handling and managing resources need to be made available, the storehouse of resources need to be determined and precaution on effective usage of resources for effective teaching and learning should be taken (Hailu, 2007). Planning guides the managers on the utilisation of resources to achieve specific goals (Olum, 2004). But, failing to plan, lead to inefficiency, waste of resources and lack of direction (Oranu, 1994).

Mengistu (2014) asserts that the basis of planning is on the need identification of the required educational resources and budget allocated to accomplish that need. Mengistu (2014), further asserts that the budget for educational resources can be drawn after the requirements had been determined. For this reason, the budget for purchases considers both the inventory and orders, as well as, the quantity and the money. Mengistu (2014) asserts that there are two ways in which decisions can be reached on the need for educational resources identification. The decision on the identification of a need for educational resources can be based on the accurate data provided by departments, units, subsystems as a request for these resources in the form of requisition. A requisition is a formal written request from institutions, units, persons or departments of an educational system to kick start the purchase of educational resources. The other way could be determining the need from the suppliers through using available information as the available number of educational resources gathered from inventory control, utilisation standard of educational resources per student or group of students and the service year of educational resources in the TVET college. Whichever way is used, it should be guided by operational procedures and policy. Thus, a policy document or guidelines that give clarity on how and when requisitions are compiled and submitted to immediate supervisors and who has to approve should be in place. Obtaining accurate information from subsystems like campuses, sometimes is not easy since campus management lacks the necessary skills in processing existing data that lead to actual need and lack of proper inventory controls (Mengistu, 2014). Bajahnum and Attia (2021) emphasise collaborative planning, they asserted that there is a positive relationship between collaborative planning, forecasting and meeting targets as all involved understand what needs to be done. Kohm and Nance (2013) asserted that collaboration brings out the creativity, effectiveness and sustainability for a change in the institutions. Therefore, effective and high-quality collaboration facilitates lecturers to access resources, opportunities and benefits of other resourced institutions.

2.7.2 Educational resource allocation

In the strategic planning, resource allocation refers to the plan that is designed for using available resources (Nigussie, 2017). Educational resource allocation is concerned with assigning the available resources economically, to smaller groups like lecturers and students, as part of resource management, and it involves transporting the resources from the storehouse to where there are required (Nigussie, 2017). Scholars such as Hailu (2007), Mengistu (2014) and Nigussie (2017), refer to educational resource allocation as the transportation, giving out of available resources to where they are needed and, consequently, allocated to the lecturers and the students. It has to be noted that the allocation includes near and far areas. Allocation implies that educational resources that are allocated to the end-users should be handed to maximise the life span of those resources (Hailu, 2007; Mengistu, 2014; Nigussie, 2017).

The United Nations Educational, Scientific and Cultural Organisation (UNESCO) (2006), Mengistu (2014) and Nigussie (2017) indicate that the allocation mechanisms need to be formulated in TVET colleges to ensure accountability and the trace of resources allocated to individuals (lecturers or students). Once a lecturer or a student has received a resource, she or he has to acknowledge receipt and accountability for the loss or mishandling of that resource by signing against the resource received. Mengistu (2014) added that the signed document indicating the type of educational resource would assist in continual checking and tracing system criteria that need to be considered when allocating educational resources. The criteria include the size of the system, the number of educational resources available and to use of measurement units such as size, total enrolment, costs per capital lecturer /student ratio. The importance of equity in the allocation of educational resources is emphasised by the UNESCO (2006) report since individuals and institutions ought to be fairly treated in the allocation of educational resources. And therefore, educational resources should be fairly distributed.

2.7.3 Distribution of educational resources

Yimam (2010) refers to educational resource distribution as the physical movement of goods from the receiving point to the storage or use point. Mengistu (2014) and Nigussie (2017) assert that the distribution of educational resources is concerned with the movement of educational resources from the warehouse to the unit or department that is requesting. Once educational

resources have been received and processed, these resources need to be properly handled and immediately distributed to the relevant destination (Mengistu, 2014; Nigussie, 2017). The purpose of distribution is to make it possible for an educational institution to obtain the requested amount of educational resources on time with care and safety (Mengistu, 2014; Niguissie, 2017; Yigezu, 2017).

Sometimes distribution functions may face some challenges that emanate from the shortage of transport, lack of finances, shortages of educational resources that match the number of users (Niguissie, 2017). The causes of some of these challenges may be due to the failures in executing the required managerial functions properly. Other contributing factors of some delays and imbalances in the distribution of educational resources may comprise inaccurate information, failures in submitting the requisitions on time, the lack of knowledge of the correct needs requisition, the lack of adequate space in storage rooms, the lack of personnel involvement on the planning of educational resources (Mengistu, 2014; Niguissie, 2017; Yigwzu, 2017).

2.7.4 Proper use of educational resources

Proper utilisation of educational resources relies on effective coordinating, planning, sourcing, purchasing, moving, storing, inventory and appropriately controlling of educational resources to provide pre-determined services to the customer in an economical way (Nigussie, 2017). Resource utilisation is mainly emphasised in the administration unit of the institution since managers (campus managers) encounter challenges on how to use available inadequate resources such as manpower, equipment and buildings for effective learning of students (Mengistu, 2014). The acquisition of educational resources without some kind of procedure usually creates ineffectiveness in resource utilisation (Mengistu, 2014). The institutions' managers or campus managers, together with teaching and non-teaching staff, should develop guidelines that will serve as the mechanism for the utilisation of educational resources effectively (Mengistu, 2014). These guidelines are essential to accomplish the vision and mission of organisations (Wolf & Floyd, 2017). According to Mengistu (2014), the policy on handling and managing educational resources should also include warehousing or storage and responsibilities of teaching and non-teaching staff on educational resource utilisation. The rules and procedures should be done ahead of time to ensure the effective utilisation of educational

resources for quality teaching and learning (Mengistu, 2014). As educational resources are requested by managers on behalf of the institution, early procurement of educational resources determines the efficiency and awareness of the manager about the types and number of resources needed.

2.7.5 Maintenance of educational resources

Nigussie (2017) asserts that most institutions tend to demand new additional resources and equipment and end up neglecting the maintenance issue. Nigussie (2017) further states that educational resources serve different people every year in the organisation, namely, the students, the lecturers or teachers and other educational communities. Due to the above-mentioned and other reasons, there are calls for continual maintenance of educational resources and follow up checks. According to Yimam (2010) and Nigussie (2017), the maintenance and servicing of educational resources, particularly, the machines prevent stoppages since the operation and the maintenance are closely linked functions. This means that no programme can be successfully carried out without performing operation and maintenance function. Nigussie (2017) also highlights the importance of considering the maintenance function in the planning stage of educational resources. If maintenance function is incorporated into the overall planning stage, it enables proper management and implementation using an allocated budget (Nigussie, 2017). Thus, proper purchasing reduces maintenance costs.

2.7.6 Controlling Educational resources

 The UNESCO (2006) refers to controlling educational resources as the process of checking the effectiveness and efficiency of the provision and utilisation of the educational resources to achieve educational objectives. The controlling of educational resources includes the process of checking the initial plan, allocation, distribution and resource utilisation to effective teaching and learning interaction (Nigussie, 2017). Controlling entails the establishment of standard performance, measuring results against standards, and, if the result shows any deviation, corrective measures are taken on time (Nigussie, 2017). In this regard, Mengistu (2014) highlights the significance of adequate provision and effective and efficient utilisation of educational resources as part of educational resource management. However, management of educational resources seems to be mostly focusing on provision and paying little attention to

the utilisation of educational resources which is concerning (Mengistu, 2014). The problems highlighted include lack of training, information, and attitude of end-users in the utilisation of available resources (Mengistu, 2014).

2.8 The procurement process of resources in TVET colleges

Procurement refers to the processes and procedures of the acquisition of educational resources (Ibegbulem & Okorie, 2015). According to Dlamini (2016), there are processes and procedures involved in the acquisitions of supplies in an organisation. There is also a procurement cycle that provides the steps to be followed when the sourcing of materials and services is made. These steps or phases are significant in the effective and efficient execution of activities by the procurement unit. It is important to note that these phases of the procurement cycle need to be in line with the policy and strategy of the procurement function and be well-coordinated and communicated with other organisations' functions (Dlamini, 2016). The phases consist of the following processes, namely, the recognition of the need; the determining of the specifications; the selecting suppliers, contracting, ordering, expediting and evaluation, handling of the faulty consignments, as well as, contract management. These phases are briefly outlined below from the perspective of Dlamini (2016):

Phase 1: Recognition of the need
This is where the resource needs of the user in terms of resources are communicated to the procurement unit using a purchase requisition.

Phase 2: Determining specifications
This step is concerned with the specifications which are describing and precisely specify the requirement that should be met by the supplier.

Phase 3: Selecting suppliers
In this stage, a suitable supplier is identified.

Phase 4: Contracting
This step involves the drawing up of a legally binding contract or a purchase of agreement.

Phase 5: Ordering

Ordering involves issuing a purchasing order to qualified suppliers and receipt of the acknowledgement in writing from the suppliers indicating whether they accept or reject the offer.

Phase 6: Expediting and evaluation

This step is where the procurement unit makes a follow up with the suppliers to ensure that delivery dates are met.

Phase 7: Handling faulty consignments

Although consignments are done outside procurement jurisdiction they should be involved since they have initiated the orders and they should have correspondence with suppliers should discrepancies and faulty consignments prevail.

Phase 8: Contract management

Contract management has to be evaluated and documented for future use purposes and the recommendation on improvement be made.

2.9 Centralisation versus decentralisation of educational resources management

Sebetlene (2017) points out that the procurement process in TVET colleges is inflexible and stringent. There is a red tape that needs to be followed in acquiring resources. For example, a lecturer is required to complete a requisition form, and submit the requisition form to an education specialist (senior lecturer) for approval. The education specialist has to sign the form and be submitted to the Head of Department (HOD), to the campus manager, to the deputy principal: Academic, to the Finance department and finally to the procurement department. This process takes some weeks before the requisition is processed and the ordered goods are received. Wilson (2019) suggests that the decentralisation of procurement leads to better responsiveness to purchasing needs. Sebetlene (2017) further asserts that effective supplier selection is of critical significance in ensuring that the required goods and services for teaching and learning delivery are procured and delivered on time. This implies that the procurement process needs to be decentralised since it is currently centralised.

Bush (2008) argues that centralisation of educational resources tends to be bureaucratic which give less power and authority for institutions to make their decisions about issues related to resources allocations. Bush (2008) suggests the devolution of powers to lower levels within a decentralised institutional structural setup. Bush (2008) further asserts that decentralisation in the allocation of resources is beneficial to institutions as it gives an efficiency edge as compared to centralisation. Bush (2008) further states that self-managing schools which have greater autonomy lead to greater effectiveness because of greater flexibility in the use of resources and financial decisions. Concurring with the views expressed by Bush (2008), Thai (2001) asserts that centralised purchasing authority has been challenged by practitioners and researchers alike. They prefer decentralisation of the purchasing authority since it responds quicker in terms of providing effective and efficient support to the end-user. In the same vein, Ikoya (2008) also argues that the availability, adequacy and functionality of educational resources such as physical facilities are higher in decentralised than in centralised institutions. This author recommended that the decentralisation of physical facilities to schools where principals and school management teams would be actively involved in the management and maintenance of physical facilities (Ikoya, 2008). Although this scholar specifies school principals and school management teams, the same notion is equally applicable to campus managers in the TVET college sector.

2.10 Review of the empirical literature on educational resource management

Extensive research has been done on the management of educational resources globally. This section reviews the literature related to the research problem of my study and the literature review is aligned to the research question. Further, the review of research journals, theses, books and dissertations related to the subject under study are synthesised and analysed to provide a constructive critique. This section provides a critical reflective review of related literature to identify knowledge gaps, relations, contradictions and further needs for research.

2.10.1 educational resource management: International studies' perspectives

Kong (2009) and Ajoke (2014) conducted studies on the management of resources. Their studies focused on the importance and contribution of resources towards effective teaching and learning in Hong Kong and Malaysia respectively. Both studies were conducted in a school

context. Kong (2009) conducted an empirical study, Kong (2009), investigated the school-based planning for use of information technology to improve the quality of education for the 21st century in Hong Kong. The study aimed at providing recommendations on school-based planning for the utilisation of Information Technology (IT) to improve the quality of school education. The implications for this study are that it provides the importance of resource utilisation especially, the IT resource and the significance of site-based planning of resources to enhance teaching and learning. It also provides suggestions on how resources can be planned and utilised. For example, it is suggested that the role players should plan and use resources effectively for effective teaching and learning delivery. The study also generated data using qualitative methods which also makes it related to the current study. However, the context in which the study was conducted and the participants who participated in the study make it different from this study.

Ajoke's (2017) study aimed at evaluating the use of instructional material in teaching the English language as a second language among secondary school students in Malaysia. The study employed a descriptive survey design. A random sampling of 153 students in two schools of the same district was undertaken where an external examination objective test was used to collect quantitative data and inferential statistics of t-test were used for data analysis. The findings of the study revealed that the performance of the secondary school students not taught with the use of teaching materials was very poor. The findings also revealed that there was no significant difference in the performance of students in the English language based on gender and school type. The implication to the current study is that it highlights the importance of educational resources and their contribution to the effective teaching and learning delivered which is related to the current study.

2.10.2 Educational resource management: Perspectives from the African continent

A number of studies were conducted in African countries such as Nigeria (Asukwo, 2018; Edokpolor, 2019; Ogbu, 2015; Ogbuanya, 2017; Urama & Ezeani, 2017;), Ethiopia (Hailu, 2007; Mengistu, 2014; Nigussie, 2017; Tezera, 2017); Kenya (Makori, 2014) and Swaziland (Langwenya- Myeni, 2017). The focus of these studies was on the availability and utilisation of educational resources in TVET and in school contexts.

In Nigeria, Urama and Ezeani (2017) conducted a study that aimed at investigating the availability and utilisation of material resources by the lecturers for effective teaching of business education in colleges of education in Enugu States of Nigeria. This quantitative study employed questionnaires to collect data and descriptive statistical tools were used to answer research questions. The population comprised 199 business education students and 16 business education lecturers which brought to a total of 215 respondents. The study revealed that material resources were not enough and were underutilised. Challenges faced by the lecturers were identified. The study recommended that the federal government, the state governments and other stakeholders involved, should provide adequate funding necessary for equipping and updating the business education workshops, libraries and studios.

Urama and Ezeani's (2017) study is related to the current study. Urama and Ezeani (2017) found inadequacy and underutilisation of educational resources for effective teaching and learning in TVET colleges, and these relate to the present study. Urama and Ezeani (2017) recommend that the state and other stakeholders should be involved in providing adequate funding for necessary equipment and updating workshops. The study did not cover the experiences and understanding of campus managers on the management of resources, which is the focus of the current study. Furthermore, the participants selected, methods of data collection and data analysis make it different from the current study.

Ogbuanya (2017) conducted a study to determine material resource management for effective teaching of electrical/ electronic technology education in the South- and the South-Eastern States of Nigeria. The study was conducted because material resources mostly in various school's workshops were poorly managed for instructional activities in electrical/ electronic technology which negatively impacted effective teaching and skill acquisition for students. This quantitative study employed structured questionnaires to collect data t-test statistics to test the null hypotheses. The findings revealed that planning, organising, controlling and coordinating material resources were needed for effective management of material resources for effective teaching of electrical/electronic technology education. It was recommended that the government through the education ministry needs to organise a workshop on proper management of material resources which includes planning, organising, controlling and coordinating. It was also recommended that the lecturers and instructors need to enhance their knowledge and skills for material resource management.

The findings and the recommendation presented in the above paragraph, are closely related to the current study. It covered the management of educational resources, the challenges and the mitigation strategies of the challenges. Ogbuanya's (2017) study emphasised that management functions such as planning, organising, controlling and coordinating educational resources are significant in the effective management of educational resources in TVET colleges. Challenges such as poor management of resources were also identified. Furthermore, it was recommended that the government should provide all role players with training on management of educational resources to enhance their knowledge and skill in managing resources. On the contrary, the selected methods of enquiry are quite distinct from the current study. The study did not cover the understanding and experiences of campus managers in managing educational resources.

Asukwo (2018) conducted a study to investigate the utilisation of instructional facilities in Electronics Workshop Practice and Maintenance for students' acquisition of trade skills in technical colleges in Akwa Ibom State in Nigeria. A survey research design was adopted for the study and the entire population of NTCIII students of Electronics Workshop Practice and Maintenance was used for the study. Questionnaires and Mean and standard deviation were used to answer the three research questions while t-test statistics was used to test the three hypotheses. The findings of the study revealed that even though most consumables were often utilised, only a few equipment and tools were often utilised for the acquisition of trade skills in Electronics Workshop Practice and Maintenance. Also, the findings indicated that both the male and the female students shared similar views on the extent of utilisation of the instructional facilities. It was, therefore, recommended that workshops and seminars should be organised on the importance and benefits of the utilisation of instructional facilities in Electronics Workshop Practice and Maintenance for the teachers by principals of the technical colleges. The study is related to a current study in terms of the context, the challenges and the mitigation strategies of the challenges. This implies that TVET colleges are challenged by the underutilisation of educational resources and therefore, there is a need for the training of lecturers by college principals on the utilisation of educational resources and its benefits. However, the study differs on the participants selected, the method of collecting and analysing data to the current study. The study did not cover the understanding and experiences of campus managers in managing resources. Nevertheless, the study provides some insights that can be used in the current study.

Edokpolor (2019) in Nigeria conducted a quantitative study that aimed at investigating the level of physical facilities adequacy and instructional resources utilisation for teaching and learning effectiveness in Technical and Vocational Education and Training (TVET) programmes. A sample of 700 Nigerian participants was randomly selected and structured interviews were conducted to collect data from students and lecturers. The data was analysed using mean, standard deviation and t-test. The study established that physical resources were inadequate for teaching and learning processes in TVET programmes and instructional resources were underutilised. The study recommended that TVET managers should try to collaborate with major stakeholders for the provision of funding that would assist in ensuring that adequate physical facilities are provided for effective teaching and learning in TVET programmes. These adequate physical facilities would then assist in fostering a conducive environment for TVET courses' delivery which would also help in equipping students with the necessary skills to pursue entrepreneurial careers and lifelong learning upon graduation. The study provides insights on the context, the challenges and the solution to challenges resource management and utilisation. It is emerging that TVET colleges are challenged with inadequate physical facilities and underutilisation of instructional resources. Therefore, the collaboration of TVET managers with other major stakeholders for adequate funding provision that would help the inadequate supply of educational resources for effective teaching and learning in TVET colleges was recommended. What is drawn from this study is the challenges faced by TVET colleges and how these challenges can be addressed. On the contrary, the study differs from the current study in terms of methods of collecting and analysing data, and the participants selected. The study did not cover the understanding and experiences of campus managers in managing educational resources.

In Ethiopia, Hailu (2007) conducted a study that aimed at investigating the practices and problems of educational resource management and possible solutions or utilisation of material facilities in government TVET colleges in Nifas Silk and Akaki Kaliti sub-cities. Two government TVET were selected for the study and descriptive design was used. The study employed a mix of qualitative and quantitative methods. Stratified random sampling was used for trainers' selection and an accidental sampling technique was also used for the Deans, Departmental Heads and TVET experts' selection. Data was collected through questionnaires, interviews, observation and documents instruments. Data was analysed using frequency and percentage. The findings of the study revealed that the TVET workshops in both colleges were not equipped with the necessary material resources, facilities were not well equipped based on

the standard given, and trainers did not get instructional materials for their teaching activities in the practical activities. Physical facilities of the colleges were not utilised efficiently. Moreover, the maintenance sections were not present in the college to utilise the resource efficiently. The findings highlighted the absence of adequate learning- teaching facilities and materials, the absence of maintenance section, the absence of efficient utilisation of educational resources and the lack of adequate awareness on the management of educational resources.

Based on the findings and conclusions the study recommended that awareness should be created concerning the management of educational resources among trainers, department heads, TVET deans and TVET experts by the TVET agency; Educational materials and facilities need to be ensured by the TVET agency to ensure more practical training activities for trainees. It was also recommended that student-oriented methodology should be more used by the trainers in their professional practice, and that they should be equipped with tools, facilities and training manuals and should provide relevant reference book, and that each department should have a maintenance section. The study is related to the current study in terms of the context, challenges and possible solutions. The study provides some strategies that can be used to address the identified challenges. Therefore, managers and role players need to be capacitated in terms of managing educational resources. However, the study differs from the current study in terms of the methods of collecting and analysing data, as well as, participants selected for the study.

Mengistu (2014) conducted a quantitative study that focused on assessing the practice of educational material management and utilisation in secondary schools of Jimma Town in Ethiopia. The study employed a descriptive and inferential statistics to collect quantitative data and descriptive statistics were used to analyse data. The findings of the study revealed that the practice of need assessment, selection of materials, purchasing, distribution and inventory control of educational materials was found to be at a moderate level, lack of adequate material resource, lack of trained laboratory technicians, poor maintenance of facilities, ineffective utilisation of material resources and lack of training of staff on educational material management. It was recommended that school principals, staff and supervisors should be trained on the management of educational material and adequate educational material resources should be provided. Mengistu (2014) also asserted that effective communication, accurate and reliable information about the quality and quantity of educational resources available is for organisational efficiency. The solution is provided for addressing the identified challenges

which include the training of role players and adequate provision of educational resources. However, context, methods of collecting and analysing data as well as participants selected for the study seem to be different from the current study.

Ogbu (2015) investigated the availability and utilisation of instructional facilities and material for the effective teaching of Basic Electricity in Ebonyi State colleges. This quantitative study used a survey design and questionnaires for data collection. The sample size of 150 respondents includes electricity technical teachers, SSII and SSIII students. Data was analysed using t-test statistics. The study findings revealed that important facilities and materials were not and those available were not utilised effectively for the teaching of basic electricity. The study recommended that stakeholders need to make a financial and material contribution to enhance effective teaching of basic electricity. The implication for the current study is the fact that it provides insight on the context and phenomenon, challenges and solutions to challenges. It also provided insights into the fact that TVET colleges are challenged with inadequate availability and underutilisation of resources. Therefore, there is a need for stakeholders to make a financial and material contribution to enhance the effective teaching of basic electricity.

Nigussie (2017) conducted a qualitative study to assess the practice of material resource management in Kolfe Keranyo Secondary and Preparatory schools of Addis Ababa sub-city Ethiopia. The study focused on the material management functions such as planning, purchasing, distribution, controlling, utilisation, storage, inventory control and maintenance, disposal, and the challenges faced for effective management and utilisation of educational material guidelines policies. Descriptive survey methods of research were used to carry out the study. Data was collected through questionnaires, interviews and personal observation. Participants and schools were purposively selected. Participants comprised academic and administrative staff. Data collected was quantitatively and thematically analysed. The findings of the study revealed that integrated material management functions were not properly implemented and that training and continuous supervision in the area of educational material management was lacking. It was, therefore, recommended that capacitation of professionals to assist users in utilising material resources effectively should be done, school management should work closely with school community and stakeholders to develop a positive attitude towards management and utilisation of educational material, and that organised and integrated educational material management system should be designed by concerned bodies to utilise

and manage material properly. The implication for the current study is that educational resources are not properly managed and that resources management functions like planning, purchasing, distribution, controlling, utilisation, storage, inventory control and maintenance, disposal were not properly implemented. The challenges in effective management of educational resources and what should be done to address the challenges which include training of managers to assist users for effective utilisation of resources, collaboration with the community and relevant stakeholders, management and utilisation of resources and integrated management system need to be designed. However, the context, the methods of collecting and analysing data, as well as, the participants selected for the study seem to be different from the current study. The study did not cover the understanding and experiences of campus managers in managing resources.

In Kenya, Makori (2014) conducted a quantitative survey that aimed at investigating the secondary principals' views on teaching and learning resources related challenges facing small and medium-sized public schools in Kenya. Questionnaires were used to collect data and collected data was analysed using the Statistical Package for Social science. The findings revealed the lack of a library, laboratory, adequate classrooms, furniture, and sports facilities. The implication for this study is that there is a challenge of resource shortage. On contrary, the context, participants and methods of data collection and analysis used differ from those of the current study.

Tezera (2017) conducted a quantitative study that aimed at assessing towards assessing material resource utilisation practices and challenges in Wollega University in Ethiopia. The study employed a descriptive research design. Participants were randomly selected. Data was collected from 88 academic staff and 121 administration staff through questionnaires and interviews. Data was analysed using descriptive analysis. The study established that procurement process, storage, control mechanisms, and maintenance have a significant effect on material resource utilisation in Wollega University. The study also identified major challenges which include the poor procurement process, inadequate storage, tight controlling mechanism, and poor maintenance activities. The study also established that the disposal of obsolete material was not significant. It was recommended that the specification of resources should be identified, permanent stores should be built and storage of material should be arranged. It was further recommended that effective and sufficient maintenance professionals be hired and maintenance centre be organised separately in the institution. Implication for the

current study is that it investigated the utilisation of resources and the effects of the procurement process, storage, control mechanisms, and maintenance have a significant effect on material resource utilisation. The challenges like poor procurement process, inadequate storage, tight controlling mechanism, and poor maintenance activities are identified and how such challenges are mitigated were proposed. Therefore, there is a need to identify specifications of resources, build permanent stores and arrange storage of material. And also the hiring of effective and sufficient maintenance professionals and organising of a separate maintenance centre in the institution. What I have noted thus far is that similar challenges are encountered in the context of Ethiopian TVET colleges, as well as, those of the other African countries I have studied.

Langwenya- Myeni (2017) conducted a qualitative study in which was aimed at investigating the dynamics of generating and managing educational resources in Swaziland schools where she explored the experiences of Headteachers and Heads of Departments. The study employed a mixed-method approach using a multi-site design. Data was collected through questionnaires, face-to-face interviews, focus group interviews and document analysis. Thematic analysis and descriptive statistics were used to analyse the data collected. The findings of the study revealed that while the schools had the basic resources, some of these were obsolete and others needed immediate repairs.

Although schools seemed to have the potential of linking with the external environment, resource generation therein was currently inward-looking and very limited in terms of expansion strategies. The schools did not have structures in place for resource mobilisation and management. There was an apparent absence of clear policy guidelines on resource activities, no strategic planning conducted with the external world and school managers (HTs and HODs) seemed to lack skills and techniques for generating and managing educational resources. The study concluded that the schools needed to improve upon their internal mechanisms to manage existing resources. It further concluded that the current inwards looking approach to resource generation was unsustainable. Schools needed to forge partnerships at two main levels: with other schools and with the broader community. For the current study, it provides insight on how resources can be generated and managed, as well as, how the challenges in managing resources and solutions in managing educational resources can be found. The resources available are poorly managed. However, the study differs from the current one on the context, participants selected, methods of data collection and analysis.

2.10.3 Educational resource management: perspectives from South African studies

In South Africa, most studies have focused on management practice and management of educational resources in a TVET college sector and also in school contexts, capturing views and experiences about challenges and solutions (Phakathi, 2015). Phakathi (2015) conducted a qualitative study that aimed at exploring the role of the School Management Team (SMT) in the management of LTSMs in schools. The study adopted a case study research design. The data was generated through semi-structured interviews and documents reviews, in the form of, for example, the LTSM retrieval policy that was used. The data was analysed using a thematic approach. The findings of the study revealed that the SMT comprises the LTSM Committee, to the exclusion of other key stakeholders such as the teachers. The LTSM Committee is responsible for the procurement and management of textbooks in schools. Findings also pointed to a number of challenges that were encountered in the procurement and management processes. One key challenge identified was the inadequate LTSM budget allocation. The study concluded that there was no effective implementation of the LTSM policy in schools. It was recommended that the School Governing Body (SGB) needed to monitor the work of the LTSM Committee in the implementation of the LTSM policy in schools. Further, the LTSM Committee must be accountable to the SGB and the Department of Education regarding how the LTSMs were managed in schools.

The implications for the current study are that it deals with the management of resources, the challenges encountered in managing educational resources and how those challenges can be addressed. The study also found that the resources were not properly managed. The challenges identified in relation to the management of resources include the shortage of sufficient budget allocation and the lack of effective implementation of resources policy. Therefore, there is a need for managing resources in terms of monitoring the implementation of resource policy and the issue of accountability about the resources procured. The method of data collection and analysis is related to the current study. However, the study differs from the current one in terms of the context and participants selected.

Msimanga (2019) conducted a qualitative study focusing on the multi-grade classrooms (Grade 1 to Grade 9) in farm schools in the Free State province of South Africa. The study aimed at examining how the teacher in multi-grade classrooms managed and used the available resources in their classrooms. Qualitative design and interviews were used to collect data. The

findings of the study revealed that there was an improvement in the availability of resources in the classrooms surveyed. However, the findings also revealed that there was still a serious shortage of textbooks that were dedicated to multi-grade classrooms. It was also established that the available resources were under-utilised or improperly utilised. The study also revealed that the teachers often used their personal resources like smartphones to do their work, instead of the institutions' resources. Lastly, it was revealed that the teachers attempted to use different types of resources to cater for the students' different learning styles. Therefore, the study recommended that teachers should be aware of the available resources locally and globally for accessibility and procurement purposes. Teachers should also develop strategies for optimum utilisation of available resources and to use available resources effectively and efficiently. The study is related to the current study in terms of various elements such as the challenges identified and possible solutions to the challenges.

Wilson (2019) conducted a quantitative study to analyse the procurement management processes of the TVET College and to identify the procurement challenges faced by unit managers in the college. The data was collected through the use of questionnaires. After the collected data was analysed, the findings revealed that the unit managers were faced with numerous challenges in managing the procurement process and these challenges related to the implementation skills relating to the procurement procedures and compliance with the policies and regulations. The study further identified major concerns such as the current status of the application of the procurement management; the causes of late delivery of goods and services; the problems faced by the board, as well as, the identification of the possible remedies. It is hereby suggested that a future study be conducted on a similar subject from a comparative perspective with other TVET colleges in the North West province. There are obvious implications for the current study relating to the challenges in the management of the procurement process which impact negatively on the supply of educational resources and the strategies to mitigate the challenges.

Andrisha Behary-Ramraj (2016) conducted a study on the management practices in the TVET colleges in the KZN province. The study examined the management practice in relation to the challenges faced by the TVET sector. The study used a mixed-method approach to data collection from a sample size of 380 respondents. The data were analysed using regression analysis and content analysis. The findings revealed that the TVET colleges in that province

were faced with various challenges, including financial constraints, low throughput rates, inadequate lecturer qualifications, poor teaching environment, poor facilities and limited oversight procedures in relation to the governance of colleges. The study recommended the development and implementation of an effective skills development programme to address areas of leadership, governance, change management, as well as, staff development. Like the other studies conducted in the country, the study by Andrisha Behary-Ramraj (2016), has various implications for the current study is that TVET colleges are confronted with management issues and how these issues can be addressed.

2.11 Emerging issues from the reviewed literature

The emerging issues from the reviewed literature relate to the challenges in the management of educational resources, and the strategies that can be adopted to overcome the challenges in the management of educational resources. In the next section, I summarise these challenges and the strategies.

2.11.1 The challenges in the management of educational resources

Five key challenges were encountered concerning the management of educational resources, and these relate to the procurement process, the inadequacy of the supply of educational resources, the lack of funds, as well as, poor maintenance of educational resources, as well as, Poor management practices in managing educational resources. These five challenges identified in the literature are briefly discussed below.

2.11.1.1 The procurement process

Sebetlene (2017) has identified problems with the TVET colleges' procurement process which were described as inflexible and stringent. The procurement process involved red tape that was followed in the procurement of material resources. For example, the lecturers had to complete requisition forms and submit them to various people before it was finally processed, and such requisition processes caused delays. There were also challenges in the management of the procurement process which impacted negatively on the supply of educational resources and the strategies to mitigate these challenges (Tezera, 2017; Wilson, 2019). The other challenges

included the lack of competency in implementing procurement procedures and compliance with policies and regulations (Wilson, 2019).

2.11.1.2 Inadequacy supply of educational resources and under-utilisation

The second challenge faced by TVET colleges related to the inadequate availability and under-utilisation of educational resources which hindered effective implementation of quality teaching and learning in TVET institutions (Asukwo, 2018; Edokpolor, 2019; Hailu, 2007; Makori & Onderi, 2014; Msimanga, 2019; Ogbu, 2015 & Urama & Ezeani, 2017). The resources such as workshops were not equipped with the necessary resources; the facilities were not up to standard; the non-supply of instructional material for the trainers to teach practical activities. In addition, the physical resources were not utilised effectively, and the lack of libraries, laboratories, inadequate classrooms and furniture and sports facilities were some of the challenges that emerged from the literature.

2.11.1.3 Lack of funds

The review of literature has clearly shown that funding of educational system and proper management of finances of the educational institutions is central in the provision of educational resources (Akpabio, 2015; Mengistu, 2014; Okoroafor, 2010; Udoka, 2010; Yusuf & Soyemi, 2012). The type, the quality and quantity of educational resources available and the efficiency of the educational institution is largely dependent on the financial provision and management of finances (Mengistu, 2014). Literature has also indicated that educational institutions experience remarkable financial constraints due to insufficient funding available to them. Such inadequacies pose a threat to the effective management of educational resources

2.11.1.4 Poor maintenance of educational resources

The four key issues are about poor maintenance of educational resources such as facilities and equipment which were also found to be inadequate and campus managers have expressed preferences of acquiring new educational resources like building new classrooms, laboratories and equipment (Mengistu, 2014). The absence of a maintenance programme was identified in the literature as another challenge in managing educational resources (Akpabio, 2015).

Inadequate and obsolete infrastructure and equipment were identified as a challenge in TVET colleges in South Africa (Ayonmike, 2014, Egwu, 2009; Serumu, 2014).

2.11.1.5 Poor management practices in managing educational resources

The fifth and last challenge identified in the literature is related to poor management practices in managing educational resources. TVET colleges are confronted with a challenge in the management of TVET institutions and educational resources. These issues include a lack of necessary requisite skills in managing the resources which result in poor management of institutions as some managers are incompetent in terms of managing resources efficiently (Behary-Ramraj, 2016; Mengistu, 2014; Phakathi, 2015; Ogbuanya, 2017; Tezera, 2017; Nigussie, 2017). Akpabio (2015) asserts that managers lack managerial skills and those who possess managerial skills fail to put them to practice. It was established, for instance, those management functions were not properly and effectively implemented. The shortage of budget allocation and the lack of resource policy implementation, outdated and non-maintenance of educational resources, the absence of resource mobilisation and management structure, the absence of clear policy guidelines on mobilisation and management of resources, and the absence of strategic planning were some of the examples of poor management practices picked up in the literature (Hailu, 2007; Langwenya-Myeni, 2017; Ogbuanya, 2017; Phakathi, 2015; Nigussie, 2017).

2.11.2 Overcoming challenges in the management of educational resources: Perspectives from literature

The mitigations to the identified challenges are discussed as per challenge, namely, the procurement process, the inadequacy supply of educational resources and under-utilisation, the lack of funds, poor maintenance of educational resources, as well as, poor management practice in managing educational resources.

2.11.2.1 The procurement process

Strategies to mitigate the procurement process and the management of the procurement processes' challenges include the following: The need for TVET college supply chain policy

to be reviewed; The training of unit managers and role players; Proper Procurement Management Plans and Budget Procurement Plan. Budget approval was identified in the literature to be highly ineffective in the college and this impacts the procurement of goods and services. Therefore, some strategies recommended in the literature include the college management putting plans in place to improve the development of procurement plans (Wilson, 2019). All role players in the procurement management process should be equally represented including unit managers, support staff and senior management (Wilson, 2019). The CFO should make the budget available to all cost centre managers so they can develop realistic procurement plans; Development of policies and procedures that are aligned with the National Treasury (Wilson, 2019). Colleges need to ensure that policies and procedure manuals implemented are in line with the National Treasury requirements (Wilson, 2019). The decentralisation of college structures to facilitate the devolved decision-making processes relating to the procurement process management for better responsiveness to the needs of the campus is suggested (Bush, 2008; Ikoya, 2008; Thai, 2001; Wilson, 2019).

2.11.2.2 Inadequacy supply of educational resources and underutilisation

Scholars such as Asukwo (2018); Edokpolor (2019); Hailu (2007); Makori & Onderi, 2014; Ogbu (2015), Urama & Ezeani (2017) and Msimanga (2019) suggest that educational resources need to be adequately made available and be fully utilised. According to these scholars, the campus managers and the lecturers need to be trained on the effective utilisation of resources and its benefits. In addition, the state needs to provide adequate funding for necessary equipment and updating workshops (Urama & Ezeani, 2017). TVET college managers including campus managers need to collaborate with other major stakeholders for adequate funding provision that would help the inadequate supply of educational resources for effective teaching and learning. This implies that TVET colleges are challenged with inadequate availability and underutilisation of resources which negatively affect teaching and learning. Therefore, adequate provision and fully utilisation of educational resources is needed for effective teaching and learning delivery in TVET colleges.

2.11.2.3 Lack of funds

Government should make funds available to institutions and managers of institutions should mobilise funds. Akpabio (2015) also suggests that campus managers and TVET college

management as a whole should find alternative means of sourcing funds for educational resources.

2.11.2.4 Poor maintenance of educational resources

Akpabio (2015) suggests that there should be a policy directive on minimum standards with regards to educational resources such as facilities of the institution and the policy needs to direct managers' actions on the management of these resources and managers should adopt a good maintenance approach in managing educational resources.

2.11.2.5 Poor management practice in managing educational resources

Scholars such as Hailu (2007); Langwenya- Myeni (2017); Mengistu (2014); Nigussie (2017); Ogbuanya (2017); Phakathi (2015) maintain that there is a need for managing resources in terms of monitoring the implementation of resource policy and accountability about resources; the availability of a policies and guidelines for educational resource management which specify the responsibilities of both managers and end-users; a need for forging partnership with internal and external stakeholders for resource generation and of improving management of resources; a need for training of managers to assist users on effective utilisation of resources, the collaboration with the community and relevant stakeholders in management and utilisation of resources and integrated management system be designed, a need for managers and role players to be capacitated on managing educational resources; a need for government to provide all role players with training on management of educational resources to enhance their knowledge and skill in managing resources. Behary-Ramraj (2016) points out that managers need to be developed on management skills and development should cover issues of leadership, governance, change management and development. It was, therefore, suggested that all role players including campus managers should be trained on the management of educational resources. Scholars such as Oborn, Barrett and Dawson (2013); Roman (2017) further emphasise the significance of involving all stakeholders in policy formulation to accommodate different views in the interpretation and implementation. Oborn, Barrett and Dawson (2013) point out that the distributed leadership in policy formulation mediate different interests and create a coalition through engagement and prevent conflict and blaming between policymakers and implementers. Roman (2017) asserts that other stakeholders provide expertise to the policy, and their interpretation of the policy is critical in the effective implementation of the policy.

2.12 Theoretical framework

Imenda (2014) accentuates that a framework is used in research as a guide that helps the researcher to direct his or her search for data and to determine how the findings speak to the framework. In a nutshell, the framework guides the researcher in giving meaning to every stage and related aspects of the study. It acts as road maps toward understanding what is observed and assists in formulating informed decisions about the observations (Bernath & Vidal, 2007; Imenda, 2014; Wilson, 2010). To get an understanding of the experiences of campus managers in managing educational resources, I adopted Von Bertalanffy's (1968) systems theory and Bredeson, Klar & Johansson (2008) Context response leadership theory as the theoretical framework.

2.12.1 Von Bertalanffy's (1968) systems theory

Ludwig von Bertalanffy is a great philosopher and biologist and was a founder of the general systems theory from the 1940s to 1950s and his first published work was "The general systems theory: foundation, development and application". According to Von Bertalanffy (1968), every relationship in the organisational system is interdependent on one another to keep the system functioning properly and to achieve homeostasis. He supported an open system as against a closed system because a closed system is more associated with classical science (Wilkinson, 2011). He referred to an open system as the system that interacts with the environment or other systems. However, in a closed system, the interaction with the environment is minimal or does not exist (von Bertalanffy, 1968). He asserted that an open system mostly involves biological and social systems, but closed systems are usually mechanical systems. Lastly, he believed that open systems have flexible boundaries, whereas, in closed systems, boundaries are rigid (Wilkinson, 2011). He developed systems theory to explain the similarities in the functioning of different phenomena like living organisms, machines, galaxies and organisations. Von Bertalanffy highlighted the value of integrating the parts of a problem. He asserted that problems cannot be resolved in isolation from their interrelated components but that they should be understood and resolved holistically. Therefore, systems theory can be conceptualised as the relationship of interrelated components or elements of the system unified to achieve an overall goal of the organisation (von Bertalanffy, 1968; Wilkinson, 2011).

Scholars such as Kast (1972); Olum (2004); Drake (2009); Mele (2010) and Wilkinson, 2011) share similar views and actually support von Bertalanffy's ideas on systems theory. Kast (1972) and Wilkinson (2011) assert that a system can be understood as being composed of interrelated parts which are interconnected to achieve an overall goal. Systems can be viewed in two ways, namely, open system and closed system. An open system is concerned with the ability of the organisation to exchange information, energy and resources with its environment (Drake, 2009; Mele, 2010). Organisations are viewed as an open system when they are actively interacting with their environment for their survival and also depend on the environment for resources. The boundary that separates the organisation from its environment in an open system is flexible, meaning that, it allows more interactions of the organisation with its environment (Drake, 2009; Mele, 2010). The close system, on the other hand, has little or no interaction with the environment and the boundary that separates the organisation with its environment is rigid (Drake, 2009; Mele, 2010; Wilkinson, 2011).

According to Olum (2004), everything in an environment is a system on its own since the environment consists of social, economic and political institutions which are interdependent and are constantly interacting. He further states that the environment is also a subsystem of a larger system. The TVET College is a complete system on its own, however, it is a subsystem of the national education system (DHET) which is also a subsystem of the supra system known as the environment. The campus is the system on its own and is a subsystem of the college, and a college is the subsystem of the department of higher education and training as well as the environment. The campus is a supra-system to the units or departments of the campus. In cases where a campus is viewed as a subsystem of the college, therefore, the college is deemed to be a supra-system. This means that the organisations can be viewed as a whole system and broadly where an organisation is a sub-system of the bigger system which is an environment. Therefore, the system, subsystem and immediate supra-system need to work closely and the boundaries are open for the benefit of the system. When the above-mentioned relationship prevails, a support system will always be available for the benefit of the organisation. Simply put, when one part or component of the system is missing or removed, the whole system would be disturbed and the nature of the system will change.

Agabi (2010) adds that an educational institution (TVET college) is an open social system that continuously interacts with its environment through input, process and output. The significant task of the manager is to take advantage of available opportunities in securing resources needed for executing educational programmes. The manager of an educational institution should be prudent in the use of available resources in education and should start by identifying and exploring all sources of resources relevant to education. Prudence by the way involves harnessing, rational distribution, efficient utilisation and adequate maintenance of the identified resources.

Agabi (2010) also asserts that resources need to be properly distributed, efficiently utilised and adequately maintained to achieve the goals of the educational institution (TVET college). The extent and quality of educational goal accomplishment are determined by the proper distribution, efficient utilisation and adequate maintenance of educational resources (Agabi, 2010). He further states that the output of the educational institution (TVET college) system generates feedback into its environment. It ultimately affects the capacity of the manager to secure additional resources. In a case where output is deemed to be inadequate to justify the initial input of critical resources, it is difficult to secure additional input to sustain the production and management process of the educational institution. The input or processes of the educational institution such as TVET colleges that are required for self-sustainability are the work process (teaching and learning), the management process, the evaluation process, and the internal feedback process (from students). For the educational institutions (TVET colleges) to be regarded as resourceful, they should ensure that these processes are properly handled.

I adopted systems theory for this study since it vividly shows how TVET colleges as organisations interconnect with their sub-units or department and their external environment. It also portrays how campus managers can acquire, distribute, utilise and maintain scarce resources, working and understanding the interconnectedness of TVET colleges and their sub-units. It is about the nature of organisations in terms of their structures and how elements of the structure relate to one another within the system. However, the systems theory approach alone cannot fully explain the issue of educational resource management. It runs short in explaining the issue of how campus managers practice the management of educational

resources. Hence, I opted for the context-responsive leadership theory to complement the systems theory.

2.12.2 Bredeson, Klar and Johansson's (2008) context-responsive leadership theory

According to Bredeson, Klar and Johansson (2008; 2011), context-responsive leadership theory unpacks how context influences the leaders' behaviours and practices while they are engaged in various leadership processes aimed at achieving organisational goals. It is conceived as a balanced application of an intricate blend of knowledge, abilities, and characters properly entrenched and discharged by effective leaders, which assist them to interact prudently with the evolving situational variables and characteristics of their context. This theory shows a set of behaviours that applies a particular level of restraints or reception of certain features of a particular context to attain the desired outcome. Context-responsive leadership theory in varying environments assumes that leaders engage proactively with the dynamic situation of practice (Bredesen, Klar & Johansson, 2011). This theory portrays the capacity of leaders to 'push back' on challenges that seem to hinder the intended goals and vision of the institution. It provides a mirror in which leadership behaviour and practice can be understood concerning context and contextual realities.

According to Bredesen et al. (2011), the context-responsive leaders are contextual literate, sensitive to and aware of important elements of context, purpose, and actions. They engage in fluid conversations with situations of practice. They recognise the variations in context situated in such interactive dimensions as time and historic moment, place, and people. They also understand that variations in context can both enable and constrain their behaviour, and they respond to such variations in an appropriate time and manner. Context-responsive leaders respond to context when it is appropriate and take action to shape their contexts of practice (Bredeson et al., 2008; 2011).

Hallinger (2003) asserts that it is virtually pointless to study leadership without reference to context. The context-response theory in this study seeks to bridge the gap in understanding the interactions that exist between campus managers and the context through unpacking how context influences their behaviours and practices while they are engaged in various leadership

processes aimed at achieving college goals. Bredesen et al. (2011) argue that context-response leadership portrays the capacity of leaders to 'push back' on challenges that seem to hinder the intended goals and vision of the organisation. According to Bredesen et al. (2011), 'push back' refers to defiance by leaders to succumb to problematic situations which have the potential to make these leaders dysfunctional. They further assert that this theory provides a mirror in which leadership behaviour and practice can be understood concerning context and contextual realities. Leaders who are capable to push back are interested in knowing when, where, why, and how to push back or reconfigure the elements of their context to provide a more promising context for achieving their aims and objectives (Bredesen et al., 2008). I adopted context-response leadership theory for this study to explain how campus managers push back their practices/actions to respond to the conditions within which they work to enhance teaching and learning in their campuses.

2.12.3 Justification for using these two theories

I have adopted two theories for this study, namely, Von Bertalanffy's (1968) systems theory and Bredesen et al. (2008,2011) context response leadership theory. I used two theories to get a complete picture since one theory cannot provide a full understanding of how campus managers manage educational resources in TVET colleges. Systems theory covered the nature of the organisations in terms of their structures and how elements of the structure relate to one another within the system. On the other hand, Context response leadership theory explains how campus managers adapt their practices/actions to respond to the conditions within which they work.

Figure 1 below shows the visual presentation of an adapted model of the two theories (systems & context-responsive leadership) which illustrate the management of educational resources in a TVET college. The organisation is made up of components (inputs, transformational process, outputs, feedback, environment). The environment (State/ DHET, Corporate world and context) injects resources to the TVET college as inputs (raw material, human material, capital, information, technology and context). The college filters down these inputs to campuses and units. The inputs are processed and transformed (employee work activities, management activities, operations methods) into outputs. The outputs (products or services, financial results, information, human results) are exported back into the environment which can also be used as

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the input for the next cycle. The output provides feedback to the system and the feedback influences the input. The environment brings context to colleges as input and context is processed through leaders adapting and responding to context during the transformational process.
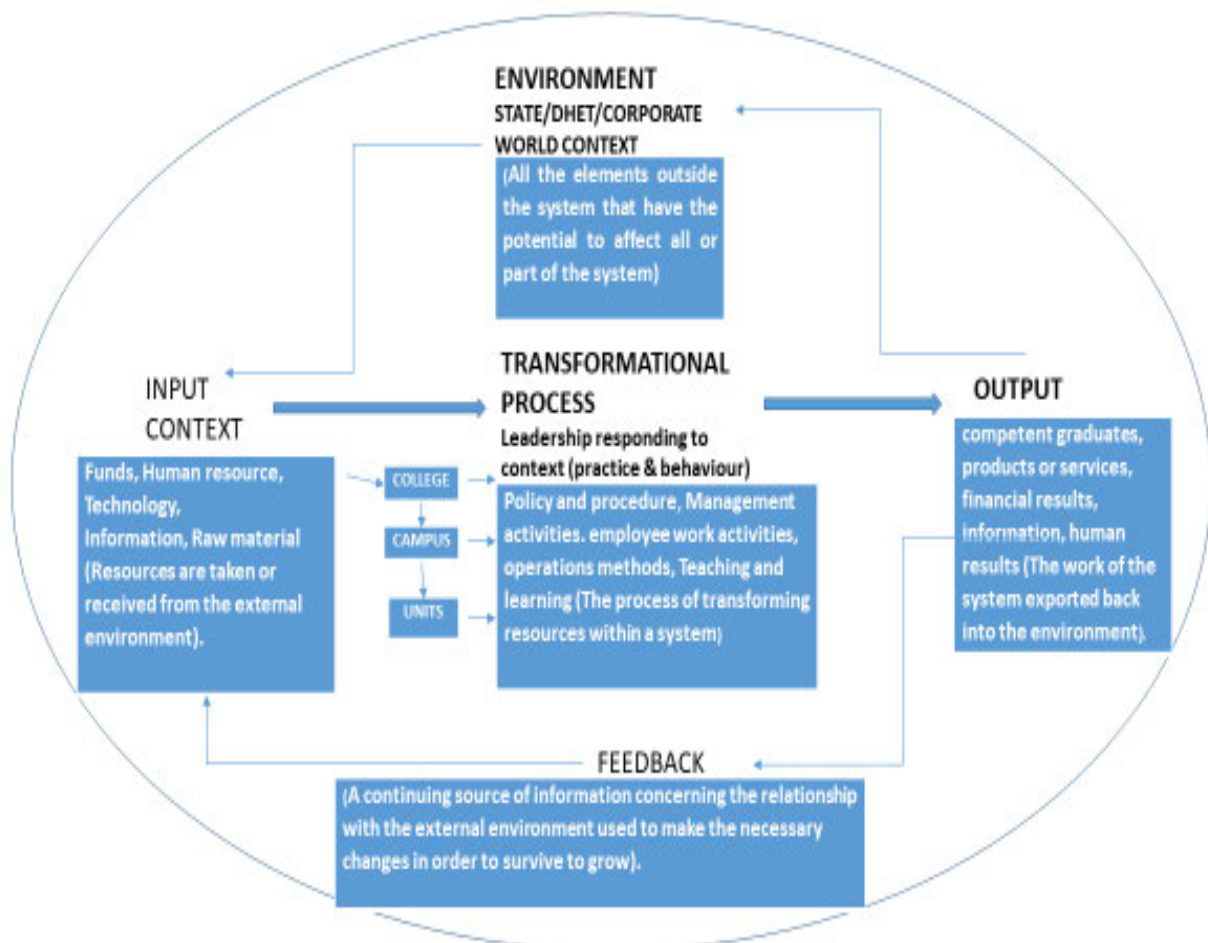
Figure 1: Adapted Model which includes element/ construct of two theories

Chapter summary

This chapter has outlined the literature related to this study. The literature reviewed covered the conceptualisation of resources, educational resources, management and management of educational resources. It also covered the discussion of management function and management of educational resources, challenges and how challenges were addressed. Lastly, this chapter concluded with a discussion of the theoretical framework which underpinned this study. In the

next chapter, I present and justify the research design and methodology that is adopted for this study.

CHAPTER THREE

RESEARCH DESIGN AND METHODOLOGY

3.1 Introduction

The previous chapter focused on reviewing literature and discussed systems theory as a theoretical framework underpinning this study. In this chapter, I present and discuss the research design and methodology that I adopted for this qualitative, case study. The study explored how campus managers manage educational resources in a TVET college. Justification for all actions taken and decisions made is provided. I begin by declaring and describing a paradigmatic disposition adopted for this study. I then present the research approach and methodology to describe procedures I used to generate and analyse data to answer the research questions. The sampling method used and the data generation method are discussed. Lastly, I discuss the issues of trustworthiness, ethical issues as well as the limitations of this study.

3.2 Research paradigm

Lincoln and Guba (1994) define a paradigm as a basic belief system or worldview that guides the research. This definition can be simply put as the beliefs or assumptions which a researcher makes and which serve to guide the research process and actions. Lincoln and Guba (1994) also add that a paradigm is the belief or assumption system that is based on how reality is viewed (ontology), how knowledge is produced (epistemology) and how information is gathered (methodology assumptions). In a nutshell, the paradigm provides the lens through which the researcher uses to comprehend, craft meaning and interpret a context and a phenomenon. Different paradigms are used by different researchers to view and frame their studies (Maree, 2007). Depending on the kind of study being undertaken, researchers can position their research studies within the positivism, post-positivism, constructivist or interpretive and critical paradigms (Maree, 2007). For a researcher to understand the human experience and to maintain the integrity of the phenomenon being investigated, an interpretive research approach is the most appropriate approach to be employed (Cohen, Manion & Morrison, 2011). The exploratory aim of my key questions resolutely places and located this qualitative study in the interpretive paradigm.

The aim of an interpretive researcher is to obtain a better understanding of how people interpret the situations at work and where they live, and hence, multiple realities (Bertram & Christiansen, 2020; Cohen et al., 2011). The researcher in the interpretive paradigm reposes on the experiences and views of the participants which influence the research. This study sought to understand how campus managers viewed their social world and how they made meaning of their actions. Campus managers may have the same roles and responsibilities, but their day-to-day experiences will differ. Campus managers working with different people in the institution and their realities are personal, professional and socially constructed (Bertram & Christiansen, 2020; Cohen et al., 2011). In this regard, the interpretive paradigm was deemed appropriate due to its compatibility with the scope of this study which sees reality as subjective and socially constructed by the participants as they interact with each other (Bertram & Christiansen, 2020; Cohen, et. al., 2011; Nieuwenhuis, 2010).

3.3 Research approach

This study follows a qualitative approach. A qualitative research approach is interpretive in nature and employs numerous methods to generate verbal, textual or visual data that cannot be counted (Bertram & Christiansen, 2020). Qualitative approach seeks to find a deeper understanding of the many truths that people hold in their natural settings (Bertram & Christiansen, 2020; Cohen, Mannion & Morrison, 2011). Qualitative approach is suitable for this study which sought to find an in-depth and detailed understanding of how campus managers manage resources in their campuses. The use of qualitative research enabled me to engage in a deep interaction with the participants. I interviewed different participants (campus managers) in order to understand their multiple realities as constructed by them (participants). According to Cohen, Manion and Morrison (2018), a qualitative researcher seeks to explore a particular group and does not generalise the results over the whole population. This study only used a particular group (campus managers), therefore, the findings cannot be generalised over the whole population of campus managers.

3.4 Research methodology

A research methodology can be described as a method of inquiry (Creswell; 2009; Kumar, 2014). This is the actual process or steps that are used in an attempt to answer the research questions (Bertram & Christiansen, 2020). I used a case study as a method of inquiry in this

study. A case study is an in-depth study of a particular context or situation (Maree, 2007). The case may be a particular person or group of people (Kumar, 2014). A case in this study is campus managers and it is the case of how they manage resources in their campuses. A case study assists in generating in-depth knowledge and a particular case is carefully studied to discover life in that situation (Maree, 2007). Kumar (2014) asserts that a case study assumes that the case being studied is typical of cases of a certain type, and therefore, a single case can provide insight into events and situations prevalent in a group from where the case has been drawn. My intention is to give a clear depiction of the work of purposively selected campus managers in their specific contexts.

3.5 Sampling methods

Creswell (2013) asserts that it is important in qualitative research to select sites and participants that will best assist the researcher to understand the problem and the research question. Creswell (2013) believes that in qualitative research, this could be done through purposive and convenient sampling. This study used purposive and convenient sampling methods to select the TVET college and campus managers. Convenient sampling is a non-random sampling where sites and participants are selected based on criteria such as accessibility, geographic proximity, availability, and willingness of participants to participate (Bertram & Christiansen, 2020; Creswell, 2013). On the other hand, purposive sampling can be conceptualised as the deliberate choice of participants based on the qualities they possess, such as knowledge and experience, availability, and ability to communicate their experiences(Etikan, Musa & Alkassim, 2016). The sample consists of three campuses in one selected TVET College. These campuses were conveniently selected because they are accessible and are in close geographic proximity to where I live. One campus manager in each of the selected campuses was purposively selected because of their role and responsibilities as accounting officers in their respective campuses and knowledge about management of resources in a TVET College. They all had more than five years' experience as campus managers.

3.6 Data generation methods

The study used semi-structured interviews to gather in-depth qualitative data and clarity (Bertram & Christiansen, 2020; Kumar, 2014). Semi-structured interviews make use of structured and open-ended questions which allow participants to further elaborate on important

information or idea (Bertram & Christiansen, 2020). This tool also provides an opportunity for the interviewer and the interviewee to discover important information which was not previously thought of (Gill, Stewart, Treasure & Chadwick, 2008). Apart from the fact that semi-structured interviews are popular, flexible, accessible, disclose even hidden facets of human and organisation behaviour, they are a convenient way of gathering information from managers since it creates meaning and makes sense about their jobs and their environment (Qu & Dumay, 2011).

3.6.1 Interviews process

Prior to the interview date with each participant, I negotiated with them the exact time and venue. I informed each participant that the duration of the interview would be approximately about 45 minutes to an hour. I outlined the full purpose of the research and how the interview data was going to be used. The process of interacting with participants was done telephonically and a consent form was emailed to participants before interviews. All the interviews were done online using the ZOOM facility to ensure social distancing as per Covid-19 regulations. Interviews were conducted at a time that was deemed suitable by the participants, and that we had already agreed about. I considered the views of Nieuwenhuis (2012) who argue that the ideal location is where there are no interruptions and distractions. I requested the participants to be in places that were physically and emotionally comfortable for them; and where they would not be interrupted nor distracted. More so, the place should have good wi-fi connectivity. I also informed the participants about recording the interviews for accuracy as the participants had consented to be voice recorded. I chose to use the voice-recorder since I assumed this was the most suitable method of picking up the real responses by the participants, thereby ensuring the accuracy of the data captured. The use of voice-recorder also allowed me to concentrate on the interview and the participants' responses.

I was aware that semi-structured interviews are prone to bias and unfairness on the part of the interviewer. To minimise these challenges, I used research questions and the literature as a guide to formulate the interview questions. To avoid ambiguity and to ensure some form of consistency, sequence, and phrasing of the main questions, I developed a common interview guide for the interviews. I ensured that the questions that appeared on the interview schedule were adequately addressed. I did this by asking follow-up questions where I felt the participant

was withholding information or had more to say. I also used a follow-up question for clarity seeking purposes and as a member-checking technique.

3.7 Data analysis

Once the data had been generated, it was transcribed into a word document and the initial analysis process began. Data analysis may be described as an endeavour to arrange, account for and provide explanations of data so that some kind of sense may be made of it in terms of participants' definitions of the situation, noting patterns, themes, categories and regularities (Cohen, Manion & Morison, 2011, Creswell, 2013). The process of analysing data gives sense to the data generated. According to Nieuwenhuis (2013), qualitative data analysis is not a once-off thing, but it is a process that starts from data generation to reporting. This process sometimes requires the researcher to go back to the field notes or the participants to verify certain information before making findings (Cohen, et. al., 2018; Nieuwenhuis, 2013).

In this study, I used inductive analysis to analyse the data. Inductive analysis is described as developing themes from the data (Cohen, et. al., 2011). In the context of this study, I started by transcribing recorded data *verbatim* and transformed it into a word document. I read and re-read the data to understand it. I then coded and classified it into categories and themes to facilitate understanding. I used the data analysis framework as suggested by Braun and Clarke (2006) of the phases of thematic analysis as indicated in Table 1:

Description of the process	Phase
Transcribing data (if necessary), reading and re-reading the data.	1. Familiarising yourself with your data
Organising interesting features of data.	2. Creating initial categories
Gathering all data relevant to each theme.	3. Searching for themes
Checking if the themes are appropriate.	4. Reviewing themes
On-going analysis to refine the specifics of each theme, generating clear definitions and names of each theme.	5. Defining and renaming of themes
Selection of vivid, compelling extract examples, analysis of selected extracts relating to the research	6. Generating the report

question/s and literature, producing a scholarly report of the analysis.	

Table 1 Phases of thematic analysis (adapted from Braun & Clarke, 2006, p.87)

3.8 Issues of trustworthiness

According to Lincoln and Guba (1985) and Babbie and Mouton (2009), validity and reliability are the most important criteria for quantitative studies, but for a qualitative study, terms such as credibility, transferability, dependability and confirmability are most preferred to measure the trustworthy of the study. Adopted these four criteria to ensure the trustworthiness of the findings of this study.

Credibility can be ensured when the researcher establishes trustworthiness by ensuring that what is reported is truthful and correct (Lincoln & Guba, 1985). To ensure credibility for this study, the data was adequately checked with the source for accuracy. I took back the written report of the interview to the interviewee to check the accuracy in recording and that the interviewee is willing for the report to be used in the research. Every step in the research was justified (Bassey, 1999). The report also underwent member-check and critique which helped in strengthening my research for credibility purposes.

Transferability refers to the extent to which the research findings can be applied in a similar context (Lincoln & Guba, 1985). To ensure transferability, a full description and detailed information about the number of colleges participating; geographic area; the number of participants partaking, methods of data generation; and the length of data generation sessions were provided. There were case records which assisted in the audit stages of my research in order to certify that the conclusion is justified.

Dependability refers to gradual stability of findings which entails participant's evaluation of the findings, interpretation and recommendations, supported by data generated from participants of the study (Korstjens, 2018). To ensure dependability, the research design and its implementation; the operational detail of data generation addressing what was done in the field was detailed in order to assist the reader of the report to gain an understanding of the methods used and the effectiveness of those methods.

Confirmability refers to the extent to which the research findings could be confirmed by other researchers (Korstjens, 2018). For confirmability issues, the use of member-checking, critique and peer review reading were employed in the study.

3.9 Ethical issues

Ethics are rules that guide and govern research practices and these rules are developed and are embraced by all scholars (Rule & John, 2011). On the other hand, Bertram and Christiansen, (2020) view ethics in research as a very important principle that needs to be considered mostly when the study involves human beings. I was ethically bound to make sure that the privacy, safety, anonymity and confidentiality of participants was protected and also that the views and responses of the participants were accepted. For compliance purposes, I obtained in writing clearance certificate from the University of KwaZulu-Natal and also from the Department of Higher Education and Training, as well as, the College and the participants themselves.

The participants were assured that the information they have provided for the study would be treated confidentially and would be used merely for the study. The participants were informed that their right to privacy and identity would be protected by assuring them that their names would not be published whatsoever, instead, *pseudonyms* would be used in the study. The participants were also informed about the purpose of the study and it was explained to them, as well as, what would be done with the results. I informed the participant that their participation in the study was voluntary and the fact that they could withdraw from participating in the study at any time and at any stage if they wanted to. The issue of payment was explained to the participants that they would not be paid for participating in the study but were only given one-gigabyte data bundles of their chosen network to aid ZOOM interviews. The safety of the participants was explained and they were assured that there would not be exposed to any harm.

3.10 Limitations of the study

The limitation of the case study is that the findings cannot be generalised unless other readers find the application appropriate and transfer it (Bertram & Christiansen, 2020). The findings of this study are limited to the college understudy and would not be generalised. It is restricted

to one TVET college. The focus of the study is on the management of resources in a TVET context and the campus managers' understanding of the management of educational resources. The findings are not generalisable and they were never intended for generalisation.

3.11 Chapter summary

In this chapter, I have presented a detailed discussion about the various research methods and the methodology underpinning them. As part of that discussion, I have made clear justification for various steps taken including the choice of the research paradigm, as well as, the qualitative approach that I adopted. The data generation, sampling methods were discussed, as well as, the issues of trustworthiness and issues of ethical consideration were highlighted. In the next chapter, I discuss the findings from the voluminous data generated through interviewing campus managers.

CHAPTER FOUR

DATA PRESENTATION AND DISCUSSION

4.1 Introduction

The previous chapter provided a detailed discussion about the research design and methodology of the study. In this chapter, data generated from interviewing three campus managers is analysed and presented. The study aimed to investigate campus managers' understanding and experiences of managing educational resources in a TVET context and addresses the following key research questions:

1. What do campus managers understand about their role in managing educational resources in a TVET college?
2. What challenges do campus managers experience in their role of managing educational resources in a TVET college?
3. How do campus managers overcome the challenges they experience in managing educational resources in a TVET college?

This chapter commences with profiling the research site and the participants. Then, three broad themes that emerged in the data analyses are discussed. These are (1) the campus managers' understanding of their role in managing educational resources, (2) the challenges experienced by campus managers in managing educational resources, and (3) how campus managers address the challenges they encounter in managing educational resources. *Verbatim* extracts from the transcripts are provided to display the participants' understandings and explicit lived experiences and to enhance the findings' trustworthiness.

4.2 The profile of the research site and participants

In this study, three campus managers participated and were from three different campuses in one TVET college. In line with the ethical issues outlined in the previous chapter, pseudonyms are used to identify the campus managers and their respective campuses and are presented in Table 2 below.

Campuses	Campus manager	Enrolment	Offers	Location	Student accommodation
Campus A	Mr Naidoo	500	NCV and 191 courses	Semi-rural area	No
Campus B	Mr Mdlalose	1500	NCV and 191 courses	Semi-urban area	Yes
Campus C	Mr Khuluse	900	NCV and skills courses	Semi-rural area	No

Table 2: Research sites

4.2.1 Research sites

This section presents the demographic summary of the research sites. This information is significant because it provides descriptions of the sites where the participants under study are working and leading. From the above table, it can be observed that Campus B and Campus C are big campuses with an enrolment of 1500 and 900 students respectively. While Campus A is regarded as a small campus with 500 students' enrolment capacity. Campuses A and C are located in a semi-rural area as opposed to Campus B which is located in a semi-urban area. Both campus A and B offer NCV and Report 191 courses while Campus C on the other hand, offers NCV and skills (training) courses. In terms of the resources, these campuses have and accessibility, Campus A has a small library without adequate and relevant books, working computer laboratories, a hall and a small workshop. This campus seems to be well-off since it has the necessary educational resources. It has no accommodation for students but is easily accessible in terms of public transport availability. Campus B inherited the former teachers' college buildings. The buildings are in good condition but need maintenance in some places. This campus has a small library without adequate and relevant books, it has working computer laboratories but with old computers, a hall, and workshops. It has accommodation for students and is easily accessible in terms of public transport availability. Campus C is utilising buildings that were designed for accommodation for a particular company and were converted to classes.

These buildings are old and dilapidated. This campus has inadequate computer laboratories with old and outdated computers, it has workshops that are not maintained, has no library, and has no hall. It has no accommodation for students and is not easily accessible to students in terms of public transport availability.

4.2.2 Description of participants

This section presents participants' demographic characteristics and a short description of participants in relation to their work as campus managers. Table 3 summarises the demographic information of the participants.

Participants	Campus	Gender	Age	Years of experience in TVET education	Years in current position
Mr Naidoo	Campus A	male	52	20	10
Mr Mdlalose	Campus B	male	50	13	7
Mr Khuluse	Campus C	male	57	12	6

Table 3: Description of participants

From the table above, it can be seen that all the research participants were male persons and were above 50 years of age. Mr Naidoo was more experienced in TVET education with 20 years of experience and 10 years as the campus manager. He is followed by Mr Mdlalose, who has 13 years of TVET education experience and seven years as the campus manager. Mr Khuluse has the least years of experience in TVET education with 12 years experience and six years as the campus manager. Mr Naidoo is an energetic and hands-on campus manager who started as a Post-level 1 lecturer, then a Senior Lecturer in different campuses and was later appointed as a campus manager in the current campus. Mr Mdlalose is a dedicated and vocal campus manager. He started as a Post-level 1 lecturer and was later appointed as a campus manager on the same campus. Mr Khuluse is a selfless and democratic campus manager. He started as a Post-level lecturer and was later appointed as a campus manager on the same campus.

This information provided about participants is important for this research since it gives perspectives about their age, gender, experience in TVET education and experiences as a campus manager.

Age: Practising teaching and leading education need a certain degree of maturity to comprehend various tasks that are undertaken in an educational field (Nhlumayo, 2020). Therefore, because of age and having spent some years doing tertiary studies, it is assumed that participants have a certain level of maturity and appropriate exposure to our educational system.

Gender: The different perspectives of both males and females may be significant, but participants involved in the study are all males that capture male dominance in leading campuses in this college and help get their perception as campus managers.

Work experience: The number of years working in an education field and particularly in the TVET sector provide a better understanding of the importance and experience in managing educational resources (Nhlumayo, 2020). It is assumed that those participants who have long service in the academic field and particularly in a TVET sector possess some knowledge and experience in managing educational resources.

4.3   Data presentation and discussion

This section presents and discusses data under the following themes: (1) The campus managers' understanding of their role in managing educational resources, (2) The challenges experienced by campus managers in managing educational resources, and (3) How campus managers address the challenges they encounter in managing educational resources.

4.3.1 The campus managers' understanding of their role in managing educational resources

The participants in this study were asked the following question: *what is your understanding of your role in managing educational resources in your campus?* This question helped me to establish the extent to which the participants knew and understood their role in managing educational resources in the TVET college. This theme is presented under the following sub-

themes: understanding management of educational resources and how campus managers manage educational resources.

4.3.1.1 Understanding the management of educational resources

The participants seemed to have a common understanding of their role in managing educational resources. The participants' views and conceptualisation of management of educational resources entailed ensuring that resources were made available and were used effectively to achieve the institution's goals. This involved procurement, utilisation, dispensing, and optimum use of resources for the effective execution of teaching and learning duties. In this regard, Mr Naidoo said:

> *For me, the management of educational resources is the management of all resources that a lecturer needs to do a job effectively. This means I must procure, dispense, and ensure that resources are optimally utilised. Campus resources are things such as textbooks, computers, stationery, and whatever resource a lecturer needs to teach students properly. Management of resources involves everything from ordering until all the way to the final user of the teaching material.*

Mr Mdlalose shared similar sentiments and spoke at length about other activities involved in the management of educational resources. He seemed to understand that educational resource management involves managing personnel, finances, material and infrastructure. He further included the procurement process as part of managing educational resources. Mr Mdlalose had this to say:

> *There is human resource, which means the management of personnel, management of staff, right! Then, there are financial resources. That would be the management of finances which could lead to things like consumables, books that all come from financial resources and all other support material like your computers, your internet, and all the money that is used to maybe maintain, upgrade, and/or to renovate and to keep the campus clean.*

Mr Khuluse emphasised the fact that he had to make resources available and be effectively managed for teaching to take place. Mr Khuluse said:

> *My role as a campus manager includes the importance of having all the resources that you need for you to run a campus. I am talking of buildings, the types of buildings,*

classrooms, computer laboratories, workshops and so forth. I am talking of human resources, the personnel that will be using all these resources. I'm talking about teaching, teaching resources. I'm talking about effective management of such resources so that teaching can be able to take place. There must be planning, resourcing and coordination to ensure that these things are available and used effectively for teaching and learning.

Mr Khuluse added that monitoring and controlling effective and efficient utilisation of resources is his major role, emphasising that under-utilised resources were a huge waste. He said:

As a campus manager, I must make sure that all the resources you have are used efficiently and effectively. Meaning, you must not have resources that should be under-utilised and resources that should be exhausted. So, as a person running a campus or managing a campus, it is basically my job to make sure that I run the campus. Effective teaching and learning require that I make resources available. You cannot have a campus and you cannot have a lecturer who has no work to do. You cannot have a support staff that has no work to do, you cannot have classrooms, computers workshops that are just lying around and unattended, unutilised. All the resources that are there, must be utilised 100%, otherwise, they are wasteful expenditure.

According to the participants' views, the management of educational resources is concerned with ensuring that educational resources are made available and effectively utilised to attain the goals of the institution. The participants' views about what it is to manage educational resources are shared by scholars such as Azubike (1993), and Bush and Bell (2002). These scholars conceptualise management of educational resources as a decision-making process about how educational resources can be acquired, allocated, utilised, maintained and evaluated. Mengistu (2014) highlights the significance of adequate provision, effective and efficient utilisation of educational resources as part of educational resource management, in line with what is emerging from the participants. Furthermore, Kigwilu & Akala (2017) indicates that for effective teaching and learning to occur, adequate resources need to be made available and be utilised efficiently and effectively, and this is the work of managers involved. The participant understanding in managing educational resources can be viewed with Von Bertalanffy's (1968) systems theory lens. Agabi (2010) asserts that the manager of an educational institution should be prudent in the use of available resources in education and prudence involves harnessing, rational distribution, efficient utilisation and adequate maintenance of the identified resources to achieve the goals of the educational institutions. This

means that campus managers need to understand how to manage educational resources for them to be prudent in managing educational resources and ultimately, to achieve the goals of their campuses.

4.3.1.2 How campus managers manage educational resources

The participants were further probed on what they actually did to manage educational resources in their respective campuses. This was meant to illuminate clearly how their understanding of managing educational resources was put into practice. In this regard, the issues around planning, acquisitions, formulating and implementing college policies, allocating and controlling educational resources, and ensuring effective and efficient utilisation of campus resources. These are discussed below.

4.3.1.2.1 Planning

The data generated from the participants revealed that campus managers understood that part of their management activity was to do the planning. The participants had an idea that planning involves setting targets and putting in place how those targets are achieved, including, identifying the resources needed to achieve those targets. On this issue, Mr Naidoo revealed that lecturers were the ones who made decisions about the resources needed. They initiated the process of identifying the needed educational resources and the support staff was there to support the lecturers. Mr Naidoo said:

> *We are looking at what the lecturer needs and also what the support staff needs, and we plan from there. It comes directly from them because they have got to give us a wish list or the requirements a year prior to when they need those items. It comes from them via Educational Specialist and then the HOD and are signed off by me to confirm that these are needed. In a nutshell, planning is setting targets and how these targets will be achieved.*

Similarly, Mr Khuluse expressed how they did planning on their campus, adding that it was a team effort. Mr Khuluse said:

We team with other colleagues to set targets of what we need to achieve and the resources needed to achieve those targets. We plan which resources are going to be used and how.

Mr Mdlalose's views on this issue revealed that, as much as they decided as a campus about educational resources needed, the final decision lay with the central office. Mr Mdlalose said:

Yoh, in our system, the campus management will plan and decide this is what we want. However, it is the central office that decides whether we get it on not. When we do the planning to procure teaching and learning resources, we involve end-users. Otherwise, you might end up buying something that you don't need or find out that the end-user prefers something else.

It is emerging from the discussion above that part of the campus management's role as leaders is to do the planning. This involves the leadership role of deciding on targets and setting plans on how those targets will be achieved. The lecturers or end-users are part of the process deciding on the needs of the units and those of the individual end-users. This finding is corroborated by Mengistu (2014) who asserts that the basis of planning is on the needs' identification of the required educational resources as determined by the end-user and managers. Balkrishen & Mestry (2016) asset that part of campus managers' leadership role include fostering collaborative culture among staff members to improve institutions' performance. Bajahnun and Attia (2021) show in their study a positive relationship between collaborative planning, forecasting and meeting targets as all the stakeholders involved understand what needs to be done. The campus managers practice can be viewed using Bredeson et al. (2008) Context-responsive leadership theory. The planning for educational resources practice is informed by the nature and context in which campus managers work. The context entails policies, procedures and processes. This calls for campus managers to respond to the context through planning for educational resources.

4.3.1.2.2 Formulating and implementing college policies

All the participants in this study had a common understanding that key to their responsibility to manage educational resources was partaking in policy formulation and implementation. Campus managers are consulted to have inputs when policies are reviewed. Mr Naidoo indicated that policy formulation and update is done by Assistant Directors, their role as

campus managers is to provide input in policy formulation and reviews and to ensure that the policies are implemented at the campus level. Mr Naidoo said:

> *Assistant directors as per their portfolio, formulate and update policies. We, as campus managers, provide inputs in the formulation of policies and in all policy reviews. Campus managers also ensure that all stakeholders on campus have the opportunity to provide their input during the review of a policy. Campus managers are guided by these policies on the issue of managing educational resources.*

Similarly, Mr Mdlalose indicated that his role was to ensure that policies were effectively implemented on campus. On policy formulation, he indicated that they only provide input when policies during policy reviews. Mr Mdlalose said:

> *My Brother, there are policies that guide us. Our role is to ensure that policies are implemented. The formulation part of these policies is done by senior management. We are only invited to provide inputs on policy reviews. I have a problem with that but, it is a topic for another day.*

Mr Khuluse indicated that, as campus managers, they provided inputs on the policy formulation and implement the policies provided to them at the campus level. Mr Khuluse said:

> *We only implement policies provided to us. We are partly involved in the formulation of the college policies. Our involvement is when the policy has been drafted and being asked to provide input on the policy draft.*

The responses from the participants reveal that campus managers have a common understanding that they have a role as leaders to ensure that policies are implemented and to provide inputs on policy formulation and reviews. It is noted that their participation in policy formulation is limited and is just a consultative process. This has implications for policy implementation. Literature on policy (e.g., Oborn, Barrett & Dawson, 2013; Roman, 2017), emphasises the significance of involving all stakeholders in policy formulation to accommodate different views in the interpretation and implementation. Oborn, Barrett and Dawson (2013) point out that the distributed leadership in policy formulation mediates different interests and create a coalition through engagement and prevent conflict and blaming between policymakers and implementers. Roman (2017) asserts that other stakeholders provide expertise to the policy, and their interpretation of the policy is critical in the effective implementation of the policy. The campus managers' participation in policy implementation

and formulation can be viewed using Bredeson et al. (2008) Context-responsive leadership lens. The context in which campus managers work, direct them to ensure that policies are implemented and they are expected to fully participate in the formulation of policies. However, again, contextual realities in the college allow their limited participation in policy formulation. Therefore, campus managers' practice of playing a leadership role in policy formulation and implementation through providing inputs and implementing policies are aimed at responding to contextual realities.

4.3.1.2.3 Allocating and controlling educational resources

The participants revealed that part of their job as campus managers was to allocate and control educational resources. It emerged that TVET campuses are complex compare to the schools. There are different departments that need sophisticated laboratory and workshop materials and consumables. Some of these materials and consumables are very expensive and need campus managers to have closer control of them through collaborating with, lectures and senior lecturers and HODs. Mr Mdlalose said:

> *You see, TVET colleges are different from schools. Here we have different departments which specialise in skills development. Other departments have expensive equipment that they use and others need expensive consumables. I work with the HODs, senior lectures and lectures to allocate and control these resources. There are registers that are signed daily. So, the level of accountability is high.*

Mr Naidoo shared similar sentiments that he worked with other colleagues to monitor and control resources. He said:

> *Monitoring and control is part and parcel of my job. I have education specialists, HOD and myself to ensure that resources are utilised fully and effectively. We do class visits and walks about on a regular basis. In fact, the HOD and myself make it a point that we are seen on campus, on the floor more often than not, just to ensure that these resources are utilised and teaching and learning is actually taking place.*

Mr Khuluse said:

> *There are different systems and levels of monitoring and control. We have an internal process where we must have regular meetings regarding departments meeting, unit meetings, the campus meeting, and then on top of that, control all the resources. We*

need to comply with health and safety regulations. There are verifications of the work that is submitted. The central office schedules dates to come in and monitor, doing monitoring and evaluation. The Department of Higher Education does its monitoring and evaluation. Umalusi does the same.

It is emerging from the discussion above that campus managers understand that their role also entails the responsibility to allocate, control and monitor educational resources in their campuses. The practice of managing educational resources can be viewed in von Bertalanffy systems theory. Agabi (2010) notes that resources need to be properly distributed, utilised, controlled, and adequately maintained to achieve the goals of the educational institution. Yutchman and Seashore (1987), based systems resource model capitalises on the organisation's position to acquire, distribute and monitor the utilisation of scarce and valuable or valued resources in implementing its programmes. If the organisation is resourceful, it is likely to be effective in achieving its goals. Decisions about the management of educational resources need to involve all stakeholders. The systems model brings a better understanding of how campus managers work with others in a system to allocate, control and monitor educational resources. For TVET colleges to be effective, campus managers recognised different stakeholders and interconnectedness in allocating and controlling educational resources. The significance of the involvement of all stakeholders in decision making with regards to the management of educational resources is emphasised. The practice of allocating and controlling educational resources by campus managers can be viewed using Bredeson et al. (2008) Context-responsive leadership lens. The context in which campus managers work, direct them to allocate and control educational resources. Therefore, campus managers' practice of playing a leadership role in allocating and controlling educational resources is aimed at responding to contextual realities.

4.3.1.2.4 Ensuring effective and efficient utilisation of campus resources

The participants in this study knew that part of their job was to ensure that campus resources were utilised efficiently and effectively utilised. It is noted that the utilisation of resources differed depending on the range of things including the personality of the user, style of doing things, and the nature of the campus. Mr Naidoo highlighted that their campus had limited resources and that it was his responsibility to ensure that these resources were effectively and efficiently utilised. It upset him to see other staff members being wasteful. In this regard, Mr Naidoo said:

Yes, there is a shortage of resources such as computers or laptops, lecturers and things like that, but what do we have, we make sure that we use them fully and effectively. Part of the causes for the shortage of resources are some students and lecturers who are negligent. It makes me very angry to see expensive resources lying around and unattended to. It is very concerning to replace damaged equipment due to negligence. In this regard, I solicit the senior lectures to supervise lecturers to make sure that the resources are actually used effectively and efficiently.

On the issue of effective and efficient utilisation of resources, Mr Mdlalose mentioned that it was his responsibility to ensure that resources were effectively and efficiently utilised. He understood and associated effective and efficient utilisation of resources with students' achievement and attainment of the goals of the campus. When asked about what he actually did to ensure that resources were effectively and efficiently utilised, his response shifted to individual staff members' personal styles of doing things. He said:

Yes, my role is to ensure that resources are effectively and efficiently utilised. Generally, I would say, yes, but obviously, it will differ from person to person as an individual staff member, depending on the personality of that person, style of doing things and the range of things.

Mr Khuluse did not indicate his involvement in ensuring that resources were utilised effectively and efficiently. The deficiency was evident from his utterance that the sector had more personnel who did not work like machinery. Hence, for him, only 80% of the resources were utilised. Mr Khuluse said:

My take is that 80% of the resources are utilised because of the nature of the work we are doing and the people involved. A bigger percentage draws from humans or personnel, and where there are personnel, you cannot be able to achieve 100% utilisation of resources. If maybe it was a machinery that you are using, I would say machinery can be programmed to 100% but where there are humans, we work hard to get at least 80% of the resources utilised effectively and efficiently. Even 80% is too high.

From the literature reviewed, it was clear that campus managers together with teaching and non-teaching staff are responsible for the development of guidelines that will serve as the mechanism for effective and efficient utilisation of educational resources. These guidelines are essential to accomplish the vision and mission of organisations (Wolf & Floyd, 2017). The

findings from this study are showing that campus managers as leaders understood this role and responsibility. This can be viewed using Bredeson et al. (2008) Context-responsive leadership theory. The context demands that campus managers had to ensure that campus educational resources are effectively and efficiently utilised. Therefore, campus managers are responding to campus contextual realities by ensuring effective and efficient utilisation of campus resources.

In concluding the theme, it is emerging that the participants had a fairly understanding of their role in managing resources in their campuses. They understood this role which entails ensuring that resources are made available and are used effectively and efficiently to achieve the institution's goals. This involves planning, procurement, utilisation, allocating and controlling educational resources.

4.3.2 Challenges experienced by campus managers in managing educational resources

The participants were asked: *What challenges do you experience as campus manager in the management of educational resources in your campus?* This question assisted me in identifying the challenges that the participants experienced in the management of educational resources in their campuses. The data generated from the participants revealed a number of challenges which some were common and some were diverse. The following challenges emerged: challenge with procurement process which is too long, centralised and not quick enough to respond to campus challenges; Lack and inadequate supply of educational resources; lack of funds; and poor maintenance culture. These challenges are discussed as sub-themes below.

4.3.2.1 The procurement process as a challenge

The three participants shared a common view that they were experiencing challenges with the procurement process. The participants highlighted that the procurement process in their campuses was problematic and taking too long for them to receive the resources they order. Compounding this problem was the centralisation of the process and the apparent lack of urgency and poor attitude from the procurement personnel at the central office in responding to campus issues. The participants noted that this was causing delays in the procurement and supply of educational resources needed for the effective and efficient functioning of their

campuses. Mr Naidoo elaborated on the number of people involved to get procured resources. He said:

The challenge which all campuses face and particularly myself is that procurement time that is too long. It actually takes too long to procure things here. Uhm, again, because it is centralised, it generates delays. If you look at the number of people involved, it starts with the lecturer who would generate the request, senior lecturer or HOD will do requisition and motivation, it will go to procurement clerk and myself to sign off. There are already three or four people involved before it can leave the campus. Then it goes to the central office, there is a procurement clerk who receives it from the campus, then it moves to AD procurement, now it is taking 6 people, eventually, it gets to finance, and then once it has been approved by CFO, payment is made by the finance department. There are already 8 people for one single order to be processed. So, the turnaround time is too long.

Similarly, Mr Khuluse shared similar sentiments that the procurement process was too long and also noted that it took time to receive the goods they wanted for the effective functioning of the campus. He said:

The biggest one is not receiving resources on time. That is the biggest one that covers, I think, all because looking after the materials or consumables, it's our job. However, you must have something to look up. You order things and it takes ages to receive them if at all you end up receiving them. Agh man this is nonsense. How then should we work?

Mr Mdlalose identified centralisation as a possible cause for the long delays in the procurement of resources. He said:

What I am seeing is that resources are controlled remotely by a person who is not directly in interaction with the campus and see the needs of the campus daily. When your order goes to the central office, something that is urgent follows a long queue, then it will depend on that person whether he sees that as an urgent or sees that as one of those things. That is the challenge I am experiencing with procurement.

It is emerging from the discussion above that the participants were experiencing challenges with the procurement process of educational resources in their campuses. The participants viewed the procurement process as too centralised, and hence, caused delays and inefficiency in the supply of timeous educational resources. This view is corroborated by Bush (2008);

Sebetlene (2017) and Wilson (2019) who also identify centralisation as a challenge in the management of educational resources. Sebetlene (2017) found that the problems with the procurement process in TVET colleges was inflexible and involved red tape that is followed where lecturers must complete a requisition form and submit it to various people before it is actually processed.

The challenge of procurement emerging in this study can be better understood when it is viewed with the lens of von Bertalanffy system theory. According to Olum (2004), everything in an environment is a system on its own since the environment encompasses social, economic and political institutions which are interdependent and are constantly interacting. Olum (2004) further states that the environment is also a subsystem of a larger system. This implies that the TVET College is a complete system on its own. The campus is the system on its own and it is a subsystem of the college. Therefore, the system, subsystem and immediate supra-system need to work closely and the boundaries be open for the benefit of the system. When the above-mentioned relationship prevails, a support system will always be available for the benefit of the organisation. If the procurement department and the campuses work closely, the delays in the supply of educational resources could be prevented. This challenge can also be understood using Bredeson et al. (2008) context-responsive leadership theory, context-responsive leaders are contextual literate, they are capable of interacting with the context and recognise the constraints that impact their practice in various leadership processes that are aimed at achieving their organisational goals. Therefore, their responses, actions and decisions in their space of practice are informed by contextual realities.

4.3.2.2 Inadequacy supply of educational resources

The participants understood that they were responsible for ensuring that educational resources were made available and were used effectively to achieve the institution's goals. Their roles and responsibilities included procuring goods and services for the campus, and mobilising resources consistent with college goals. This entailed proactively negotiating and accessing resources outside one's immediate domain when necessary. Whilst this is ideal, the participants had different experiences with regards to ensuring a constant and adequate supply of educational resources to cater for the different NCV and Report 191 offerings in their campuses. In this regard, Mr Khuluse said:

There are unfortunately few splendid days than dull days when it comes to resource management. We have got instances where havoc is created by the delay in materials delivery by the supplier, never mind the delays from our long procurement process. We get used to being hauled for not having all resources needed for teaching and learning.

Mr Mdlalose also shared his experience of dull days due to a lack of, or inadequate supply of teaching and learning resources. He said:

When computers are freezing during practical work or exams, frustrated staff and students point fingers at the campus manager. So, the computers and projectors, when you don't have enough of those, you are in trouble. For example, students cannot share computes during the exams as much as it is difficult to share a computer during normal class or normal lecture, you see.

Furthermore, Mr Mdlalose mentioned the challenge of the lack of workshop personnel and equipment, angrily saying that it becomes a challenge for them to recruit and retain talented specialists if the working conditions for them are not ideal. He said:

We have a challenge getting workshop equipment and workshop personnel. In the workshops, we do not have what we call workshop assistants or trainers, we don't have those people, zero! Note that these are specialists who are in high demand in other organisations. Recruiting and retaining these talented people is a challenge if you do not create a space for them to have what they need to work effectively.

Mr Naidoo lamented on the shortages of educational resources, saying:

I would say, for 2020-2021 we definitely do not have sufficient resources and it is a challenge for DHET and the college has to look at it if it has to deliver positive teaching and learning.

The participants were asked about the possible causes for shortages of educational resources they were experiencing. Mr Naidoo mentioned the flaws in the funding model. He said:

… a lot of times it comes down to basically the funding model, or the funding norms and not having sufficient capital in terms of what we actually are required to do.

Mr Mdlalose shared similar sentiments that the lack of funds was a major challenge hampering the effectiveness of procuring and managing resources on the campus. He also had the same

view as he was asked about the allocation of educational resources, in his response this challenge came up:

> *We procure, but it depends on the availability of funds whether you get what you want. That means, you may have done your plan, you may put your requisition, and you might have collected tuition because students have paid, but if the central office says there is no cash, you will not get what you want.*

It is emerging from the discussion above that participants are experiencing a challenge of lack and inadequacy in the supply of educational resources in their campuses. The lack of funds and the funding model was highlighted as one of the causes for such shortages. The literature reviewed also highlights the challenge of shortage of resources. Sebetlene (2017) also found that sometimes, requisitions by campuses are not approved and they are told about the unavailability of funds. In countries like Nepal, Kenya, Nigeria, Delta States and South Africa the challenge of shortage of resources has been identified as one of the major challenges in TVET colleges caused by insufficient funding and mismanagement of funds (Biel, 2019; Edokpolor, 2016; Gamede, 2019; Konayyuma, 2019; Shodeinde, 2020; Thomas, 2019). The following was identified in TVET colleges with respect to shortage of educational resources: low supply of resources, inadequate teaching and learning material, lack of physical resources, inappropriate workshop equipment, inadequate supply of training materials and lack of facilities and equipment needed for teaching and learning.

When I look at the structural arrangement of the TVET college sector through the systems model, TVET campuses are sub-units of the main college. Viewing them from that angle, TVET colleges should capitalise on their position to adequately acquire, rationally distribute, efficiently utilise and regularly maintain scarce resources to its campuses. Failure to do this compromises the sub-units and negatively affects the curriculum implementation, quality of graduates, outcomes, and cause student unrest (Gamede, 2019). Systems theory promotes the interaction between an organisation and its environment and assists in guiding managers not to analyse problems in isolation but to use an integrated approach (Bush, 2003). This suggests that TVET colleges, college councils, community, business and industry, DHET, government departments, Non-governmental organisations (NGOs), donors, and other partners need to jointly support TVET education to strengthen the economic growth of the country (Bush, 2003). The lack and inadequacy in the supply of educational resources challenge can also be understood using Bredeson et al. (2008) context-responsive leadership theory. Context-

responsive leaders are contextual literate, they are capable of interacting with the context and recognise the constraints that impact their practice in various leadership processes that are aimed at achieving their organisational goals. Therefore, their responses, actions and decisions in their space of practice are informed by contextual realities.

4.3.2.3 Poor maintenance of educational resources

The data generated from the participants revealed that there was a challenge of poor maintenance of educational resources in this TVET college, and this frustrated the campus managers. The participants complained about old computers, and some are not working, not serviced and are beyond their lifespan. This caused challenges for the lecturers and the students during normal lectures and examinations since students share a computer and the fact that these computers are freezing during exams. Mr Mdlalose said:

> Computers, since I came to this college in 2007, the computers were changed once. Computers have gone far beyond their lifespan. They freeze during exams, some of them are not working at all. You find that a computer laboratory with a capacity of 35 students, you find that, maybe 20 computers are working. Then every year you will budget for computers, but you don't control err your budget. As a result, there is a serious crisis around computers as a learning material or a learning resource.

Mr Khuluse shared similar sentiments that they had on stock outdated machinery and computers. Mr Khuluse had similar views with Mr Mdlalose that the maintenance of resources was poor. I asked them why educational resources under their care were poorly maintained and what they were doing about it. The response shifted from them as campus managers to the central office which, apparently, did not have a plan to dispose of assets. The following excerpt from Mr Khuluse, shows this challenge:

> As for now, I'm going to say we do not have a maintenance plan. It is not effectively implemented because once you talk about machines, some of the other machines are under a maintenance plan, but other machines are not. For instance, photocopying and printing are covered because it does have a maintenance plan. It's serviced timeously and we have a warranty or maintenance plan where if we have a problem with such machines, you get support, you call the supplier they come in and maintain the machine so it just kept going. And on the other side, computers, where the computers are owned by a college, I don't think our systems are working because we are supposed to be

having a maintenance plan and we have an IT department where the IT department is responsible for all the computers, I'm talking about when it's time for an asset to be disposed of it must be disposed of. In our case, you find that you use some very old assets which were supposed to be changed a long time ago.

Furthermore, Mr Naidoo indicated that they were affected by poor maintenance of educational resources also indicating that they did not have a system in place to monitor resources.

My college has a problem there because we do not have a working system. We do have a system but it's not working effectively because it does not assist us. We lack there, I think we need as the college to improve a lot on that side. It may be seen as using an asset that is supposed to be written off a long time ago: it may be seen as saving money but it's not because it kills the level of performance of the staff that is using that asset. Because if that assets, the work that needs to be done, needs to be done in one hour, it will end up being done in three hours and that is downtime. Downtime is higher when using obsolete machinery.

Poor maintenance of educational resources was identified and viewed by the participants as a challenge in their campuses and at this TVET College as a whole. This view concurs with Mengistu (2014) and Akpabio's (2015) findings on the maintenance of educational resources. Mengistu's (2014) findings revealed that the maintenance of educational materials was not adequately carried out due to a lack of budget to cover maintenance costs, a lack of qualified technicians for the maintenance of educational materials and attention deficit on the part of school leaders. Akpabio (2015) identified that educational institutions are challenged with poor maintenance of resources due to various reasons such as a lack of policy guidelines, finances, lack of good maintenances programmes and poor management practices. Agabi (2010), highlighted that the available educational resources need to be efficiently utilised and maintained to achieve the goals of the institution. Therefore, the TVET institution has to efficiently utilise and regularly maintain the acquired educational resources to be effective and ultimately to accomplish its goals. The poor maintenance of educational resources can also be understood using Bredeson et al. (2008) context-responsive leadership theory. Context-responsive leaders are contextual literate, they are capable of interacting with the context and recognise the constraints that impact their practice in various leadership processes that are aimed at achieving their organisational goals. Therefore, their responses, actions and decisions in their space of practice are informed by contextual realities.

4.3.2   How campus managers address the challenges they experience in the management of educational resources

The participants in this study were asked the following question: *How do you deal with the challenges you are experiencing regarding the management of educational resources?* This question assisted me to understand how campus managers addressed the challenges they encountered in the management of resources. I had expected the campus managers to provide strategies they employed to address the challenges they experienced in the management of educational resources. The data generated from the participants revealed that campus managers employed the following strategies: planning ahead for educational resources; they did a lot of follow up on acquired resources; collaborating with other campuses and other TVET colleges, and communication to address the experienced challenges on the management of educational resources and provided some recommendations. These strategies and recommendations are discussed below.

4.3.3.1 Planning ahead for educational resources

The findings from the participants revealed that campus managers were experiencing challenges in getting the resources on time due to delays caused by the procurement process which was too long and stringent. With this in mind, Mr Naidoo indicated that he did a lot of planning ahead of time as a strategy to cater for the late provision of educational resources. He planned and did requisitions in advance and submitted them to the central office on time. He also said he planned well in advance and started with activities that could be done with limited educational resources. Mr Naidoo said:

> *Well, as I said previously, we plan ahead a lot. And then it's a lot of communication, a lot of e-mails, and a lot of memos that go out to the senior management, for them to understand the urgency of our requisitions. Uhm, again, because it is centralised there are delays.*

Mr Khuluse said:

> *Certain non-negotiables causes problems for us, such as textbooks, overalls, boots and steel for the students doing welding. But yeah, again, I put pressure ahead to the central office to just get these delivered on time. I look at the timetable accordingly and do our best to plan ahead. The challenge is usually at the beginning of the year.*

Mr Mdlalose said they planned ahead but also allowed flexibility to change things depending on the circumstances, for example, delivery of workshop materials. For Mr Mdlalose, allowing for flexibility is a plan itself. This is what he said:

> *We keep on changing plans to suit the need of the time and what is available. Sometimes, we start on with teaching them theory and do practical later or vice versa. That itself is a plan.*

The participants regarded planning ahead of time and early submission of requisition as a significant strategy to overcome the late delivery of educational resources on campuses. The participants' views of planning ahead of time and completion of requisitions on time are corroborated by literature. For example, Mengistu (2014) and Nigussie (2017) suggest that procurement of educational resources should be done on time and be guided by operational procedures and policy which gives clarity on how and when requisitions are finalised and deliveries are done. Nigussie (2017) indicates that the availability and implementation of purchasing procedures should prevent delays in supplying educational resources to campuses on time. Levačić and Glover (1998) asserted that those management processes that promote effective and efficient utilisation of resources, also promote effective teaching and learning must be prioritised. Olum (2004) asserts that managing the system requires the drawing up of the plans for the system. The plan should include the setting of the overall goals of the system, defining the environment, resource utilisation and the division of the system into components. Using Bredeson et al. (2008) context-responsive leadership theory, campus managers' practice of planning ahead of time for educational resources is triggered by campus managers awareness of the challenging situation within which they work, which entails late delivery of educational resources. Therefore, campus managers had to respond to the context at the appropriate time and manner to shape their context of practice to achieve the educational goal of their respective campuses.

4.3.3.2 Collaboration with other campuses and colleges

The data reflected a high degree of concern and support by campus managers for creating collaborative networks and culture with other campuses and colleges to abate shortages of educational resources. The three campus managers acknowledged that building collaborative networks with other campuses and colleges was an essential glue to stick them together towards solving problems they were encountering, for example, inadequate supply of educational

resources. On the issue of securing more resources from neighbouring colleges, Mr Naidoo said:

I do a lot of networking with other campus managers from our college and other neighbouring colleges as well, just wherever I can assist. We back each other up when we have something in surplus, and when we have a shortage as well, where we can assist each other out.

Mr Mdlalose shared a similar view that he also forged collaborative networks with other stakeholders from partnerships with other institutions. He said:

We need each other to succeed. We are in contact with other training providers, industries and other TVET institutions for resources and doing other practicals. We need this broad base of various other people to provide additional support and expertise.

Mr Khuluse clearly articulated this belief when he said:

We need each other to assist in pulling together resources that target student success.

The participants' view of collaborating with other campus managers from other campuses and colleges is supported by the literature. Akpabio (2015) opines that managers ought to consider and adopt collaboration in the management of resources of the institutions. Institutions should forge a partnership with other institutions and the broader community for resources (Langwenya-Myeni, 2017). When campus managers create opportunities for collaboration, they bring out the creativity, effectiveness and sustainability for a change in their institutions (Kohm & Nance, 2013). Effective and high-quality collaboration facilitates lectures to access resources, opportunities and benefits of other resourced institutions.

Drawing from the von Bertalanffy systems theory, TVET campuses operate within a particular system with a common purpose of skill development. Working collaboratively with other units in the system assist campus managers in mobilising talents from different people to tackle tough challenges with the hope of not just surviving but thriving in their campuses (Heifetz, Grashow & Linsky, 2009). They are systematically influencing and engaged in collaborative interactions that are believed to be the glue that keeps various stakeholders together. Campus managers actions can be viewed in Bredeson et al. (2008, 2011) context-responsive leadership theory. Campus managers in this study understand and are aware of the contextual reality that emanates from the shortage of resources in their campuses. They, therefore, push back by

collaborating with other campus managers from other campuses and colleges to secure resources to accomplish the educational goal of their campuses.

4.3.3.3 Strengthening open lines of communication

The findings of this study point out that the resource and procurement process of educational resources constituted a major challenge for campus managers. Linked to this challenge is the issue of communication between the central office and campuses and communication lines in general. The participants indicated that they were trying their level best to improve communication channels within their campuses, and also between the campuses and the central office. On this issue of communication, Mr Naidoo said he was using different communication strategies to address the challenge of late and inadequate supply of educational resources. He said that he communicated with staff, students and senior management using different tools and he regarded communication as an important element in management as can be shown in the following excerpt:

> *Well, as I said previously, we plan ahead a lot. And then, it's a lot of communication, a lot of e-mails, and a lot of memos that go out to the senior management, for them to understand the urgency of our requisitions. Sometimes, I send a lot of e-mails to these people and do not get a response.*

Mr Mdlalose also stressed the importance of communication and said:

> *Yes, my approach to dealing with this issue is communication and banging tables if need be. Besides banging tables, to me, communication is very important. Let everyone know that there is a delay, let everybody understand that there is a delay, let everyone understand why there is a delay, let everyone understand that you are busy ... hard at work solving the problem. You know, our students there are quick to fight, they are quick to burn tyres, they are quick to destroy property. So, it is always so important then that you have proper communication, strategy, you are in good communication with students and staff. People must understand what is going on.*

Mr Khuluse said:

> *They now know me. I do not keep quiet in the meetings with the central office. They know that we are advocating for the decentralisation of the management of educational resources.*

It was evident from the responses from the participants that the issue of the central office and the processing of procurement and allocation of educational resources was frustrating for the campus managers. Evidence from the data also shows that the campus managers were communicating this with the relevant parties. I probed them further to see what they were doing within their campuses on the issues of communication. Mr Naidoo said:

When it comes to the people I am supervising, I have developed a culture of fair communication where people must respond within a reasonable period to any communication. We communicate through e-mails, memos, meetings etc. some reports are submitted to me which document all resource allocation and utilisation.

Mr Khuluse said that he was advocating for an open-door policy when it comes to communication and information, noting that many challenges stem from poor communication. This is what he said:

The communication strategy is an essential element to influence people and prevent conflict. Interpersonal communication is an important element for management. You know what, how information is conveyed is as important as the information itself.

Mr Mdlalose noted that communication was important for planning, allocating, monitoring, and optimising resources to maximise operational efficiency. He explained that one cannot sit in the office with inadequate and inaccurate information as this could have dire consequences for the running of the campus. He said:

… strengthen communication lines! Resource management is about ensuring that the right resources are allocated and available at the right time. Information is the key for this to happen. So, I strengthen communication channels to prevent the campus from burning as mentioned earlier. I have an open-door policy. We even use WhatsApp to communicate.

It is emerging from the discussion above that the participants made a deliberate effort to strengthen communication channels as a strategy to curb some of the challenges they are experiencing. They saw the need to advance effective communication with all stakeholders. Multiple studies have linked improved communication to better outcomes, safer environments and improved operational efficiency. For instance, Mengistu (2014) asserts that effective communication, accurate and reliable information about the quality and quantity of educational resources available is for organisational efficiency. Participants strive for clear internal and

external communication, an open-door policy on sharing accurate, and reliable information about educational resources in their campuses. Drawing from the context-responsive leadership theory, participants in this study understand and recognise the challenges of communication on their campuses. They take action to respond to this contextual reality through strengthened open lines of communication.

4.4 Chapter summary

This chapter started by briefly discussing the profiles of the research sites and the participants. Then, I presented and discussed the data generated from online interviews with the campus managers. The findings were presented and discussed under the following themes: the campus managers' understanding of the management of educational resources; the challenges experienced by campus managers on managing educational resources; and how campus managers address the challenges they experienced on the management of educational resources. The next chapter provides the summary, conclusions and recommendations of the study.

CHAPTER FIVE

STUDY SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

The previous chapter presented and analysed the study findings. This chapter presents the summary of the entire study, conclusions and recommendations of the study. The recommendations are done in line with the critical research questions that were presented in Chapter One, the literature review and theoretical framework from Chapter Two and findings that are presented and discussed from the data generated and presented in Chapter four. This approach was preferred because I believed that it would enable me to make a critical assessment of the conclusions so that I can make recommendations with confidence. This means that, through the use of critical questions, an attempt was made to assess the extent to which the research questions have sufficiently been answered. This chapter begins by providing a synthesis of the whole thesis. Thereafter, the research questions are re-stated before they are used as headings to organise the discussions of the conclusions. I will then outline recommendations that were derived from the findings.

5.2. Summary of the study

Chapter One provided an orientation to the study, which covered the background, the statement of the problem, the rationale and motivation of the research, the significance of the study. The objectives of the study, including the key critical questions were clearly outlined. The key concepts were clarified, and the delimitations of the study were described. Chapter One concluded with the layout or the structure of this report. In this chapter, it was established from literature and policy that proper management of educational resources enhances quality education in TVET colleges. The gap between policy intention and what is happening in practice was highlighted, and hence, the motivation for me to explore the understandings and experiences of campus managers in managing educational resources in a TVET context.

Chapter Two focused on reviewing literature that pertains to educational resources and management of educational resources. An in-depth literature review was provided and the theoretical framework that underpins the study was explained in detail. Chapter Three

discussed in detail the research design and methodology used in undertaking this study. Chapter Four presented, analysed and discussed the research findings generated from three purposively selected campus managers from one TVET college. Chapter Five presents the conclusions and makes recommendations drawn from the findings.

5.3 Conclusions

The findings from the previous chapter generated the conclusions of this study. These conclusions are discussed based on the research questions which guided this study. These research questions are as follows:

1. What do campus managers understand about their role in managing educational resources in a TVET college?
2. What challenges do campus managers experience in their role of managing educational resources in a TVET college?
3. How do campus managers overcome the challenges they experience in managing educational resources in a TVET college?

In the following section, these critical questions are used as headings under which the conclusions are discussed.

5.3.1 What do campus managers understand about their role in managing educational resources in a TVET college?

This question highlighted above aimed to elicit empirical data around the campus managers' understandings about their role as leaders in managing educational resources in a TVET college. Drawing from the data presented in Chapter Four, it is emerging that participants had a general understanding of their role in managing educational resources. They understood that they are responsible for ensuring that educational resources are made available and are used effectively to achieve the institution's goals. Their roles and responsibilities included procuring goods and services for the campus, and mobilising resources consistent with college goals. This entailed proactively negotiating and accessing resources outside one's immediate domain when necessary. The management of resources process entailed planning where most decisions are taken about types, quantity, quality, and maintenance of resources. In this regard, the

participants understood that planning is the collaborative effort between the end-user and them as managers.

The other management functions that follow planning included acquisitions, allocation, distribution, utilisation and control, and ensuring that campus resources are effectively and efficiently utilised. However, putting these into practice differed from campus to campus and managerial competencies, knowledge and understanding of resource management by campus managers. For example, participants revealed that the decisions on the needed resources were made by the end-user at the campus level but what actually happened was decided by the central office. Therefore, the findings indicate that campus managers have little power in ensuring that what their campuses require is actually acquired.

5.3.2 What challenges do campus managers experience in their role of managing educational resources in a TVET college?

This question assisted me to obtain a better understanding of the challenges that the participants were experiencing in the management of educational resources on their campuses. The data generated from the participants revealed a number of challenges, of which some were similar and some were diverse. The following challenges emerged: challenge with procurement process which is too long, centralised and not quick enough to respond to campus challenges; inadequate supply of educational resources; the lack of funds; and poor maintenance culture. The study concluded that numerous challenges are experienced by campus managers concerning the management of educational resources. These challenges include the procurement process, inadequacy supply of educational resources, the lack of funds and poor maintenance of educational resources.

The procurement process was identified as problematic since it is stringent, too long, has red tape, is centralised and the negative attitude of personnel from the procurement office (central office) towards addressing resource issues of campuses which causes delays in the supply of educational resources to campuses. The lack of funds was also identified as a challenge that leads to the shortage of educational resources and thus, negatively impacts the teaching and learning delivery in a TVET college. The other challenge is that there is a lack of or inadequacy

supply of educational resources in these TVET campuses which negatively impacts quality teaching and learning delivery. Lastly, poor maintenance of educational resources was identified as a challenge. There is poor maintenance culture of educational resources which frustrates campus managers and negatively impact teaching and learning. This entails poor maintenance of computers, workshops equipment or machines and buildings.

The challenges discussed above and emerging in this study are linked to the centralised and bureaucratic structure of the TVET colleges. Campus managers see these management activities that are centralised in TVET colleges as hampering the provision of quality education for the students. For example, the issue of procurement emerged as a headache for campus managers and a need for it to be reviewed is recommended. From the literature reviewed (e.g. Bush, 2008; Wilson, 2019), it is emerging that self-managing schools have a greater autonomy which leads to greater effectiveness. Greater autonomy allows for greater flexibility for institutions to take immediate decisions and actions on issues that affect them. Thus, for better supply and supply on time of resources, campuses managers need to have that autonomy and authority with respect to the procurement of educational resources. Effective supplier selection is significant to ensure that the required goods and services for teaching and learning delivery are procured and delivered on time (Wilson, 2019).

Systems theory emphasise that the systems consist of components that are interrelated and consistently interacting. If one component of the system is not performing, the whole system would be disturbed (Olum, 2004). It is evident in this study that the central office is the component that is disturbing the procurement process, and hence, the effectiveness of campus managers is negatively affected. Mele (2010) suggests that for organisations to be effective, they need to consider the compatibility between systemic actors (consonance) and to improve their harmonic interaction between them (resonance). There is, therefore, a need for the harmonic interaction between the campus managers and the central office. This may give rise to strategic change in the way campus managers manage and maintain educational resources. Context-responsive leaders are contextual literate, they are capable of interacting with the context and recognise the constraints that impact their practice in various leadership processes that are aimed at achieving their organisational goals (Bredeson et al., 2008). Therefore, their responses, actions and decisions in their space of practice are informed by contextual realities.

5.3.3 How do campus managers overcome the challenges they experience in managing educational resources in a TVET college?

The findings reveal that campus managers apply the following strategies to overcome the challenges they experienced in the management of educational resources: they plan ahead of time; they do a lot of follow-ups on acquired resources; they collaborate with other campuses and colleges, and they strengthen communication with relevant stakeholders. Campus managers use planning ahead of time and early submission of requisition as a significant strategy to overcome the late delivery of educational resources on campuses. Since the procurement office and college, management seems to be incompetent in terms of supplying educational resources on time. Campus managers are compelled to constantly make a lot of follow up to the central office to find out about their orders. The campus managers collaborate with other campuses and colleges for additional resources due to an insufficient supply of educational resources to campuses. Communication with the campus staff, the students and the college employed by campus managers attempted to mitigate some of the challenges encountered. Effective communication was a better strategy utilised by campus managers to prevent or minimise conflicts that may arise due to late delivery and insufficient supply of educational resources. It was, therefore, concluded that campus managers planned ahead of time, did a lot of follow-ups on acquired resources, collaborated with other campuses and colleges, and communicated with relevant stakeholders as strategies to overcome the challenges they experienced on the management of educational resources. In this regard, it is evident that campus managers were sensitive to and aware of important elements of context, purpose, and actions. They understood that variations in context could both enable and constrain their behaviour, and they responded to such variations in an appropriate time and manner. Context-responsive leaders respond to context when it is appropriate and take action to shape their contexts of practice (Bredeson et al., 2008; 2011).

5.4 Recommendations

The following recommendations are proposed and are informed by the conclusions presented above:

5.4.1 Making the policy on managing educational resources in TVET colleges available

It is recommended that DHET should make a policy on educational resource management available for TVET colleges to promote uniformity in the practice of educational resource management in TVET colleges (Langwenya-Myeni, 2017). It is also recommended that the college management should ensure that the procurement unit accounts for acquired educational resources.

5.4.2 Remodelling procurement process

It is recommended that DHET need to remodel the procurement process to prevent the inadequacy and delay in the supply of educational resources. It is also recommended that the management of educational resources and procurement process need to be decentralised to campuses in order for this process and practice to be quick in responding to the needs of the campuses. A number of studies (Bush, 2008; Ikoya, 2008; Thai, 2001; Wilson, 2019), suggest the decentralisation of management of educational resources and procurement process as an effective approach, therefore, this study recommends the decentralisation of management of educational resources and procurement process to campuses in all TVET colleges.

5.4.3 Adequate funding and accountability

It is recommended that the state should make adequate funds available and college management should mobilise more funds for colleges to have sufficient resources. The resources should be adequate for quality teaching and learning to happen. Therefore, it is recommended that collaboration with other institutions, the corporate world and other relevant stakeholders be done to secure additional educational resources. It is also recommended that college management should account for the shortage of educational resources and accountability for resources should be enforced. The study also recommends that educational resources should be maintained. The college management should develop a maintenance plan for all resources and ensure that the maintenance plan is implemented. The monitoring and control mechanism should be in place to ensure that educational resources such as computers, workshop equipment and buildings are maintained.

5.5 Implications for further research

This study was conducted in one TVET college and three campuses. The study only had three participants. Therefore, the findings do not reflect the broad TVET college population. Thus, further research is recommended on the management of resources in TVET colleges. Notwithstanding this, the findings from this study have various contexts for resource management in TVET colleges and how it can be improved. It is recommended that DHET should provide regular workshops for the campus managers to enhance the provision of quality education in TVET colleges. The literature reviewed in this study suggested that there is a connection between efficient and effective utilisation of resources and the provision of quality education. A more quantitative study could investigate this relationship in TVET colleges.

5.6 Chapter summary

This chapter started by reflecting on the previous chapter presentation and analysis of the study findings. Secondly, it presented the summary of the study, conclusions and recommendations. The recommendations were done in line with the critical research questions that were presented in Chapter One, the literature review and theoretical framework from Chapter Two and findings that were presented and discussed from the data generated and presented in Chapter four. The research questions were re-stated before being used as headings to organise the discussions of the conclusions. Lastly, the recommendations that were drawn from the findings were outlined.

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APPENDICES

APPENDIX A: PERMISSION LETTER TO DHET

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3880

17 March 2020

Attention: The Director (Ms N Hlatshwayo)

DEPARTMENT OF Higher Education and Training

Private Bag X 174

Pretoria

0001

Dear Ms Hlatshwayo

REQUEST FOR PERMISSION TO CONDUCT RESEARCH

My name is Jacob Thulani Mbatha, a Masters student in the school of Education at University of KwaZulu-Natal (Edgewood campus). As part of my degree fulfilment, I am required to conduct research. I therefore kindly seek permission to conduct this research in one of your TVET colleges under your jurisdiction at Richards bay. The title of my study is: **Managing Educational Resources in TVET Context: A case study of campus managers.**

This study aims to explore campus managers' understanding on management of educational resources in a TVET context, to understand their challenges in managing educational resources and understand how campus managers overcome the experienced challenges. The planned study

will focus on campus managers. The study will use online semi -structured interviews with campus managers. Participants will be interviewed for approximately 40-60 minutes at times convenient to them which will not disturb teaching and learning. Each interview will be voice- recorded.

Responses will be treated with confidentiality and pseudonyms will be used instead of the actual names. Participants will be contacted well in advance for interviews, and they will be purposively selected to participate in this study. Participation will always remain voluntary which means that participants may withdraw from the study for any reason, anytime if they so wish without incurring any penalties.

You may contact my supervisors, UKZN Research Office or me should you have any queries or questions:

Supervisors:
Dr BNCK
Tel. 031-2603534 (office)
Cell: 083 653 0077
E-mail: bnckmkhize@gmail.com

UKZN Research Office
HSSREC-Ethics
Tel: 0312608350
E-mail:snymanm@ukzn.ac.za

      hssrec@ukzn.ac.za
      converis@ukzn.converis.clariv

My contact number:
Cell: 082 787 5682
E-mail: jacobthulanimbatha@gmail.com

218064738

Your positive response in this regard will be highly appreciated.
Thanking you in advanced.

Yours sincerely

JT Mbatha (Mr)

02/10/2020

APPENDIX B: PERMISSION LETTER TO COLLEGE PRINCIPAL

218064738

Box 20199

EMPANGENI

3880

17 March 2020

The Principal

................TVET College

Private Bag X 5023

....

3900

Dear Sir/ Madam

REQUEST FOR PERMISSION TO CONDUCT RESEARCH

My name is Jacob Thulani Mbatha, a Masters student in the school of Education at University of KwaZulu-Natal (Edgewood campus). As part of my degree fulfilment, I am required to conduct research. I therefore kindly seek permission to conduct this research at your college. The title of my study is: **Managing Educational Resources in TVET Context: A case study of campus managers.**

This study aims to explore campus managers' understanding on management of educational resources in a TVET context, to understand their challenges in managing educational resources and understand how campus managers overcome the experienced challenges. The planned study

will focus on campus managers. The study will use online semi -structured interviews with campus managers. Participants will be interviewed for approximately 40-60 minutes at times convenient to them which will not disturb teaching and learning. Each interview will be voice- recorded.

PLEASE TAKE NOTE THAT:

- There will be no financial benefits that participants may accrue as a result of their participation in this research project.
- Your identity will not be divulged under any circumstance/s, during and after the reporting process.
- All the responses, observations and reviewed documents will be treated with strict confidentiality.
- Pseudonyms will be used to represent the school and names of the participants.
- Participation will always remain voluntary which means that participants may withdraw from the study for any reason, anytime if they so wish without incurring any penalties.
- Participants purposively selected to participate in this study and they will be contacted well in advance for interviews.
- The interviews shall be voice-recorded to assist me in concentrating on the actual interviews.

You may contact my supervisors, UKZN Research Office or me should you have any queries or questions:

Supervisors:
Dr BNCK
Tel. 031-2603534 (office)
Cell: 083 653 0077
E-mail: bnckmkhize@gmail.com

UKZN Research Office
HSSREC-Ethics
Tel: 031 260 4557/8350

218064738

E-mail: hssrec@ukzn.ac.za

My contact number:

Cell: 082 787 5682

E-mail: jacobthulanimbatha@gmail.com

Your positive response in this regard will be highly appreciated.

Thanking you in advanced.

Yours faithfully

JT Mbatha (Mr)

..................................DETACH AND RETURN...............................

Declaration

I.. (Full names of the principal) of ——————————————————————————(college name) hereby confirm that I have been informed about the nature, purpose and procedures for the study: **Managing Educational Resources in TVET Context: A case study of campus managers.** I have received, read and understood the written information about the study. I understand everything that has been explained to me and I consent voluntarily for the school to be part of the study. I understand that the college is at liberty to withdraw from research at any time should the school so desire.

I **agree/ do not agree** for the use of audio recording device.

218064738

Signature of College Principal   Date

………………………………..   ……………………………

College stamp

Thanking you in advance
Mbatha Jacob Thulani

APPENDIX C: PERMISSION LETTER TO PARTICIPANTS

218064738

Box 20199

EMPANGENI

3880

17 March 2020

The Campus Manager

Sample College Campus

Dear Sir/ Madam

REQUEST FOR PERMISSION TO PARTICIPATE IN A RESEARCH

I am currently a Masters student in Education Leadership, Management and Policy at University of KwaZulu-Natal, Edgewood campus. I am presently engaged in a research study which is aimed at exploring campus managers' experiences on the management of educational resources in a TVET context. The title of my study is **Managing Educational Resources in TVET Context: A case study of campus managers.** I would very much like to conduct the study in your campus because I believe that you can provide valuable insight in extending the boundaries of knowledge on this concept.

This study aims to explore campus managers' understanding on management of educational resources in a TVET context, to understand their challenges in managing educational resources and understand how campus managers overcome the experienced challenges. The planned study will focus on campus managers. The study will use online semi -structured interviews with campus managers. You (participants) will be interviewed for approximately 40-60 minutes at times

convenient to you which will not disturb teaching and learning. Each interview will be voice-recorded.

Responses will be treated with confidentiality and pseudonyms will be used instead of the actual names. Participation will always remain voluntary which means that you (participants) may withdraw from the study for any reason, anytime if you so wish without incurring any penalties.

Your identity in this study will be protected in accordance with the code of ethics as stipulated by the University of KwaZulu-Natal. I undertake to uphold your autonomy as the participant. You will be free to withdraw from the research at any time without negative or undesirable consequences to yourself. However, you will be asked to complete a consent form. In your interest, feedback will be given to you during and at the end of the study.

You may contact my supervisors, UKZN Research Office or me should you have any queries or questions:

Supervisors:
Dr BNCK
Tel. 031-2603534 (office)
Cell: 083 653 0077
E-mail: bnckmkhize@gmail.com

UKZN Research Office
HSSREC-Ethics
Tel: 031 260 4557/8350
E-mail:hssrec@ukzn.ac.za

My contact number:
Cell: 082 787 5682
E-mail: jacobthulanimbatha@gmail.com

218064738

Thanking you in anticipation.

Yours faithfully

23/10/20

JT Mbatha (Mr)

....DETACH AND RETURN...................................

Declaration

I... (Full names of participant) hereby confirm that I have been informed about the nature, purpose and procedures for the study: **Managing Educational Resources in TVET Context: A case study of campus managers.** I have received, read and understood the written information about the study. I understand everything that has been explained to me and I consent voluntarily to take part in the study. I understand that I am at liberty to withdraw from research at any time should I so desire.

I **agree/ do not agree** for the use of audio recording device.

Signature of the Campus Manager

Date

....

Thanking you in advance

Mbatha Jacob Thulani

APPENDIX D: INTERVIEW SCHEDULE RESEARCH INSTRUMENTS

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Interview schedule

This is a study…………………………………….

School: …………………

Position: ………………..	**Time:** ………………………………………
Qualifications: ………….	**Location of the interview:** ……………….
Date: ……………………..	**Number of years as** …..:…………………..

1. **Understanding management of educational resources**

   1.1 What is your understanding on management of educational resources?

   1.2 What policies guides your management of educational resources?

   Probe;

PLANNING

   1.3 In terms of procedure, who make decisions about educational resources needed

   1.4 How is the decision about educational resources made?

ACQUISITION

   1.5   In terms of procedure, how do you acquire educational resources in your institution?

ALLOCATION

   1.6 How do you allocate educational resources in your institution?

UTILISATION

   1.7 Does your campus have any policy that guides your staff on utilization and management of educational resources effectively and efficiently in your campus?

   1.8 Are educational resources efficiently and effectively utilized in your institution? Explain.

   If yes, how do you ensure that resources are used effectively and efficiently?

If no, what action are you taking to ensure that these resources are effectively and efficiently utilized?

1.9 Do your staff receive any training on the utilisation and management of educational resources?

MONITORING AND CONTROL

1.10   How do you monitor and control educational resources in your campus?

1.11   Do you have any maintenance plan for educational resources, like, computers, machines?

2   Challenges experienced

2.1 What challenges do you experience as campus manager in the management of educational resources in your campus?

2.2 What do you think are the causes of these challenges?

Probe:

What are the challenges in the distribution of educational resources?

What are the challenges in the maintenance of educational resources?

What are the challenges in the utilisation of educational resources?

2.3 Do you have enough educational resources in your campus?

2.4 How do you deal with the shortage of educational resources in your campus?

2.5 How these challenges impact the quality of teaching and learning?

3   How campus managers address those challenges

3.1 How do you deal with the challenges you are experiencing regarding the management of educational resources?

3.2 How successful have your attempt been in addressing these challenges?

Thank you for your responses and time

APPENDIX E: TURNITIN CERTIFICATE

Managing educational resources in a TVET college

ORIGINALITY REPORT

10%	7%	1%	6%
SIMILARITY INDEX	INTERNET SOURCES	PUBLICATIONS	STUDENT PAPERS

PRIMARY SOURCES

1	researchspace.ukzn.ac.za Internet Source	2%
2	Submitted to University of KwaZulu-Natal Student Paper	2%
3	repository.nwu.ac.za Internet Source	1%
4	www.ijsre.com Internet Source	1%