

**MONITORING AND EVALUATION SYSTEMS,
TVET/MOE POLICY GUIDELINES AND UTILISATION
OF PHYSICAL INFRASTRUCTURAL FACILITIES BY
LEARNERS WITH DISABILITIES IN NATIONAL
POLYTECHNICS IN KENYA**

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Degree of Doctor of Philosophy in Project Planning and Management of the
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DECLARATION

This Thesis is my original work and has never been presented for a degree or any award in any other university.

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DEDICATION

This Thesis is dedicated to my late father Mzee Josephat Owuor Jaoko for his financial and moral support towards my education when he was alive, my mother Jane Atieno, sisters and brothers also for their moral support. I cannot forget to recognise my children Faith and Maurice for their perseverance and understanding during my study.

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LIST OF ABBREVIATIONS AND ACRONYMS

| | |
|----------------|--|
| ADRA | International - Adventist Development and Relief Agency |
| CEES | College of Education and External Studies |
| CSA | Community School Alliances Project |
| CVI | Content Validation Index |
| FGD | Focus Group Discussion |
| GER | Gross Enrolment Rate |
| HOD | Heads of Department |
| HRC | Human Resource Capacity |
| IFRC | International Federation of Red Cross and Red Crescent Societies |
| IT | Institutes of Technology |
| KNBS | Kenya National Bureau of Statistics |
| M&E | Monitoring and Evaluation |
| MLR | Multiple Linear Regression |
| MoE | Ministry of Education |
| NACOSTI | National Commission for Science, Technology & Innovation |
| NCPLWD | National Council for Persons Living with Disability |
| NIMAS | National Instructional Materials Accessibility Standard |
| OECD | Organisation for Economic Co-operation and Development |
| PME | Planning, Monitoring and Evaluation |
| PROUT | Progressive Utilisation Theory |
| PWD | Persons with Disability |
| QAS | Quality Assurance and Standards |
| GoK | Republic of Kenya |
| RVTTI | Rift Valley Technical Training Institute |
| SMD | Social Model of Disability |
| SPSS | Statistical Package for Social Sciences |
| TTI | Technical Training Institutes |
| TVET | Technical and Vocational Education and Training |
| UK | United Kingdom |
| UNDP | United Nations Development Programme |
| UNESCO | United Nations Education, Scientific and Cultural Organisation |
| UNICEF | United Nations Children Education Fund |
| USA | United States of America |

ABSTRACT

Effective Monitoring and Evaluation (M&E) systems can promote utilisation of physical facilities by enabling decision-makers to identify gaps and initiate appropriate corrective interventions. The purpose of this study was to examine the influence of M&E systems on utilisation of physical facilities by learners with disability in Kenyan national polytechnics. The study adopted cross-sectional survey and causal-comparative designs, with both quantitative and qualitative approaches. Data were sourced from 2 principals, 282 teaching staff, 4 officers from Ministry of Education (MoE), and 2 officers from National Council for Persons Living with Disability (NCPLWD). A census and purposive sampling procedures were applied to select participants. Both quantitative and qualitative approaches were applied to process and analyse data. Descriptive analysis generated frequency distributions and percentages, while inferential analysis obtained Chi square statistic (χ^2), Spearman's Rank Correlation Coefficient, as well as Beta coefficients (β) and Odds ratios [$\text{Exp}(\beta)$], among others. Qualitative data were organised under thematic areas, described and analysed thematically to identify emerging themes and patterns. The study found that significant and positive correlations between utilisation of physical facilities and all the four indicators of human resource capacity for M&E, including *access to training on M&E of disability programmes* ($r_s = 0.608$ & ρ -value = 0.004), *participation in M&E activities* ($r_s = 0.383$ & ρ -value = 0.016), *level of experience in M&E practices* ($r_s = 0.475$ & ρ -value = 0.003), as well as *frequency of reading M&E resource materials* ($r_s = 0.569$ & ρ -value = 0.004). In addition, participants grading their capacity in M&E as 'high' had about 6.4 times the odds of positively influencing utilisation of physical facilities by learners with disability as their colleagues describing their capacity as 'low' (ρ -value = 0.022, $\beta = 1.854$, OR = 6.385, C.I. = 2.097-19.439). The results show significant correlations between utilisation of physical facilities and the three indicators of M&E work plan, including *frequency of measuring learning aspects* ($r_s = 0.487$ & ρ -value = 0.012), *frequency of M&E work plan formulation* ($r_s = 0.320$ & ρ -value = 0.045), and *frequency of participation in the M&E of various disability forms* ($r_s = 0.618$ & ρ -value = 0.000). Besides, participants stating that M&E work plan indicators were 'always' formulated in their institutions were about 2.6 times as likely to cause a positive influence on utilisation of physical facilities by such learners as their colleagues who felt that such indicators were 'never' formulated (ρ -value = 0.014, $\beta = 0.938$, OR = 2.555, C.I. = 1.375-4.746). Besides, the adjusted regression model predicted up to 37.5% of variance in utilisation of physical facilities by learners with disability, which was a fair estimation of M&E system factors influencing utilisation of such facilities by learners with disability. The study concludes that improving M&E systems support and supervision; human resource capacity for M&E; consistency of programme monitoring; as well as M&E work plan indicators' formulation, is likely to strengthen M&E systems in the institutions, thereby, improve utilisation of physical facilities. The study recommends the need for stakeholders to: allocate more resources to develop the capacity of teaching staff on M&E of disability programmes; and improve content of M&E training curriculums to make them more responsive to the needs of all learners with disability. Stakeholders should also strengthen disability-mainstreaming committees through training and funding; as well as integrate disability aspects in institutional timetables to ensure that provision of necessary support and services to learners with disability become part of routine operational activities.

CHAPTER ONE

INTRODUCTION

1.1 Introduction

This chapter presents background of the study, statement of the problem, purpose of the study, research objectives and questions, justification and significance of the study, scope of the study, assumptions of the study, limitations and delimitations of the study, definition of significance terms used in the study and organization of the study.

1.2 Background to the Study

Monitoring and Evaluation (M&E) are twin and complementary processes supporting programme management by providing information upon which critical decisions regarding performance are made (Wieman, Gast, Hagen & van Der Krogt, 2001). Nyonje, Ndunge, Mulwa (2012) observe that M&E systems as an integral system of reflection and communication, supporting project implementation that should be planned for and managed throughout the life of a project. In addition, Arild (2001) indicates M&E system as a complete set of interlinked activities that must be undertaken in a coordinated way to plan for M&E, gather, and analyse information, report and to support decision making and the implementation of improvements. Whatever the definition, the overriding message has been homogenous. For instance, most consultant and academicians have advised and developed a more practical way of monitoring and evaluating, M&E systems as a more practical term to be used by national and organisational planning and management (Mackay, 2007).

However, lack of emphasis has sidelined M&E systems function, restricting it to periodic reporting in many forms and shapes with fancy presentations of figures and graphics and without thorough analysis and future guidelines (Khan, 2003). In United States of America, Arild (2001)

established that government created the Programme Assessment Rating Tool (PART), which was built on earlier efforts to measure government performance; this was used by all 1000 government programmes in area of human resource capacity, developing work plan indicators and programme-monitoring process. In the United Kingdom, the government created a system of performance targets, contained in Public Sector Agreements between the Treasury and each of the 18 main departments (Mackay, 2007). The Public Sector Agreements had aspect of monitoring and evaluation system where state department's overall goal, the priority objectives, and key performance targets had to be reported.

In Germany, M&E system is a tool used by central government to monitor all the activities within the departments to fight corruptions (David, 2003). This was unlike Australia where the government created a whole-of-government evaluation system, managed by the Department of Finance; all ministries were required to evaluate each of their programmes every three to five years (Buse & Vigneri, 2008).

In developing countries, experience of M&E system has been slow and varied (Kremer, 2003). In India, South Africa, Nigeria, and Kenya, the adoption of M&E is taking root as public and private sectors have started embracing the practice (World Bank, 2004). This is unlike other African counties such as Tanzania, Ethiopia, Sudan where only donor funded projects uses monitoring and evaluation system (Snyder & Sheehan, 1996; Lahey, 2005). As a result, planners are left to guess whether to build upon existing work or introduce a shift in policies and programmes, targeting specific indicators to provide information that programme management and stakeholders may use for various purposes, including reviewing performance (Vos, 2006), learning from past experiences, improving service quality, planning and resource allocation, as well as demonstrating results as part of accountability to stakeholders (World Bank, 2004; UNESCO, 2007).

Type of information generated by M&E systems is sector-specific. For instance, in the education sector, M&E systems provide information on education access, equity, and quality, which governments and institutional managements use to support timely decision-making like establishing appropriate physical facilities in improving educational access, quality, and equity (Psacharopoulos, 1994; Vos, 2006). In the context of learners with disability, M&E systems generate information on indicators such as adequacy and functionality as well as appropriateness and utilisation of physical facilities to enable decision-makers initiate appropriate interventions to improve access and retention (Brandjes, 2002).

World Bank (2004) reports that consistent utilisation of physical facilities is particularly important for improving participation in learning and extra-curricular activities for learners with disability. In view of this, improving the availability, functionality, and support is likely to make educational institutions more accommodative and facilitative to such learners (UNESCO, 2013). Appropriate M&E systems should be founded on indicators, covering the means, process, or the end in achieving project objectives (Vos, 2006). Having a balance of different types of indicators is a key attribute of effective M&E systems. In education programmes, M&E indicators fall under four groups; input, access, output and outcome indicators (Carvalho & White, 1994; Vos, 2006). Whereas input factors may include number of teachers and number physical facilities, access factors may be exemplified by physical ability to reach and utilise buildings and physical facilities in an institution. Effective M&E systems in education programmes are particularly necessary in developing countries, which continue to experience rapid increments in enrolment at all tiers against low institutional capacity in terms of physical facilities (Psacharopoulos, 1994; World Bank, 2007). In this regard, M&E systems should enable institutions and governments to identify areas of need and prioritize investments appropriately to meet the needs of all learners, including able-bodied and those with various forms of disability (Kusek & Rist, 2004).

M&E systems have various components; human resource capacity for monitoring and evaluation, monitoring and evaluation work plan, programme-monitoring process, monitoring and evaluation system support and supervision, communication, advocacy and culture, as well as partnerships, among others (Kusek & Rist, 2004). This study will focus on four of the components only; human resource capacity for M&E, M&E work plan indicators, programme-monitoring process and M&E system support, and supervision. The effectiveness of educational M&E systems in developing countries is constrained by issues such as weak indicator frameworks, under-funding, under-staffing, and limited utilisation of M&E information in decision-making, among others (United Nations Education, Scientific, and Cultural Organisation [UNESCO], 2007; 2013). Such underlying challenges may have negative implications on the availability, functionality, and utilisation of physical facilities by learners with disability.

1.2.1 Human Resource Capacity for M&E

Effective M&E is dependent on good planning (Nyonje *et al.*, 2012). If the monitoring and evaluation of capacity building is to be effective it is important to know what the purpose of capacity building is, who the providers and recipients of capacity building are, and whose perspectives we are interested in. In turn, good planning may depend on a clear vision of what an organisation is trying to achieve (Lahey, 2005). If organisations lack adequate theories outlining why capacity building is carried out, and what the eventual results might be in terms of both organisational and societal change, it is not surprising that so many struggle to effectively monitor and evaluate capacity development and capacity building work (Mackay, 2007). However, policy literature reveals that utilisation of physical facilities by learners with disability may be affected by human resource capacity factors such as availability of M&E specialists; staffing levels *vis-à-vis* per capita workload; number M&E staff trained in special needs

education; number of special needs education staff trained in M&E; capacity of the management to utilise M&E information; as well as availability of policies clarifying roles, responsibilities and accountabilities (United Nations Development Programme [UNDP], 2009; UNESCO, 2009).

However, in many developing countries, the results of public sector capacity building measures have been unsatisfactory, despite the intensive design efforts and the large volumes of resources devoted to such initiatives over several decades. There are clearly difficult institutional and political contextual factors at work in public sector environments.

1.2.2 M&E system Work Plan Indicators

A monitoring and evaluation (M&E) plan describes how the whole M&E system for the programme works. This includes the indicator, who is responsible for collecting information, what forms and tools was used, and how the data will flow through the organisation (Mackay, 2007). The utilisation of physical facilities by learners with disability may also be constrained by availability of actionable M&E work plans; availability of flexible and participatory planning mechanism (Organisation for Economic Co-operation and Development [OECD], 2008); ranking of M&E among the list of priorities in government programming (Simister, 2009) and frequency of political influence in the management of education programmes (Mackay, 2007). A study conducted in Nigeria reported that lack of M&E work plans indicators or non-implementation of such was one of the key features of school-based M&E systems, which influenced the maintenance of physical facilities (Izuka, 2010). The M&E work plan indicators helps stakeholders reach agreement on the performance goals of the system, assess system capacity, develop a capacity-building strategy and costed work plan, and introduce measures to monitor M&E system performance over time (ADRA International, 2007).

1.2.3 M&E system programme monitoring process

Monitoring is a routine, ongoing, internal activity, which is used to collect information on a programme's activities, outputs, and outcomes to track its performance (Kusek & Rist, 2004). As a process, monitoring systematically collects data against specified indicators at each stage of the programme or project cycle; providing evidence-based reporting on programme progress at every stage, relative to respective targets and outcomes. Available literature further reveals that the utilisation of physical facilities may be influenced by factors such as availability of programme-monitoring mechanism; adoption of participatory approaches in monitoring; involving learners with disability in monitoring; as well as frequency of political influence in education management (Kusek & Rist, 2004; International Adventist Development and Relief Agency [ADRA], 2007; Government of Kenya [GoK], 2012b).

1.2.4 M&E system support & supervision

Supervision styles are patterns of specific behaviours displayed by individuals during their work to influence conformity to organisational norms and values, with a view to improving performance (UNDP, 2009). According to World Bank (2004), in implementation of projects, the performance goal is to produce timely and high quality routine programme-monitoring data. The literature reveals that utilisation of physical facilities by learners with disability may have a relationship with factors such as type of supervision style adopted to institutional management; staff quality to support learners with disability; as well as frequency of staff engagement with management in allocating finances and reporting on repairs for needed facilities and facilitations (Pont, Nusche & Moorman, 2008; OECD, 2008).

1.2.5 TVET policy/MoE guidelines

Even though Technical and Vocational Education and Training (TVET) is helpful in propagating self-reliance among learners with disability, existing literature suggests that utilisation of physical facilities by such learners may be influenced by factors such as extent to which institutions have implemented the national TVET policy; adoption of print and electronic methods of course delivery; frequency of school community sensitisation on the rights of learners with disability; availability of sensitisation posters and portable guidelines on how learners with disability should be supported; frequency of quality assurance inspections by Ministry of Education (MoE) officers as well as the timeliness of quality assurance inspections (Nyerere, 2009; Mutisya, 2012; GoK, 2012a; UNESCO, 2013).

The background information reveals a gap in empirical studies focusing on relationship between the various components of M&E systems and utilisation of physical facilities by learners with disability, not only in Kenya, but also in other countries. This study is expected to assess the influence of M&E system components on the utilisation of physical facilities by learners with disability; thus, contribute to policy deliberations and interventions for improving education access for such learners.

1.2.6 Technical, Vocational Education and Training

TVET comprises formal, non-formal, and informal learning for the world of work. Young people, women, and men learn knowledge and skills from basic to advanced levels across a wide range of institutional and work settings and in diverse socio-economic (UNESCO, 2015). It also refers to development of ways of learning and the acquisition of attitudes that facilitate success at the workplace (Munro, 2007). TVET plays an important role in supplying skills requisite for improved workers' productivity, economic competitiveness, occupational

integration, raising income levels and expanding opportunities for employment (Budría & Telhado-Pereira, 2009).

Far East Asian countries; South Korea, Taiwan and Japan invest highly in vocational school systems to address challenges brought about by a scarcity of skilled workers (Tilak, 2003). As a result they have had accelerated industrial and economic growth, due to a vibrant, skilled middle-level workforce (Ngure, 2013). Pakistan recognizes the significance of TVET sector for development (Government of Pakistan, 2013). In the last few years, numerous steps have been taken to overcome the challenges faced by TVET sector; such as relevancy, access, quality and equity of current TVET practices.

TVET concept is not new to Africa. During the pre-colonial period, indigenous African societies practiced informal education (Essel, Agyarkoh, Sumaila & DeGraft, 2014). The informal sector accounts for over 90 percent of all skills training in Africa (Africa Union, 2007). In pre-colonial times, the African craftsperson was the inventors, designers and technocrats (Essel, 2013) who fashioned and produced societal everyday world of objects. These creators were very much feared, revered, and hailed in the society. In Kenya, the history of TVET is as old as the formal education. The British government used this type to produce critical human resources needed to develop the then Kenya colony. The Koech Commission of 1999 observed that the country needed construction workers, home, office furniture, and agricultural workers.

Sifuna (1992) in Sang, Muthaa and Mbugua (2012) observes that industrial training in basic skills had started by 1921. TVET programmes are offered in Youth Polytechnics (YP), Technical Training Institutes (TTIs); Institutes of Technology (ITs) and in National Polytechnics. There are also other institutions that offer TIVET programmes spread across government ministries as well as private institutions. Graduates from TIVET institutions are awarded Certificates and Diplomas in various disciplines. Currently two national polytechnics; The Kenya

and Mombasa polytechnics were recently upgraded to universities by the Government, offering degrees in TVET disciplines; however, both institutions continue to offer certificate and diploma programmes. There are only two national polytechnics in Kenya; Eldoret and Kisumu. The study investigated the influence of M&E systems on the utilisation of physical facilities by learners with disability in national polytechnics in Kenya.

According to Prasai (2010) cited in Kiptoo *et al.*, (2014) vulnerabilities and barriers that affect access to TVET by disable persons are both arising from within the disable – the individual’s disability, and arising from the surrounding socio-economic environment and from mainstream TVET institutions. The Kenyan government has been in forefront to ensure equity; programmes offered ought to be made attractive to the disable, the poor and the marginalized (GoK, 2005).

Disability-suitable and market oriented technical and vocational training is very much successful package in the world, which has really supported to enhance the economic life of people with disability (PWDs’) in many places. Providing vocational training to PWDs is a bit different and complicated than other people since their functional limitations and essential supports needed varies according to disability category and level of severity. However, recently, people with disability were included to higher education (Kiptoo, Kosgei & Kipkoge, 2014). In many parts of the world, this is still the case and where institutions of higher education purport to provide equal access and reasonable accommodation, students with disability still face discriminatory policies and practices.

According to the census statistics of 2009, the population of people with disability in Kenya is about 1.3 million, accounting for 3.5 percent of the total population (Kenya National Bureau of Statistics [KNBS], 2010). However, it should be noted that the census data gave this as a conservative figure, owing to the fact that only the traditional areas of disability were

considered (physical, mental, hearing, visual and speech), and only ‘conventional households’ were asked this question. Of those with disability, 51 percent were female, while 49 percent were male. The largest proportion was physical and self-care disability (31percent), followed by visual disability (25 percent) and hearing disability (14percent). Although there is increased access to higher education globally, traditionally disadvantaged groups including disable ones have been continually neglected as their educational needs has been unnoticed, for instance, a global study by National Disability Authority (2004) indicated that only 1% of undergraduate students in higher education had a disability.

Nyambura, Mbugua and Ong’eta (2013) observe that there is a glaring disparity in provision of higher education opportunities to disable students. Groce and Bakshi (2009) research revealed that literacy rates for adults with disability in developing countries are possibly as low as 3% overall, and for women with disability at only 1%. Mugo, Oranga and Singal (2010) statistics reports suggests that over recent years, the data suggest that of a total of 149, only one student could have automatically joined university in the three years, representing a transition rate of only 0.7 percent. This compares dismally with the national average secondary school to university transition rates of 12 percent. While Kenya government recognizes the need to educate all children, including those with exceptional needs, there lacks of a mechanism to ensure and oversee that all students have equal access to TVET education. This therefore calls for the need to investigate the influence of M&E systems on the utilisation of physical facilities and resources by learners with disability in national polytechnics in Kenya.

1.3 Statement of the Problem

The Government of Kenya (GoK), through its Ministry of Education operates 76 public TVET institutions, which is set to sharply rise given the ongoing construction and establishment

of 290 new Technical Training Institutes in constituencies across the country; enactment of the TVET Act (2010) and improvement of TVET's image through outreach activities, trade fairs and technology contests (GoK, 2015). The total enrolment in TVET programmes increased from 36,586 in 2009/10 to 79,114 in 2010/11, and 100,862 in 2015/2016 and is expected to increase further to 250,000 by the year 2024/25. Among the institutions providing TVET in Kenya are two national polytechnics, namely, Eldoret and Kisumu Polytechnics. Between 2007 and 2014, enrolment at Eldoret Polytechnic increased from 2,752 to 4,399; while in Kisumu Polytechnic, enrolment increased from 2,313 to 3,318. At the end of 2014, the two institutions had a total enrolment of 7,717, which included 122 learners with various forms of disability (GoK, 2015; African Development Bank, 2015; MoE, 2014; KNBS, 2014).

At the Ministry, the Directorate of TVET is the unit mandated to manage all matters of TVET in the Country; including enhancing access, equity, quality and relevance at all levels of training; improving M&E systems, as well as promoting and supporting utilisation of physical facilities by learners with disability. A learner with disability requires proper support by skilled human resource, programmes, and thorough supervision. Barnes (2004) established that under-utilisation of physical facilities is a crucial factor affecting access to education for learners with disability at all tiers of the education system. Studies conducted in developed and developing countries, (Duguay, 2010; Mackay, 2007; Arild, 2001), further affirm that M&E system remain a key challenge and its adoption is slow for national government but more so to other sectors, including education (United Nations Children Education Fund [UNICEF], 2013). More still, Schacter (2000) established that learners with disability world over experience many problems, with Sub-Sahara African countries bearing the bulk of the challenge, particularly due to poor planning and management.

Lack of strong M&E systems in the management of education programmes has been identified by policy documentations as one of the factors influencing utilisation of physical facilities and access to education by learners with disability. As noted by Brandjes (2002), effective M&E systems can promote utilisation of physical facilities by enabling decision-makers to identify gaps in terms of adequacy, functionality, and appropriateness of such facilities for relevant corrective interventions. Consistent utilisation of the facilities is likely to improve participation in learning and extra-curricular activities by learners with disability (World Bank, 2004) as well as make educational institutions more accommodative and facilitative (UNESCO, 2013). This may be achieved where M&E systems are able to generate information to guide investment decisions at the Ministry and institutional levels.

Furthermore, existing literature suggest that the United States of America (USA), United Kingdom (UK), and Australian governments use M&E systems for accountability purposes, as well as to reduce corrupt practices. In the case of national polytechnics, M&E systems can be used for management of physical facilities. Failure to incorporate M&E system may limit the aspect of accountability. Similarly, studies conducted by UNESCO confirm that M&E systems in developing countries are constrained by various issues, including, weak indicator frameworks, under-funding, under-staffing, and limited utilisation of M&E information to support decision-making, among others, which in turn, may affect the availability, functionality, and utilisation by learners with disability (UNESCO, 2007; 2013). However, this is not clear in Kenyan national polytechnics.

A review of literature further reveals that utilisation of physical facilities may have a relationship with the various components of M&E systems, including human resource capacity, planning, routine programme monitoring and supervision. However, the literature reveals the existence of a gap in terms of peer-reviewed academic studies directly linking M&E systems

with utilisation of physical facilities by learners with disability in the local context, especially in national polytechnics. This study was expected to fill up the gap by assessing and determining the relationship between each component of M&E systems and utilisation of physical facilities by learners with disability in Kenyan national polytechnics.

1.4 Purpose of the Study

The purpose of the study was to determine the influence of M&E systems on the utilisation of physical facilities by learners with disability in Kenyan national polytechnics.

1.5 Objectives of the Study

The study was guided by the following objectives: -

1. To determine how human resource capacity for M&E influences utilisation of physical facilities by learners with disability.
2. To assess how M&E work plan indicators influences utilisation of physical facilities by learners with disability.
3. To establish how programme monitoring process influences utilisation of physical facilities by learners with disability.
4. To examine how M&E system support and supervision influences utilisation of physical facilities by learners with disability.
5. To investigate how TVET policy/MoE guidelines moderate the relationship between M&E systems and utilisation of physical facilities by learners with disability.

1.6 Research Questions

The study sought to answer the following research questions: -

1. How does human resource capacity for M&E influences utilisation of physical facilities by learners with disability?
2. How do M&E work plan indicators influence utilisation of physical facilities by learners with disability?
3. How does programme monitoring process influences utilisation of physical facilities by learners with disability?
4. What is the level at which M&E system support and supervision influences utilisation of physical facilities by learners with disability?
5. How does TVET policy/MoE guidelines moderate the relationship between combined components of M&E systems and utilisation of physical facilities by learners with disability?

1.7 Null Hypotheses

The study tested validity of the following null hypotheses: -

1. H_0 : There is no significant correlation between human resource capacity for M&E and utilisation of physical facilities by learners with disability.
2. H_0 : There is no significant correlation between M&E work plan indicators and utilisation of physical facilities by learners with disability.
3. H_0 : There is no significant correlation between programme monitoring process and utilisation of physical facilities by learners with disability.
4. H_0 : There is no significant correlation between M&E support and supervision and

utilisation of physical facilities by learners with disability.

5. H₀: There is no significant influence of monitoring and evaluation systems on utilisation of physical facilities by learners with disability.
6. H₀: TVET policy/MoE guidelines have no significant influence the relationship between combined M&E systems and utilisation of physical facilities by learners with disability.

1.8 Significance of the Study

All over the world, reforms in the education sector aim at enhancing access to education for all categories of learners, including those living with disability (Tinklin *et al.*, 2004; Chepkuto, 2012). In education programmes, M&E systems are important for providing information on the adequacy, functionality, and appropriateness of physical facilities. Such information can be used by MoE officers and institutional management to improve physical facilities and promote their utilisation by learners with disability. Although the national polytechnics host learners with various forms of disability, little is documented about the influence of M&E systems on the utilisation of the facilities by such learners. More importantly, there is a dearth of academic literature on whether M&E systems have a positive or negative influence on the utilisation of such facilities.

The findings of this study are expected to inform policy deliberations at the national, sectoral and institutional levels regarding the role of M&E systems in enhancing utilisation of physical facilities and access to education for learners with disability at the institutions of national polytechnic. In view of this, the findings and recommendations may be important to stakeholders, including the MoE, National Council for Persons with Disability (NCPLWD) and

the national polytechnics. In addition, the output of this study is expected to improve available literature and serve as a useful resource material for education officers, scholars, and students.

1.9 Limitations of the Study

The main limitation anticipated in this study revolves around communication difficulty between the research team and learners with acoustic, visual as well as multiple disabilities, which may delay data collection process. To overcome the challenge, the investigator included in the team sign language and Braille experts as research assistants to facilitate communication between team members and the stated groups of participants. However, this measure had significant financial implication. In this regard, the investigator used focus group discussion to reduce expenses that would have been used if interview schedule or questionnaires were administered for learners.

1.10 Delimitations of the Study

M&E systems incorporate a number of components, including human resource capacity; M&E work plans indicators, programme-monitoring process, M&E system support and supervision, communication, advocacy and culture, as well as partnerships, among others. However, the scope of this study will cover four components only, including human resource capacity, M&E work plan indicators, programme-monitoring process and M&E system support and supervision. Further, the study delimited itself to utilisation of physical facilities of four categories of disability namely deaf and mute, visually impaired, physically and multiply handicap. The scope was also be limited to the two national polytechnics only being the highest level where TVET programmes are offered in Kenya.

1.11 Assumptions of the Study

The study assumes that monitoring and evaluation system is used in managing utilisation of physical facilities available; it also assumes that physical facilities exist and that they are adequate for all learners with disability, such that the main challenge is inconsistent utilisation. Besides, the study assumes that MoE officers often interact with learners during their M&E, as well as quality assurance and standards (QAS) inspectors. Furthermore, the study focused on only four types of M&E systems existing in the targeted institutions, including human resource capacity for M&E, M&E work plan indicators, programme-monitoring process and M&E support and supervision. The study assumes that only teaching staff and administrators are the right people who directly use M&E systems at the institutional level. The study further assumes that census is the most suitable method for selecting Heads of Department (Departmental Heads) and lecturers because their population is manageable.

1.12 Operational Definition of Significant Terms used in the Study

Evaluation: The systematic process of analysing information obtained during regular inspection of physical facilities used by learners with disability, engaging learners and institutional administration on how best the facilities can be maintained to facilitate learning by the learners with disability.

Human resource capacity for M&E: Involves the knowledge and expertise of lecturers, and administrators at TVET institutions in monitoring and evaluating the utilisation of physical facilities and resources by learners with disability.

Inclusive education guideline: This is a policy document that is developed by a particular body to advice, guide, instruct and regulate inclusion of all students in TVET education in national polytechnics.

Physical facilities: Refers to build environment in national polytechnic such as – library, classes, toilet, playground, corridors, kitchen/dining hall, administration dining hall/hostels.

M&E System support and supervision: It is a mechanism used to facilitate efficiency and accountability in utilisation of physical facilities in National polytechnic by learners leaving with disability.

M&E Work plan indicators: Involves features in the lecturers work plan that could show utilisation of physical facilities in national polytechnic by learners leaving with disability.

Monitoring and Evaluation Systems: The continuous process of data collection, inspection, and management of physical facilities in the national polytechnics by ministry of education officers and institutional administration.

Project Monitoring: a process of checking, observing, examining, and scrutinising project progress.

Programme-monitoring process: refers to daily operation or operational tools that could show regular assessment of the utilisation of physical facilities in national polytechnic by learners leaving with disability.

Quality assurance and standards: planned and systematic review process of an institution or programme to determine whether acceptable standards of education, scholarship, and infrastructure are being met, maintained, and enhanced. In this study, quality

assurance and standards was measured in terms of frequency of inspection by quality assurance and standards officers.

TVET Policy: a government guiding principle for the implementation of technical and vocational education in national polytechnics in Kenya. The document outlines the procedure, plan, rules, programme, and strategy to which the goals and objectives of tertiary education are to be achieved.

Project monitoring: assessing what work has been completed for a programme including costs, risks, and issues. Project monitoring is used to oversee progress of products, outputs, and outcomes. Reporting advises the correct people at the correct time of positive and negative events, allowing for progression or remedial action as appropriate.

1.13 Organisation of the Study

The study is organised into five chapters. Chapter one presents the background information of study, statement of the problem, purpose of the study, objectives, research question and hypotheses, significance of the study, delimitations and limitations, as well as definition of significant terms as used in the study. Chapter two provides a review of literature on the relationship between M&E systems and utilisation of physical facilities. The chapter also reviews theoretical frameworks, including the Progressive Utilisation Theory and the Social Model of Disability. The third chapter consists of the design and methodology that was applied to source and process data, including sections on research design, target population, sampling procedures, instruments, validity and reliability issues, data collection and analysis procedures, as well as operationalization of variables. The fourth chapter presents study findings,

discussions, and interpretations of the findings; followed by chapter five, which provides a summary of the findings, conclusions, as well as recommendations.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This chapter presents a review of policy and empirical literature regarding the influence of monitoring and evaluation (M&E) systems on the utilisation of physical facilities by learners with disability. The chapter further examines the Progressive Utilisation Theory (PROUT) and the Social Model of Disability (SMD) with a view to providing a framework within which findings of the study was contextualised. A synthesis of policy, empirical and theoretical literature culminates into a conceptual framework within which the requisite data was analysed and interpreted.

2.2 Monitoring and Evaluation Concepts

Monitoring is an ongoing process of systematic data collection targeting specific indicators to provide information that programme management and stakeholders may use to review the extent to which expected results have been achieved vis-à-vis invested financial, time and human resources (World Bank, 2004). Through monitoring, programme management collects information, which provide a means of learning from past experiences; and such information is used for improving service quality, support planning and resource allocation, as well as demonstrate results as part of accountability to stakeholders (World Bank, 2004).

As noted by Kremer (2003), programme-monitoring process provides information on progress towards the achievement of intended objectives, outcomes, and outputs, including productivity and other efficiency targets for proactive decisions. According to Brandjes (2002), a good monitoring system combines information at all levels to give the management and

stakeholders a picture of performance, in tandem with supporting timely decision-making and learning by stakeholders. Based on such information, programme management can make necessary changes in the interventions to strengthen implementation and achievement of objectives (World Bank, 2004).

Evaluation is a systematic process, which focuses on the routine processing, analysis and interpretation of information sourced from the project after thorough study of the indicators (Lahey, 2005). However, he noted that evaluation can be conducted in the middle or at the end of programme implementation; and is usually guided by criteria such as relevance, efficiency, effectiveness, impact, and sustainability of interventions to enhance achievement of results, and optimize resource use (Snyder & Sheehan, 1996; World Bank, 2004; UNESCO, 2007). Despite the variation in conceptual meaning, monitoring and evaluation processes are not only complimentary, but also logically sequential. In this regard, Kusek and Rist (2004) notes that monitoring provides important inputs for programme evaluation and is logically considered an essential part of the overall evaluation process.

According to Lahey (2005), the critical distinction between ‘monitoring’ and ‘evaluation’ is that the former provides trend information, while the latter can deeply explore performance issues; while identifying factors underlying certain trends. In other words, ‘evaluation’ provides more explanatory information to managers and decision-makers to understand better, not only how well programmes and policies are performing, but also the factors that may be attributed to the observed performance (Lahey, 2005). As documented by OECD (2005), whereas monitoring is a continuous process of data collection, analysis, and measurement of progress towards project objectives; evaluation is the assessment of a project to determine the relevance and fulfilment of objectives, effectiveness, impact, and sustainability.

2.3 Utilisation of Physical Facilities

Proper utilisation of appropriate equipment, including hearing and vision aids, electronically adapted mobility devices and walking frames remains a key barrier to education access by learners with disability (Elizabeth, 1996). Where such equipment are adequately provided, their use by learners with disability should be emphasised at all times to enhance access to education (Kajumbula, 2011). On the same note, Krista (2012) asserts that physical disability presents itself in various forms, including paralysis, body weakness, limited motion, little control of the limbs and uncontrolled sporadic movements, which accompany purposeful movements in most learning institutions. As such, infrastructural facilities requirements for learners with physical disability include walking ramps, walking frames, wheel chairs and walking sticks (Turnbull, 2005).

Furthermore, Kelly (2008) notes that visual disabilities may present themselves in the forms of partial blindness or low vision and complete blindness. Infrastructural facilities needed to support learners with visual disability include sunglasses, sun screens, well lit rooms, Braille printed books and visual readers (Kelly, 2008; Chidindi, 2010). Learners with hearing disability may present forms of hearing disabilities such as deaf or hard-of-hearing and should be provided with hearing aids and sign language interpreters to enhance their access to education (Kelly, 2008). However, a unique form of disability occurs when a learner present two or more forms of disability such as mute and deaf or language and speech combined disabilities. As such, utilisation of infrastructural facilities for these forms of disabilities while in polytechnics should be emphasised (Riddell & Banks, 2001). Washington (2012) further states that provision and follow-up of these assistive aids for learners with disability is expected to significantly enhance their experiences in institutions of learning and; hence, improve their performance, retention and completion rates.

2.4 Monitoring and Evaluation Systems

Monitoring and evaluation (M&E) system is an essential component of effective programme management (Wieman, *et al.*, 2001). The system makes it possible for managers to carry out projects effectively and efficiently, while boosting accountability to beneficiaries, donors and other stakeholders. In the education sector, M&E systems provide information regarding education access, equity and quality to support timely decision-making by institutions and governments (Psacharopoulos, 1994; Vos, 2006). Besides, Bloom, Canning and Chan (2006) note that M&E is a crucial intervention for enhancing access to quality education, building knowledge-based economies as well as accelerating economic growth and development. In low and middle-income economies, the need for M&E systems in education programmes has never been more urgent, particularly due to rapidly increasing enrolment and low institutional capacity in terms of physical facilities (Psacharopoulos, 1994; World Bank, 2007).

In view of this, M&E system is a comprehensive process for generating information, which institutional management and governments use to establish appropriate physical facilities (Psacharopoulos, 1994; Vos, 2006). A comprehensive M&E system focuses on how to assist institutions to build physical and human capacity to meet the increasing enrolment, as well as ensure that teaching and learning needs are fully met in line with government approved quality standards (Kusek & Rist, 2004). Through regular M&E, institutional managers and governments work as partners to identify and address gaps in physical facilities, in terms of adequacy and suitability to the needs of specific groups of learners, including those with various forms of disability.

Similarly, Brandjes (2002) notes that in the context of learners with disability, M&E systems capture information on indicators such as adequacy of physical facilities *vis-à-vis*

student population, appropriateness and utilisation of facilities, as well as institutional support to learners (Brandjes, 2002). The M&E of physical facilities' utilisation by learners with disability is particularly important for improving participation in curricular and extra-curricular activities by learners with disability (World Bank, 2004); increasing opportunities and making institutions more accommodative and facilitative, as well as providing a basis for accountability to stakeholders (Tinklin *et al.*, 2004; UNESCO, 2013).

M&E systems for education programmes have inbuilt indicators, which are specific, measurable, achievable and time-bound. The indicators enable institutional managers and governments to measure performance, cost-effectiveness, and equity of educational services. Performance indicators can inform programme management and stakeholders about inherent problems and facilitate improvements in the design and implementation of educational programmes (Carvalho & White, 1994; Vos, 2006). M&E indicators for education programmes are classified depending on whether they reflect the means, the process, or the end in achieving programme objectives (Vos, 2006). However, a good M&E system should have an appropriate balance of different types of indicators that can establish a link between means and ends. Existing literature classifies M&E indicators into four groups, including input, access, output and outcome indicators (Carvalho & White, 1994; Vos, 2006).

Input indicators measure the means or the resources employed to address the needs of specific groups targeted by a programme (Vos, 2006). Examples in education would include the number of teachers, teaching materials and supplies, performance assessments, class hours, operational financial resources, school buildings, as well as number of physical facilities for learners with disability. Since absolute numbers may not be very indicative for policy decisions, input indicators are often specified as some match of supply and demand variables, such as

pupil/teacher ratios and average cost per pupil (Carvalho & White, 1994; Psacharopoulos, 1994; Vos, 2006).

Access indicators identify demand factors of potential users and would comprise of variables that determine the use and accessibility of services. Examples of this type of indicators in education are the geographical distance to school facilities, family, and cultural background of learners, foregone earnings of individuals and households, as well as direct private costs of education (Carvalho & White, 1994; Psacharopoulos, 1994).

In the context of learners with disability, access indicators would include physical access to buildings and classrooms, utilisation of physical facilities, as well as class attendance and learning continuity, among others (UNESCO, 2013). As noted by Vos (2006), some of these demand factors are essential in textbook analyses of the economics of education, but rarely are they given due importance in educational information systems, let alone in the M&E of educational programmes.

Furthermore, output and outcome indicators measure the impact of a particular set of policies or programmes on living standards of the population. Improvement in such indicators should determine the success of education policies and programmes. For instance, the immediate objective of educational programmes may be to raise coverage, as measured in terms of enrolment rates, improve its internal efficiency (retention rates) and/or raise the skills of graduates. Output indicators measure the extent to which such immediate objectives are achieved, and may include enrolment rates, retention and completion rates, achievement scores, as well as educational benefits by income and socio-economic groups; while outcome indicators would include productivity and incomes of graduates (World Bank, 2004).

Establishing systems of performance indicators has been associated with the success of government M&E systems in countries such as Australia, the United States, and the United

Kingdom, focusing on a broader suite of M&E tools and methods: including performance indicators, rapid reviews, impact evaluations and performance audits (Lahey, 2005; Mackay, 2007). Furthermore, quality education may serve broader development goals, such as higher economic productivity, better health, and capabilities of individuals to modern production systems. Such 'higher' goals could be referred to as outcomes, beyond the immediate influence of educational programmes; and in economics, are referred to as 'externalities'. Psacharopoulos (1994) notes that a good M&E system requires an appropriate balance among the four sets of indicators, namely, input, access, output and outcome. Poor performance of output and outcome indicators may be a pointer of inherent challenges in programme design and implementation or adverse changes in external factors (Psacharopoulos, 1994; Vos, 2006).

As noted by UNESCO (2013), educational M&E systems in developing countries are constrained by generic challenges, including weak indicator frameworks, under-funding, under-staffing, and limited utilisation of M&E information to support decision-making. On the contrary, strong M&E systems in educational programmes should be developed through participatory approaches, funded adequately, and have clear systems for information utilisation. In Kenya, the effectiveness of M&E systems in the education sector is affected by the same generic issues (GoK, 2012a). However, no empirical study has ever focused on the influence of M&E systems on the utilisation of physical facilities by learners with disability in national polytechnics.

2.4.1 Human Resource Capacity for M&E and Utilisation of Physical Facilities by Learners with Disability

Human capital is one of the most crucial resources for socio-economic development of an organisation or an institution (UNDP, 2009). From the economic perspective, human capital is the central factor of production, responsible for organizing and managing other production factors to achieve organisational goals (Boudreau, 1996). In relation to M&E systems, the availability and adequacy of trained human resource is crucial for the effectiveness of such systems. High quality M&E systems require dedicated and skilled personnel, who are fully trained on M&E and skilled in developing systematic monitoring frameworks and sound work plans, as well as information quality standards and dissemination plans, among others (UNDP, 2009). Similarly, UNESCO (2009) acknowledges that the usefulness of information generated through an M&E process to stakeholders depends on the quality of human resource involved. Consequently, having adequate human resource that is trained in M&E is an indispensable prerequisite for effective M&E systems (World Bank, 2004).

As noted by Lahey (2005), effective M&E systems also require technical capacity in developing credible and relevant information-gathering systems, as well as the skills for gathering, analysing and reporting on programme performance. Besides, M&E staff should be skilled in identifying good practices, capacity development needs of junior staff and stakeholders regarding M&E; as well as assessing the relevance of M&E frameworks regularly, based on emerging development priorities and changing contexts (UNDP, 2009).

In view of this, most organisations and government departments often recruit specialists to guide M&E activities. More still, Lahey (2005) notes that human resource capacity for effective M&E systems also require appropriate policies and standards, which clarify roles, responsibilities, and accountabilities. The policies and standards should also establish

expectations, timing, and level of reporting, as well as set out quality standards for M&E conduct. In United States, Thomas and Patricia (2004) carried out experimental studies on 120 learners with disability from three technical institutions and two universities and observed that 45.7% of those who had no properly trained personnel in their area of disability were not attending to their studies regularly, this confirms Lahey (2005) concern that human resource capacity for M&E system require appropriate policies and standards if institutions have to meet the standards for utilisation of physical facilities for learners leaving with disability. Similarly, experiments by Borland and James, (1999) as well as Leyser, Vogel, Wayland, Brulle, Sharoni and Vogel (2000) in the UK on 19 learners with disability over a period of 12 months indicated that access to education by learners with paralysis improved with the addition of staff and facilities. In addition, 15 of the 19 learners with disability were found to be attending school regularly. Thus, proper and regular use of staff and facilities availed.

In Indonesia Steff, Mudzakir and Andayani (2010) using the life history approach, assessed 30 learners with disability from seven public universities. The study reported that even though the Indonesian Government had passed a regulation that required learner: lecturer ratio this was not adhered to, institutions of higher learning were yet to comply with the requirement. Of the seven universities, only two were reported to have employed only a third of the expected staff. A study conducted by Sharma (2012) focusing on higher education in India found out that 52 (44%) of universities indicated not providing trained staff for learners with disability, while 38 (32%) indicated that provision of staff learners with disability was so low due to uncertainty of the institution admission of the type of disability . Only 24 (20%) institutions were providing learners with disability with the staff they needed.

In Uganda, Kajumbula's (2011) observations on the provision staff for learners with disability in Makerere and Kyambogo Universities concluded that human resource was

inadequate. Some of the able-bodied staff were assisting learners with disability this hampered the utilisation of physical facilities. However, the study found that able-bodied trained personnel could not direct learners with disability as trained disability personnel as such over-use of facilities by able-bodied learners, particularly during times when they were switching between lecture halls. Kajumbula further observed that in Makerere, 78.4% of the learners with disability were unable to utilise the available assistive mobility devices due to congestion from their able-bodied peers while 82.1% from Kyambogo University experienced the same.

In Kenya, Gekonde, Nyambonga and Nyahoroo (2014) used a descriptive survey design with a population 308 respondents of various cadres who are perceived to be actively involved in the delivery of public services to examine strategic human resource and organisational capacity building on performance improvement of public service delivery in 9 sub-counties within Nakuru County. The study confirmed the need for properly trained human resource can improve delivery, he also noted the adequacy of personnel to be key in some sector. Gekonde and others further confirmed the importance of experience and continue training as key for service deliver. It tells therefore that M&E system if proper set in an organisation such as National polytechnic can improve utilisation of physical facilities among learners with disability.

Contrastingly, effective utilisation of M&E system has contributed to the efficiency of public sector service delivery programmes in countries such as Chile, Australia, United States of America, and United Kingdom, among others. In Chile for instance, a study commissioned by the World Bank in 2004 reported a high level of efficiency of public service, which the consultancy attributed to the capacity for intensive utilisation of information generated through the public M&E system. The study found that the government's evaluations, which were mainly outsourced from the academia, were utilised by the Finance Ministry for resource allocation decisions within the budgetary process, and to impose management and efficiency improvements

on sector ministries in the programmes for which they are responsible (World Bank, 2005; Mackay, 2007). The study also revealed that the Chilean M&E system had in place a mechanism for reporting the findings of M&E processes to the National Congress, which in turn, is highly appreciative.

Human resource capacity is not only required to source, process and report M&E information, but also and more importantly, in the utilisation of such information to support decision-making. In this regard, Mackay (2007) points out that human resource capacity to utilise M&E information is also a key attribute of high quality M&E systems. More still, M&E information can be used in several ways, including planning, policy, or programme development, decision-making and budgeting, among others (Kusek & Rist, 2004). In this regard, effective M&E systems should have in place mechanisms through which the expected use of such information is clarified (Mackay, 2007).

Moreover, Lahey (2005) asserts that programme management should have capacity to incorporate and use M&E information as part of the normal process of business. However, it may be fallacious to assume that non-technical personnel, such programme managers, have a suitable appreciation of M&E concepts and that there are adequate 'incentives' within the organisation to ensure that managers actually used M&E information and reporting credible information in a timely fashion. Mackay (2007) notes that this assumption has contributed to the failure of public sector M&E systems in countries such as Nigeria, Sri Lanka and Romania, among other countries.

In the case of learners with disability, having human resource that is skilled in M&E is important for consistency and accurate information that would trigger appropriate action from the management to modify physical facilities to suit their needs, as well as create a supportive environment for consistent utilisation of such facilities (UNDP, 2009). However, it is also

important for M&E personnel to have skills in special needs education, to understand the needs of learners with disability. Kusek and Rist (2004) emphasizes the need for M&E systems should be adapted to programme priorities and to the needs of targeted beneficiaries. For instance, an M&E system targeting institutions where learners with disability are integrated should provide basic training to their staff on special education to enable them appreciate the needs of such learners.

Kusek and Rist (2004) further points out that an M&E officer with no training in special needs education may not objectively identify and report issues surrounding the utilisation of physical facilities by learners with disability. Having been influenced by the assertions of Kusek and Rist (2004), Mutisya (2012) emphasizes the importance of the government and individual institutions to have M&E officers trained on the needs of learners with various forms of disability, as well as instructors trained in M&E.

According to UNESCO (2009), lack of special needs education staff trained in M&E or M&E staff trained in special needs education is a key factor undermining the effectiveness of M&E systems in educational institutions and may have implications on the utilisation of physical facilities by learners with disability. Mutisya (2012) associate staff capacity challenges in educational M&E systems with funding constraints, lack of clearly articulated human resource development plans; as well as the Governments' slow pace in responding to staffing and equipment needs of inclusive institutions.

In developing economies, the need for M&E skills in educational programmes is particularly important due to rapidly increasing enrolment and low institutional capacity in terms of human resource adequacy (World Bank, 2007). Studies conducted in South Africa, Nigeria and Kenya have found that increasing enrolment and inadequate human resource affects the

participation of learners with disability in learning and extra-curricular activities (Horsolman, 2002; Mwiria, Ng'ethe, Ngome, Ouma-Odero, Wawire & Wesonga, 2007).

Escalating enrolment may have a direct effect on the per capita workload carried by instructors; thus, affecting their morale and time required for personalised attention to learners with disability. Without the right skills in M&E systems at the institutional level, such challenges often go un-noticed and unresolved, which in turn, may affect consistent utilisation of physical facilities, particularly due to lack of or inadequate support from instructors (UNESCO, 2009). As a result, learners with disability are expected to find their own way around or be assisted by fellow learners, but who lack necessary skills.

According to Mackay (2007), the utilisation of physical facilities by learners with disability at institutions of higher learning is affected by the gap between staffing levels and per capita workload. For TVET institutions, the National TVET Policy attributes understaffing or staff imbalances to inadequate adherence to staff deployment norms, as well as high turnover of skilled staff due to lack of motivation, prolonged stagnation and lack of enthusiasm (GoK, 2012b). Lahey (2005) asserts that due to heavy workloads, instructors tend to focus on resolving most immediate activities and fail to think strategically; while a publication by UNICEF (2009) notes that in developing countries, many institutions that have integrated learners with disability lack formal programmes for staff capacity development in M&E; however, where such plans exist, their implementation is constrained by under-funding, as well as lack of appropriate policy frameworks on the integration of M&E systems in educational institutions (GoK, 2012a).

In Kenya, weak or lack of M&E systems is a common feature in both educational institutions and the Ministry of Education (GoK, 2012a). The existing systems are constrained by lack of or inadequacy of appropriate skills for M&E, comprehensive work plans, insufficient funding, lack of personnel with technical competencies in M&E, as well as lack of appreciation,

and a positive attitude towards M&E (GoK, 2012a). This state of affairs has negative implications on accountability and support for learners with disability in utilising physical facilities. According to Mutisya (2012), lack of or weak M&E systems in inclusive educational institutions may affect accountability regarding the quality of support provided to learners with disability; while UNICEF (2009) notes that weak M&E systems have implications on the maintenance and functionality of physical facilities, which in turn, affects their use.

In the institutions lacking M&E systems, the management is often involved in data collection and reporting to the Ministry. However, some managers often provide exaggerated information or information that is skewed regarding learners with disability to cover-up gaps, particularly because they lack skills in M&E ethical principles (GoK, 2012a; Lahey, 2005). The review reveals lack of empirical studies that have directly determined the relationship between human resource capacity for M&E and the utilisation of physical facilities by learners with disability.

2.4.2 Monitoring and Evaluation Work Plan Indicators on Utilisation of Physical Facilities by Learners with Disability

Planning is often considered an integral component of M&E systems, which is why some organisations talk about planning, monitoring, and evaluation (PME) systems (Bakewell, Adams & Pratt, 2004). However, planning is also undertaken for a range of other purposes that have little to do with M&E. As a result, some M&E staff may find it challenging if monitoring and evaluation indicators are not in place to guide them make desired changes to planning mechanisms in order to facilitate effective M&E systems (Simister, 2009).

Organisations and institutions require a range of different plans at different levels to support M&E systems, including long term plans, tactical plan and even work plan which require, detailing data-sourcing, quality control, processing, analysis, reporting and dissemination activities, among others hence workable work plan indicators (Mackay, 2007; Simister, 2009). M&E work plans are derived from logical framework matrices, from where activities are broken down into more detailed tasks; their cost and timing is specified; and operational responsibilities elaborated (Finnish Ministry of Foreign Affairs, 2009). Equally important are the guidelines and mechanisms outlining how such work plan indicators are developed at different levels (Simister, 2009). Another issue to consider is the frequency with which plans are re-examined and re-developed in response to contextual dynamics. Some M&E systems include this as a regular, systematic procedure – for example by asking for adjusted plans to be attached to annual reports (Simister, 2009).

In their experimental studies on visual disability in the UK, Srivilailuck, Beale, Murray and Kidd (2005) and Hutchinson, Atkinson and Orpwood (1998) confirmed the frequency of learners with disability attending classes depended on availed physical facilities included well lit rooms, Braille, sunglasses and walking sticks. The studies also observed that their usage of

monitoring and evaluation work plan indicators should be specific to the prevailing forms of visual disability and should not be generalized to any form that qualifies as a visual disability. They observed that the existing assistive visual aids were poorly utilised hence limiting access to education in institutions of higher learning.

Elsewhere in United States, a countrywide survey by Kelly (2008) found out that elementary learners with disability were using wrong facilities / equipment as opposed to ones recommended by National Instructional Materials Accessibility Standard (NIMAS). This was due to poor monitoring and evaluation system on the needs of the learners with disability, Kelly (2008). In Dundee, Scotland, learners with disability faced tremendous obstacles in their quest to attend classes and even during examinations as utilise learning materials delivered in computer laboratory were under-utilised due to student capacity to make use of them (Armstrong & Murray, 2007). For example, out of an estimated 428,280 students with disability that were enrolled in postsecondary education institutions, 18,650 (4.35%) students were able to use computer labs and the rest , 409,630 (95.65%) were unable due to various reasons (Armstrong & Murray, 2007).

In the USA, Simkiss, Garner and Dryden (1998); using a sample size of 16 respondents, established that monitoring and evaluation work plan was properly used though it favoured able-bodied learners. Class attendance register was used and roll calls were used quite frequently, but instructors were only bothered to reward and discipline able – bodied learners. In addition, McKenzie (2008) conducted case studies from 4 technical institutions, only about 7.8% of the learners with disability were serious with class work, while the rest did not show seriousness in the daily school curriculum. In this regard, 73.7% of them had challenges in using available learning resources and this hindered access to education in these institutions. Craven and Brophy (2003) and McKenzie (2008) also studied physical facilities for learners with disability in the

UK and USA respectively and established that despite the advanced policy frameworks that protected learners with disability, about 52.6% of learners with disability were not able to access education in institutions of higher learning due uncertainty of their programme..

In Africa, access of learners with disability at institutions of higher learning is hampered by poor programming and uncertainty of workforce couple by poor or lack of facilities (Matshedisho, 2007). For example in Zimbabwe, the visually impaired individuals constitute of about 6.8% of the total population and that out of this number, 36.1% are of school going age (Kinell & Creaser, 2001). The study noted that access to buildings and other learning facilities in institutions of higher learning could be enhanced by the good programme and proper feedback by set indicators. Feasible M&E work plans are based on programme performance indicators designed to check for deviations from stipulated standards, which may constrain learners' effective participation in learning (Izuka, 2010); while Simister (2009) asserts that M&E work plans enable programme managers to conduct their activities within a predetermined framework; thus, avoid the possibility of overlaps or gaps. Besides, M&E work plans enable programme managers to match their work with existing policies and guidelines; match intended performance with types of personnel in terms of requisite skills and number, as well as match programme interventions with the needs of targeted beneficiaries (Lahey, 2005). Furthermore, Rubin (1995) points out that M&E work plans enable programme managers to identify and address service quality issues in time.

Within the context of learners with disability, M&E work plan indicators enable institutions and governments to match interventions with the needs of various categories of disability, including matching learners' needs with materials and physical modifications for consistent utilisation. According to the OECD (2008), M&E work plans enable institutional management and government officers to target all aspects of education access, equity, and

quality for all learners, including those with disability. Nevertheless, one of the key gaps undermining the effectiveness of public sector M&E systems in developing countries is lack of actionable work plans, due to low human resource capacity, poor ranking of M&E among the list of priorities in government programming, under-funding, and over-reliance on political decisions in the management of public programmes, including education (Mackay, 2007).

In Nigeria, Izuka (2010) reported that lack of M&E work plans indicators or non-implementation of such was one of the key features of school-based M&E systems, which participants identified as among the factors influencing the maintenance of physical facilities. In conclusion, the author emphasizes the importance of developing M&E work plan indicators, which provides an effective way for inclusive institutions to regulate, guide, and coordinate the performance of special needs education programmes. However, the study did not bring out the relationship between M&E work plan indicators and utilisation of physical facilities.

2.4.3 Programme monitoring Process and Utilisation of Physical Facilities by Learners with Disability

Monitoring is a routine, ongoing, internal activity, which is used to collect information on a programme's activities, outputs, and outcomes to track its performance (Kusek & Rist, 2004). As a process, monitoring systematically collects data against specified indicators at each stage of the programme or project cycle; providing evidence-based reporting on programme progress at every stage, relative to respective targets and outcomes. According to International Federation of Red Cross and Red Crescent Societies [IFRC] (2007), monitoring aims at providing managers and stakeholders with regular feedback and early indications of progress or lack of it in the achievement of intended results. It generally involves collecting and analysing data on

implementation processes, strategies and results, and recommending corrective measures (IFRC, 2007).

According to Hardlife and Zhou (2013), programme monitoring process is a detective tool, continuously generating information that enables programme managers to make adjustments during the implementation phase, while UNDP (2009), observes that ideally, routine programme monitoring is an ongoing process by which stakeholders obtain regular feedback on the progress being made towards achieving their goals and objectives. Furthermore, Bakewell, Adams, and Pratt (2004) observe that programme monitoring is an in-put process, while evaluation is an output process. In this regard, monitoring is crucial for determining the quality of information generated by an M&E system.

In the UK, New Zealand and in the United States, Powers, Gregory and Thoutenhood, (1999) and Lang (2002), respectively, discussed programme-monitoring process as a major aspect, which could affect access to education especially if programme daily running indicators are not availed. Success in technical institutions for learners with disability can well be evaluated if M&E system is workable and among them was inadequate academic preparation due to lack of physical facilities (Sameshima, 1999). In Canada, Leigh (2002) observed that few institutions of higher learning had proper programmes for assisting learners with disability in line with institution work plans. This hindered most learners with disability' participation in class work activities. Further, experimental studies (Kramer *et al.*, 2012; Allen, James, Evans, Hawkins & Jenkins, 2005; Girgin, 2006; Sweetow & Palmer, 2005) in Netherlands observed that 63.6% of learners with disability in institutions of higher learning in the country had problems following inclusive programme where activities involving all learners was incorporated, only about 5.2% of this number of learners with disability were able to accessed education.

Furthermore, more than 53.4% of learners with disability in the UK, New Zealand, and USA lacked adequate orientation in the use of lesson plan and other programme measure indicators; this despite availability of physical facilities learners did not gain a lot in institutions of higher learning and polytechnics (Moore, 1996; Sameshima, 1999). Menchel (1995) observed that lack of proper training in programme monitoring was the cause non-compliance among students and workers.

Consequently, monitoring should be a well-designed, functioning, and consistent process with tools that can provide accurate, valid, and consistent information usable to programme managers and stakeholders (Kusek & Rist, 2004). Contrastingly, poorly designed or weak programme-monitoring systems may not accurately detect performance indicators; as a result, problem areas may go unnoticed and uncorrected in time. On the same note, Izuka (2010) argues that routine programme-monitoring keeps interventions on track enhances responsibility among implementers and helps management to detect problems in time to avoid challenges such as cost overruns and time delays.

As for Hardlife and Zhou (2013), inaccurate programme monitoring is likely to lead to under-estimation or exaggerations of performance, with far-reaching financial and integrity implications. The quality of data sourced through routine programme monitoring can be meaningful, where such data is complete, accurate and accessible (UNDP, 2009). As noted by Mackay (2007), an effective programme monitoring system should produce continuous streams of current, valid, and timely data to programme management, aiding their day-to-day decision-making processes. Furthermore, ADRA (2007) notes that in order to fully inform programme design and implementation, monitoring systems should be properly designed to capture the “how” and “why” of project performance. In this regard, an M&E system should be perceived as an essential tool for successful programme management, assuring consistency in feedback on

performance; and that project design, logistics and implementation are managed in line with work plans. By instituting performance monitoring at the outset of implementation, lessons can be learned early enough to support necessary adjustments in response to changing trends and programming priorities (IFRC, 2007).

Establishing programme monitoring mechanism requires managers to consider carefully data sourcing methods and tools, as well as sampling procedures to ensure accuracy (Hardlife & Zhou, 2013). While a range of methods may be used in programme monitoring, it is critical to adopt a participatory approach by engaging all stakeholders, including field staff, to assess the feasibility, time requirements, cost implications, and potential constraints to various methods (ADRA, 2007). Hardlife and Zhou (2013) affirm that inclusive participation is an important condition for effective performance monitoring. However, they caution that participatory approach should not just focus on engaging with programme implementers and partners; but should also bring on board target communities in the entire process of setting up monitoring systems.

In many developing countries, programme monitoring is constrained by lack of personnel with appropriate skills and experience (Mackay, 2007; UNDP, 2009). Most public institutions lack personnel with specialized skills to undertake monitoring. Hardlife and Zhou (2013) reports that lack of skilled personnel was the main factor leading to the failure of the centralised government programme monitoring systems in Sri Lanka in the 1990s. Despite the good system design, the implementers fell short in doing their job adequately (Hardlife & Zhou, 2013).

In Kenya's education sector, routine monitoring of education programmes forms part of the Ministry of Education's mandate (GoK, 2012b). However, it is often affected by resource constraints, inadequacy of M&E technical personnel, shortage of special skills such as special education, lack of accurate data collection tools and methods, as well as political influence in the

management of education programmes (GoK, 2012b). In Bangladesh, an M&E readiness assessment conducted by the World Bank found that government programme monitoring was constrained by under-funding and under-staffing. As a result, programme monitoring was inconsistent, which in turn, affected the quality of data in terms of completeness, accuracy and accessibility (Kusek & Rist, 2004). Although inconsistent programme monitoring may influence the utilisation of physical facilities by learners with disability regarding the adequacy, relevance, and functionality, no empirical study has focused on the relationship between the two variables.

2.4.4 Monitoring and Evaluation system Support and Supervision on Utilisation of Physical Facilities by Learners with Disability

Supervision is an important component of M&E systems, where programme managers organize, guide and oversee a group of people; as well as influence their task performance to achieve a common goal (Pont, Nusche & Moorman, 2008). Supervision styles are patterns of specific behaviours displayed by individuals during their work to influence conformity to organisational norms and values, with a view to improving performance (Miller, 2002; Pont et al., 2008).

According to Honari, Goudarzi, Heidari, and Darbani (2011), supervision styles can be autocratic, democratic, or laissez-faire. Autocratic supervisors make all decisions without the input of staff members and direct group members on the way things should be done. Besides, they neither maintain clear channels of communication with their staff members nor delegate authority for staff members to participate in making key decisions (Honari *et al.*, 2011). Democratic supervisors propagate team spirit and emphasize on the participation of staff members and supervisors in decision-making processes. In this regard, democratic supervision style is also known as participative or supportive supervision (OECD, 2008). Laissez-faire

supervisors allow staff members to have complete freedom for decision-making with minimal or no involvement. They do not interfere with or participate in the course of events; and care less whether staff members succeed or fail in their obligations (Bass & Avolio, 1997).

Observations by Rice and Warren (2004) from their studies in the USA on utilisation of monitoring and evaluation system supervision indicate that of the 33.8% lecturers had influence over the students hence assisted them, about 17.4% were busy with only assigned duties hence learners with disability did not gain a lot from them. However, Turnbull (2005) in his studies in the USA noted that in over 55% of the technical institutions under observation, had qualified supervisors' in all department and managers in workshops. Turnbull (2005) further argues that the utilisation of physical need a proper training not only by learners but by all stakeholders, he noted that as the only way right information on the system and even funding can be allocated. Likewise, Hunt *et al.*, (2006) argue that funding for repair and improvement of the existing facilities can only be maintained through application of M&E system.

Abosi (2007) observed that in Botswana, factors that limit utilisation of M&E system support and supervision in institute of higher learning were mentioned by over 78% that institutions of higher learning were lacking funding for repair and maintenance hence overcrowded classrooms and basic places in the institution. This fully depended also on the style adopted by a programme manager to mobilise funds for physical facilities, professional trainings and general motivation (Kavanaugh & Ninemeier, 2001). Whereas some managers focus more on work relations with subordinates, others tend to skew towards achievement of organisational goals. However, an effective manager strives to strike a balance between work and the people with whom they work (Bass & Avolio, 1997). Whether a leader emphasizes work relations, task performance or both is what determines whether a supervision style is supportive or not.

Within the context of learners with disability, supervision styles adopted by institutional management as well as by the Ministry of Education officers may significantly affect staff motivation, productivity, as well as learners' consistent use of physical facilities (Pont *et al.*, 2008; OECD, 2008). The utilisation of such facilities may be improved where education programme managers at the Ministry and institutional levels have embraced supportive or democratic supervision. In this regard, managers are responsible for appraising and providing guidance to their staff and learners on appropriate pedagogy; as well as physical facility standards, among other duties (OECD, 2008).

In many developing countries, supervision of education programmes is often taken to mean 'inspection of teachers' work and institutional conformity to set standards (Chepkuto, 2012). This type of approach to supervision was designed to determine whether the teachers did their work as expected; and if they did not, take appropriate disciplinary measures (Chepkuto, 2012; UNESCO, 2013). Consequently, the approach was deficient of comprehensive plans for improving teaching and learning activities, as well as addressing the needs of learners with disability (UNESCO, 2013).

Wanzare (2006) explains that the term "inspector" portrayed education officers as persons coming from higher offices to see that policies developed at the central education office were being implemented in schools. This notion often created a rift between education inspectors and teachers; as a result, teachers shied away from free interaction with inspectors for fear of victimization (Wanzare, 2006). Contrastingly, Pont *et al.*, (2008) notes that the primary duty of school principals is to create a favourable atmosphere for instructors to guide learners on appropriate use of physical facilities to enhance retention. The way the principal relates with his or her staff members could contribute immensely to their ability to create the most appropriate environment for teachers and learners with disability. Honari *et al.*, (2011) argues that whereas

supportive supervision can result to great success in staff motivation and consistent support to learners with disability, autocratic supervision associates with lack of motivation, poor teamwork and unsupportive environment to learners with disability (Honari *et al.*,2011).

Staff motivation is indicated by attributes such as enthusiasm to guide and support learners with disability whenever necessary, less job stress and active engagement with the principals for feedback (Griffin, 2002). Motivated staff members are also willing to give more of their time to learners with disability. As pointed out by Honari *et al.*, (2011), although various factors operate to influence teachers' motivation in the school environment, the type of supervision style adopted by principals has the greatest influence. Kyles (2005) also concur that supervision style adopted by school principals plays an important role in shaping institutional culture, productivity, staff obligations, and performance.

Nonetheless, school supervision and data auditing in developing countries are often affected resource constraints, staffing shortage, as well as lack of contiguous professional development for education programme managers at the district and institutional level, which affects the consistency of supervisory visits and engagement forums (Mackay, 2007). In Ghana, a study conducted by Community School Alliances Project (CSA), whose purpose was to find out how Circuit Supervisors performed their duties in their respective areas, reported that about 60% of the Circuit Supervisors did not visit schools regularly to monitor teaching and learning, with the main reasons being budgetary constraints, heavy workload and lack of motivation (Dickson, 2011).

Mankoe (2007) identified a number of supervisory issues prevailing in public schools and education management systems, including lack of transport facilities for supervisors, low academic qualifications, and lack of professional development for Ministry of Education supervisors, headmasters, and teachers. These challenges have contributed to poor quality

education in Ghanaian community schools. Notably though, no empirical study has ever assessed the influence of supervisory practices on the utilisation of physical facilities by learners with disability.

2.4.5 TVET Policy/MoE Regulatory Guidelines and Monitoring and Evaluation Systems on Utilisation of Physical Facilities by Learners with Disability

Technical and Vocational Education and Training (TVET) is an important intervention for tackling the global challenge of youth unemployment (Hartl, 2009). The Bonn Resolution of 2004 emphasizes the importance of TVET programmes in poverty alleviation, peace promotion and environmental conservation (Nyerere, 2009). For learners with disability, TVET programmes provide skills to help them become self-reliant, rather than dependants (GoK, 2012a). As noted by Atchoarena and Delluc (2001) as well as Nyerere (2009), TVET provides skills in various fields, including entrepreneurship, communication, financial, agricultural, industrial, apprenticeship, and culinary arts, among others that are directly relevant to the various industries, and has significantly contributed to the technological innovation and development of industrialized economies in Western and South East Asian countries (Nyerere, 2009). In Kenya, TVET programmes are school-based and are offered at both schools and technical training institution, including the national polytechnics. The Sessional Paper Number 1 of 2005 provides for the education and training of technical personnel and their progression from levels of skills and technical knowledge to the next. TVET in Kenya is delivered by both government and private institutions, which include profit and non-profit as well as church-based institutions (GoK, 2005; 2012a).

The National TVET Policy Framework of 2012 reiterates the importance of TVET education to national development. One of its objectives is to improve access, equity and

employability of TVET graduates, including those living with various forms of disability (GoK, 2012a). More specifically, the TVET policy indicates the Government's intention to achieve a Gross Enrolment Rate (GER) of 20% in TVET by the year 2023, which shall be decentralised to all counties, sub-counties, and institutions. This policy is expected to become the yardstick for equity with respect to gender, persons with disability, minority, and marginalised groups (GoK, 2012a).

Furthermore, the National TVET Policy is anticipated to spur the expansion of training opportunities for learners with disability; however, the Policy is silent on the utilisation of physical facilities by such learners. In view of this, Mutisya (2012) points out that although the Government's intention to increase the GER by 20% is a good idea, the initiative does not necessary guarantee learning access within the institutions. The Policy does not provide any clue about measures to promote the utilisation of physical facilities by learners with disability (Mutisya, 2012).

Nonetheless, the TVET policy highlights the Government's intention to make training more flexible through modular delivery process, as well as print and electronic delivery of learning materials, which should be convenient for learners with various forms of disability (GoK, 2012a). As part of the strategies to increase GER, the Policy promotes the use of a variety of electronic technologies to enhance learner's access to instructors and learning resources, with a view to overcoming physical barriers to access. However, the policy does not mention anything about ensuring that TVET institutions access necessary equipment and instructors prepared with relevant skills to support learners with disability in their use of physical facilities within the institutions. Moreover, the TVET Policy remains silent about measures that TVET institutions should consider to assist learners with disability to operate within the institutions; thus, access learning.

Furthermore, the TVET Policy has two important guiding principles, including access and equity, as well as inclusivity and respect for cultural and social diversity. In this regard, the Policy outlines the Government's recognition that every Kenyan has a right to access quality and relevant education and training (GoK, 2012a). Under the principle of inclusivity, the Policy guides TVET institutions to promote respect and promote national values, including paying attention to learners with disability, human dignity, equity, equality and protection of marginalized societies (GoK, 2012a). However, the policy does not provide guidelines for institutional management and instructors to promote the utilisation of physical facilities by learners.

As reported by Mutisya (2012), the inclusion of learners with disability in educational institutions is affected by lack of supportive environments within the institutions, which are attributable to lack of appropriate policy guidelines on how such learners should be supported to stay in schools longer. Without such guidelines, learners take it as a personal challenge to adapt to the school environment and make the best use of available physical facilities. The situation is generic in all tiers of the education system, including national polytechnics (Mutisya, 2012).

Besides lack of guidelines focusing on the special needs of learners with disability, the implementation of the TVET Policy may also be constrained by insufficient budgetary allocations. In this regard, the Government itself acknowledges that the TIVET sub-sector has been under-resourced over the years (GoK, 2012a). Continuation of this trend is likely to constrain improvement of physical facilities, human resource capacity in terms of numbers and skills; M&E systems and utilisation of physical facilities by learners with disability (GoK, 2012a). TVET institutions are constrained by under-staffing, heavy workloads, lack of staff motivation and reluctance to implement guidelines on inclusivity (Mutisya, 2012).

Developing and maintaining quality assurance and standards in education is a key challenge across education systems throughout the world (UNESCO, 2013). Quality in education is the degree to which education can be said to be of high standard, satisfies basic learning needs, and enriches the lives of learners and their overall experience of living (UNESCO, 2000). Regarding learners with disability, education meets quality standards when such learners are able to access and utilise physical facilities. Studies conducted in various contexts suggest that there is a strong link between the utilisation of physical facilities and retention of learners with disability. In other words, where learners with disability find it difficult to move about, participate in lessons and extra-curricular activities, as well as access learning materials, the risk of dropping out is significantly high (UNESCO, 2013). Education systems can fulfil the academic requirements/needs of learners with disability where proper standards are disseminated to institutions of higher learning and there are frequent supervisory visits (UNESCO, 2013).

Another gap in the existing Ministry of Education Policies on quality assurance and standards is that schools are not regularly inspected and the management of such institutions held to account. In this regard, Mutisya (2012) explains that for learners with disability, quality assurance inspections often delay for months; while some pass without any inspection done. This may have implications on the functionality of physical facilities and their consistent utilisation by the intended beneficiaries.

The Directorate of Quality Assurance and Standards is mandated by the Education Act (Cap 211) to undertake issues of quality and standards through independent assessment of learning and teaching facilities (GoK, 2012a). However, there is no mention of physical facilities used by learners with disability, as one of the items for inspection by QAS officers. Furthermore, the Directorate's mandate includes establishing, maintaining, improving quality and standards in all educational and training institutions, whether public, or private (GoK, 2012a). However, its

operations are constrained by under-funding, shortage of personnel trained in special needs education, particularly on the standards of physical facilities used by learners with disability.

Consequently, even where QAS officers visit institutions for routine monitoring and inspection, little or no attention is accorded to the adequacy, functionality and utilisation of existing physical facilities by learners with disability (Mutisya, 2012). In many developing countries, integration of learners with disability is constrained by lack of appropriate standards, disseminated to educational institutions to enable the management to undertake necessary modifications, with a view to creating a supportive environment for such learners (UNESCO, 2013).

2.5 Theoretical Framework

This study is anchored on the Progressive Utilisation Theory, developed by Sarkar (1969). The study is also informed by the Social Model of Disability.

2.5.1 Progressive Utilisation Theory

Progressive Utilisation Theory (PROUT) advocates for economic self-reliance, cooperatives, environmental balance, and universal spiritual values. The essential characteristic of PROUT is economic liberation, freeing human beings from mundane challenges so that all have increasing opportunities for intellectual and spiritual liberation. The theory is pegged on four concepts namely: minimum necessities, physical wealth, proper utilisation of natural and human resources as well as economic democracy (Sarkar, 1969). Of key importance to this study is the proper utilisation of natural and human resources concept, which postulates that the natural resources provided by nature belong to everyone and are to be used for the welfare of all, including individuals living with disability. In this study, physical facilities; buildings, aids and devises, services and technology could be available in national polytechnics and only require

proper M&E systems to ensure learners utilise them by having access to classrooms and other areas within school environment. The education acquired is expected to improve economic self-reliance, create environmental balance, and universal spiritual values.

The theory further states that human resources which is an aspect of M&E system should be utilised maximally with utmost efficiency while protecting the natural environment. It further emphasizes on the value of both individual and collective well-being. In view of this, one may safely argue that learners with disability are equally bound by the tenets of this theory, because for them to fit into society where they belong, they must efficiently and regularly utilise available physical facilities in their institutions to ensure retention and consistent. This can only be achieved if M&E system is in place.

The Theory argues for proper utilisation of human and physical resources that nature provides in order to achieve full economic potential. Human resource is an important component of M&E systems, as it provides the expertise for gathering and analysing information to support decision-making and effective management of other resources, including physical buildings, assistive aids and devices, services and technology. The information generated through M&E systems is also crucial for optimal utilisation of physical resources. In this regard, the quality of information generated by an M&E system depends on the quality of human resource involved, which in turn, will determine the level of management efficiency. Consequently, having adequate human resource that is trained in M&E is indispensable for effective M&E systems, better management of resources provided by nature and utilisation of such resources by intended beneficiaries to achieve economic self-reliance, cooperatives, environmental balance, and universal spiritual values, among other benefits (World Bank, 2004).

2.5.2 Social Model of Disability

The Social Model of Disability asserts that society disables persons with disability through isolation, exclusion from full participation in society, inadequate redress of their needs and failure to provide supportive physical facilities. Similar arguments are traceable to the works of scholars such as Lang (2002), Hahn (1986), Charlton (1998) and Grant (2009) who all argue that individuals living with disability are disabled by society's failure to provide structured social environments that can adjust to their needs and aspirations, rather than such individuals adapting to societal demands. On the same note, Barton (1993) and Barnes (2004) assert that such pejorative attitudes coupled with inhospitable physical environments such as inaccessible buildings and transport facilities are considered the real concerns of people living with disability. In view of this, Barnes (2004) notes that most disable people live in disabling environments, rather than ones that are socially enabling. Similarly, Oliver (1996) affirms that it is true society can disable impaired individuals through discrimination and exclusion.

In this study, M&E system if put in place can bring every aspect of management together; hence, reducing isolation and exclusion of learner with disability as such even physical facilities was well used by learners with disability. There is no doubt that proper and consistent use of such facilities is likely to enhance education accessibility for learners with disability, which in turn, will enable them to overcome the feeling of either isolation or exclusion from full participation within the institutions as well as in the outside world.

In view of this, failure to embrace the use of M&E system, able-bodied colleagues, lecturers or the administrators can easily disable learners with disability by not providing the necessary support to improve the status of the physical facilities, as well as through their actions. The model's relevance to the study is magnified by its advocacy for stronger M&E systems to curb isolation and exclusion from full participation for learners with disability by providing and

ensuring regular utilisation of existing physical facilities within their immediate environment to improve participation in learning and extra-curricular activities (Polo & Lopez, 2005).

2.6 Conceptual Framework

The study was expected to determine the influence of M&E systems on utilisation of physical facilities by learners with disability in the Kenyan national polytechnics. The M&E systems was operationalized in terms of four variables, including human resource capacity for M&E; M&E work plan indicators, programme monitoring as well as M&E systems support and supervision. Although the selected components of M&E systems may have a direct influence on the utilisation of physical facilities by learners with disability, their influence may be moderated by factors such as the availability of TVET/MoE policy guidelines and the extent to which such is implemented at the institutional level. Figure 2.1 shows the hypothesised relationships between M&E systems variables, the moderating variable and utilisation of physical facilities by learners with disability.

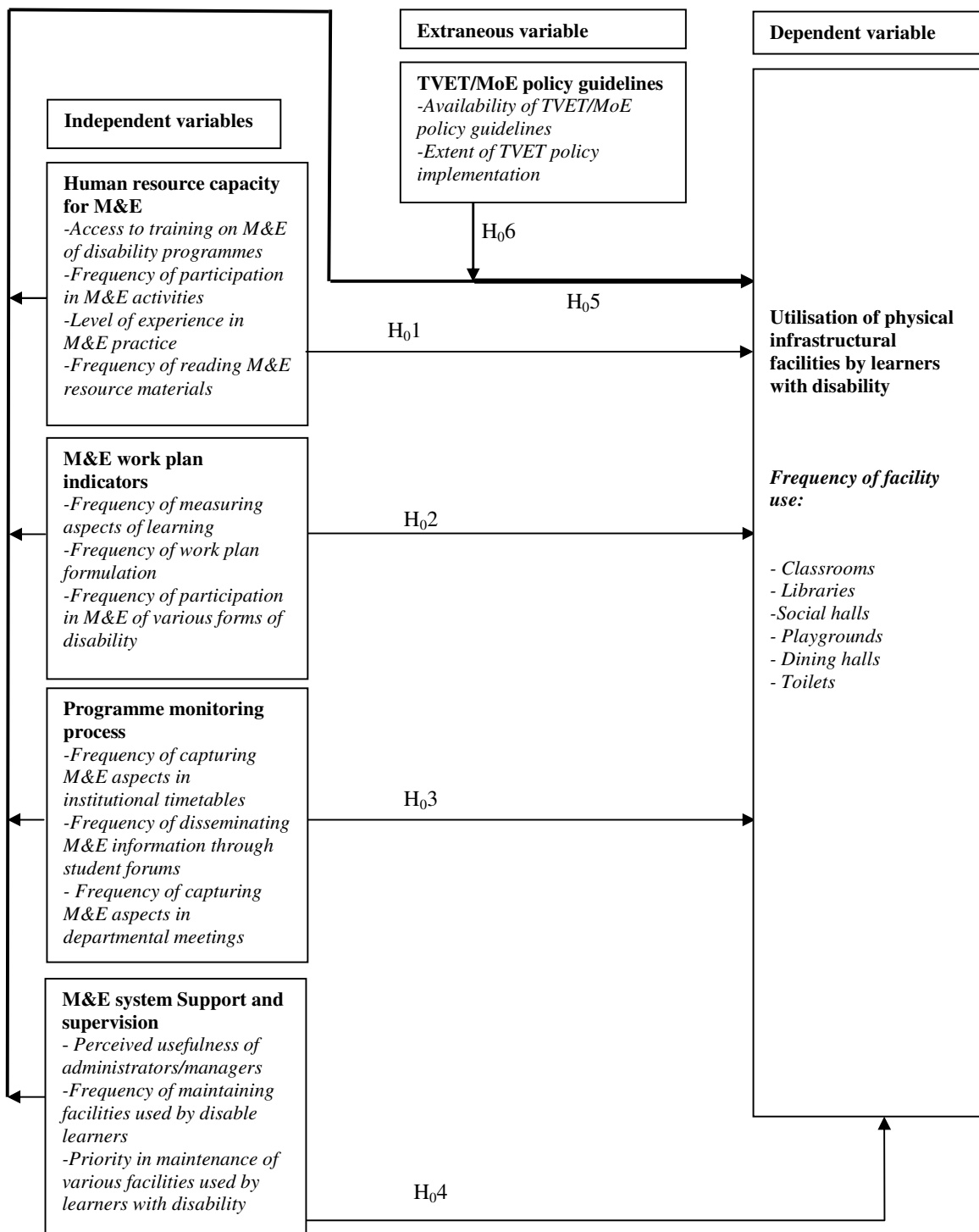


Figure 2.1: Conceptual framework for M&E systems and utilisation of physical infrastructural facilities by learners with disability

Utilisation of physical facilities has been designated the dependent variable, which shall be measured in terms of consistency over the preceding two months period. The study holds that there exists a significant relationship between the M&E systems and the utilisation of physical facilities, including library, classes, and toilets, playground, corridors, kitchen /dining halls, administration and dining hall/hostels by learners with disability. Nurturing the relationship, by ensuring proper and consistent utilisation of the facilities with utmost efficiency as advocated for by PROUT and SMD is likely to add value for both individual and collective well-being to learners with disability, since they do not feel isolated and excluded from full participation in the learning process.

2.6 Summary and Knowledge Gap

The literature review reveals that M&E policy literature suggests that various components of M&E systems may have significant influence on the utilisation of physical facilities by learners with disability. Notably, physical facilities for learners with various forms of disability are important for enabling such learners to accomplish their educational goals, while at the institutions of learning. They facilitate access to education by compensating for their disability, even though partially.

Provision and utilisation of such physical facilities is important in improving access to education, especially where the utilisation of such facilities are supported with effective M&E systems, including appropriate human resource capacity, work plans indicators, M&E support and supervision, programme-monitoring process, as well as suitable policies. The policy and few empirical literature reviewed suggest that poor utilisation of the facilities constrains learners' mobility, timely attendance of lessons as well as active participation in learning and other educational activities; thus, limiting access to education.

The literature reveals a number of structural, financial, management and political issues constraining the effectiveness of public sector M&E systems in various countries. However, the relationship between the various components of M&E systems, including human resource for M&E, work plan indicators, programme monitoring process as well as M&E support and supervision and utilisation of physical facilities by learners with disability is an area that has not attracted many empirical studies, in Kenya and in other countries. Table 2.1 provides a summary of the information revealed by the literature review, as well as gaps that make the proposed study necessary.

Table 2.1 Knowledge gap

| Thematic area | Author(s) & Year | Title | Methodology used | Main findings | Knowledge Gaps |
|---|-----------------------------|--|--|---|---|
| 1. Human resource capacity for M&E and the utilisation of physical infrastructural facilities by learners with disability | Thomas and Patricia (2004) | Higher Education: Opportunities for Students with Disability; Prime for Policymakers | Experimental research Targeted learners with disability Conducted in TVET and universities | 45.7% of learners whose teachers had no relevant training in disability, were not attending their studies regularly | <ul style="list-style-type: none"> - Research conducted in mixed setup, TVET, and universities that have different management and leadership styles. This study focused on polytechnics only - Issues on capacity of M&E officers were not adequately covered. The study looked fully at M&E officers capacity - Did not look at M&E HRC system. This study looked at HRC system in whole. |

| | | | | | |
|--|--|--|---|---|---|
| | Steff, Mudzakir & Andayani (2010) | Equity and Access to Tertiary Education for Students with Disabilities in Indonesia | <ul style="list-style-type: none"> - used life history approach - Conducted research in universities - Targeted learners with disability | <ul style="list-style-type: none"> - Learner: lecturer ratio was low. - 2 out of 7 universities had employed 1/3 of staff who were disable | <ul style="list-style-type: none"> - Research was purely qualitative. The study was mixed method - Conducted in universities. This study was conducted in polytechnics |
| | Leyser, Vogel, Wayland, Brulle, Sharoni and Vogel (2000) | Students with disabilities in higher education: Perspectives of American and Israeli faculty members | <ul style="list-style-type: none"> - Conducted a longitudinal survey - Sample size was small | <ul style="list-style-type: none"> - 15 of the 19 learners with disability were found to be attending school regularly. - Proper and regular use of staff and facilities availed were | <ul style="list-style-type: none"> - Used only qualitative paradigms. The current research paradigm was mixed one. - The results were comparative in nature. This study was a description of the whole population. - Sample size too small (19). The study sample exceeded 200 |
| | Sharma (2012) | Higher Education and its Perspectives with Special Reference to “Differently Able” Learners | <ul style="list-style-type: none"> - Conducted in India universities - Targeted lecturers - Utilised questionnaires | <ul style="list-style-type: none"> -44% of universities indicated not providing trained staff for learners with disability. | <ul style="list-style-type: none"> - Results were mainly in descriptive nature. This study incorporated descriptive and inferential methods. - Data collected was not triangulated. The data to be collected was triangulated. |
| 2. M&E work plan indicators on utilisation of physical infrastructural facilities by | Srivilailuck, Beale, Murray and Kidd (2005) | Hidden design: An inquiry into the design of inclusive building environments | <ul style="list-style-type: none"> -Focused on visual impaired learners -It was a M&E research | <ul style="list-style-type: none"> - Frequency of learners with disability attending classes depended on | <ul style="list-style-type: none"> - Was conducted on a single disability. The study focused on multiple forms of disability. |

| | | | | | |
|---|--------------------|--|---|--|---|
| learners with disability | | and digital interface design for the vision impaired | | availed physical facilities. - Usage of M&E work plan indicators should was not specific to the prevailing forms of visual disability -Visual aids were poorly utilised. | - Looked at utilisation of physical resources and not utilisation of M&E work plan as proposed in the current study |
| | McKenzie (2008) | Using online technology to facilitate Learning Disability teaching | - Used a case study research design - Used observation method of data collection - Findings were reported qualitatively | -Very few of the learners with disability were serious with the class work - Majority had challenges in using the available learning resources | - Did not specify the M&E work plan indicators used. -The study specified the work plan indicators to be used. - Conducted in a different geographical setting. This study was conducted in region sharing similar characteristics. |
| | Matshedisho (2007) | Access to higher education for disable students in South Africa: a contradictory conjuncture of benevolence, rights and the social model of disability | - Targeted visual impaired learners - Focused on all institutions of education - Used scale data for measurements | - Access of learners with disability at institutions of higher learning is hampered by poor lack of facilities | - Did not focused on TVET institutions. The research focused on polytechnics - M&E work plan indicators were not specific. The M&E work plan indicators was spelt out |
| 3. Programme-monitoring process and utilisation of physical infrastructural | Leigh (2002) | Speaking Out: Perceptions of Students with Disability at Canadian Universities | - Conducted research in Canadian institutions - Longitudinal study (1999- | - Few institutions of higher learning had proper programme to | - Sampling was biased. The sampling was unbiased - Focused on universities |

| | | | | | |
|--|---------------|---|--|---|---|
| facilities by learners with disability | | Regarding Institutional Policies | 2002) | assist the learners with disability. | rather than colleges. This study focused on TVET institutions |
| | Girgin (2006) | Approaches adopted in training hearing impaired children and instructional settings | - Study conducted in one institution - Targeted deaf students | - Learners had problems in utilising acoustic aids | - Programme-monitoring process was not clearly spelt out by the concerned institutions. This research sought clarification on programme-monitoring process - Researched on a single university. This study compared two institutions - Targeted deaf students instead of all learners with disability |
| | Mackay (2007) | How to Build M&E Systems to Support Better Government | - Utilised secondary sources of information | Feasible M&E work plans are based on programme performance indicators designed to check for deviations from stipulated standards, which may constrain learners' effective participation in learning | - It was a funded project. This was a self-funded project - Relied on research work done by other scholars - Did not capture the level of programme monitoring process in TVET institutions. This study captured the level of programme monitoring process |
| 4. M&E system support and supervision on utilisation of physical infrastructural | Abosi (2007) | Learning Disability | - Used a survey research technique - Conducted across all | - Institutions of higher learning were lacking funding for repair and | - Utilised one instrument to collect information. The study will use several |

| | | | | | |
|--|-------------------------------|---|--|--|--|
| facilities by learners with disability | | | institutions of higher learning | maintenance hence overcrowded classrooms and basic places | instruments - The study area was not specific (either TVET universities. The area of study in this work was in polytechnics |
| | Chepkuto (2012) | Contributions of Quality Assurance and Standards to Curriculum Implementation in Primary Schools of Baringo District, Baringo County, Kenya | - Studied primary schools - Targeted teachers - Focused in quality assurance (inspections) | -Supervision of education programmes is often taken to mean inspection of teachers' work and institutional conformity to set standards | - Study was conducted in primary schools. This study was in polytechnics - Did not focus on disable students. The study focus on both able and disable students perceptions |
| | Kavanaugh, & Ninemeier (2001) | Supervision in the Hospitality Industry | - Survey of hospitality industry establishments | Professional trainings and general motivation are required in M&E system support and supervision | - Not in an educational setting (hotels). This was in an educational setting - Mixed HR capacity and support. The study focused on M&E system support |

The summary reveals a dearth of academic literature linking the various components of M&E systems and utilisation of physical facilities. Having explored existing literature and identified gaps that this study was expected to address, the next chapter provides details of the research design and methods that were applied to fulfil objectives of the study.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

This chapter describes the research methodology that was applied to guide the study through data sourcing, processing, analysis and interpretation. The methodology aspects described herein include the research design, target population, sampling procedures, sample size, and data collection instruments. In addition, the chapter discusses the elements of validity and reliability, pre-testing of data instruments and approaches; data collection procedures, data processing and analysis techniques; as well as ethical considerations and operational definition of variables.

3.2 Research Paradigm and Approaches

There are two main research paradigms, namely, positivism and constructivism (Ashley & Orenstein, 2005). Positivism holds the view that in social sciences, information derived from sensory experience is the exclusive source of all authoritative knowledge. Besides, the world is external and objective; and that the observer is independent of the phenomena being observed (Ashley & Orenstein, 2005). The positivist thought assumes that valid knowledge can only be found in scientific knowledge. Data sourced through verification of reality with the senses is known as empirical data. This view holds that society operates according to general laws like the physical world and that introspective and intuitional attempts to gain knowledge are rejected (Ashley & Orenstein, 2005). Positivist paradigm holds that a researcher should focus on facts, look for causality, and fundamental laws, reduce phenomenon to simplest elements or variables, that are measurable; as well as formulate and test hypotheses. Concepts are operationalized into

simplest forms that can be measured in sub-sets of populations (samples) and results used to either confirm or refute research hypotheses.

Constructivist paradigm holds that the world is socially constructed and subjective. That the observer or researcher is part of what is the phenomenon being observed and that science is driven by human interests. In this regard, a researcher is expected to focus on meaning of reality being observed, understand dynamics and patterns of reality, examine totality of reality from within and without, and develop generalisations through induction. The methods used under constructivist paradigm are numerous and are often combined to establish various views of reality. Besides, the samples used are relatively smaller than that used under the positivist paradigm, however, the samples are analysed in-depth over a period.

This study applied both positivist and constructivist paradigms. The Positivist thoughts were important because it facilitated determination of causal relationships between M&E systems and utilisation of infrastructural facilities by learners with disability. The concepts of M&E systems and utilisation of physical facilities were broken down and measured in terms of quantitative and quantifiable variables. Again, under the paradigm, data were collected from large samples of lecturers; null hypotheses were tested and conclusions were derived from data to explain the influence of M&E systems on utilisation of physical facilities (Hussey & Hussey, 1997).

Furthermore, the constructivist paradigm was relevant because the study entailed case analysis of two elements (institutions), where information was gathered using a combination of various methods, including key informant interviews (KIIs), focus group discussions (FGDs) and observation. The information was sourced from various groups, including institutional heads, learners and officers of the Ministry of Education as well as officers of the National Council of Persons Living with Disability (NCPWLD). The information was in-depth and was used to

examine the totality of relationship between M&E systems and utilisation of physical facilities by learners with disability.

Based on the positivist and constructivist thoughts, this study applied mixed methods approach, which is a procedure for combining quantitative and qualitative research methods in a single study to understand a phenomenon better (Sale, Lohfeld & Brazil, 2002). Combining qualitative and quantitative methods in a single study is widely practiced and accepted in social, economic, educational and health research, among others. Each method has its philosophical basis, including a patterned set of assumptions concerning reality (ontology), knowledge of that reality (epistemology), and the particular ways of knowing that reality (methodology). It is imperative that all investigators applying a mixed methods approach to understand these philosophical aspects (Sale, Lohfeld & Brazil, 2002).

More specifically, the quantitative approach is based on positivistic thoughts, which hold that all phenomena can be reduced to empirical indicators, which represent truth. The ontological position of the quantitative approach is that there is only one truth, which is an objective reality existing independent of human perception. Epistemologically, the investigator and investigated subjects are independent entities (Ashley & Orenstein, 2005). Therefore, the investigator is capable of studying a phenomenon without influencing it or being influenced by it (Guba & Lincoln, 1994). The quantitative approach determines causal relationships between variables within a value-free framework (Denzin & Lincoln, 1994). The approach allows the use of samples to predict population parameters; thus, samples and populations are linked by null hypotheses. Accuracy of the prediction depends on the sample size and its representativeness. Generally, sample sizes used in the quantitative paradigm are much larger than those used in qualitative research. In view of this, the approach allows investigators to determine the validity of null hypotheses (Carey, 1993).

On the other hand, qualitative approach is based on constructivist thoughts (Altheide & Johnson, 1994; Guba & Lincoln, 1994). Ontologically, there are multiple realities or multiple truths based on one's construction of reality. Reality is socially constructed (Berger & Luckmann, 1966); hence, is constantly changing. Epistemologically, the qualitative approach is based on the understanding that there is no access to reality independent of our minds, no external referent by which to compare claims of truth (Smith, 1983). The investigator and the object of study are interactively linked so that findings are mutually created within the context of the situation, which shapes the inquiry (Guba & Lincoln, 1994; Denzin & Lincoln, 1994).

This suggests that reality has no existence prior to investigations, and reality ceases to exist when we no longer focus on it (Smith, 1983). Techniques used in qualitative studies include in-depth and focus group interviews and participant observation. Samples are not meant to represent large populations. Rather, small, purposeful samples of articulate respondents are used because they can provide important information, not because they are representative of a larger group (Reid, 1996). In this study, both quantitative and qualitative approaches were applied, based on the philosophical foundations, to determine the influence of M&E systems on the utilisation of physical facilities by learners with disability in national polytechnics.

3.3 Research Design

The study adopted a combination of descriptive cross-sectional survey and causal-comparative research designs. The cross-sectional survey design incorporated both quantitative and qualitative approaches. The quantitative approach, consisting of closed-ended questions elicited information to be used for descriptive and inferential purposes. The qualitative approach with open-ended questions obtained in-depth information to be used to validate descriptive and inferential results (Mwanje, 2001). Across-sectional survey design is cheaper than longitudinal

designs; thus, making it most appropriate for academic investigators, who in most cases, are limited by budgetary constraints (Rindfleisch, Malter, Ganesan & Moorma, 2008). Besides, unlike longitudinal survey designs, a cross-sectional design is not vulnerable to confounding factors such as social, political, and cultural changes because data is collected at one point in time.

According to Bryman and Cramer (1997), the proposed design is capable of providing a wider range of information on population characteristics than other designs. It is also applauded for its ability to enhance validity of the data by subjecting all participants to standardized data collection instruments. Cross-sectional surveys are appropriate for studies that examine concrete and externally oriented constructs, sample highly educated respondents, employ a diverse array of measurement formats and scales, and are strongly rooted in theory (Rindfleisch *et al.*, 2008).

Nevertheless, cross-sectional survey designs have three inherent weaknesses. First, they are likely to suffer from high non-response rate because they are conducted based on voluntary participation by respondents. Where respondents are not fully informed and motivated to give information, cross-sectional designs may be underproductive. Second, cross-sectional designs rely on information obtained from small sections of the population to derive conclusions. While it is statistically possible to have a representative sample, there is always some error in the representation of populations. Third, cross-sectional designs are likely to yield socially desirable responses. There is a psychological tendency of respondents to provide socially acceptable responses rather than ones that reflect their own true opinions (ASA, 1999; Rindfleisch *et al.*, 2008).

The study also applied the causal-comparative research design. The design enabled the investigator to determine the relationship between the independent variables (M&E systems) and the dependent variable (utilisation of physical facilities). The causal-comparative research design

is considered appropriate for the study because the purpose of the study is to determine causality between two sets of variables (independent and dependent) as well as the influence of a third set (moderating variables) on the causal relationship. As noted by Fraenkel and Wallen (1996), causal-comparative research design enables investigators to determine relationships between two sets of phenomena without deliberate manipulation of any set to cause variation on the other. Furthermore, the design is appropriate because the study tested null hypotheses to determine whether they hold true to reality or not.

3.4 Target Population

The quantitative approach of the study targeted a population of 330 academic staff, including 69 departmental heads and 261 lecturers. The qualitative approach targeted 11,693 learners, including 11,191 who were able-bodied and 122 with various forms of disability; 4 institutional managers, including 2 principals and 2 deputy principals, as well as 3 officers of the Ministry of Education (MoE) and National Council for People Living with Disabilities (NCPLWD). Table 3.1 provides the distribution of participants that were targeted by the study.

Table 3.1: Summary of the target population

| Individuals | Kisumu Polytechnic | Eldoret Polytechnic | MoE | NCPD | TOTAL |
|--------------------|---------------------------|----------------------------|------------|-------------|---------------|
| Principal/deputies | 2 | 2 | - | - | 4 |
| Departmental heads | 30 | 39 | - | - | 69 |
| Lecturers | 122 | 139 | - | - | 261 |
| Able Learners | 4,436 | 6,755 | - | - | 11,191 |
| Disabled Learners | 51 | 71 | - | - | 122 |
| Other Officials | - | - | 2 | 1 | 3 |

The Table shows that the study targeted learners, institutional managers, departmental heads, lecturers, and key staff of the MoE as well as the NCPWD. Departmental heads and lecturers were targeted by quantitative approaches because of their direct involvement in

monitoring and evaluation processes. The MoE officers involved in the study were stationed in Rift Valley and Nyanza regions. One was in charge of TVET education while the other was in charge of quality assurance and standards.

3.5 Sample Size and Sampling Procedures

Subjecting the entire population of interest to investigations can be costly in terms of financial resources and time; hence, a sample is a sub-set of the population that can be studied at reasonable cost and used to predict population parameters (Mugenda & Mugenda, 1999). Samples should be representative of the population as much as possible, because a small sample is likely to under-estimate population attributes, particularly due to the effect of sampling error. However, in situations where a population is too small to be sampled, it is logical to include all the elements in the sample (Mugenda & Mugenda, 1999).

3.5.1 Sample size

Under the positivistic paradigm, investigators use samples to estimate population parameters. In this study, populations targeted by the quantitative approach, for departmental heads and lecturers are indicated in Table 3.1 above, which were designated as the population (N_i). However, given the smallness of the populations, the investigator did not compute samples. Instead, the a census method was used to involve all the departmental heads and lecturers in the study. This decision was based on advice provided by Mugenda and Mugenda (1999) regarding the need to include all elements in of a population in a study, where populations are too small to be sampled. Consequently, all the 69 heads of departments and 261 lecturers were involved in the study. Kothari (2004) defines census as a complete enumeration of all elements in the population, particularly because they are complete, precise, and not vulnerable to sampling errors (Kish, 1979). Censuses give data detail for small domains and especially for local areas, which

samples fail to provide; and this is probably their principal continuing utility. Considering the entire population of departmental heads and lecturers in national polytechnics is sufficiently small, the study included the entire population in the study. The advantage of using this method as opposed to sampling is that all items are covered, no element of chance is left, and highest accuracy is obtained. Under the constructivist paradigm, 8 able-bodied learners and 8 learners with disability were sampled to represent all learners in FGDs; while 2 principals as well as 2 officers of MoE and 1 officer of NCPLWD were involved in KIIs.

3.5.2 Sampling procedures

In every research work data is obtainable through two approaches namely census (where entire populations are studied) and sample (where subsets of populations are studied) (Kothari, 2004). Nonetheless, subjecting the entire population of interest to investigations can be costly in terms of financial resources; hence, a sample is a subset of the population that can be studied at a reasonable cost and used to predict population parameters (Mugenda & Mugenda, 1999). Samples should be representative of the population as much as possible, because a small sample is likely to under-estimate population attributes.

The study used non-probability sampling procedures in selecting polytechnic principals, NCPLWD officials, MoE officers and 16 learners who participated in FGDs. The non-probability sampling method used was purposive sampling technique. Sampling decisions are made for attaining information from participants, who are knowledgeable about the subject under investigation (McMillan & Schumacher, 2001). Qualitative research usually involves smaller sample sizes than quantitative research studies. Patton (2002) argues that there are no rules for sample size in qualitative enquiry. Specifically, the students who participate in FGDs were student leaders who might be involved or had knowledge on M&E within their institutions. They

were categorised into two groups; one for able-bodied and another one for those with various forms of disability. Under each group, one-half of the participants consisted of males, while the other was included females.

3.6 Research Instruments

The study sourced both primary and secondary data. In this regard, four sets of instruments were applied to source requisite data, including a survey questionnaire, which was used to source quantitative data. Other tools include a Key Informant Interview Guide, an Observation Check List, a Content Analysis Guide, and a Focus Group Discussion Guide, which were combined to capture qualitative data. The application of multiple instruments was important for enhancing validity of data obtained and minimising the possibility of experiencing interviewer biases. Such biases often arise from non-verbal cues that may influence participants to give misleading responses by reporting positive aspects even where negative aspects are predominant (Jaeger, 1984). Details of the instruments used in the study and their relevance are described in the following sub-sections.

3.6.1 Survey Questionnaire

The study applied a questionnaire with closed-ended and open-ended questions, targeting academic staff, including lecturers and departmental heads. . The questionnaire was structured according to objectives of the study. More specifically, section 1.0 comprised of questions on demographic characteristics of participants, section 2.0 contained questions on the human resource capacity for M&E, while section 3.0 involved questions on the M&E work plan indicators. Mores still, section 4.0 contained questions covering programme monitoring activities, section 5.0 contained questions on M&E systems support, and supervision, section 6.0

contained questions on TVET/MoE policy guidelines, while section 7.0 contained questions on utilisation of physical facilities by learners with disability.

Furthermore, section A of the questionnaire only covered questions on demographic data measured at nominal, interval and ordinal scales. Sections 2.0, 3.0, 4.0, 5.0, and 6.0 contained questions on the independent variables measured mostly at ordinal scales using five-point Likert scales. Section 7.0 contained questions on moderating variables, which were also measured at ordinal scale. Lastly, section 8.0 contained questions addressing the dependent variable, which were measured at ordinal scales, using the five-point Likert scales. In the questionnaire, open-ended questions were also included to source in-depth information from departmental heads and lecturers.

The instrument captured information that met the requirements for positivistic paradigm and quantitative approach. The information captured in the simplest variable forms were objective and used to confirm or refute hypothesised influence of M&E systems on utilisation of physical facilities.

3.6.2 Focus Group Discussion Guide

Focus discussions are a form of group interviews that capitalise on communication between participants and facilitators in order to generate data (Best & Khan, 2004). Muganda (2010) indicates that focus group method is a research technique that collects information through group interaction on a topic determined by the investigator; the investigator's interest provides the focus while the information comes from the group interaction (Morgan, 1997 in Muganda, 2010). Although group interviews are often used simply as a quick and convenient way to collect data from several people simultaneously, focus groups explicitly, use group interaction as part of the method (Creswell, 2008). In this study, FGD guide targeted able-bodied

learners and those with disability, for homogeneity. The instrument captured in-depth information regarding the influence of M&E systems on utilisation of physical facilities, in accordance with constructivist thoughts and qualitative approach. In this, regard, the information enabled the investigator to focus on meaning of the causal relationship observed between M&E systems and utilisation of physical facilities; understand dynamics and patterns of the causal relationship between the two aspects, examine totality of reality from within and without, and develop generalisations through induction.

3.6.3 Key Informant Interview Guide

The instrument was applied on key informants, including principals, MoE and NCPLWD officers. The interview was prepared for each key informant. The tool sourced information on the monitoring and evaluation system, classroom attendance by learners with disability in national polytechnics and utilisation of physical facilities. As noted by Touliatos and Compton (1988), evaluating views, opinions, perceptions, feelings, and attitudes of individuals can best be done through in-depth interview guides. The interview guide also sourced in-depth information concerning the relationship between M&E systems and utilisation of physical facilities by learners with disability, in accordance with constructivist thoughts and qualitative approach. The information sourced was used for in-depth and total analysis of the relationship between the two aspects, upon which conclusions were induced. The instrument completed the information sourced through FGDs, from the perspective of leaders and managers of M&E systems in national polytechnics.

3.6.4 Observation Checklist

This instrument was used to verify existing physical facilities and their utilisation by learners with disability; this corroborated information sourced through the survey questionnaires, FGDs and KIIs. According to Fraenkel and Wallen (1996), observation checklists ensure that data collected through other means such as questionnaires and interviews can be physically verified by the investigator. On the other hand, Reisman, Gienapp, and Stachowiak (2001) argue that observation checklists help organisations and policy implementers to monitor levels of acceptance of change or assimilation of new products. The tool was relevant because it permitted verification of reported aspects of physical facilities, particularly in terms of their adequacy, functionality and safety, particularly for learners with disability. The information sourced also enabled the investigator to fulfil requirements of constructivist thoughts and qualitative approaches.

3.6.5 Content Analysis Guide

This instrument was also administered to principals, as well as MoE and NCPLWD officers to verify utilisation of physical facilities among learners with disability to enhance access of education, and policy framework surrounding utilisation. From the administrative offices of the TVET institutions, the investigator sought documents on registration of learners with disability, facilities available for learners with disability and institutional disability policy. The tool also sourced information on M&E in terms of support from the MoE office, which was aimed at improving the life of learners with disability. As pointed out by Gay (1996), content analysis enables investigators to validate data collected through other methods such as questionnaires, survey forms, and in-depth interview guides.

3.7 Pre-Testing of Research Instruments

Pre-testing reveals what works and what does not, for instance, vague questions, and unclear instructions. It also captures key comments and suggestions from participants that would enable the investigator to improve the instruments and adjust data collection approaches to maximize response rate (Mugenda & Mugenda, 1999). The questionnaires, observation checklist, document analysis, focus group guide and interview schedules was pre-tested at the Rift Valley Technical Training Institute (RVTTI) in Eldoret to check on their suitability. The instruments were administered to all the targeted participants, including the principal/deputy principal, departmental heads, lecturers, able-bodied learners, and learners with disability. Only 5% of the sample was considered for the study at the chosen institution. Mugenda and Mugenda (2003) supported this as they argued that the number of cases in the pre-test should not be very large. Pre-test sample sizes often range between 1% and 10%, depending on the sampling frames. Necessary adjustments such as re-statement of unclear questions and instructions; omission of irrelevant questions and grammatical errors were effected based on results, comments from respondents and new insights.

3.7.1 Validity of Research Instruments

Validity of the instruments is a crucial element of accomplished research studies. It refers to the extent to which a tool actually captures what it purports to measure (Nachmias & Nachmias, 1996). In social sciences, the acceptable levels of instrument validity largely depend on logic and the level of a investigator's experience (Mugenda & Mugenda, 1999). In this study, a high level of validity was achieved by posing questions in the simplest way possible. The study also utilised a Content Validation Index (CVI) method to assess the validity of the instruments.

In this regard, the formula stated below was applied to establish content validity for quantitative data.

$$CVI = \left\{ \frac{\text{Number of items rated as relevant (per objective)}}{\text{Total number of items in the questionnaire}} \right\} \times 100$$

If the resultant CVI value was more than 50% then the instrument was considered valid and if it was less than 50% the instrument was considered not valid. The advantage of using content validation measure is that it is usually objective and representative of the wider body of material that the study is trying to assess. The study also determined construct validity, which enabled the investigator to determine whether the theoretical concepts adopted by the study accurately matched with a specific measurement or scale used in research. As noted by MacKenzie (2003), construct validity refers to whether a scale or test measures specific theoretical constructs adequately. Construct validity is often measured before main data collection; hence, pre-testing provided a good opportunity for testing the accuracy with which constructs were measured. Establishing good construct validity is a matter of experience and judgment, building up as much supporting evidence as possible (MacKenzie, 2003).

Qualitative validity of instruments was achieved through expert opinions of the three supervisors from the College of Education and External Studies (CEES) University Nairobi, as well as sign language and Braille experts. In addition, qualitative data were processed into manageable proportions through editing, coding, and tabulation method. Data collected was checked while still in the field to ensure that all questions were answered and omissions as well as logical inconsistencies identified and removed. The data sourced were processed and discussed with supervisors to ensure that objectives of the study were adequately addressed.

3.7.2 Reliability of the Instruments

Reliability is the ability of a research instrument to consistently measure the characteristics of interest over time (UNESCO, 2004; Rambo, 2008). The inconsistency of a research instrument reflects the existence of random error, which may arise at the time of data collection due to inaccuracy by an investigator or the instrument used to elicit information (Mugenda & Mugenda, 1999; Nachmias & Nachmias, 1996; Leary, 2004). Although data collection was a one-time event, pre-testing played a crucial role in enabling the investigator to determine and improve reliability of the instruments.

The split-half technique was performed using the Statistical Package for Social Sciences (SPSS) programme to determine Spearman-Brown Split-Half Reliability Coefficient, also known the Spearman-Brown Prophecy Coefficient, which was used to estimate full test reliability based on split-half reliability measures for selected items in the questionnaire (Nachmias & Nachmias, 1996; Bryman & Cramer, 1997). The results summarised in Table 3.2 below shows three indices of reliability test, viz. Cronbach's alpha, Spearman-Brown Coefficient and Guttman Split-Half Coefficient, all of which indicate the reliability of tools used for pretesting and for main data collection, based on selected items, with similar measurement scales.

Table 3.2: Reliability Summary Statistics

| | | | |
|--------------------------------|------------------|------------|-------|
| Cronbach's Alpha | Part 1 | Value | 0.515 |
| | | N of Items | 25 |
| | Part 2 | Value | 0.638 |
| | | N of Items | 25 |
| | Total N of Items | | 50 |
| Correlation Between Forms | | | 0.733 |
| Spearman-Brown Coefficient | Equal Length | | 0.846 |
| | Unequal Length | | 0.846 |
| Guttman Split-Half Coefficient | | | 0.533 |

The results indicate that a Spearman-Brown Coefficient value of 0.846 was obtained from the reliability analysis; suggesting that pre-testing data and main data were consistent; thus, the instrument used to source the two sets of data was adequately reliable. According to Garson (2009), Spearman-Brown Coefficient of 0.80 to 0.89 shows adequate reliability, while 0.90 and above is an indication of good reliability.

3.8 Data Collection Procedure

The investigator recruited 8 assistants to help in data collection. Two of the research assistants were experts in sign language and Braille reading. A training session was held with the research assistants to enhance familiarity with the instrument; refresh on research ethics; and share essential data sourcing skills, including how to approach participants, build a rapport, consent them, issue and collect questionnaires. Data collection began as soon as the proposal was approved for fieldwork. The investigator sought permission from relevant authorities, including MoE and University Research Ethics Committee. A letter of transmittal was drafted by the investigator. This was forwarded through the University of Nairobi to Kisumu and Uasin Gishu County Education offices, MoE and NCPLWD offices, as well as principals of the targeted institutions. A research permit was acquired from the National Commission for Science and Technology (NACOSTI). The following sub-sections highlight detailed procedures of data collection.

3.8.1 Surveys

Targeted participants, including departmental heads and lecturers, were informed about the study and consented to ensure voluntary participation. The investigator and his team informed respondents about the nature, objectives, and goals of the research. Thereafter, the

respondents were asked to give formal consent to participate in the study. Thereafter, the instruments were issued out to the participants, who were requested to provide the requisite information. Participants were given utmost two days to fill and return the questionnaires.

3.8.2 Focus Group Discussions

Focus group discussion sessions were arranged by the investigator with the assistance of special education lecturers. At first, student leaders representing disable and able-bodied students were identified and invited for the meeting. FGDs discussions took approximately 2 hours during games time. In each institution, two FGDs were conducted separately by involving 8 students. The time of interview was in the evening hours when learners were through with classes. It was expected that the sessions would take approximately two hours. The respondents were reminded three days earlier before actual date of focus group discussions. An invitation was sent to the group with questions to be discussed during FGDs, during which the investigator welcomed, reviewed the agenda and objectives of the meetings; ground rules, introductions, questions, answers and wrap up. The sessions were recorded through audio tapes and notes. No pictures were taken during FGDs.

3.8.3 Key Informant Interviews

The investigator informed the targeted participants, consented them and booked appointments, which were used to develop a data collection itinerary. Participants were also given an outline of the topics that would be discussed at least a day earlier to ensure constructive deliberations. The interviews were conducted by the investigator assisted by two experienced research assistants. The investigator carefully selected his language to ensure that personal opinions were not echoed to respondents; which would lead to biased responses. The investigator

and research assistants recorded responses whilst ensuring that the original meaning intended by the respondent was maintained.

3.8.4 Observations

The investigator gathered additional information through observation. In this regard, the investigator informed the institutions and set appointments for making observations as per the checklist. The research assistants assisted the investigator in observing frequently used physical facilities within the institutions and prevalent forms of disability. Observation was expected to run concurrently with the interviews and questionnaire administration, and the process lasted for about four weeks.

3.8.5 Content Analysis

The investigator analysed documents from the targeted institutions, as well as from the MoE and NCPLWD. Content analysis generated secondary data, which corroborated information sourced through questionnaires and key informant interview guides. Necessary documents were requested from relevant offices to facilitate the process. The process was expected to generate secondary information regarding enrolment, retention and completion rates, as well as procurement of physical facilities, among others. The process also run concurrently with interviews and was completed in four weeks.

3.9 Data Processing and Analysis Techniques

Both quantitative and qualitative approaches were applied to process, analyse, and interpret the data. Quantitative data processing involved coding close-ended data, entry, cleaning, transformation, analysis, and interpretation (Obure, 2002). The SPSS programme was used to run analyses to produce frequency distributions, percentages and measures of central tendency, where applicable. Further, graphical presentations, charts, and tables were produced using Ms-Excel package.

Inferential analysis yielded cross-tabulations with Chi-square (χ^2) statistic, which establishes statistical relationships between two variables, both of which must be in nominal or ordinal scales. The use of the χ^2 test necessitates preparation of cross-tabulations of the variables, which then generates significance test results. The χ^2 test can only show the presence or lack of statistical association; it cannot determine the magnitude and direction of statistical effects of an independent variable on a dependent variable, while controlling for moderating variables (Nachmias & Nachmias, 1996). The χ^2 test was used to identify variables that were statistically associated with a view to controlling such association when the variables are included in the multivariate models.

Spearman's Rank Correlation Coefficient is a non-parametric statistical measure of the strength of monotonic relationships between paired data, measured at interval or ratio level or ordinal scales. In a sample it is denoted by r_s and is by design constrained as, $-1 \leq r_s \leq 1$ (Lehman, 2005; Nachmias & Nachmias, 1996) There are two types of monotonic relationships, viz., monotonically increasing and monotonically decreasing. Monotonically increasing occurs when the value of a dependent variable (y) never decreases as the value of an independent variable (x) increases. Monotonically decreasing occurs when the value of a dependent variable never increases as the value of an independent variable increases. As noted by (Lehman, 2005),

Spearman's Rank Correlation Coefficient is used as a statistical method to aid with either proving or disproving null hypotheses. Its value is interpreted the same way Pearson's Correlation Coefficient is interpreted. Thus, the larger the absolute value of r_s the stronger the degree of correlation between the two variables (Myers & Well, 2003). The outcomes of Pearson's Rank Correlation Coefficient analysis are ranked on a defined scale; thus, 0.00 to 0.19 is a 'very weak' correlation; 0.20 to 0.39 is 'weak'; 0.40 to 0.59 is 'moderate'; 0.60 to 0.79 is 'strong'; while 0.80 to 1.00 signify a 'very strong' relationship.

Given that χ^2 statistic and r_s cannot determine the magnitude and direction of effect between any two variables, the analysis applied binary logistic regression model. The model is used to predict a dichotomous variable from a set of independent variables, while controlling for moderating variables (Aldrich & Nelson, 1984). The purpose of the model is to determine the proportion of variance in utilisation of physical facilities explained by M&E systems facilities (Aldrich & Nelson, 1984; Wuensch, 2006). The model permitted the researcher to determine the influence of M&E systems on utilisation of physical facilities by learners with disability.

In the model, the predicted variable takes the value 1 with a probability of success θ , or the value 0 with probability of failure $1-\theta$. In this study, the dependent variable was utilisation of physical facilities, with possible values being *consistent* or *inconsistent*. The model is expressed as indicated below: -

$$\text{Logit}[\theta(Y)] = \log \left[\frac{\theta(Y)}{1 - \theta(Y)} \right] = \alpha + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 \dots + \beta_i X_i + \varepsilon_i$$

Source: Wuensch (2006)

Where Y = the predicted variable, which in this case, utilisation of physical facilities; $\theta(Y)$ = the probability that a particular learner with disability utilised physical facilities consistently; $1-\theta(Y)$ = the probability that a particular learner with disability utilised physical facilities

inconsistently; α = constant term of the equation; $\beta_1, \beta_2 \dots \beta_i$ = regression coefficients associated with independent variables; $X_1, X_2 \dots X_i$ = independent variables and ε = the error term.

Binary logistic regression model applies the *maximum likelihood estimation* method in transforming dependent variables into a logit variable, that is, the natural log of the odds that a particular learner with disability at the polytechnics attending classes consistently or not, given a set of independent and moderating variables. Through the *maximum likelihood estimation (MLE)* method, binary logistic regression model derives the *log likelihood ratio*, designated by *-2 log likelihood* and also known as the predictive power of the regression model. According to Scott (1995), the *-2 log likelihood* reflects how well variance in dependent variables are accounted for by independent variables, when the influence of moderating variables is factored into the models.

Binary logistic regression model was particularly suitable for this study, because it accepts all types of independent variables irrespective of the scale of measurement. Besides, unlike linear regression, binary logistic regression makes no assumptions about the distributions of independent variables. Although its output has several parameters, this study was interested in the *β coefficients, Odds ratios, Hosmer-Lemeshow goodness-of-fit statistic, and Nagelkerke's R^2* .

In addition, qualitative data were processed and analysed following three steps. In the first step, the data was organised and summarised in line with objectives of the study. The second step involved description of the summary sheets to produce a preliminary report. The third step involved systematic analysis and interpretation of the preliminary report, which was integrated with quantitative data in the final report (Best & Khan, 2004).

Table 3.3: Hypothesis testing techniques

| Null hypotheses | Analysis techniques |
|--|--|
| H ₀₁ : There is no significant correlation between human resource capacity for M&E and utilisation of physical facilities by learners with disability. | -Spearman’s Rank Correlation Coefficient |
| H ₀₂ : There is no significant correlation between M&E work plan indicators and utilisation of physical facilities by learners with disability. | -Spearman’s Rank Correlation Coefficient |
| H ₀₃ : There is no significant correlation between programme monitoring and utilisation of physical facilities by learners with disability. | -Spearman’s Rank Correlation Coefficient |
| H ₀₄ : There is no significant correlation between M&E systems support and supervision and utilisation of physical facilities by learners with disability. | -Spearman’s Rank Correlation Coefficient |
| H ₀₅ : There is no significant influence of M&E systems on utilisation of physical facilities by learners with disability. | -Binary logistic regression |
| H ₀₆ : TVET policy/MoE guidelines have no significant influence on the relationship between M&E systems and utilisation of physical facilities by learners with disability. | -Binary logistic regression |

3.10 Data Quality Control

Quality of the information sourced ensures its usefulness to the education sector stakeholders. This was achieved through several ways, including: designing questions in the simplest and clearest form, including instructions to enable data research assistants and respondents understand what is required by each question, as well as pretesting the instruments. Other measures included training research assistants to improve data sourcing skills and to sensitise them on ethical issues, assessing performance daily and addressing issues that may compromise quality of data, back checking through phone calls for information that may not be

clear. Furthermore, digitalised data were verified to control omissions and logical inconsistencies that might arise, while the data output and draft reports were discussed with supervisors and colleagues for insights and positive critique.

3.11 Ethical Considerations

The study sought informed consent from sampled participants, including principals, departmental heads, lecturers, learners, and key staff of MoE and NCPLWD. In this regard, respondents were briefed on the research process and its purpose. They were notified that participation was purely on voluntary terms. Again, their withdrawal of consent would not affect their subsequent relationship with higher authorities within the polytechnics or in the wider education sector. Those who decline to participate in the research were substituted for appropriately. In addition, participants were assured that information on their personal life and opinions was handled and processed in confidentiality. Research Assistants were requested not to capture participants' names or other personal identifiers to assure confidentiality. Ethical clearance for the study was obtained from the University of Nairobi Ethics and Research Committee. Research permit to conduct the study was obtained from NACOSTI.

3.12 Operational Definition of Variables

This section provides a summary of how each independent, intervening, and dependent variables used in this study were operationalised and measured, such as indicated in Table 3.4. Important aspects of operationalization of variables include indicators, measurement scales and analysis techniques required.

Table 3.4 Operationalization of variables

| Objectives | Predictors | Indicators | Measurement scale | Research approach | Tools of data collection | Types of analysis |
|---|---|---|--------------------------------------|------------------------------|--|---|
| 1. To determine the extent to which human resource capacity for M&E influences utilisation of physical facilities by learners with disability | -Access to training on M&E of disability programmes -Frequency of participation in M&E activities -Level of experience in M&E practice -Frequency of reading M&E resource materials | Access to; -Classrooms -Library - Dining/Hostel -Playground | Nominal Ordinal Interval | Quantitative and qualitative | - Questionnaires -Interviews -Observation checklist | - Descriptive -Inferential -Content analysis |
| 2. To assess how M&E work plan indicators influences utilisation of physical facilities by learners with disability | -Frequency of measuring aspects of learning -Frequency of work plan formulation -Frequency of participation in M&E of various forms of disability | Access to; -Classrooms -Library - Dining/Hostel | - Nominal - Ordinal - Interval | Quantitative and qualitative | - Questionnaires -Interviews -Observation checklist | - Descriptive -Inferential -Content analysis |
| 3. To establish the extent to which programme monitoring process influences utilisation of physical facilities by learners with disability | -Frequency of capturing M&E aspects in institutional timetables -Frequency of disseminating M&E information through student forums - Frequency of capturing M&E aspects in departmental meetings | Access to; -Classrooms -Library - Dining/Hostel -Playground | - Nominal - Ordinal - Interval | Quantitative and qualitative | - Questionnaires -Interviews -Observation checklist | - Descriptive -Inferential -Content analysis |
| 4. To examine the level at which M&E systems support and supervision influences utilisation of physical facilities by learners with disability | - Perceived usefulness of administrators/managers -Frequency of maintaining facilities used by learners with disability -Priority in maintenance of various facilities used by learners with disability | Access to; -Classrooms -Library -Dining -Hostel -Playground | - Nominal - Ordinal - Interval | Quantitative and qualitative | - Questionnaires -Interviews -Observation checklist | - Descriptive -Inferential -Content analysis |
| 5. To determine the extent to which TVET policy/MoE guidelines moderate the relationship between monitoring and evaluation systems and utilisation of physical facilities by learners with disability | -Availability of TVET/MoE policy guidelines -Extent of TVET policy implementation | Frequency to which learners access; -Classrooms -Library -Dining -Hostel -Playground | - Nominal - Ordinal - Interval | Quantitative and qualitative | - Questionnaires -Interviews -Observation checklist | - Descriptive -Inferential -Content analysis |

CHAPTER FOUR

DATA ANALYSIS, PRESENTATION, INTERPRETATION AND DISCUSSIONS

4.1 Introduction

This chapter presents findings of the study, which are organised and discussed under four main thematic sections, including questionnaire return rate, participants' perceptions and socio-demographic profile; as well as relationship between Monitoring and Evaluation (M&E) systems and utilisation of physical facilities by learners with disability. Under this section, the study focuses on various M&E systems variables including human resource capacity, M&E work plan indicators, programme monitoring systems; M&E systems support and supervision, as well as Technical and Vocational Education and Training (TVET)/Ministry of Education (MoE) guidelines on integration of learners with disability. The last thematic section determines the influence of M&E systems on utilisation of physical facilities by learners with disability using regression analysis. Details are presented and discussed under the following themes and sub-themes.

4.2 Questionnaire Return Rate

Questionnaire return rate is the ratio of the number of people interviewed to the total number of people requested to participate in a study. Questionnaire return rate indicates the accuracy and usefulness of survey findings. A low questionnaire return rate increases the risk of sampling bias, particularly where nonresponse is unequal among various categories of participants, which in turn, affects accuracy in the estimation of population parameters using samples (CDC, 2010; National Research Council, 2013). In this study, Table 4.1 shows that 311

questionnaires were issued out to participants, including 57 departmental heads and 254 lecturers. At the end of data collection process, 282 questionnaires were successfully completed and returned, which represents 90.7% questionnaire return rate. Notably though, the return rate seemed to be higher among lecturers (93.7%) than among departmental heads (77.2%), particularly due to commitment with official duties, including official travels.

Table 4.1: Details of questionnaire return rate

| Institution | Participant Category | Issued | Returned | Percentage |
|---------------------|-----------------------------|---------------|-----------------|-------------------|
| Kisumu Polytechnic | Departmental heads | 35 | 26 | 74.3 |
| | Lecturers | 114 | 107 | 93.9 |
| Eldoret Polytechnic | Departmental heads | 22 | 18 | 81.8 |
| | Lecturers | 140 | 131 | 93.6 |
| Total | Departmental heads | 57 | 44 | 77.2 |
| | Lecturers | 254 | 238 | 93.7 |
| Grand Total | | 311 | 282 | 90.7 |

As noted by Werner (2004), questionnaire return rates above 80% are acceptable in social surveys. Based on this premise, the questionnaire return rate for departmental heads (77.2%) was below the quality threshold; while among lecturers (93.7%), the return rate was excellent. Questionnaire return rate may be affected by participants' official or social circumstance, perceived benefits, perceived risks, and questionnaire design issues, among others. In this study, The investigator explained the study to all participants, detailing its importance and the need for voluntary participation. Besides, the investigator sought the support of institutional managers who reminded the participants about the need for cooperation and full support to the study. Plate 1 in Appendix IX shows learners going about their business at one of the institutions.

4.3 Participants' Perceptions and Socio-Demographic Profile

This thematic section focuses on participants' perceptions regarding the frequency of physical facilities utilisation by learners with disability. The section also presents results on

participants' socio-demographic attributes, which were cross-tabulated with perceptions on utilisation of physical facilities by learners with disability. Primary data were sourced from 282 teaching staff, of which 149 (52.8%) served at Eldoret Polytechnic and 133 (47.2%) were based in Kisumu Polytechnic.

4.3.1 Perceptions about utilisation of physical facilities by learners with disability

Successful participation of learners with disability in learning and extra-curricular activities depends on the extent to which they access and utilise supportive physical facilities. Information on the utilisation of such facilities forms the focus of this study. More specifically, the study dwelt on the utilisation of five types of physical facilities, namely: *classrooms*, *libraries*, *social halls*, *playgrounds*, and *dining halls*. The results summarised in Table 4.2 show that 48 (17.0%) participants believed that learners with disability utilised *classrooms* 'very frequently', while 115 (40.8%) felt that such learners used *classrooms* 'frequently'. This group consisted of 62 (41.6%) participants in Eldoret and 53 (39.8%) in Kisumu Polytechnic. Contrastingly, 17 (6.1%) participants indicated that learners with disability 'never' used *classrooms*, while 39 (13.8%) were 'not sure' about the frequency with which such learners utilised such facilities. Plate 2 shows entrance to the dining hall in one of the institutions (Appendix IX).

Furthermore, 103 (36.5%) participants indicated the view that learners with disability utilised *libraries* 'frequently'. This group included 59 (39.6%) participants in Eldoret and 44 (33.1%) in Kisumu Polytechnics. Besides, 33 (11.7%) stated that such learners used *libraries* 'very frequently'. Those who felt that learners with disability 'never' utilised *libraries* were 18 (6.4%) and they included 6 (4.0%) participants in Eldoret and 12 (9.0%) in Kisumu Polytechnics.

Table 4.2: Frequency of facility use by learners with disability

| Frequency of facility use | Eldoret Poly | | Kisumu Poly | | Total | |
|---------------------------|--------------|--------------|-------------|--------------|-------------|--------------|
| | <i>Freq</i> | <i>%</i> | <i>Freq</i> | <i>%</i> | <i>Freq</i> | <i>%</i> |
| <i>Classrooms</i> | | | | | | |
| Not sure | 13 | 8.7 | 26 | 19.5 | 39 | 13.8 |
| Never | 10 | 6.7 | 7 | 5.3 | 17 | 6.1 |
| Occasionally | 42 | 28.2 | 21 | 15.9 | 63 | 22.3 |
| Frequent | 62 | 41.6 | 53 | 39.8 | 115 | 40.8 |
| Very frequent | 22 | 14.8 | 26 | 19.5 | 48 | 17.0 |
| Total | 149 | 100.0 | 133 | 100.0 | 282 | 100.0 |
| <i>Libraries</i> | | | | | | |
| Not sure | 23 | 15.4 | 34 | 25.6 | 57 | 20.2 |
| Never | 6 | 4.0 | 12 | 9.0 | 18 | 6.4 |
| Occasionally | 40 | 26.9 | 31 | 23.3 | 71 | 25.2 |
| Frequent | 59 | 39.6 | 44 | 33.1 | 103 | 36.5 |
| Very frequent | 21 | 14.1 | 12 | 9.0 | 33 | 11.7 |
| Total | 149 | 100.0 | 133 | 100.0 | 282 | 100.0 |
| <i>Social halls</i> | | | | | | |
| Not sure | 41 | 27.5 | 64 | 48.1 | 105 | 37.2 |
| Never | 18 | 12.1 | 20 | 15.0 | 38 | 13.5 |
| Occasionally | 55 | 36.9 | 33 | 24.8 | 88 | 31.2 |
| Frequent | 26 | 17.5 | 13 | 9.8 | 39 | 13.8 |
| Very frequent | 9 | 6.0 | 3 | 2.3 | 12 | 4.3 |
| Total | 149 | 100.0 | 133 | 100.0 | 282 | 100.0 |
| <i>Playgrounds</i> | | | | | | |
| Not sure | 40 | 26.8 | 61 | 45.9 | 101 | 35.8 |
| Never | 35 | 23.5 | 20 | 15.0 | 55 | 19.5 |
| Occasionally | 48 | 32.2 | 30 | 22.6 | 78 | 27.7 |
| Frequent | 18 | 12.1 | 17 | 12.7 | 35 | 12.4 |
| Very frequent | 8 | 5.4 | 5 | 3.8 | 13 | 4.6 |
| Total | 149 | 100.0 | 133 | 100.0 | 282 | 100.0 |
| <i>Dining halls</i> | | | | | | |
| Not sure | 18 | 12.1 | 34 | 25.6 | 52 | 18.4 |
| Never | 13 | 8.7 | 6 | 4.5 | 19 | 6.8 |
| Occasionally | 30 | 20.2 | 25 | 18.8 | 55 | 19.5 |
| Frequent | 55 | 36.9 | 50 | 37.6 | 105 | 37.2 |
| Very frequent | 33 | 22.1 | 18 | 13.5 | 51 | 18.1 |
| Total | 149 | 100.0 | 133 | 100.0 | 282 | 100.0 |
| <i>All facilities</i> | | | | | | |
| Very low | 10 | 6.7 | 9 | 6.8 | 19 | 6.7 |
| Low | 33 | 22.1 | 21 | 15.8 | 54 | 19.1 |
| Moderate | 84 | 56.4 | 81 | 60.9 | 165 | 58.5 |
| High | 17 | 11.4 | 21 | 15.8 | 38 | 13.6 |
| Very high | 5 | 3.4 | 1 | 0.7 | 6 | 2.1 |
| Total | 149 | 100.0 | 133 | 100.0 | 282 | 100.0 |

Of the 282 participants, 39 (13.8%), including 26 (17.5%) in Eldoret and 13 (9.8%) in Kisumu Polytechnics, reported that learners with disability utilised *social halls* ‘frequently’. Besides, 12 (4.3%) participants stated that such learners utilised the facilities ‘very frequently’. However, 38 (13.5%) participants said that learners with disability ‘never’ utilised *social halls*, while 105 (37.2%), were ‘not sure’ about the frequency of utilisation.

More still, 35 (12.4%) participants reported ‘frequent’ utilisation of *playgrounds* by learners with disability, while 13 (4.6%) said that such learners utilised *playgrounds* ‘very frequently’. This group consisted of 8 (5.4%) participants in Eldoret and 5 (3.8%) in Kisumu Polytechnics. However, 55 (19.5%) participants felt that learners with disability ‘never’ utilised *playgrounds*, while 101 (35.8%), including 40 (26.8%) participants from Eldoret and 61 (45.9%) from Kisumu Polytechnics were ‘not sure’.

Regarding *dining halls*, 105 (37.2%) participants, including 55 (36.9%) in Eldoret and 50 (37.6%) in Kisumu Polytechnics stated that learners with disability used the facilities ‘frequently’. Besides, 51 (18.1%) participants felt that such learners utilised the facilities ‘very frequently’ and this included 33 (22.1%) participants in Eldoret and 18 (13.5%) in Kisumu Polytechnics. Those who felt that learners with disability ‘never’ utilised *dining halls* were 19 (6.8%), while 52 (18.4%) were ‘not sure’ about the frequency of use. Table 3 shows modification of doorways at Kisumu Polytechnic to facilitate passage of learners with disability.

Participants were further requested to provide a general opinion regarding the utilisation of all the physical facilities by learners with disability. The results in Table 4.2 show that of the 282 participants, 6 (2.1%) opined that the use of physical facilities by learners with disability was ‘very high’, while 38 (13.6%) indicated that utilisation of the facilities was ‘high’. Contrastingly, 19 (6.7%) participants rated utilisation of the facilities as ‘very low’, while 54 (19.1%) indicated that utilisation of the facilities was ‘low’. However, the two institutions did not vary significantly in terms of participants’ general opinion on utilisation of physical facilities by learners with disability ($\chi^2 = 4.970$, $df = 4$ & $p\text{-value} = 0.290$).

Even though the results in Table 4.2 provide a general picture regarding the extent to which learners with disability utilised physical facilities, the information was prone to perception

bias. To overcome the weakness, perceptions about the frequency of utilisation for each of the five physical facilities, viz. classrooms, libraries, social halls, playgrounds and dining halls, were aggregated to create one dependent variable. In this regard, the SPSS program's 'compute' command, was used to transform the five variables into one variable, showing aggregated perceptions about utilisation of physical facilities by learners with disability. The computed results were measured on a three-point scale, where the aggregate value '5' was re-coded as 'not sure' about the extent to which learners with disability utilised all the five facilities; values '6 to 17' were re-coded as 'inconsistent utilisation'; while values '18 to 25' were re-coded as 'consistent utilisation'.

The results, which are presented in Table 4.3, show that of the 282 participants, 81 (28.7%), including 54 (36.2%) in Eldoret and 27 (20.3%) in Kisumu Polytechnics, believed that learners with disability were 'consistent' in utilising physical facilities. Contrastingly, 175 (62.1%) participants believed that the learners were 'inconsistent' in utilising the facilities. This group included 87 (58.4%) participants in Eldoret and 88 (66.2%) in Kisumu Polytechnics.

Table 4.3: Aggregate perceptions about utilisation of physical facilities

| Physical facilities use | Eldoret Polytechnic | | Kisumu Polytechnic | | Total | |
|-------------------------|---------------------|--------------|--------------------|--------------|------------|--------------|
| | Freq. | % | Freq. | % | Freq. | % |
| Consistent | 54 | 36.2 | 27 | 20.3 | 81 | 28.7 |
| Inconsistent | 87 | 58.4 | 88 | 66.2 | 175 | 62.1 |
| Not sure | 8 | 5.4 | 18 | 13.5 | 26 | 9.2 |
| Total | 149 | 100.0 | 133 | 100.0 | 282 | 100.0 |

The results in Table 4.3 further show that 26 (9.2%) participants were 'not sure' whether learners with disability were 'consistent' or 'inconsistent' in utilising the facilities. Based on this, the analysis obtained a computed χ^2 value of 11.983, with 2 degrees of freedom and a p -value of

0.003, suggesting up to 99% chance that perceptions about utilisation of physical facilities by learners with disability varied significantly between the two institutions.

4.3.2 Socio-demographic profile

The study captured information on gender, age, education level, position held, and years of professional experience. Gender is likely to influence one's socialisation and perceptions on various aspects, including disability and utilisation of physical facilities by learners with disability. In view of this, the study sought to determine if there was any significant relationship between the way female and male teaching staff perceived utilisation of physical facilities by learners with disability. The results presented in Table 4.4 show that the participants included 167 (59.2%) men and 115 (40.8%) women. The results show that 69.1% of those who believed that learners with disability were 'consistent' in utilising physical facilities were men. Similarly, more men (56.6%) than women (43.4%) indicated that learners with disability were 'inconsistent' users of the facilities. However, about one-half (53.8%) of those who were 'not sure' were women. The analysis revealed that there was a significant relationship between gender and utilisation of physical facilities ($\chi^2 = 5.644$, $df = 2$ & p -value = 0.059). The results imply that male and female participants were significantly different in terms of perceptions about utilisation of physical facilities by learners with disability. In view of this, interventions aimed at improving utilisation of physical facilities by learners with disability in national polytechnics need to consider differences in perceptions among male and female teaching staff.

Table 4.4: Socio-demographic profile of the teaching staff

| Attributes | Consistent | | Inconsistent | | Not Sure | | Total | |
|------------------------------------|------------|--------------|--------------|--------------|-----------|--------------|------------|--------------|
| | Freq | % | Freq | % | Freq | % | Freq | % |
| <i>Gender</i> | | | | | | | | |
| Male | 56 | 69.1 | 99 | 56.6 | 12 | 46.2 | 167 | 59.2 |
| Female | 25 | 30.9 | 76 | 43.4 | 14 | 53.8 | 115 | 40.8 |
| Total | 81 | 100.0 | 175 | 100.0 | 26 | 100.0 | 282 | 100.0 |
| <i>Age</i> | | | | | | | | |
| <26 years | 12 | 14.8 | 29 | 16.6 | 4 | 15.4 | 45 | 16.0 |
| 26-35 years | 21 | 25.9 | 53 | 30.3 | 12 | 46.2 | 86 | 30.5 |
| 36-45 years | 29 | 35.8 | 62 | 35.4 | 5 | 19.2 | 96 | 34.0 |
| 46 years + | 19 | 23.5 | 31 | 17.7 | 5 | 19.2 | 55 | 19.5 |
| Total | 81 | 100.0 | 175 | 100.0 | 26 | 100.0 | 282 | 100.0 |
| <i>Education level</i> | | | | | | | | |
| Diploma | 6 | 7.4 | 12 | 6.9 | 3 | 11.5 | 21 | 7.4 |
| Higher national diploma | 5 | 6.2 | 13 | 7.4 | 5 | 19.2 | 23 | 8.2 |
| Bachelors | 33 | 40.7 | 70 | 40.0 | 14 | 53.8 | 117 | 41.5 |
| Postgraduate diploma | 16 | 19.8 | 38 | 21.7 | 1 | 3.8 | 55 | 19.5 |
| Masters | 21 | 25.9 | 40 | 22.9 | 3 | 11.5 | 64 | 22.7 |
| Doctorate (PhD) | 0 | 0.0 | 2 | 1.1 | 0 | 0.0 | 2 | 0.7 |
| Total | 81 | 100.0 | 175 | 100.0 | 26 | 100.0 | 282 | 100.0 |
| <i>Position in the institution</i> | | | | | | | | |
| Lecturer | 68 | 84.0 | 146 | 83.4 | 24 | 92.3 | 238 | 84.4 |
| Departmental head | 13 | 16.0 | 29 | 16.6 | 2 | 7.7 | 44 | 15.6 |
| Total | 81 | 100.0 | 175 | 100.0 | 26 | 100.0 | 282 | 100.0 |
| <i>Professional experience</i> | | | | | | | | |
| <6 years | 29 | 35.8 | 66 | 37.7 | 12 | 46.2 | 107 | 37.9 |
| 6 to 10 years | 19 | 23.5 | 36 | 20.6 | 10 | 38.5 | 65 | 23.0 |
| 11 to 15 years | 15 | 18.5 | 35 | 20.0 | 1 | 3.8 | 51 | 18.1 |
| 16 years+ | 18 | 22.2 | 38 | 21.7 | 3 | 11.5 | 59 | 20.9 |
| Total | 81 | 100.0 | 175 | 100.0 | 26 | 100.0 | 282 | 100.0 |

Perceptions may also vary with age of individuals, such that younger and older people may perceive similar aspects differently. In this regard, the way younger teaching staff perceive utilisation of physical facilities by learners with disability may vary from the way their older colleagues perceive the same aspects. This study found that 96 (34.0%) participants were aged 36 to 45 years, while 86 (30.6%) were in the 26 to 35 years age bracket. Cumulatively, 182 (64.5%) participants were aged between 26 and 45 years, 55 (19.5%) were aged 46 years or higher, while 45 (16.0%) reported ages below 26 years. However, there was no significant relationship between age distribution and perceptions about utilisation of physical facilities by learners with disability. Consequently, programmes initiated in national polytechnics to promote

utilisation of physical facilities by learners with disability should target all teaching staff irrespective of age.

Education level is a key attribute of individuals, which may also influence understanding, knowledge, attitude, and perceptions about social phenomena, including disability. In this regard, individuals that are more educated are likely to perceive their social environment differently from those with lower educational attainment. This study sought to determine if there was any significant difference in perceptions about utilisation of physical facilities based on level of education. The results in Table 4.4 show that most participants, 117 (41.5%) had attained bachelor's degrees, 64 (22.7%) reported masters degrees, while 55 (19.5%) were postgraduate diploma holders. Notably, individuals with bachelor's degrees dominated among those who reported that learners with disability were 'consistent' in utilising physical facilities was highest among bachelor's degree holders, 33 (40.7%). The same situation is noted among those who reported 'inconsistent' use of physical facilities and among those who were 'not sure'. However, there was no significant relationship between perceptions about utilisation of physical facilities by learners with disability and participants' education level. This implies that programmes for promoting utilisation of physical facilities by learners with disability should target all teaching staff equally, regardless of education level.

Perceptions on social environment may also vary between leaders and ordinary individuals. The way leaders perceive various aspects may be different from the way ordinary people perceive same aspects. In view of this premise, the study examined if there was an significant relationship between perceptions on utilisation of physical facilities by learners with disability and positions held by participants. The results presented in Table 4.4 shows that of the 282 participants, 238 (84.4%) were lecturers and 44 (15.6%) were heads of departments.

Notably, lecturers dominated in all the three categories of perceptions on utilisation of physical facilities, including ‘consistent’, ‘inconsistent’ and ‘not sure’. In view of this, the analysis revealed no significant relationship between perceptions on utilisation of physical facilities and positions held. Hence, interventions initiated to improve utilisation of physical facilities by learners with disability in national polytechnics should target all teaching staff, including departmental heads and lecturers.

The level of professional experience is also a key factor influencing perceptions, particularly within an institution. As individuals gain experience, perceptions regarding various aspects within the workplace, including disability, are likely to change. This study assessed the relationship between utilisation of physical facilities and participants’ level of professional experience. In view of this, Table 4.4 shows that 107 (37.9%) participants reported professional experience of less than 6 years, 65 (23.1%) reported 6 to 10 years, while 59 (20.9%) indicated experience of 16 years or higher. Notably, participants having less than 6 years of experience dominated the three categories of perceptions, viz. ‘consistent’, ‘inconsistent’ and ‘not sure’. Based on this, the analysis revealed that there was no significant relationship between perceptions on utilisation of physical facilities and the level of professional experience. This suggests that measures taken to enhance utilisation of physical facilities by teaching staff should target all teaching staff, regardless of the level of professional experience.

In addition, primary data were sourced from 2 principals of the national polytechnics, 2 officers of the Ministry of Education, and an officer of the National Council for Persons Living with Disability (NCPLWD), using Key Informant Interviews (KIIs). Besides, data were sourced from 2 groups of able-bodied learners and another 2 groups of learners with disability, through

Focus Group Discussions (FGDs). Details of the quantitative and qualitative results are presented and discussed under the following sections and sub-sections.

4.4 Monitoring and Evaluation Systems and Utilisation of Physical Facilities

Monitoring and evaluation systems generate information that enables institutions to identify and address gaps in physical facilities, in terms of adequacy and suitability to the needs of specific groups of learners, including those with various forms of disability (Kusek & Rist, 2004). This section focuses on the relationship between utilisation of physical facilities by learners with disability and various aspects of M&E systems, including human resource, work plan indicators, programme monitoring, M&E systems support and supervision, as well as TVET/MoE guidelines. The resultant information enabled the researcher to identify M&E factors influencing utilisation of physical facilities by learners with disability.

4.4.1 Human Resource Capacity for M&E and Utilisation of Physical Facilities

Human resource capacity is a key element of M&E systems, which is likely to influence utilisation of physical facilities by learners with disability. Information on human resource capacity for M&E revealed the extent to which teaching staff in national polytechnics were prepared to promote ‘consistent’ utilisation of physical facilities by learners with disability. Furthermore, the effectiveness of M&E systems depends on the availability and sufficiency of skilled human resource. As noted in the United Nations Development Programme (UNDP), high quality M&E systems require dedicated and skilled personnel, who are fully trained in M&E and skilled in developing systematic monitoring frameworks and sound work plans, as well as information quality standards and dissemination plans (UNDP, 2009). In view of this, the study

examined the relationship between various indicators of human resource for M&E and utilisation of physical facilities by learners with disability. Details are presented in the following sub-sections.

4.4.1.1 Access to training in M&E of disability programmes

The effectiveness of M&E systems depends on the proportion of workers who have accessed appropriate training. The study sought to reveal the proportion of teaching staff in the national polytechnics that had accessed training on M&E, as an indication of the capacity of the institutions' to capacity to promote utilisation of physical facilities by learners with disability. In view of this, participants were requested to indicate if they had accessed any training on M&E of programmes promoting access and participation of learners with disability in educational institutions. The results presented in Table 4.5 show that of the 282 participants, 101 (35.8%) had accessed some training, the majority, 181 (64.2%), had not. This group included 40 (49.4%) participants saying that learners with disability were 'consistent' in using physical facilities, 52 (29.7%) who believed that such learners were 'inconsistent' users of the facilities and 9 (34.6%) who were 'not sure'. The analysis revealed a significant relationship between access to training on M&E of disability programmes and perceived consistency in the utilisation of physical facilities by learners with disability ($\chi^2 = 9.336$, $df = 2$ & p -value = 0.009). The results suggest that most participants, 181 (64.2%) had not accessed training. This corroborates with results of KII sessions, which indicated that most teaching staff were not competent in applying M&E skills to manage utilisation of physical facilities and so were most non-teaching staff. Consequently, KII participants pointed out that consistent utilisation of physical facilities by learners with disability in national polytechnics was constrained by insufficiency of workers

trained in M&E of disability programmes. The main challenge cited by participants was financial constraints and the costly nature of special education, which prevented the Government from employing more workers, who are skilled in M&E for disability programmes. In the words of a participant, “the Government cannot afford to employ translators for each class and each subject. This would mean employing a parallel set of teachers”.

Shortage of personnel with appropriate skills and experience in M&E was also identified by Mackay (2007), as a key factor contributing to weak M&E systems in public institutions, especially in developing countries. The same factor was reported by Hardlife and Zhou (2013), who pointed out that lack of skilled personnel, was the main factor that contributed to the failure of centralised government programme monitoring systems in Sri Lanka in the 1990s. However, none of the past studies focused on the statistical relationship between access to M&E training and utilisation of physical facilities by learners with disability.

Regarding the frequency of training, the results show that 61 (60.4%) participants had accessed training once. This included 15 (51.7%) participants believing that learners with disability were ‘consistent’ in utilising physical facilities, 37 (59.7%) who felt that such learners were ‘inconsistent’ users of the facilities and 8 (88.9%) who were ‘not sure’. In addition, 18 (17.8%) participants reported to have accessed training twice, while 22 (21.8%) mentioned more than twice. However, the analysis revealed lack of a significant relationship between frequency of training in M&E of disability programmes and utilisation of physical facilities by learners with disability.

Table 4.5: Access to training in M&E of disability programmes

| Access to training on M&E of disability programmes | Consistent | | Inconsistent | | Not sure | | Total | |
|--|------------|--------------|--------------|--------------|-----------|--------------|------------|--------------|
| | Freq | % | Freq | % | Freq | % | Freq | % |
| <i>Ever accessed training?</i> | | | | | | | | |
| Yes | 40 | 49.4 | 52 | 29.7 | 9 | 34.6 | 101 | 35.8 |
| No | 41 | 50.6 | 123 | 70.3 | 17 | 65.4 | 181 | 64.2 |
| Total | 81 | 100.0 | 175 | 100.0 | 26 | 100.0 | 282 | 100.0 |
| <i>How many times?</i> | | | | | | | | |
| Once | 16 | 53.3 | 37 | 59.7 | 8 | 88.9 | 61 | 60.4 |
| Twice | 6 | 20.0 | 11 | 17.7 | 1 | 11.1 | 18 | 17.8 |
| >Twice | 8 | 26.7 | 14 | 22.6 | 0 | 0.0 | 22 | 21.8 |
| Total | 30 | 100.0 | 62 | 100.0 | 9 | 100.0 | 101 | 100.0 |

Furthermore, KII participants attributed the challenge to lack of regular training programmes for building the capacity of staff in M&E of disability programmes. However, some participants cited periodical internal seminars organised by disability-mainstreaming committees, as well as occasional training workshops organised by the Ministry of Education (MoE), in collaboration with NCPLWD, as the training opportunities available for teaching staff. Consequently, two-thirds of the participants, 61 (60.4%), had accessed training only once. Participants noted that the challenge was lack of regular training opportunities, which affected the capacity of human resource and quality of support provided to learners with disability regarding utilisation of physical facilities. Besides, such training opportunities were limited in terms of the scope of beneficiaries, particularly due to limited budgets. In view of this, participants suggested the need for the MoE to improve budgetary allocations training staff of national polytechnics on M&E of disability programmes. Similarly, the institutions should consider setting aside part of internal revenues or increasing allocations towards improving knowledge and skills regarding M&E of disability programmes among the teaching staff.

4.4.1.2 Content of training in M&E of disability programmes

The type, scope, and depth of curriculum content determine the effectiveness of a training programme. The information sourced by the study highlights the quality of training in M&E of disability programmes, accessed by teaching staff. In view of this, participants who had accessed training in M&E of disability programmes were requested to indicate how often they covered certain subjects that are crucial in promoting utilisation of physical facilities by learners with disability. The first subject was *awareness of the right to education for all*. The results, which are summarised in Table 4.6 show that of the 101 participants who had accessed training, 16 (15.8%) reported that the subject was ‘always’ covered in their training, while 25 (24.8%), stated that the subject was ‘often’ covered. This group consisted of 8 (26.7%) participants saying that learners with disability were ‘consistent’ in utilising physical facilities and 17 (27.4%) who felt that such learners were ‘inconsistent’ users of physical facilities.

Contrastingly, 14 (13.9%) participants stated that the subject was ‘never’ covered in their training, while 17 (16.8%) affirmed that the subject was ‘rarely’ covered. Cumulatively, 41 (40.6%) participants reported a high frequency with which the subject formed content of their training, while 31 (30.7%) hinted a low frequency regarding the subject’s coverage. Based on this, the analysis obtained a significant relationship between the frequency with which *awareness of the right to education for all* formed part of M&E training and utilisation of physical facilities by learners with disability ($\chi^2 = 11.717$, $df = 8$ & $p\text{-value} = 0.064$).

Table 4.6: Content of M&E training and utilisation of physical facilities

| Content of M&E training | Consistent | | Inconsistent | | Not Sure | | Total | |
|---|------------|--------------|--------------|--------------|----------|--------------|------------|--------------|
| | Freq | % | Freq | % | Freq | % | Freq | % |
| <i>Awareness of right to education for all</i> | | | | | | | | |
| Never | 3 | 10.0 | 10 | 16.1 | 1 | 11.2 | 14 | 13.9 |
| Rarely | 5 | 16.7 | 8 | 12.9 | 4 | 44.4 | 17 | 16.8 |
| Occasionally | 7 | 23.3 | 18 | 29.1 | 4 | 44.4 | 29 | 28.7 |
| Often | 8 | 26.7 | 17 | 27.4 | 0 | 0.0 | 25 | 24.8 |
| Always | 7 | 23.3 | 9 | 14.5 | 0 | 0.0 | 16 | 15.8 |
| Total | 30 | 100.0 | 62 | 100.0 | 9 | 100.0 | 101 | 100.0 |
| <i>M&E of programmes for learners with disability</i> | | | | | | | | |
| Never | 2 | 6.7 | 12 | 19.4 | 2 | 22.2 | 16 | 15.8 |
| Rarely | 8 | 26.7 | 12 | 19.4 | 5 | 55.6 | 25 | 24.8 |
| Occasionally | 10 | 33.3 | 20 | 32.1 | 2 | 22.2 | 32 | 31.7 |
| Often | 7 | 23.3 | 13 | 21.0 | 0 | 0.0 | 20 | 19.8 |
| Always | 3 | 10.0 | 5 | 8.1 | 0 | 0.0 | 8 | 7.9 |
| Total | 30 | 100.0 | 62 | 100.0 | 9 | 100.0 | 101 | 100.0 |
| <i>Monitoring of physical facilities for learners with disability</i> | | | | | | | | |
| Never | 3 | 10.0 | 13 | 21.0 | 2 | 22.2 | 18 | 17.8 |
| Rarely | 9 | 30.0 | 12 | 19.3 | 6 | 66.8 | 27 | 26.7 |
| Occasionally | 8 | 26.7 | 20 | 32.2 | 0 | 0.0 | 28 | 27.7 |
| Often | 5 | 16.7 | 13 | 21.0 | 0 | 0.0 | 18 | 17.8 |
| Always | 5 | 16.7 | 4 | 6.5 | 1 | 11.0 | 10 | 9.9 |
| Total | 30 | 100.0 | 62 | 100.0 | 9 | 100.0 | 101 | 100.0 |
| <i>Utilisation of M&E results</i> | | | | | | | | |
| Never | 1 | 3.3 | 12 | 19.4 | 2 | 22.2 | 15 | 14.9 |
| Rarely | 12 | 40.0 | 13 | 21.0 | 4 | 44.5 | 29 | 28.7 |
| Occasionally | 9 | 30.0 | 21 | 33.7 | 3 | 33.3 | 33 | 32.7 |
| Often | 4 | 13.3 | 12 | 19.4 | 0 | 0.0 | 16 | 15.8 |
| Always | 4 | 13.3 | 4 | 6.5 | 0 | 0.0 | 8 | 7.9 |
| Total | 30 | 100.0 | 62 | 100.0 | 9 | 100.0 | 101 | 100.0 |
| <i>Decision making</i> | | | | | | | | |
| Never | 3 | 10.0 | 17 | 27.4 | 1 | 11.1 | 21 | 20.8 |
| Rarely | 10 | 33.3 | 12 | 19.4 | 5 | 55.6 | 27 | 26.7 |
| Occasionally | 8 | 26.7 | 20 | 32.3 | 3 | 33.3 | 31 | 30.7 |
| Often | 5 | 16.7 | 9 | 14.4 | 0 | 0.0 | 14 | 13.9 |
| Always | 4 | 13.3 | 4 | 6.5 | 0 | 0.0 | 8 | 7.9 |
| Total | 30 | 100.0 | 62 | 100.0 | 9 | 100.0 | 101 | 100.0 |

The second subject examined by the study was on *M&E of programmes for learners with disability*. The results in Table 4.6 indicate that of the 101 trained participants, 8 (7.9%) said that the subject was ‘always’ covered in their training. This group included 3 (10.0%) participants who reported ‘consistent’ utilisation of physical facilities by learners with disability, and 5 (8.1%) who indicated that learners with disability were ‘inconsistent’ in utilising the facilities. Besides, 20 (19.8%) participants indicated that the subject was ‘often’ part of their training.

Those who felt that the subject was ‘never’ covered in their training were 16 (15.8%) and they included 2 (6.7%) participants saying that learners with disability were ‘consistent’ in

utilising physical facilities, 12 (19.4%) who hinted that such learners were ‘inconsistent’ users of the facilities and 2 (22.2%) who were ‘not sure’. Cumulatively, 28 (27.7%) participants reported a high frequency for the subject’s coverage, while 41 (40.6%) indicated a low frequency regarding the same. However, the analysis shows lack of a significant relationship between the frequency with which *M&E of programmes for learners with disability* formed content of training and utilisation of physical facilities by learners with disability.

The third subject was on *monitoring of physical facilities for learners with disability*. The results show that 10 (9.9%) participants said the subject was ‘always’ a component of their training. This group included 5 (16.7%) participants indicating that learners with disability were ‘consistent’ users of physical facilities, 4 (6.5%) who felt that such learners were ‘inconsistent’ in utilising the facilities and 1 (11.0%) who was ‘not sure’. Besides, 18 (17.8%) participants felt that the subject was ‘often’ part of content in their training.

In addition, 18 (17.8%) participants hinted that the subject ‘never’ featured in their training, while 27 (26.7%) felt that it was ‘rarely’ covered. The latter included 9 (30.0%) participants who reported ‘consistent’ utilisation of physical facilities by learners with disability, 12 (19.3%) who felt that such learners were ‘inconsistent’ users of the facilities and 6 (66.8%) who were ‘not sure’. Cumulatively, whereas 28 (27.7%) participants reported a high frequency of the subject’s coverage in their training, 45 (44.6%) indicated a low frequency regarding the same. Based on this, the analysis obtained a significant relationship between the frequency with which *monitoring of physical facilities for learners with disability* featured in their training and utilisation of physical facilities by learners with disability ($\chi^2 = 15.311$, $df = 8$ & p -value = 0.053).

The fourth subject was on *utilisation of M&E results*. In this regard, Table 4.6 shows that out of 101 trained participants, 8 (7.9%) said that the subject was ‘always’ covered in their training, while 16 (15.8%) stated that the subject ‘often’ featured in the training. The latter included 4 (13.3%) participants stating that learners with disability were ‘consistent’ in utilising physical facilities, and 12 (19.4%) who hinted that such learners were ‘inconsistent’ in utilising the facilities. Contrastingly, 15 (14.9%) participants said that the subject ‘never’ featured in their training, while 29 (28.7%) said that it was ‘rarely’ covered. Cumulative results further show that 24 (23.8%) participants reported a high frequency with which the subject formed content of their training, while 44 (43.6%) reported a low frequency regarding the same. Nevertheless, the analysis revealed lack of a significant relationship between the frequency with which *utilisation of M&E results* featured in the training and utilisation of physical facilities by learners with disability.

The fifth subject examined by the study was on *decision-making*. The results show that of the 101 trained participants, 8 (7.9%) said that the subject ‘always’ formed content of their training, while 14 (13.9%), including 5 (16.7%) participants believing that learners with disability were ‘consistent’ users of physical facilities, and 9 (14.4%) who expressed contrary views, said that the subject was ‘often’ covered. More still, 21 (20.8%) participants hinted that the subject was ‘never’ part of their training, while 27 (26.7%) indicated that the subject ‘rarely’ featured in the training. In addition, cumulative results indicated that 22 (21.8%) participants reported a high frequency of coverage, while nearly one-half, 48 (47.5%) reported a low frequency regarding the same. Based on this, the analysis obtained a significant relationship between the frequency with which *decision making* formed content of training and utilisation of physical facilities by learners with disability ($\chi^2 = 11.331$, $df = 8$ & p -value = 0.084).

The results suggest that some contents of training in M&E of disability programmes are likely to influence utilisation of physical facilities by learners with disability. More specifically, the results show that utilisation of the facilities is significantly associated to three subjects, viz. *awareness of the right to education for all* ($\chi^2 = 11.717$, $df = 8$ & ρ -value = 0.064); *monitoring of physical facilities for learners with disability* ($\chi^2 = 15.311$, $df = 8$ & ρ -value = 0.053); as well as *decision making* ($\chi^2 = 11.331$, $df = 8$ & ρ -value = 0.084). Consequently, officers designing contents of training programmes, including internal seminars and training workshops, should carefully consider such subjects to make training relevant to the needs of learners with disability, particularly regarding the utilisation of physical facilities. In his study, Turnbull (2005) emphasised the need for proper training of disability programme officers in order to enhance capacity in the management of support for disable persons, including those enrolled in educational institutions. However, the author did not go to the details of identifying training needs and most appropriate subjects for officers managing M&E systems in educational institutions.

4.4.1.3 Participation in M&E activities

Participation is crucial for learning, gaining experience and building the capacity of workers in various skills, including M&E. The study sought to establish how often participants took part in various M&E activities, considered relevant in promoting the utilisation of physical facilities by learners with disability. The first activity examined by the study was *creating awareness of right to education for all*. The results, which are presented in Table 4.7, show that out of 282 participants, 7 (2.5%) participated in the activity ‘very frequently’, while 40 (14.2%) participated in the activity ‘frequently’. The latter included 14 (17.4%) participants indicating

that learners with disability were 'consistent' in utilising physical facilities, 25 (14.3%) who felt that such learners were 'inconsistent' users of the facilities and 1 (3.8%) who was 'not sure'.

Those who had 'never' participated in awareness creation activity were 94 (33.3%), and they included 27 (33.3%) participants who indicated that learners with disability were 'consistent' in utilising physical facilities, 61 (34.9%) who said that such learners were 'inconsistent' in utilising the facilities and 6 (23.1%) who were 'not sure'. Cumulatively, 47 (16.7%) participants reported a high frequency of participation in the awareness creation activity, as compared to 137 (48.5%) who reported a low frequency of participation in the activity. Based on this, the analysis revealed a significant relationship between participation in *creating awareness of right to education for all* and utilisation of physical facilities by learners with disability ($\chi^2 = 35.157$, $df = 8$ & p -value = 0.000).

Table 4.7: Participation in M&E activities and utilisation of physical facilities

| Participation in various M&E activities | Consistent | | Inconsistent | | Not Sure | | Total | |
|---|------------|--------------|--------------|--------------|-----------|--------------|------------|--------------|
| | Freq | % | Freq | % | Freq | % | Freq | % |
| <i>Awareness of right to education for all</i> | | | | | | | | |
| Never | 27 | 33.3 | 61 | 34.9 | 6 | 23.1 | 94 | 33.3 |
| Not sure | 7 | 8.6 | 22 | 12.5 | 14 | 53.9 | 43 | 15.2 |
| Occasionally | 30 | 37.0 | 63 | 36.0 | 5 | 19.2 | 98 | 34.8 |
| Frequently | 14 | 17.4 | 25 | 14.3 | 1 | 3.8 | 40 | 14.2 |
| Very frequently | 3 | 3.7 | 4 | 2.3 | 0 | 0.0 | 7 | 2.5 |
| Total | 81 | 100.0 | 175 | 100.0 | 26 | 100.0 | 282 | 100.0 |
| <i>M&E of programmes for learners with disability</i> | | | | | | | | |
| Never | 37 | 45.7 | 75 | 42.9 | 7 | 26.9 | 119 | 42.2 |
| Not sure | 10 | 12.3 | 28 | 16.0 | 15 | 57.7 | 53 | 18.8 |
| Occasionally | 23 | 28.4 | 57 | 32.6 | 4 | 15.4 | 84 | 29.8 |
| Frequently | 9 | 11.1 | 13 | 7.4 | 0 | 0.0 | 22 | 7.8 |
| Very frequently | 2 | 2.5 | 2 | 1.1 | 0 | 0.0 | 4 | 1.4 |
| Total | 81 | 100.0 | 175 | 100.0 | 26 | 100.0 | 282 | 100.0 |
| <i>Monitoring of physical facilities for learners with disability</i> | | | | | | | | |
| Never | 38 | 46.9 | 78 | 44.5 | 8 | 30.8 | 124 | 44.0 |
| Not sure | 5 | 6.3 | 22 | 12.7 | 11 | 42.3 | 38 | 13.5 |
| Occasionally | 27 | 33.3 | 58 | 33.1 | 6 | 23.1 | 91 | 32.3 |
| Frequently | 10 | 12.3 | 16 | 9.1 | 1 | 3.8 | 27 | 9.5 |
| Very frequently | 1 | 1.2 | 1 | 0.6 | 0 | 0.0 | 2 | 0.7 |
| Total | 81 | 100.0 | 175 | 100.0 | 26 | 100.0 | 282 | 100.0 |
| <i>Utilisation of M&E results</i> | | | | | | | | |
| Never | 39 | 48.1 | 85 | 48.6 | 10 | 38.5 | 134 | 47.4 |
| Not sure | 7 | 8.6 | 24 | 13.7 | 11 | 42.3 | 42 | 14.8 |
| Occasionally | 24 | 29.6 | 56 | 32.0 | 4 | 15.4 | 84 | 29.7 |
| Frequently | 11 | 13.7 | 9 | 5.1 | 1 | 3.8 | 21 | 7.4 |
| Very frequently | 0 | 0.0 | 1 | 0.6 | 0 | 0.0 | 1 | 0.7 |
| Total | 81 | 100.0 | 175 | 100.0 | 26 | 100.0 | 282 | 100.0 |
| <i>Decision making</i> | | | | | | | | |
| Never | 37 | 45.7 | 77 | 44.0 | 8 | 30.8 | 122 | 43.3 |
| Not sure | 7 | 8.6 | 27 | 15.4 | 10 | 38.5 | 44 | 15.6 |
| Occasionally | 27 | 33.3 | 56 | 32.1 | 7 | 26.9 | 90 | 31.9 |
| Frequently | 10 | 12.4 | 6 | 3.4 | 0 | 0.0 | 16 | 5.7 |
| Very frequently | 0 | 0.0 | 9 | 5.1 | 1 | 3.8 | 10 | 3.5 |
| Total | 81 | 100.0 | 175 | 100.0 | 26 | 100.0 | 282 | 100.0 |

The second activity was about participation in *M&E of programmes for learners with disability*. The results presented in Table 4.7 show that out of 282 participants, 4 (1.4%) said they participated in the activity ‘very frequently’, while 22 (7.8%) participated ‘frequently’. The latter included 9 (11.1%) participants believing that learners with disability were ‘consistent’ in utilising physical facilities and 13 (7.4%) who indicated that such learners were ‘inconsistent’ users of the facilities. Contrastingly, 119 (42.2%) participants hinted that they ‘never’ participated in the activity. This included 37 (45.7%) participants saying that learners with

disability were 'consistent' users of physical facilities, 75 (42.9%) who expressed contrary views and 7 (26.9%) who were 'not sure'.

Cumulatively results show that 26 (9.2%) participants reported a high frequency of participation in the activity, while about two-thirds, 172 (61.0%) reported a low frequency of participation. The analysis revealed a significant relationship between participation in *M&E of programmes for learners with disability* and utilisation of physical facilities by learners with disability ($\chi^2 = 31.748$, $df = 8$ & p -value = 0.000). The third activity was about participation in the *monitoring of physical facilities for learners with disability*. The results show that 27 (9.5%) participants participated in such activities 'frequently', while 2 (0.7%) indicated 'very frequent' participation. Those who 'never' participated in the *monitoring of physical facilities for learners with disability* were 124 (44.0%) and they included 38 (46.9%) participants who believed that learners with disability utilised physical facilities 'consistently', 78 (44.5%) who felt that such learners were 'inconsistent' in utilising the facilities and 8 (30.8%) who were 'not sure'. Cumulatively, the results show that 29 (10.2%) participants reported a high frequency of participation in the activity, while 162 (57.5%) reported a low frequency of participation. The analysis obtained a significant relationship between participation in the *monitoring of physical facilities for learners with disability* and utilisation of physical facilities by learners with disability ($\chi^2 = 23.428$, $df = 8$ & p -value = 0.003).

The fourth activity was about *utilisation of M&E results*. The analysis shows that of the 282 participants, 21 (7.4%) participated in the activity 'frequently'. This included 11 (13.7%) participants stating that learners with disability were 'consistent' in utilising physical facilities, 9 (5.1%) who indicated that such learners were 'inconsistent' users of the facilities and 1 (3.8%) who was 'not sure'. Contrastingly, 134 (47.4%) participants 'never' participated in such activity.

This group included 39 (48.1%) participants who felt that learners with disability utilised physical facilities ‘consistently’, 85 (48.6%) who believed such learners were ‘inconsistent’ in utilising the facilities and 10 (38.5%) who were ‘not sure’. Cumulatively, the results show that whereas 22 (8.1%) participants reported a high frequency of participation in the *utilisation of M&E results*, about two-thirds, 176 (62.2%), reported a low frequency of participation in the activity. Based on this, the analysis revealed a significant relationship between participation in the *utilisation of M&E results* and utilisation of physical facilities by learners with disability ($\chi^2 = 24.407$, $df = 8$ & p -value = 0.002).

Regarding M&E *decision making*, the results in Table 4.7 show that 10 (3.5%) participants participated in the activity ‘very frequently’, while 16 (5.7%) did so ‘frequently’. The latter included 10 (12.4%) participants believing that learners with disability were ‘consistent’ in utilising physical facilities and 6 (3.4%) who thought that such learners were ‘inconsistent’ utilising the facilities. Those who ‘never’ participated in the activity were 122 (43.3%) and they included 37 (45.7%) participants reporting that learners with disability were ‘consistent’ users of physical facilities, 77 (44.0%) who felt that such learners were ‘inconsistent’ in utilising the facilities and 8 (30.8%) who were ‘not sure’. Cumulatively, the results show that 26 (9.2%) participants reported a high frequency of participation in M&E *decision making*, while 166 (58.9%) reported a low frequency of participation in the activity. The analysis obtained a significant relationship between participation in M&E *decision making* and utilisation of physical facilities by learners with disability ($\chi^2 = 26.072$, $df = 8$ & p -value = 0.001).

A close examination of the results reveals that utilisation of physical facilities by learners with disability significantly associated with participants’ involvement in *creating awareness of*

right to education for all ($\chi^2 = 35.157$, $df = 8$ & p -value = 0.000); as well as *M&E of programmes for learners with disability* ($\chi^2 = 31.748$, $df = 8$ & p -value = 0.000). More still, there was a significant relationship between utilisation of the facilities and *monitoring of physical facilities for learners with disability* ($\chi^2 = 23.428$, $df = 8$ & p -value = 0.003); *utilisation of M&E results* ($\chi^2 = 24.407$, $df = 8$ & p -value = 0.002) and *decision making* ($\chi^2 = 26.072$, $df = 8$ & p -value = 0.001). These findings emphasise the importance of encouraging participation of teaching staff in various M&E activities, which provides opportunity for continuous learning. Besides, participation in M&E activities is likely to make teaching staff more responsive to the needs of learners with disability, particularly regarding utilisation of physical facilities.

In their study, Hardlife and Zhou (2013) underscored the importance of participation in M&E activities by staff members, as a precondition for effective performance monitoring. The authors encourage participation of all workers and stakeholders such as management boards and targeted beneficiaries such as learners. On the same note, OECD (2008) emphasized the need for democratic participation workers and managers in performance management processes, including M&E. Arguably, participatory approaches are crucial for building team spirit and for achieving organisational goals (OECD, 2008). Notably though, none of the studies directly examined utilisation of physical facilities by learners with disability. Besides, none determined statistical relationship between individual M&E activities and utilisation of physical facilities by the said type of learners.

4.4.1.4 Level of experience in M&E practices

Level of experience among staff members is an indication of human resource capacity to accomplish tasks in particular fields. The information sourced by this study provides a highlight

of the level of experience in various M&E practices, among teaching staff; the results of which are presented in Table 4.8. The first form of M&E practice that the study focused on was the *design of M&E tools*, upon which 9 (3.2%) participants rated their experience as 'very high'. This group consisted of 3 (3.7%) participants saying that learners with disability were 'consistent' in utilising physical facilities and 6 (3.4%) who felt that such learners were 'inconsistent' users of such facilities. Those who described their experience as 'high' were 26 (9.2%), which included 12 (14.8%) participants who believed that learners with disability utilised physical facilities 'consistently' and 14 (8.0%) who reported 'inconsistent' use of the facilities.

Contrastingly, 76 (27.0%) participants, including 17 (21.0%) who indicated 'consistent' utilisation of physical facilities by learners with disability, 50 (28.6%) who believed that learners with disability were 'inconsistent' users of the facilities, and 9 (34.6%) who were 'not sure', rated their experience level as 'very low'. Cumulative results show that 35 (12.4%) participants reported a high level of experience in the practice, while 159 (56.4%) reported low levels of experience. However, the analysis revealed no significant relationship between level of experience in *designing M&E tools* and utilisation of physical facilities by learners with disability.

The second type of M&E practice was the *collection of M&E data*. The results in Table 4.8 indicate that 12 (4.3%) participants described their experience as 'very high'. This included 4 (4.8%) participants believing that learners with disability were 'consistent' in utilising physical facilities and 8 (4.6%) who believed that such learners were 'inconsistent' users of the facilities. Besides, 19 (6.7%) participants rated their experience as 'high', while 75 (26.6%) perceived their experience as 'very low'. The latter included 19 (23.5%) participants who reported 'consistent'

utilisation of physical facilities by learners with disability, 48 (27.4%) who said that such learners were ‘inconsistent’ users of the facilities and 8 (30.8%) who were ‘not sure’.

Table 4.8: Perceived level of experience in M&E practice

| Perceived level of experience in M&E activities | Consistent | | Inconsistent | | Not Sure | | Total | |
|---|------------|--------------|--------------|--------------|-----------|--------------|------------|--------------|
| | Freq | % | Freq | % | Freq | % | Freq | % |
| <i>Design of M&E tools</i> | | | | | | | | |
| Very low | 17 | 21.0 | 50 | 28.6 | 9 | 34.6 | 76 | 27.0 |
| Low | 30 | 37.0 | 45 | 25.7 | 8 | 30.8 | 83 | 29.4 |
| Average | 19 | 23.5 | 60 | 34.3 | 9 | 34.6 | 88 | 31.2 |
| High | 12 | 14.8 | 14 | 8.0 | 0 | 0.0 | 26 | 9.2 |
| Very high | 3 | 3.7 | 6 | 3.4 | 0 | 0.0 | 9 | 3.2 |
| Total | 81 | 100.0 | 175 | 100.0 | 26 | 100.0 | 282 | 100.0 |
| <i>Collection of M&E data</i> | | | | | | | | |
| Very low | 19 | 23.5 | 48 | 27.4 | 8 | 30.8 | 75 | 26.6 |
| Low | 26 | 32.2 | 57 | 32.6 | 13 | 50.0 | 96 | 34.0 |
| Average | 21 | 25.9 | 55 | 31.4 | 4 | 15.4 | 80 | 28.4 |
| High | 11 | 13.6 | 7 | 4.0 | 1 | 3.8 | 19 | 6.7 |
| Very high | 4 | 4.8 | 8 | 4.6 | 0 | 0.0 | 12 | 4.3 |
| Total | 81 | 100.0 | 175 | 100.0 | 26 | 100.0 | 282 | 100.0 |
| <i>Reporting of M&E results</i> | | | | | | | | |
| Very low | 13 | 16.0 | 52 | 29.7 | 11 | 42.3 | 76 | 27.0 |
| Low | 33 | 40.7 | 44 | 25.2 | 10 | 38.5 | 87 | 30.8 |
| Average | 20 | 24.8 | 63 | 36.0 | 4 | 15.4 | 87 | 30.9 |
| High | 13 | 16.0 | 9 | 5.1 | 1 | 3.8 | 23 | 8.1 |
| Very high | 2 | 2.5 | 7 | 4.0 | 0 | 0.0 | 9 | 3.2 |
| Total | 81 | 100.0 | 175 | 100.0 | 26 | 100.0 | 282 | 100.0 |
| <i>Utilisation of M&E results</i> | | | | | | | | |
| Very low | 14 | 17.3 | 58 | 33.1 | 15 | 57.7 | 87 | 30.9 |
| Low | 33 | 40.7 | 48 | 27.4 | 8 | 30.8 | 89 | 31.6 |
| Average | 21 | 25.9 | 54 | 30.9 | 3 | 11.5 | 78 | 27.6 |
| High | 11 | 13.6 | 10 | 5.7 | 0 | 0.0 | 21 | 7.4 |
| Very high | 2 | 2.5 | 5 | 2.9 | 0 | 0.0 | 7 | 2.5 |
| Total | 81 | 100.0 | 175 | 100.0 | 26 | 100.0 | 282 | 100.0 |
| <i>Dissemination of M&E results</i> | | | | | | | | |
| Very low | 15 | 18.6 | 54 | 30.9 | 10 | 38.5 | 79 | 28.0 |
| Low | 30 | 37.1 | 57 | 32.6 | 12 | 46.2 | 99 | 35.1 |
| Average | 21 | 25.9 | 45 | 25.7 | 1 | 3.8 | 67 | 23.8 |
| High | 11 | 13.7 | 13 | 7.4 | 3 | 11.5 | 27 | 9.6 |
| Very high | 4 | 4.7 | 6 | 3.4 | 0 | 0.0 | 10 | 3.5 |
| Total | 81 | 100.0 | 175 | 100.0 | 26 | 100.0 | 282 | 100.0 |

Cumulatively, 31 (11.0%) participants reported a high level of experience in *collection of M&E data*, while 171 (60.6%) reported a low level of experience on the same. Based on this, the analysis revealed that the relationship between level of experience in *collection of M&E data* and utilisation of physical facilities by learners with disability was significant ($\chi^2 = 16.559$, $df = 8$ & p -value = 0.085).

The third type of M&E practice was the *reporting of M&E results*; in which case, the analysis revealed that 9 (3.2%) participants, including 2 (2.5%) who believed that learners with disability were 'consistent' in utilising physical facilities and 7 (4.0%) who thought that such learners were 'inconsistent' users of such facilities, described their experience as 'very high'. Those who perceived their experience level to be 'high' were 23 (8.1%) and they included 13 (16.0%) participants who felt that learners with disability were 'consistent' in utilising physical facilities, 9 (5.1%) who indicated contrary views and 1 (3.8%) who was 'not sure'.

Contrastingly, 76 (27.0%) participants rated their level of experience as 'very low'. This group included 13 (16.0%) who reported 'consistent' utilisation of physical facilities by learners with disability, 52 (29.7%) who indicated that such learners were 'inconsistent' users of the facilities and 11 (42.3%) who were 'not sure'. Cumulative results show that whereas 32 (11.3%) participants reported a high level of experience in *reporting M&E results*, up to 153 (57.8%) reported a low level of experience regarding the same. The analysis revealed a significant relationship between level of experience in *reporting of M&E results* and utilisation of physical facilities by learners with disability ($\chi^2 = 25.812$, $df = 8$ & $p\text{-value} = 0.001$).

The fourth type of M&E practice was the *utilisation of M&E results*, for which 7 (2.5%) participants described their experience level as 'very high'. This included 2 (2.5%) participants who reported that learners with disability were 'consistent' in utilising physical facilities and 5 (2.9%) who thought that such learners were 'inconsistent' users of the facilities. Those who rated their experience level as 'high' were 21 (7.4%). However, 87 (30.9%) participants, including 14 (17.3%) who believed that learners with disability were 'consistent' in utilising physical facilities, 58 (33.1%) who indicated 'inconsistent' use of the facilities, and 15 (57.7%) who were 'not sure', described their experience in *utilising M&E results* as 'very low'. Cumulatively, 28

(9.9%) participants reported a high level of experience in *utilising M&E results*, while more than two-thirds, 176 (62.5%), indicated a low level of experience. The analysis revealed a significant relationship between level of experience in *utilising M&E results* and utilisation of physical facilities by learners with disability ($\chi^2 = 24.973$, $df = 8$ & p -value = 0.002).

The fifth type of M&E practice was the *dissemination of M&E results*. In this regard, 10 (3.5%) participants described their experience level as 'very high', while 27 (9.6%) rated their experience level as 'high'. The latter included 11 (13.7%) participants who stated that learners with disability were 'consistent' in utilising physical facilities, 13 (7.4%) who felt that such learners were 'inconsistent' users of the facilities and 3 (11.5%) who were 'not sure'. By comparison, 79 (28.0%) participants, including 15 (18.6%) who reported 'consistent' use of physical facilities by learners with disability, 54 (30.9%) who indicated 'inconsistent' use of the facilities and 10 (38.5%) who were 'not sure', described their level of experience as 'very low'.

Cumulative results show that even though 37 (13.1%) participants reported a high level of experience in *disseminating M&E results*, the majority, 178 (63.1%) hinted at a low level of experience regarding the same. Based on this, the analysis obtained a significant relationship between level of experience in disseminating M&E results and utilisation of physical facilities by learners with disability ($\chi^2 = 15.929$, $df = 8$ & p -value = 0.012).

The findings suggest that having experience in M&E practices is important for promoting utilisation of physical facilities by learners with disability. More specifically, the study reveals a significant relationship between utilisation of physical facilities and M&E practices such as *collection of M&E data* ($\chi^2 = 16.559$, $df = 8$ & p -value = 0.085); *reporting of M&E results* ($\chi^2 = 25.812$, $df = 8$ & p -value = 0.001); and *utilisation of M&E results* ($\chi^2 = 24.973$, $df = 8$ & p -value = 0.002). Utilisation of the facilities by learners with disability also significantly associated with

dissemination of M&E results ($\chi^2 = 15.929$, $df = 8$ & $p\text{-value} = 0.102$). These findings emphasise the need for teaching staff to participate in various M&E practices within and outside their institutions. Continuous participation in such activities is a sure way of gaining necessary experience, which in turn, is likely to improve their responsiveness to the needs of learners with disability, particularly regarding utilisation of physical facilities.

Lack of experience in M&E systems was identified by Mackay (2007) as a key factor constraining programme monitoring in the public sector. In Kenya, Gekonde, Nyambonga and Nyahoroo (2014) noted that lack of experience in M&E activities is a key factor that affected the delivery of services in the public sector. Such experienced can be gained through appropriate and continuous training as well as continuous participation in M&E activities. In view of this, the authors advocated for proper training of service providers and participatory approaches in M&E of programme activities. However, this study differs from its predecessors, by specifically focusing on national polytechnics and by establishing statistical relationship between utilisation of physical facilities and participants' experience in the execution of specific M&E activities.

4.4.1.5 Awareness creation, availability, and use of resource materials

Continuous creation of awareness about an aspect is important for influencing knowledge and attitude associated with the aspect. Similarly, the availability and continuous use of appropriate resource materials is crucial for enhancing M&E knowledge and skills in the management of disability programmes. In view of this, participants were requested to indicate how often they created awareness about disability, including policies, available physical facilities, and supportive services provided by the institutions. The results, which are presented in Figure 4.1 show that of the 282 participants, 41 (14.5%) 'always' created awareness about

disability. This group included 15 (18.5%) participants stating that learners with disability were 'consistent' in utilising physical facilities and 26 (14.9%) who indicated that such learners were 'inconsistent' users of the facilities.

Those who had 'never' created awareness about disability were 96 (34.0%), and they included 27 (33.3%) who reported 'consistent' utilisation of the facilities by learners with disability, 57 (32.6%) who expressed contrary views and 12 (46.2%) who were 'not sure'. Notably, a higher proportion of participants, 96 (34.0%), 'never' created awareness about disability, while 41 (14.5%) did so 'always'. Based on this, the analysis revealed a significant association between creating awareness on disability and utilisation of physical facilities by learners with disability ($\chi^2 = 34.941$, $df = 8$ & ρ -value = 0.000).

Similarly, FGD and KII sessions revealed that national polytechnics lacked official and systematic programmes for creating awareness about disability policies, including available physical facilities and supportive services. However, pieces of information on disability were occasionally mentioned in passing during assemblies and other forums such as orientations. Participants further noted that during admission, learners with disability were often screened to determine those able to cope with available facilities. In this regard, the institutions admitted learners with forms of disability that were relatively cheaper to manage, particularly those with lower and upper limbs impairment. In the words of a key informant, "...this institution is not meant for learners with severe forms of disability as affording equipment and human resource is a nightmare."

Arguably, the cost of handling learners with visual, audio, speech or multiple forms of disability was a challenge not only to the institutions but also to the Ministry of Education. In this regard, participants noted that their institutions could not provide some courses such as

catering and laboratory technology, among others, to learners with visual disability, particularly due to lack of specialised facilities and human resource. In the words of a key informant, "...there are some courses, which they cannot do naturally. For instance, a person who is either blind or on a wheel chair cannot undertake a course in catering successfully. Again, how do you expect a blind person to note colour changes in a chemical reaction?" Another key informant added that "...in cases of emergencies at laboratories or workshop these people need to be helped to exit the danger ... they will be a burden."

Participants indicated that such learners were often referred to specialised institutions, such as Kenya Institute for the Blind and Kenya Technical Institute for the Deaf. In summary, the findings emphasise the need for programmes to create awareness about disability, as well as physical facilities for learners with other forms of disability, including visual, audio, and speech. Whereas awareness creation programmes are likely to nature a supportive environment for learners with disability, providing a variety of physical facilities is likely to expand opportunities for learners with other forms of disability to access TVET education, in line with objectives of the TVET Policy (GoK, 2012a).

The study further assessed the availability of M&E resource materials in the institutions. In this regard, Figure 4.1 shows that 137 (48.6%) participants affirmed the availability of such materials. This included 47 (58.0%) participants stating that learners with disability were 'consistent' in utilising physical facilities, 85 (48.6%) who felt that such learners were 'inconsistent' users of the facilities and 5 (19.2%) who were 'not sure'. Based on this, the analysis revealed a significant relationship between the availability of M&E resource materials on disability and utilisation of physical facilities by learners with disability ($\chi^2 = 11.858$, $df = 2$ & p -value = 0.003). The findings suggest that availability of M&E resource materials may have

been a key factor influencing utilisation of physical facilities by learners with disability. Such materials are likely to enhance awareness as well as deepen knowledge of teaching staff on M&E practice, which in turn, is likely to improve the level and quality of support provided to learners with disability regarding utilisation of physical facilities.

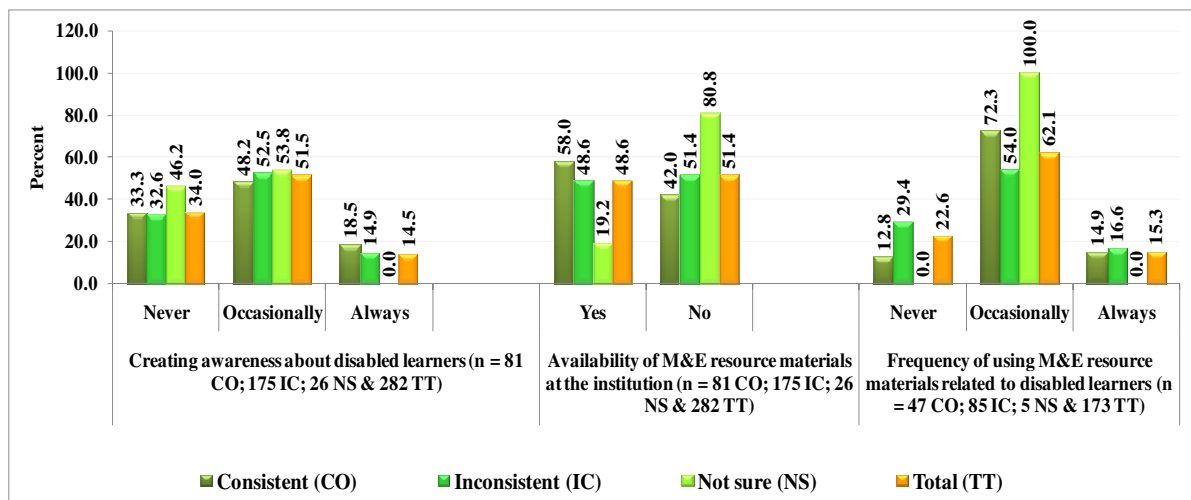


Figure 4.1: Awareness creation, resource materials availability, and frequency of use

Nevertheless, availability of M&E resource materials does not necessarily improve the capacity of human resource, until intended beneficiaries become aware and start engaging with such materials. In this study, up to 137 (48.6%) participants indicated that M&E resource materials were available in their institutions. Given the big proportion of participants who responded positively, there is no doubt that such materials existed. This implies that those who provided negative responses, 145 (51.4%), might have not been aware about the existence of such materials. If this is the case, then it would be important for the institutions to sensitise their teaching staff about the M&E resource materials, make such materials accessible and encourage them (teaching staff) to read. Such measures are likely to improve the capacity of human resource and enhance utilisation of physical facilities by learners with disability.

Among the 137 participants who affirmed that M&E resource materials were available in their institutions, 21 (15.3%) utilised such materials 'always' to improve their knowledge and skills. This group included 7 (14.9%) participants who reported that learners with disability were 'consistent' in utilising physical facilities, and 14 (16.6%) who thought that such learners were 'inconsistent' users of the facilities. Contrastingly, 31 (22.6%) participants, including 6 (12.8%) indicating that learners with disability were 'consistent' in utilising the facilities and 25 (29.4%) who expressed contrary views, had 'never' used M&E resource materials to improve their capacity in supporting learners with disability.

Based on this, the analysis revealed a significant relationship between utilisation of M&E resource materials by teaching staff and utilisation of physical facilities by learners with disability ($\chi^2 = 22.323$, $df = 8$ & $p\text{-value} = 0.004$). The findings suggest the need for sensitisation to improve the proportion of teaching staff engaging with M&E resource materials 'consistently' to uplift their capacity and quality of support provided to learners with disability, in order to improve utilisation of physical facilities. In their study, Kusek and Rist (2004) listed capacity development among the ten necessary steps towards achievement of results-based M&E systems. The initiative entails provision, access, and utilisation of M&E resource materials. The authors emphasise that availability of M&E resource materials provide opportunity for continuous learning and skills improvement. However, unlike this study, Kusek and Rist (2004) focused on neither disability in academic institutions nor relationship between access to M&E resource materials and utilisation of physical facilities by learners with disability.

4.4.1.6 Frequency of reading M&E resource materials

Availability of M&E resource materials may not necessarily mean effective utilisation by targeted primary beneficiaries, in this case, teaching staff in national polytechnics. Quite critical is how often targeted beneficiaries interact with such materials to acquire necessary knowledge and skills for supporting utilisation of physical facilities by learners with disability. In view of this the study examined the frequency with which participants read M&E resource materials, including project proposals, plans, matrices, methods and tools, as well as reports.

Regarding *M&E project proposals*, the results in Table 4.9 show that 7 (2.5%) participants read such materials ‘always’, while 26 (9.2%) did so ‘often’. The latter included 12 (14.8%) participants believing that learners with disability were ‘consistent’ in utilising physical facilities and 14 (8.0%) who indicated that such learners were ‘inconsistent’ users of the facilities. Those who ‘never’ read *M&E project proposals* were 122 (43.3%), including 27 (33.3%) participants who stated that learners with disability were ‘consistent’ in utilising the facilities, 79 (45.1%) who indicated ‘inconsistent’ use of the facilities and 16 (61.6%) who were ‘not sure’.

Cumulative results show that most participants, 196 (69.5%), reported a low frequency of reading *M&E project proposals*, while 33 (11.7%) reported a high frequency of reading such materials. Based on this, the analysis obtained a significant relationship between *reading M&E project proposals* by teaching staff and utilisation of physical facilities by learners with disability ($\chi^2 = 14.554$, $df = 8$ & p -value = 0.068).

Table 4.9: Frequency of reading M&E resource materials

| Reads M&E Resource Materials | Consistent | | Inconsistent | | Not Sure | | Total | |
|----------------------------------|------------|--------------|--------------|--------------|-----------|--------------|------------|--------------|
| | Freq | % | Freq | % | Freq | % | Freq | % |
| <i>M&E project proposals</i> | | | | | | | | |
| Never | 27 | 33.3 | 79 | 45.1 | 16 | 61.6 | 122 | 43.3 |
| Rarely | 24 | 29.6 | 42 | 24.0 | 8 | 30.8 | 74 | 26.2 |
| Occasionally | 17 | 21.1 | 35 | 20.0 | 1 | 3.8 | 53 | 18.8 |
| Often | 12 | 14.8 | 14 | 8.0 | 0 | 0.0 | 26 | 9.2 |
| Always | 1 | 1.2 | 5 | 2.9 | 1 | 3.8 | 7 | 2.5 |
| Total | 81 | 100.0 | 175 | 100.0 | 26 | 100.0 | 282 | 100.0 |
| <i>M&E work plans</i> | | | | | | | | |
| Never | 26 | 32.1 | 90 | 51.4 | 16 | 61.5 | 132 | 46.8 |
| Rarely | 26 | 32.1 | 39 | 22.3 | 8 | 30.8 | 73 | 25.9 |
| Occasionally | 18 | 22.2 | 31 | 17.8 | 2 | 7.7 | 51 | 18.1 |
| Often | 11 | 13.6 | 9 | 5.1 | 0 | 0.0 | 20 | 7.1 |
| Always | 0 | 0.0 | 6 | 3.4 | 0 | 0.0 | 6 | 2.1 |
| Total | 81 | 100.0 | 175 | 100.0 | 26 | 100.0 | 282 | 100.0 |
| <i>M&E matrices</i> | | | | | | | | |
| Never | 29 | 35.8 | 93 | 53.1 | 17 | 65.4 | 139 | 49.2 |
| Rarely | 22 | 27.2 | 34 | 19.4 | 8 | 30.8 | 64 | 22.7 |
| Occasionally | 17 | 21.0 | 33 | 18.9 | 1 | 3.8 | 51 | 18.1 |
| Often | 12 | 14.8 | 11 | 6.3 | 0 | 0.0 | 23 | 8.2 |
| Always | 1 | 1.2 | 4 | 2.3 | 0 | 0.0 | 5 | 1.8 |
| Total | 81 | 100.0 | 175 | 100.0 | 26 | 100.0 | 282 | 100.0 |
| <i>M&E methods and tools</i> | | | | | | | | |
| Never | 30 | 37.1 | 83 | 47.4 | 19 | 73.1 | 132 | 46.9 |
| Rarely | 19 | 23.1 | 40 | 22.9 | 6 | 23.1 | 65 | 23.0 |
| Occasionally | 16 | 19.8 | 36 | 20.6 | 1 | 3.8 | 53 | 18.8 |
| Often | 14 | 17.4 | 10 | 5.7 | 0 | 0.0 | 24 | 8.5 |
| Always | 2 | 2.6 | 6 | 3.4 | 0 | 0.0 | 8 | 2.8 |
| Total | 81 | 100.0 | 175 | 100.0 | 26 | 100.0 | 282 | 100.0 |
| <i>M&E reports</i> | | | | | | | | |
| Never | 25 | 30.9 | 81 | 46.3 | 17 | 65.4 | 123 | 43.6 |
| Rarely | 27 | 33.3 | 33 | 18.9 | 9 | 34.6 | 69 | 24.5 |
| Occasionally | 16 | 19.8 | 47 | 26.8 | 0 | 0.0 | 63 | 22.3 |
| Often | 13 | 16.0 | 11 | 6.3 | 0 | 0.0 | 24 | 8.5 |
| Always | 0 | 0.0 | 3 | 1.7 | 0 | 0.0 | 3 | 1.1 |
| Total | 81 | 100.0 | 175 | 100.0 | 26 | 100.0 | 282 | 100.0 |

The analysis revealed that 6 (2.1%) participants read *M&E work plans* ‘always’, while 20 (7.1%) did so ‘often’. The latter included 11 (13.6%) participants who thought that learners with disability were ‘consistent’ in utilising physical facilities and 9 (5.1%) who believed that such learners were ‘inconsistent’ users of the facilities. Contrastingly, 132 (46.8%) participants, including 26 (32.1%) who believed that learners with disability were ‘consistent’ in utilising physical facilities, 90 (51.4%) who reported ‘inconsistent’ utilisation of the facilities and 16 (61.5%) who were ‘not sure’, ‘never’ read such materials. Cumulatively, the results show that most participants, 205 (72.7%), reported a low frequency of reading *M&E work plans*, while 26

(9.2%) reported a high frequency for the same. Again, the analysis revealed a significant relationship between reading *M&E work plans* by teaching staff and utilisation of physical facilities by learners with disability ($\chi^2 = 21.662$, $df = 8$ & p -value = 0.006).

The results further show that 5 (1.8%) participants read *M&E matrices* 'always', while 23 (8.2%) did so 'often'. This group consisted of 12 (14.8%) participants who indicated that learners with disability were 'consistent' in utilising physical facilities and 11 (6.3%) who said that such learners were 'inconsistent' users of the facilities. However, 139 (49.2%) participants, including 29 (35.8%) who indicated the view that learners with disability were 'consistent' in utilising physical facilities, 93 (53.1%) who believed that such learners were 'inconsistent' users of the facilities and 17 (65.4%) who were 'not sure', 'never' read *M&E matrices*. Whereas most participants, 203 (71.9%) reported a low frequency of reading *M&E matrices*, only 28 (10.0%) reported a high frequency of engaging with such materials. Based on this, the analysis revealed a significant relationship between reading *M&E matrices* by teaching staff and utilisation of physical facilities by learners with disability ($\chi^2 = 18.614$, $df = 8$ & p -value = 0.017).

Regarding *M&E methods and tools*, the study found that of the 282 participants, 8 (2.8%) read such materials 'always', while 24 (8.5%) read the materials 'often'. The latter included 14 (17.4%) participants reporting that learners with disability were 'consistent' in utilising physical facilities and 10 (5.7%) who indicated that such learners were 'inconsistent' in utilising the facilities. Those who 'never' read *M&E methods and tools* were 132 (46.9%) and they included 30 (37.1%) who stated the view that learners with disability were consisted in utilising physical facilities, 83 (47.4%) who indicated that such learners were 'inconsistent' users of the facilities and 19 (73.1%) who were 'not sure'. In addition, cumulative results show that most participants, 197 (69.9%), reported a low frequency of reading *M&E methods and tools*, while 32 (11.3%)

reported a high frequency of reading such materials. The analysis revealed a significant relationship between reading *M&E methods and tools* by teaching staff and utilisation of physical facilities by learners with disability ($\chi^2 = 21.071$, $df = 8$ & p -value = 0.007).

Lastly, the study examined the frequency with which participants read *M&E reports*. In this regard, the results show that only 3 (1.1%) participants read such materials 'always', while 24 (8.5%), including 13 (16.0%) participants who stated that learners with disability were 'consistent' in utilising physical facilities and 11 (6.3%) who indicated that such learners were 'inconsistent' in utilising the materials, read the materials 'often'. However, up to 123 (43.6%) participants 'never' read *M&E reports*. This group included 25 (30.9%) participants reporting that learners with disability were 'consistent' in utilising physical facilities, 81 (46.3%) who indicated that utilisation of the facilities by learners with disability was 'inconsistent' and 17 (65.4%) who were 'not sure'.

In addition, cumulative results show that most participants, 192 (68.1%), indicated a low frequency of reading *M&E reports*, while 27 (9.6%) reported a high frequency of reading such materials. Based on this, the analysis revealed a significant relationship between reading of M&E reports by teaching staff and utilisation of physical facilities by learners with disability ($\chi^2 = 30.201$, $df = 8$ & p -value = 0.000).

The findings presented under this sub-section bring out the important role of continuous reading of M&E resource materials in improving human resource capacity, which is necessary for encouraging utilisation of physical facilities by learners with disability. Through continuous engagement with M&E materials such as *project proposals, plans, matrices, methods and tools* as well as *reports*, teaching staff are likely to improve their capacity to influence utilisation of physical facilities by learners with disability. This calls for periodical sensitisation programmes,

targeting teaching staff with appropriate information regarding the importance of reading such materials to enhance capacity and to improve utilisation of physical facilities by learners with disability.

Even though Kusek and Rist (2004) identified provision of M&E resource materials as one of the key steps for achieving results-based M&E systems, they hardly talked about the frequency of reading such materials, which is important continuous capacity development of M&E workers in an institution. Similarly, Gekonde, Nyambonga, and Nyarohoo (2014) who confirmed the importance of continuous training of human resource to improve service delivery, failed to recognise the importance frequent reading of appropriate resource material. This implies that this study generated deeper information than what had been documented by previous studies.

4.4.1.7 Role of Ministry in promoting human resource capacity in national polytechnics

Improving human resource capacity in public institutions is a key role of the Government and its agencies. The study highlighted Ministry of Education's efforts to improve human resource capacity in national polytechnics as well as factors constraining the process. The findings of this study confirmed that the Ministry of Education through Teacher Service Commission (TSC) bore the responsibility of providing human resource to national polytechnics, based on institutional needs. However, participants noted that the employment of teaching staff for TVET education had not received sufficient attention in terms of budgetary provisions; thus, leading to acute shortage of teachers with skills to handle learners with visual, audio and speech as well as multiple forms of disability.

Participants pointed out that lack of funds was the main factor preventing the Ministry from providing sufficient special education teachers, including sign language interpreters and

visual impairment specialists. Consequently, national polytechnics provided more opportunity for learners with upper and lower limb forms of disability than to those with other forms of disability. Even though the TIVET Policy 2012 aims at expanding access to TVET education for all learners with disability, participants noted that shortage of relevant human resource was a key factor preventing national polytechnics from achieving the objective. Similarly, shortage of qualified human resource and its effects on the participation of learners with disability learning and extra-curricular activities have been documented by studies conducted in various countries, including South Africa, Nigeria and Kenya (Horsolman, 2002; Mwiria, Ng'ethe, Ngome, Ouma-Odero, Wawire & Wesonga, 2007).

In view of this, the logical suggestion is for the National Treasury to increase budgetary allocation to enable TSC and the Ministry to recruit more teaching staff with appropriate skills. However, this suggestion may not be realised soon due to various macro-economic factors and the introduction of Free Primary Education and Free Day Secondary Education, which consume the bulk of sectoral budget. Consequently, the Ministry should consider encouraging NGOs and faith-based institutions to develop appropriate TVET programmes in their institutions to absorb learners whose needs may not be addressed effectively by national polytechnics due to human resource capacity gaps.

4.4.1.8 Testing null hypothesis one (H_01)

The study sought to determine if there was any significant correlation between utilisation of physical facilities by learners with disability and human resource capacity for M&E. In this regard, four indicators of human resource capacity for M&E, presented in Table 4.10, were aggregated and correlated with the dependent variable - utilisation of physical facilities by

learners with disability, using Spearman's Rank Correlation Coefficient. The results reveal significant positive correlations between the dependent variable and all the four indicators of human resource capacity for M&E, including access to training on M&E of disability programmes ($r_s = 0.608$ & ρ -value = 0.004), participation in M&E activities ($r_s = 0.383$ & ρ -value = 0.016), level of experience in M&E practices ($r_s = 0.475$ & ρ -value = 0.003), as well as frequency of reading M&E resource materials ($r_s = 0.569$ & ρ -value = 0.004).

In addition, the results show a significant and positive correlation between the aggregated independent variable, human resource capacity for M&E and utilisation of physical facilities by learners with disability ($r_s = 0.341$ & ρ -value = 0.042). In terms of strength, the correlation was moderate, based on the categorisation described in under section 3.9 (Myers and Well, 2003). Based on this, the null hypothesis (H_01), which stated that *there is no significant correlation between utilisation of physical facilities by learners with disability and human resource capacity for M&E*, was rejected for being inconsistent with empirical data.

Table 4.10: Summary of correlation analysis for human resource capacity

| Correlations | | | | |
|---------------------|---|-------------------------|---------------------------------------|--|
| | | | Utilisation of physical facilities | Ever accessed training on M&E of disability programmes? |
| Spearman's rho | Utilisation of physical facilities | Correlation Coefficient | 1.000 | 0.608 |
| | | Sig. (2-tailed) | . | 0.004*** |
| | | N | 282 | 282 |
| | Ever accessed training on M&E of disability programmes? | Correlation Coefficient | 0.608 | 1.000 |
| | | Sig. (2-tailed) | 0.004*** | . |
| | | N | 282 | 282 |
| | | | Utilisation of physical facilities | Participation in M&E activities |
| Spearman's rho | Utilisation of physical facilities | Correlation Coefficient | 1.000 | 0.383 |
| | | Sig. (2-tailed) | . | 0.016** |
| | | N | 282 | 282 |
| | Participation in M&E activities | Correlation Coefficient | 0.383 | 1.000 |
| | | Sig. (2-tailed) | 0.016** | . |
| | | N | 282 | 282 |
| | | | Utilisation of physical facilities | Perceived level of experience in M&E practice [clustered] |
| Spearman's rho | Utilisation of physical facilities | Correlation Coefficient | 1.000 | 0.475 |
| | | Sig. (2-tailed) | . | 0.003*** |
| | | N | 282 | 282 |
| | Perceived level of experience in M&E practice [clustered] | Correlation Coefficient | 0.475 | 1.000 |
| | | Sig. (2-tailed) | 0.003*** | . |
| | | N | 282 | 282 |
| | | | Utilisation of physical facilities | Frequency of reading M&E resource materials |
| Spearman's rho | Utilisation of physical facilities | Correlation Coefficient | 1.000 | 0.569 |
| | | Sig. (2-tailed) | . | 0.004*** |
| | | N | 282 | 282 |
| | Frequency of reading M&E resource materials | Correlation Coefficient | 0.569 | 1.000 |
| | | Sig. (2-tailed) | 0.004*** | . |
| | | N | 282 | 282 |
| | | | Utilisation of physical facilities | Human resource capacity |
| Spearman's rho | Utilisation of physical facilities | Correlation Coefficient | 1.000 | 0.341 |
| | | Sig. (2-tailed) | . | 0.042** |
| | | N | 282 | 282 |
| | Human resource capacity | Correlation Coefficient | 0.341 | 1.000 |
| | | Sig. (2-tailed) | 0.042** | . |
| | | N | 282 | 282 |

*, **, *** show significance at $\rho < 0.1$, $\rho < 0.05$ and $\rho < 0.01$ error margins, respectively

The findings confirm that human resource capacity for M&E is a crucial variable in

ensuring consistent utilisation of physical facilities by learners with disability. Consequently, improving the capacity of teaching staff in the national polytechnics would be a crucial factor for optimising utilisation of physical facilities by the same group of learners. This may be achieved by making M&E resource materials available and accessible, as well as encouraging teaching staff to read such materials frequently. Improving the capacity of human resource will also require opportunities for hands-on experience in M&E of disability programmes; participation in various M&E activities, including awareness creation, monitoring utilisation of physical facilities, as well as utilisation of M&E results. Equally important is the need for more training opportunities for teaching staff, which may have a direct influence on the human resource capacity.

4.4.2 M&E Work Plan Indicators and Utilisation of Physical Facilities

Monitoring and evaluation (M&E) work plan indicators enable educational institutions to target all aspects of education access, equity and quality for all learners, including those with various forms of disability (OECD, 2008). In most developing countries, lack of such work plan indicators is a glaring gap that undermines the effectiveness of M&E systems in educational institutions (Mackay, 2007), which in turn, impedes utilisation of physical facilities by learners with disability. This section presents results demonstrating the relationship of various aspects of M&E work plan indicators and utilisation of physical facilities by learners with disability.

4.4.2.1 Frequency of measuring aspects of learning among learners with disability

Measuring various learning activities is an important aspect of M&E work plans, which also determines the effectiveness of M&E systems in educational institutions. The study captured

participant's perceptions about the frequency with which various aspects of learning were measured in their institutions. The first aspect of learning was *class discussions*. The results, which are presented in Table 4.10 show that 15 (5.3%) participants stated that the aspect was 'always' measured, while 27 (9.6%) felt that it was measured 'often'. The latter included 12 (14.8%) participants who indicated that learners with disability were 'consistent' in utilising physical facilities and 15 (8.6%) who felt that such learners were 'inconsistent' users of the facilities. However, 133 (47.2%) participants indicated that *class discussions* were 'never' measured. This included 31 (38.3%) participants who believed that learners with disability were 'consistent' in utilising physical facilities, 83 (47.4%) who indicated that such learners were 'inconsistent' in utilising the facilities and 19 (73.1%) who were 'not sure'.

More still, cumulative results show that up to 191 (67.7%) participants reported a low frequency with which the aspect was measured, while 42 (14.9%) reported a high frequency. Based on this, the analysis revealed a significant relationship between measurement frequency of *class discussions* and utilisation of physical facilities by learners with disability ($\chi^2 = 15.155$, $df = 8$ & $p\text{-value} = 0.056$).

The results further show that 9 (5.3%) participants reported that *practicals* were 'always' measured, while 22 (7.8%) participants indicated that the aspect was measured 'often'. The latter included 12 (14.8%) participants who indicated that learners with disability utilised physical facilities 'consistently' and 10 (5.7%) who felt that such learners were 'inconsistent' users of the facilities. However, 131 (46.5%) participants, including 30 (37.0%) who said that learners with disability were 'consistent' in utilising physical facilities, 81 (46.3%) who felt that such learners were 'inconsistent' users of the facilities and 20 (76.9%) who were 'not sure', hinted that *practicals* were 'never' measured. Cumulatively, up to 193 (68.5%) participants

reported a low frequency with which *practicals* was measured, as opposed to 31 (11.0%) who reported a high frequency about the same. In view of this, the analysis obtained a significant relationship between measurement frequency of practicals and utilisation of physical facilities by learners with disability ($\chi^2 = 22.623$, $df = 8$ & ρ -value = 0.004).

Table 4.10: Frequency of measuring various learning aspects among learners with disability

| Frequency of measuring learning aspects | Consistent | | Inconsistent | | Not Sure | | Total | |
|---|------------|--------------|--------------|--------------|-----------|--------------|------------|--------------|
| | Freq | % | Freq | % | Freq | % | Freq | % |
| <i>Class discussions</i> | | | | | | | | |
| Never | 31 | 38.3 | 83 | 47.4 | 19 | 73.1 | 133 | 47.2 |
| Rarely | 18 | 22.2 | 34 | 19.4 | 6 | 23.1 | 58 | 20.5 |
| Sometimes | 16 | 19.8 | 32 | 18.3 | 1 | 3.8 | 49 | 17.4 |
| Often | 12 | 14.8 | 15 | 8.6 | 0 | 0.0 | 27 | 9.6 |
| Always | 4 | 4.9 | 11 | 6.3 | 0 | 0.0 | 15 | 5.3 |
| Total | 81 | 100.0 | 175 | 100.0 | 26 | 100.0 | 282 | 100.0 |
| <i>Practicals</i> | | | | | | | | |
| Never | 30 | 37.0 | 81 | 46.3 | 20 | 76.9 | 131 | 46.5 |
| Rarely | 14 | 17.4 | 43 | 24.5 | 5 | 19.3 | 62 | 22.0 |
| Sometimes | 21 | 25.9 | 36 | 20.6 | 1 | 3.8 | 58 | 20.5 |
| Often | 12 | 14.8 | 10 | 5.7 | 0 | 0.0 | 22 | 7.8 |
| Always | 4 | 4.9 | 5 | 2.9 | 0 | 0.0 | 9 | 3.2 |
| Total | 81 | 100.0 | 175 | 100.0 | 26 | 100.0 | 282 | 100.0 |
| <i>Reading</i> | | | | | | | | |
| Never | 30 | 37.0 | 77 | 44.0 | 12 | 46.2 | 119 | 42.2 |
| Rarely | 16 | 19.8 | 31 | 17.7 | 10 | 38.4 | 57 | 20.2 |
| Sometimes | 20 | 24.7 | 42 | 24.0 | 4 | 15.4 | 66 | 23.4 |
| Often | 10 | 12.3 | 10 | 5.7 | 0 | 0.0 | 20 | 7.1 |
| Always | 5 | 6.2 | 15 | 8.6 | 0 | 0.0 | 20 | 7.1 |
| Total | 81 | 100.0 | 175 | 100.0 | 26 | 100.0 | 282 | 100.0 |
| <i>Answering questions</i> | | | | | | | | |
| Never | 29 | 35.8 | 73 | 41.7 | 13 | 50.0 | 115 | 40.8 |
| Rarely | 21 | 25.9 | 33 | 18.9 | 11 | 42.4 | 65 | 23.0 |
| Sometimes | 16 | 19.8 | 40 | 22.8 | 1 | 3.8 | 57 | 20.2 |
| Often | 11 | 13.6 | 15 | 8.6 | 1 | 3.8 | 27 | 9.6 |
| Always | 4 | 4.9 | 14 | 8.0 | 0 | 0.0 | 18 | 6.4 |
| Total | 81 | 100.0 | 175 | 100.0 | 26 | 100.0 | 282 | 100.0 |
| <i>Group work</i> | | | | | | | | |
| Never | 31 | 38.3 | 76 | 43.3 | 18 | 69.3 | 125 | 44.3 |
| Rarely | 16 | 19.8 | 32 | 18.3 | 5 | 19.2 | 53 | 18.8 |
| Sometimes | 18 | 22.2 | 33 | 18.9 | 2 | 7.7 | 53 | 18.8 |
| Often | 9 | 11.1 | 22 | 12.6 | 0 | 0.0 | 31 | 11.0 |
| Always | 7 | 8.6 | 12 | 6.9 | 1 | 3.8 | 20 | 7.1 |
| Total | 81 | 100.0 | 175 | 100.0 | 26 | 100.0 | 282 | 100.0 |

In addition, 20 (7.1%) participants stated that *reading* was ‘always’ measured, while another 20 (7.1%) indicated the view that the aspect was measured ‘often’. The latter included 10

(12.3%) participants who believed that learners with disability were ‘consistent’ in utilising physical facilities and another 10 (5.7%) who felt that such learners were ‘inconsistent’ users of the facilities. However, 119 (42.2%) participants, including 30 (37.0%) who thought that learners with disability were ‘consistent’ in utilising physical facilities, 77 (44.0%) who indicated inconsistency in utilisation of the facilities and 12 (46.2%) who were ‘not sure’, reported that *reading* was ‘never’ measured. Besides, cumulative results show that most participants, 176 (62.4%), reported a low frequency with which *reading* was measured, while 40 (14.2%) indicated a high frequency of measurement for the aspect. Again, the analysis revealed a significant relationship between the measurement frequency of *reading* and utilisation of physical facilities by learners with disability ($\chi^2 = 14.318$, $df = 8$ & p -value = 0.074).

The results in Table 4.10 show that 18 (6.4%) participants indicated that *answering questions* was ‘always’ measured, while 27 (9.6%) stated that the aspect was measured ‘often’. The latter included 11 (13.6%) participants who indicated that learners with disability were ‘consistent’ in utilising physical facilities and 15 (8.6%) who stated that such learners were ‘inconsistent’ users of the facilities. Those who reported that *answering questions* was ‘never’ measured were 115 (40.8%), and they included 29 (35.8%) participants saying that learners with disability were ‘consistent’ in utilising physical facilities, 73 (41.7%) who thought that such learners were ‘inconsistent’ in using the facilities and 13 (50.0%) who were ‘not sure’. More still, cumulative results show that more than two-thirds of participants, 180 (63.8%), indicated a low frequency with which the aspect was measured, while 45 (16.0%) reported a low frequency regarding the aspect’s measurement. The analysis yielded a significant relationship between measurement frequency of *answering questions* and utilisation of physical facilities by learners with disability ($\chi^2 = 16.014$, $df = 8$ & p -value = 0.042).

According to 20 (7.1%) participants, measurement of *group work* was done ‘always’, while 31 (11.0%) said that the aspect was measured ‘often’. The latter included 9 (11.1%) participants who thought that learners with disability were ‘consistent’ in utilising physical facilities and 22 (12.6%) who believed that such learners were ‘inconsistent’ users of the facilities. Those who felt that *group work* activities were ‘never’ measured were 125 (44.3%) and they included 31 (38.3%) participants holding the view that learners with disability were ‘consistent’ in utilising physical facilities, 76 (43.3%) who believed that such learners were ‘inconsistent’ users of the facilities and 18 (69.3%) who were ‘not sure’. Moreover, cumulative results show that whereas 178 (63.1%) participants reported a low frequency with which *group work* activities were measured, 51 (18.1%) indicated a high frequency for the aspect’s measurement. However, the analysis revealed no significant relationship between measurement frequency of *group work* activities and utilisation of physical facilities by learners with disability.

The study found that utilisation of physical facilities by learners with disability was a function of the frequency with which various aspects of learning were measured. More specifically, the study found that utilisation of physical facilities significantly associated with the measurement frequency of *class discussions* ($\chi^2 = 15.155$, $df = 8$ & $p\text{-value} = 0.056$); *practicals* ($\chi^2 = 22.623$, $df = 8$ & $p\text{-value} = 0.004$); *reading* ($\chi^2 = 14.318$, $df = 8$ & $p\text{-value} = 0.074$); as well as *answering questions* ($\chi^2 = 16.014$, $df = 8$ & $p\text{-value} = 0.042$). The findings emphasise the importance of regular in measurement of such learning aspects, which is likely to reveal gaps that should be addressed in order to improve utilisation of physical facilities by learners with disability, participation, and learning achievement. Consequently, the institutions need to have in

place effective and accurate tools for measuring such learning aspects in order to inform decision-making.

In their study, Simkiss, Garner, and Dryden (1998) noted the importance of measuring learning activities in enhancing learning achievement by learners with disability. More specifically, the study reported that learning activities were measured through class attendance registers, course work assignments and annual examinations. However, the study reports that instructors were keener on the learning achievement of able-bodied learners than those with disability. Notably though, the study did not link measurement of learning aspects with utilisation of physical facilities by learners with disability. In another study conducted in the United States, McKenzie (2008) measured participation of learners with disability in learning activities in four technical institutions and reported that less than 10% were consistent in attending class. About 74% attended class inconsistently, with the main reason being challenges in using available learning resources. Although the study linked measuring of learning activities to utilisation of physical facilities, it failed to determine statistical relationship between the two aspects.

4.4.2.2 Tools used in monitoring participation in learning among learners with disability

Various tools can be used to monitor participation in learning activities. The information presented in Table 4.11 shows the types of tools used to monitor participation in learning by learners with disability in national polytechnics. In this regard, the use of *class registers* to monitor participation in learning was affirmed by 246 (87.2%) participants, including 69 (85.2%) who reported that learners with disability were ‘consistent’ in utilising physical facilities, 154 (88.0%) who indicated that such learners were ‘inconsistent’ users of the facilities and 23

(88.5%) who were ‘not sure’. Those who identified *class registers* were further requested to indicate views regarding the extent to which such tools were used to monitor participation in learning. The results show that of the 246 participants, 10 (3.9%) rated the use of such tools as ‘excellent’, while 46 (18.8%) thought it was ‘good’. Contrastingly, 59 (24.1%) participants rated the use of *class registers* to monitor participation in learning as ‘very poor’, while about one-third, 78 (31.9%) stated that the use of such tools was ‘poor’.

Cumulative results show that 138 (56.0%) participants reported that the use of class registers to monitor learners with disability was below ‘average’, while 56 (22.7%) reported that the use of such tools was above ‘average’. Based on this, the analysis revealed a significant relationship between perceived extent of *class registers* use to monitor participation in learning and utilisation of physical facilities by learners with disability ($\chi^2 = 14.578$, $df = 8$ & p -value = 0.068).

Table 4.11: Tools used for monitoring participation in learning by learners with disability

| Tools for monitoring participation in learning | Consistent | | Inconsistent | | Not Sure | | Total | |
|--|------------|--------------|--------------|--------------|-----------|--------------|------------|--------------|
| | Freq | % | Freq | % | Freq | % | Freq | % |
| <i>Class registers</i> | | | | | | | | |
| Yes | 69 | 85.2 | 154 | 88.0 | 23 | 88.5 | 246 | 87.2 |
| No | 12 | 14.8 | 21 | 12.0 | 3 | 11.5 | 36 | 12.8 |
| Total | 81 | 100.0 | 175 | 100.0 | 26 | 100.0 | 282 | 100.0 |
| <i>Lesson plans</i> | | | | | | | | |
| Yes | 73 | 90.1 | 159 | 90.9 | 23 | 88.5 | 255 | 90.4 |
| No | 8 | 9.9 | 16 | 9.1 | 3 | 11.5 | 27 | 9.6 |
| Total | 81 | 100.0 | 175 | 100.0 | 26 | 100.0 | 282 | 100.0 |
| <i>Examinations</i> | | | | | | | | |
| Yes | 67 | 82.7 | 151 | 86.3 | 26 | 100.0 | 244 | 86.5 |
| No | 14 | 17.3 | 24 | 13.7 | 0 | 0.0 | 38 | 13.5 |
| Total | 81 | 100.0 | 175 | 100.0 | 26 | 100.0 | 282 | 100.0 |

The results further show that 255 (90.4%) participants affirmed that *lesson plans* were used to monitor participation in learning. This group included 73 (90.1%) participants believing that learners with disability were ‘consistent’ in utilising physical facilities, 159 (90.9%) who

indicated that such learners were 'inconsistent' in utilising the facilities and 23 (88.5%) who were 'not sure'. Those who identified *lesson plans* were asked to indicate the frequency with which such tools were used to monitor participation of learners with disability in learning. The results show that of the 255 participants, 13 (4.6%) stated that the use of *lesson plans* to monitor participation in learning was 'excellent', while 23 (9.2%) felt that the use of such tools was 'good'. However, 98 (38.3%) reported that the use of *lesson plans* was 'very poor', while 69 (27.0%) rated that the use of such tools was 'poor'.

Whereas up to 167 (65.3%) participants rated the use of *lessons plans* as 'below average', 35 (13.8%) indicated that the use of such tools was 'above average'. The analysis revealed a significant relationship between perceived extent to which *lesson plans* were used to monitor participation in learning by learners with disability and utilisation of physical facilities by the same group of learners ($\chi^2 = 22.946$, $df = 8$ & $p\text{-value} = 0.003$).

Furthermore, those who identified *examinations*, as tools used to monitor participation in learning were 244 (86.5%), including 67 (82.7%) participants who indicated that learners with disability were 'consistent' in utilising physical facilities, 151 (86.3%) who stated that such learners were 'inconsistent' users of the facilities and 26 (100.0%) who were 'not sure'. Based on this, the analysis revealed a significant relationship between the use of *examinations* to monitor learning and utilisation of physical facilities by learners with disability ($\chi^2 = 5.066$, $df = 2$ & $p\text{-value} = 0.079$). The use of class registers and examinations to measure learning activities was also reported by Simkiss, Garner, and Dryden (1998), as well as McKenzie (2008). Nevertheless, none of the studies established the statistical relationship between the use of either tool and utilisation of physical facilities by learners with disability, which brings out the difference between them and this study.

4.4.2.3 Monitoring participation in examinations by learners with disability

Monitoring participation in examinations is an important aspect of M&E work plan indicators, which generates information on learning achievement. Consequently, the study captured participants' views regarding availability of tools for monitoring participation of learners with disability in examinations. The results presented in Table 4.12 show that more than two-thirds of participants, 181 (64.2%), indicated that there were no tools that specifically targeted participation of learners with disability in examinations. Among those believing that learners with disability were 'consistent' in utilising physical facilities, 30 (37.0%) participants affirmed the existence of tools for monitoring participation in examinations by learners with disability and so were 61 (34.9%) participants who felt that such learners were 'inconsistent' users of the facilities. However, the analysis revealed no significant relationship between existence of tools for monitoring participation in examinations by learners with disability and utilisation of physical facilities by the same group.

Table 4.12: Availability of tools for monitoring participation in examinations

| Tools for monitoring participation | Consistent | | Inconsistent | | Not sure | | Total | |
|------------------------------------|-------------|--------------|--------------|--------------|-------------|--------------|-------------|--------------|
| | <i>Freq</i> | <i>%</i> | <i>Freq</i> | <i>%</i> | <i>Freq</i> | <i>%</i> | <i>Freq</i> | <i>%</i> |
| <i>Availability</i> | | | | | | | | |
| Yes | 30 | 37.0 | 61 | 34.9 | 10 | 38.5 | 101 | 35.8 |
| No | 51 | 63.0 | 114 | 65.1 | 16 | 61.5 | 181 | 64.2 |
| Total | 81 | 100.0 | 175 | 100.0 | 26 | 100.0 | 282 | 100.0 |
| <i>Type of tools</i> | | | | | | | | |
| Examination cards | 9 | 30.0 | 19 | 31.1 | 6 | 60.0 | 34 | 33.7 |
| Attendance list | 18 | 60.0 | 36 | 59.0 | 8 | 80.0 | 62 | 61.4 |
| Supervision in exam rooms | 6 | 20.0 | 10 | 16.4 | 4 | 40.0 | 20 | 19.8 |
| Fee registration | 1 | 3.3 | 2 | 3.3 | 0 | 0.0 | 3 | 3.0 |
| Total | 34 | 113.3 | 67 | 109.8 | 18 | 180.0 | 119 | 117.9 |
| n | 30 | | 61 | | 10 | | 101 | |

Regarding the types of tools for monitoring participation in examinations by learners with disability, the results in Table 4.12 show that 34 (33.7%) participants cited examination cards, 62

(61.4%) mentioned attendance list, 20 (19.8%) stated supervision rosters, while 3 (3.0%) cited fee registration. Similarly, FGD participants, including able-bodied and learners with disability, also cited examination cards and examination attendance lists as the main tools used for monitoring participation in examinations by all learners, including those with disability. Reportedly, no tools were specifically designed to monitor participation of learners with various forms of disability in examinations. This prevented the institutions from capturing important data that would be used to inform decisions regarding improvement of physical facilities in terms of functionality, number, and consistent utilisation by learners with disability. In their study, Simkiss, Garner, and Dryden (1998) used examination attendance records to monitor participation of learners with disability in examinations. Like this study, Simkiss et al. (1998) also reported that all the institutions surveyed applied the same tool to monitor participation in examination by able-bodied and learners with disability.

4.4.2.4 Structures monitoring participation of learners with disability in learning and examinations

Monitoring the participation of learners with disability in learning and examination activities requires the intervention of specific structures, such as committees, unions, or lobby groups. This study examined the existence of such structures in the national polytechnics and challenges which hampered their operations. The findings show that national polytechnics had established disability-mainstreaming committees, as internal mechanisms for monitoring participation of learners with disability in learning and examinations. The structures also monitored utilisation of physical facilities by such learners and provided advice to relevant administrative units for action to address inherent challenges. In this regard, KII and FGD

participants observed that establishing such committees was an important step towards creating a supportive environment for learners with disability to utilise physical facilities and fully participate in learning activities and examinations.

In addition, Quality Assurance and Standards Officers monitored the participation of learners with disability in class, examinations, and extra-curricular activities. Also captured during the process was information on available physical facilities, gaps, utilisation consistency, and challenges. Participants noted that although such information was shared with various departments in the Ministry of Education, there was limited evidence of utilisation to improve participation of learners with disability in learning, examinations, and extra-curricular activities, the main challenge being limited budgetary allocation. Similarly, financing challenges were cited by Izuka (2010), as the key factor weakening M&E systems in public institutions in many developing countries. Reportedly, financing challenges affected M&E systems in Nigeria by constraining regular monitoring visits to community level public institutions, training of personnel, acquisition of necessary equipment and resource materials, as well flow of M&E information from community to national levels; and *vice versa* (Izuka, 2010). On the same note, Mackay (2007) pointed out that the effectiveness of M&E systems in developing countries was affected by poor ranking of M&E among the list of priorities in government programming, under-funding, and over-reliance on political decisions in the management of public programmes, including education.

4.4.2.5 Frequency of M&E work plan formulation at various levels

The effectiveness of M&E systems in public institutions depends on how often M&E work plans are formulated at various governance levels. The information sourced by this study

revealed the relationship between formulation of M&E work plans at various administrative levels and utilisation of physical facilities by learners with disability. In view of this, participants were requested to indicate the frequency with which M&E work plans were formulated at various administrative levels, including institutional, departmental, sectional, unit and class. The results presented in Table 4.13 show that at the *institutional level*, 20 (7.1%) participants indicated that M&E work plans were formulated ‘always’, while 34 (12.1%) said that such plans were formulated ‘often’. The latter included 14 (17.3%) participants who believed that learners with disability were ‘consistent’ in utilising physical facilities and 20 (11.4%) who thought that such learners were ‘inconsistent’ users of the facilities. However, 62 (22.0%) participants, including, 15 (18.5%) who indicated that learners with disability were ‘consistent’ in utilising physical facilities, 35 (20.0%) who held the view that such learners were ‘inconsistent’ users of the facilities and 12 (46.2%) who were ‘not sure’; reported that such work plans were ‘never’ formulated at the institutional level.

Besides, cumulative results show that about one-half of the participants, 150 (53.2%), reported a low frequency with which M&E work plans were formulated at the *institutional level*, while 54 (19.2%) reported a high frequency regarding the same. On the same note, KII sessions revealed that the Ministry of Education supported national polytechnics in formulating M&E work plans. The support included capacity building through short courses on special needs education, which covered various aspects including utilisation of physical facilities. The Ministry also provided finances, which enabled the institutions to facilitate administrative processes; thus, improve utilisation of physical facilities by learners with disability. The analysis revealed a significant relationship between frequency with which M&E work plans were formulated at the

institutional level and utilisation of physical facilities by learners with disability ($\chi^2 = 22.806$, $df = 8$ & p -value = 0.004).

Table 4.13: M&E Plan’s formulation at various administrative levels

| Frequency of M&E work plans formulation at various levels | Consistent | | Inconsistent | | Not Sure | | Total | |
|---|-------------|--------------|--------------|--------------|-------------|--------------|-------------|--------------|
| | <i>Freq</i> | <i>%</i> | <i>Freq</i> | <i>%</i> | <i>Freq</i> | <i>%</i> | <i>Freq</i> | <i>%</i> |
| <i>Institutional level</i> | | | | | | | | |
| Never | 15 | 18.5 | 35 | 20.0 | 12 | 46.2 | 62 | 22.0 |
| Rarely | 21 | 25.9 | 58 | 33.1 | 9 | 34.6 | 88 | 31.2 |
| Occasionally | 20 | 24.7 | 54 | 30.9 | 4 | 15.4 | 78 | 27.6 |
| Often | 14 | 17.3 | 20 | 11.4 | 0 | 0.0 | 34 | 12.1 |
| Always | 11 | 13.6 | 8 | 4.6 | 1 | 3.8 | 20 | 7.1 |
| Total | 81 | 100.0 | 175 | 100.0 | 26 | 100.0 | 282 | 100.0 |
| <i>Departmental level</i> | | | | | | | | |
| Never | 16 | 19.8 | 37 | 21.1 | 10 | 38.5 | 63 | 22.5 |
| Rarely | 25 | 30.9 | 53 | 30.3 | 7 | 26.9 | 85 | 30.1 |
| Occasionally | 21 | 25.9 | 56 | 32.0 | 8 | 30.8 | 85 | 30.1 |
| Often | 7 | 8.6 | 21 | 12.0 | 0 | 0.0 | 28 | 9.9 |
| Always | 12 | 14.8 | 8 | 4.6 | 1 | 3.8 | 21 | 7.4 |
| Total | 81 | 100.0 | 175 | 100.0 | 26 | 100.0 | 282 | 100.0 |
| <i>Section level</i> | | | | | | | | |
| Never | 16 | 19.8 | 43 | 24.7 | 9 | 34.7 | 68 | 24.1 |
| Rarely | 21 | 25.9 | 51 | 29.1 | 8 | 30.8 | 80 | 28.4 |
| Occasionally | 25 | 30.9 | 55 | 31.4 | 7 | 26.9 | 87 | 30.8 |
| Often | 10 | 12.3 | 16 | 9.1 | 1 | 3.8 | 27 | 9.6 |
| Always | 9 | 11.1 | 10 | 5.7 | 1 | 3.8 | 20 | 7.1 |
| Total | 81 | 100.0 | 175 | 100.0 | 26 | 100.0 | 282 | 100.0 |
| <i>Unit level</i> | | | | | | | | |
| Never | 17 | 21.0 | 48 | 27.4 | 13 | 50.0 | 78 | 27.7 |
| Rarely | 20 | 24.7 | 50 | 28.6 | 4 | 15.4 | 74 | 26.2 |
| Occasionally | 25 | 30.9 | 54 | 30.8 | 5 | 19.2 | 84 | 29.8 |
| Often | 9 | 11.1 | 18 | 10.3 | 2 | 7.7 | 29 | 10.3 |
| Always | 10 | 12.3 | 5 | 2.9 | 2 | 7.7 | 17 | 6.0 |
| Total | 81 | 100.0 | 175 | 100.0 | 26 | 100.0 | 282 | 100.0 |
| <i>Class level</i> | | | | | | | | |
| Never | 16 | 19.7 | 45 | 25.7 | 15 | 57.7 | 76 | 27.0 |
| Rarely | 22 | 27.2 | 43 | 24.6 | 4 | 15.4 | 69 | 24.5 |
| Occasionally | 17 | 21.0 | 45 | 25.7 | 4 | 15.4 | 66 | 23.4 |
| Often | 17 | 21.0 | 29 | 16.6 | 1 | 3.8 | 47 | 16.6 |
| Always | 9 | 11.1 | 13 | 7.4 | 2 | 7.7 | 24 | 8.5 |
| Total | 81 | 100.0 | 175 | 100.0 | 26 | 100.0 | 282 | 100.0 |

The results further show that 21 (7.4%) participants indicated the view that M&E work plans were ‘always’ formulated at *departmental levels*, while 28 (9.9%) indicated that the plans were ‘often’ formulated at the same level. The latter included 7 (8.6%) participants saying that learners with disability were ‘consistent’ in utilising physical facilities and 21 (12.0%) who felt

that such learners were 'inconsistent' users of the facilities. Those who thought that M&E work plans were 'never' formulated at *departmental levels* were 63 (22.5%) and they included 16 (19.8%) participants who believed that learners with disability were 'consistent' in utilising physical facilities, 37 (21.1%) who indicated that such learners were 'inconsistent' in utilising the facilities and 10 (38.5%) who were 'not sure'. Through KII sessions, the study found that M&E work plans were available at *departmental levels*; and that departmental heads were responsible for the formulation and implementation of such plans.

Cumulative results further show that whereas up to 148 (52.6%) participants reported a low frequency with which M&E work plans were formulated at *departmental levels*, 49 (17.3%) indicated a high frequency with which such plans were formulated at the same level. Based on this, the analysis obtained a significant relationship between frequency with which M&E work plans were formulated at *departmental levels* and utilisation of physical facilities by learners with disability ($\chi^2 = 16.549$, $df = 8$ & $p\text{-value} = 0.085$).

More still, the results show that 20 (7.1%) participants indicated the view that M&E work plans were 'always' formulated at *sectional levels*; while 27 (9.6%) stated that such plans were 'often' formulated at the same levels. The latter included 10 (12.3%) participants saying that learners with disability were 'consistent' in utilising physical facilities, 16 (9.1%) who felt that such learners were 'inconsistent' users of the facilities and 1 (3.8%) who was 'not sure'. Those who held the view that M&E work plans were 'never' formulated at *sectional levels* were 68 (24.1%) and they included 16 (19.8%) participants who indicated that learners with disability were 'consistent' in utilising physical facilities, 43 (24.7%) who thought that such learners were 'inconsistent' in utilising the facilities and 9 (34.7%) who were 'not sure'.

The results show that whereas about one-half of participants, 148 (52.5%), reported a low frequency with M&E work plans were formulated at *sectional levels*, 47 (16.7%) indicated a high frequency regarding the same. The results suggest that either about one-half of the participants had no information about formulation of M&E work plans at *sectional levels* or that such plans were not formulated in most sections. However, the analysis revealed lack of a significant relationship between the frequency with which M&E work plans were formulated at *sectional levels* and utilisation of physical facilities by learners with disability.

Table 4.13 also shows that 17 (6.0%) participants hinted that M&E work plans were ‘always’ formulated at *unit levels*. This group included 10 (12.3%) participants reporting that learners with disability were ‘consistent’ in utilising physical facilities, 5 (2.9%) who felt that such learners were ‘inconsistent’ users of the facilities and 2 (7.7%) who were not aware. Besides, 29 (10.3%) participants felt that M&E work plans were ‘often’ formulated at *unit levels*. Contrastingly, 78 (27.7%) participants, including 17 (21.0%) who thought that learners with disability were ‘consistent’ in utilising physical facilities, 48 (27.4%) who stated that such learners were ‘inconsistent’ in utilising the facilities and 13 (50.0%) who were ‘not sure’; said that M&E work plans were ‘never’ formulated at *unit levels*.

Cumulatively, about one-half of the participants, 152 (53.9%), indicated a low frequency with which M&E work plans were formulated at *unit levels*, while 46 (16.3%) reported a high frequency regarding the same. The analysis obtained a significant relationship between perceived frequency with which M&E work plans were formulated at *unit levels* and utilisation of physical facilities by learners with disability ($\chi^2 = 17.299$, $df = 8$ & $p\text{-value} = 0.027$).

Regarding *class levels*, 24 (8.5%) participants hinted that M&E work plans were ‘always’ formulated at that level, while 47 (16.6%) indicated that such plans were ‘often’ formulated at

the same level. Table 4.13 shows that the latter included 17 (21.0%) participants who felt that learners with disability were 'consistent' in utilising physical facilities, 29 (16.6%) who believed that such learners were 'inconsistent' users of the facilities and 1 (3.8%) who was 'not sure'. However, 76 (27.0%) participants indicated that M&E work plans were 'never' formulated at *class levels*. This included 16 (19.7%) participants who felt that learners with disability utilised physical facilities 'consistently', 45 (25.7%) who were of the view that such learners used the facilities 'inconsistently' and 15 (57.7%) who were 'not sure'.

The analysis further reveals that 145 (51.5%) participants reported a low frequency with which M&E work plans were formulated at *class levels*, compared to 71 (25.1%) who reported a high frequency regarding the same. Based on this, a significant relationship between frequency with which M&E work plans were formulated at *class levels* and utilisation of physical facilities by learners with disability was obtained ($\chi^2 = 17.584$, $df = 8$ & $p\text{-value} = 0.025$).

The study found that the frequency with which M&E work plans were formulated at various administrative levels is one of the key factors likely to influence utilisation of physical facilities by learners with disability. More specifically, utilisation of the facilities significantly associated with the frequency with which M&E work plans were formulated at the *institutional level* ($\chi^2 = 22.806$, $df = 8$ & $p\text{-value} = 0.004$); *departmental levels* ($\chi^2 = 16.549$, $df = 8$ & $p\text{-value} = 0.085$); *unit levels* ($\chi^2 = 17.299$, $df = 8$ & $p\text{-value} = 0.027$); and *class levels* ($\chi^2 = 17.584$, $df = 8$ & $p\text{-value} = 0.025$).

These findings amplify two important aspects: consistency in the formulation of M&E work plans and decentralisation of M&E work plan formulation to various administrative hierarchies in order to guide monitoring of learners with disability, *vis-à-vis* utilisation of physical facilities. In view of this, central administrative units should encourage lower level units

to formulate own M&E work plans, which should correlate with core tenets of institutional work plans, as well as link services provided at such levels to institutional policies on disability, with a particular focus on utilisation of physical facilities. The frequency and level at which M&E work plans are developed as well as re-evaluated in response to contextual dynamics, were also examined by Simister (2009). The study reported that lack guidelines and mechanisms outlining how often and at what administrative levels M&E work plans should be developed, was a key weakness of M&E systems in complex organisations. The study noted that in some organisation, formation of annual work plans had been integrated as a regular and systematic procedure. The M&E systems in such organisations had generated comprehensive, consistent, valid and accessible programme information (Simister, 2009). However, the point of departure between Simister (2009) and this study is that the former did not focus on public academic institutions; neither did it correlate development of M&E work plans at various levels and utilisation of physical facilities by targeted beneficiaries.

4.4.2.6 Participation in the M&E of various disability forms

Effective M&E systems in academic institutions ensure that all forms of disability are not only provided for in terms of budgetary resources and physical facilities, but also attended to by workers. In this study, participants' were asked to indicate how often they participated in the M&E of various disability forms, including physical (upper and lower limbs), visual and hearing. The results in Table 4.14 show that only 5 (1.8%) participants 'always' participated in the M&E activities of *physical disability*; while 24 (8.5%) did so 'often'. The latter included 12 (14.8%) participants saying that learners with disability were 'consistent' in utilising physical facilities and another 12 (6.8%) who indicated that learners with disability utilised physical facilities

‘inconsistently’. Those who ‘never’ participated in M&E activities targeting *physical disability* were 101 (35.8%) and they included 24 (29.6%) participants who thought that learners with disability were ‘consistent’ in utilising physical facilities, 61 (34.9%) who felt that such learners were ‘inconsistent’ users of the facilities and 16 (61.5%) who were ‘not sure’.

Cumulative results show that more than two-thirds of participants, 185 (65.6%), reported a low frequency of participation in M&E activities of *physical disability*, while 29 (10.3%) reported a high frequency about the same. Consequently, the analysis revealed a significant relationship between participation in M&E activities of *physical disability* by teaching staff and utilisation of physical facilities by learners with disability ($\chi^2 = 21.944$, $df = 8$ & ρ -value = 0.005).

Table 4.14: Frequency of participation in M&E activities for various forms of disability

| Forms of disability | Consistent | | Inconsistent | | Not Sure | | Total | |
|----------------------------|------------|--------------|--------------|--------------|-----------|--------------|------------|--------------|
| | Freq | % | Freq | % | Freq | % | Freq | % |
| <i>Physical disability</i> | | | | | | | | |
| Never | 24 | 29.6 | 61 | 34.9 | 16 | 61.5 | 101 | 35.8 |
| Rarely | 18 | 22.2 | 57 | 32.6 | 9 | 34.7 | 84 | 29.8 |
| Sometimes | 26 | 32.2 | 41 | 23.4 | 1 | 3.8 | 68 | 24.1 |
| Often | 12 | 14.8 | 12 | 6.8 | 0 | 0.0 | 24 | 8.5 |
| Always | 1 | 1.2 | 4 | 2.3 | 0 | 0.0 | 5 | 1.8 |
| Total | 81 | 100.0 | 175 | 100.0 | 26 | 100.0 | 282 | 100.0 |
| <i>Visual disability</i> | | | | | | | | |
| Never | 29 | 35.8 | 76 | 43.4 | 24 | 92.3 | 129 | 45.7 |
| Rarely | 16 | 19.8 | 51 | 29.1 | 2 | 7.7 | 69 | 24.5 |
| Sometimes | 25 | 30.9 | 33 | 18.9 | 0 | 0.0 | 58 | 20.6 |
| Often | 8 | 9.8 | 10 | 5.7 | 0 | 0.0 | 18 | 6.4 |
| Always | 3 | 3.7 | 5 | 2.9 | 0 | 0.0 | 8 | 2.8 |
| Total | 81 | 100.0 | 175 | 100.0 | 26 | 100.0 | 282 | 100.0 |
| <i>Hearing disability</i> | | | | | | | | |
| Never | 26 | 32.1 | 83 | 47.4 | 23 | 88.5 | 132 | 46.9 |
| Rarely | 18 | 22.3 | 43 | 24.6 | 2 | 7.7 | 63 | 22.3 |
| Sometimes | 27 | 33.3 | 34 | 19.4 | 1 | 3.8 | 62 | 22.0 |
| Often | 7 | 8.6 | 12 | 6.9 | 0 | 0.0 | 19 | 6.7 |
| Always | 3 | 3.7 | 3 | 1.7 | 0 | 0.0 | 6 | 2.1 |
| Total | 81 | 100.0 | 175 | 100.0 | 26 | 100.0 | 282 | 100.0 |

Table 4.14 further shows that 8 (2.8%) participants ‘always’ participated in the M&E activities targeting *visual disability*, while 18 (6.4) participants, including 8 (9.8%) who believed

that learners with disability utilised physical facilities ‘consistently’ and 10 (5.7%) who felt that such learners utilised the facilities ‘inconsistently’, participated in such activities ‘often’. However, up to 129 (45.7%) participants ‘never’ participated in the M&E activities of *visual disability*. This group included 29 (35.8%) participants who felt that learners with disability were ‘consistent’ in utilising physical facilities, 76 (43.4%) who believed that such learners utilised the facilities ‘inconsistently’ and 24 (92.3%) who were ‘not sure’. The results show that whereas most participants, 198 (70.2%), reported a low frequency of participation in M&E activities targeting visual disability, 26 (9.2%) reported a high frequency of participation in the same. The analysis revealed a significant relationship between participation in M&E activities of *visual disability* by teaching staff and utilisation of physical facilities by learners with disability ($\chi^2 = 33.623$, $df = 8$ & p -value = 0.000).

The results further show that 6 (2.1%) participants ‘always’ participated in M&E activities targeting *hearing disability*, while 19 (6.7%) did so ‘often’. The latter included 7 (8.6%) participants saying that learners with disability utilised physical facilities ‘consistently’ and 12 (6.9%) who indicated that such learners were ‘inconsistent’ users of the facilities. Those who ‘never’ participated in M&E activities targeting *hearing disability* were 132 (46.9%) and they included 26 (32.1%) participants who reported that learners with disability were ‘consistent’ in utilising physical facilities, 83 (47.4%) who felt that such learners were ‘inconsistent’ users of the facilities and 23 (88.5%) who were ‘not sure’. Furthermore, cumulative results show that up to 195 (69.2%) participants reported a low frequency of participation in M&E activities related to *hearing disability*, while 25 (8.8%) reported a high frequency of participation in the same activities. Based on this, the analysis revealed a significant relationship between participation in

M&E activities of *hearing disability* by teaching staff and utilisation of physical facilities by learners with disability ($\chi^2 = 29.270$, $df = 8$ & ρ -value = 0.000).

The study found that participation in M&E activities of various forms of disability is one of the factors likely to influence utilisation of physical facilities by learners with disability. More specifically, utilisation of physical facilities by such learners significantly associated with teachers' participation in M&E activities of *physical disability* ($\chi^2 = 21.944$, $df = 8$ & ρ -value = 0.005); *visual disability* ($\chi^2 = 33.623$, $df = 8$ & ρ -value = 0.000) and *hearing disability* ($\chi^2 = 29.270$, $df = 8$ & ρ -value = 0.000).

The findings demonstrate the importance of involving teaching staff in the M&E activities of all forms of disability. Notably though, the institutions had established disability-mainstreaming committees, which provided a valuable platform for teaching staff to plan, implement, monitor, and evaluate M&E activities of all forms of disability. Although the initiative was faulted for lacking a budget, it occupies a central position in encouraging participation of teaching staff in M&E activities of disability, particularly, through capacity building, sensitisation, as well as consultative decision-making processes. In view of this, national polytechnics should prioritise funding for disability-mainstreaming committees to enable them fulfil their mandates.

The study conducted by Simister (2009) reported that workers' participation in M&E of programme activities was not only important for deepening knowledge and improving skills but also for ensuring that programme objectives are addressed effectively. Although the study did not directly focus on disability programmes in educational institutions, it provides an important basis for understanding the need for staff members to participate in the M&E of various forms of

disability in the national polytechnics. It also provides useful literature upon which the findings in this sub-section can be contextualised.

4.4.2.7 Testing null hypothesis two (H₀₂)

Monitoring and evaluation work plan indicators was operationalised in terms of three variables, which are presented in Table 4.15. The results show a significant and positive correlation between utilisation of physical facilities by learners with disability and all the three indicators, including frequency of measuring learning aspects ($r_s = 0.487$ & ρ -value = 0.012), frequency of M&E work plan formulation ($r_s = 0.320$ & ρ -value = 0.045), and frequency of participation in the M&E of various disability forms ($r_s = 0.618$ & ρ -value = 0.000). Using SPSS tools of analysis, the three indicators were aggregated to obtain new values for the independent variable - M&E work plan indicators. The results in Table 4.15 further show up to 99% chance that utilisation of physical facilities by learners with disability significantly and positively correlated with M&E work plan indicators ($r_s = 0.552$ & ρ -value = 0.000), which was moderate in terms of strength. The results prompted rejection of the second null hypothesis (H₀₂), which stated that *there is no significant correlation between M&E work plan indicators and utilisation of physical facilities by learners with disability*. The hypothesis was rejected for being inconsistent with empirical data.

Table 4.15: Summary of correlation analysis for M&E work plan indicators

| Correlations | | | | |
|---------------------|--|-------------------------|------------------------------------|--|
| | | | Utilisation of physical facilities | Measuring aspects of learning |
| Spearman's rho | Utilisation of physical facilities | Correlation Coefficient | 1.000 | 0.487 |
| | | Sig. (2-tailed) | . | 0.012** |
| | | N | 282 | 282 |
| | Measuring aspects of learning | Correlation Coefficient | 0.487 | 1.000 |
| | | Sig. (2-tailed) | 0.012** | . |
| | | N | 282 | 282 |
| | | | Utilisation of physical facilities | Frequency of M&E work plan formulation |
| Spearman's rho | Utilisation of physical facilities | Correlation Coefficient | 1.000 | 0.320 |
| | | Sig. (2-tailed) | . | 0.045** |
| | | N | 282 | 282 |
| | Frequency of M&E work plan formulation | Correlation Coefficient | 0.320 | 1.000 |
| | | Sig. (2-tailed) | 0.045** | . |
| | | N | 282 | 282 |
| | | | Utilisation of physical facilities | Frequency of participation in M&E of various forms of disability |
| Spearman's rho | Utilisation of physical facilities | Correlation Coefficient | 1.000 | 0.618 |
| | | Sig. (2-tailed) | . | 0.000*** |
| | | N | 282 | 282 |
| | Frequency of participation in M&E of various forms of disability | Correlation Coefficient | 0.618 | 1.000 |
| | | Sig. (2-tailed) | 0.000*** | . |
| | | N | 282 | 282 |
| | | | Utilisation of physical facilities | M&E work plan indicators |
| Spearman's rho | Utilisation of physical facilities | Correlation Coefficient | 1.000 | 0.552 |
| | | Sig. (2-tailed) | . | 0.000*** |
| | | N | 282 | 282 |
| | M&E work plan indicators | Correlation Coefficient | 0.552 | 1.000 |
| | | Sig. (2-tailed) | 0.000*** | . |
| | | N | 282 | 282 |

*, **, *** show significance at $\rho < 0.1$, $\rho < 0.05$ and $\rho < 0.01$ error margins, respectively

The findings suggest that participation in M&E activities of various disability forms by teaching staff is one of the factors likely to influence utilisation of physical facilities by learners with disability; and so is the frequency with which various learning activities are measured as well as frequency of M&E work plan formulation. In view of this, programmes aimed at improving utilisation of physical facilities by learners with disability should encourage

participation of teaching staff in M&E activities of various disability forms, frequent measuring of learning aspects, as well as consistent formulation of M&E work plans at various administrative hierarchies to improve support and services provided to learners with disability.

The influence of M&E work plan indicators on the effectiveness of M&E systems is a subject that has been tackled by many researchers and policy analysis. For instance, Bakewell, Adams and Pratt (2004) noted that development of M&E work plans is an essential component of M&E systems. More still, Simister (2009) asserts that M&E work plans enable programme managers to conduct their activities within a predetermined framework; thus, avoid the possibility of overlaps or gaps. Without M&E work plan indicators, organisations cannot measure achievements of their objectives. Mackay (2007) observed that organisations require specific, measurable, attainable, realistic and time-bound (SMART) work plan indicators to establish effective M&E systems, which will enable them achieve programme objectives. Notably though, none of the previous studies ever determined the statistical relationship between M&E work plan indicators and utilisation of physical facilities by learners in academic institutions.

4.4.3 Programme monitoring & Utilisation of Physical Facilities by Learners with Disability

Monitoring process generates information that enables programme managers, partners, and beneficiaries to identify gains towards programme objectives, as well as make necessary adjustments in the implementation process to facilitate achievement of such objectives (Hardlife & Zhou, 2013; UNDP, 2009). Within the context of this study, programme monitoring process is indispensable for the integration of learners with disability in national polytechnics, particularly by facilitating mobility as well as participation in learning and extra-curricular activities. In view

of this, the study captured information on various aspects of programme monitoring process and its relationship to utilisation of physical facilities by learners with disability.

4.4.3.1 Capturing aspects of disability in institutional timetables

Capturing various aspects of disability in institutional timetables is crucial for enhancing the effectiveness of programme monitoring and creating strong M&E systems in academic institutions. In view of this, the study sourced data on participants' views regarding the frequency with which selected aspects of disability were captured by institutional timetables. As indicated in Table 4.16, the first aspect of disability examined by this study was the *use of assistive devices*. The results show that 5 (1.8%) participants felt that the use of such devices was 'always' captured by institutional timetables, while 19 (6.8%) indicated that the aspect was 'often' captured by the timetables. The latter included 11 (13.6%) participants who indicated that learners with disability utilised physical facilities 'consistently' and 8 (4.6%) who believed that such learners utilised the facilities 'inconsistently'. However, up to 119 (42.3%) participants stated that the *use of assistive devices* was 'never' captured by institutional timetables, while 79 (28.1%) felt that the aspect was 'rarely' captured by the timetables. In addition, cumulative results show that most participants, 198 (70.4%), reported a low frequency with which the *use of assistive devices* was captured in institutional timetables, while only 24 (8.6%) reported a high frequency regarding the same aspect. Based on this, the analysis revealed a significant relationship between the frequency with which the *use of assistive devices* was captured by institutional timetables and utilisation of physical facilities by learners with disability ($\chi^2 = 35.734$, $df = 8$ & p -value = 0.000).

Those who thought that *specialist visits* were ‘always’ captured by institutional timetables were only 3 (1.1%), while those who hinted that the aspect was ‘often’ captured by the timetables were 11 (3.9%). They included 6 (7.4%) participants believing that learners with disability were ‘consistent’ in utilising physical facilities and 5 (2.9%) who hinted that such learners were ‘inconsistent’ in utilising the facilities. Contrastingly, 99 (35.2%) participants said that the aspect was ‘never’ captured by institutional timetables, while 100 (35.6%) stated that the aspect was ‘rarely’ covered. Cumulatively, 199 (70.8%) participants reported a low frequency with which *specialist visits* was captured by institutional timetables, while 14 (5.0%) reported a high frequency regarding the same. The analysis revealed a significant relationship between the frequency with which *specialist visits* were captured by institutional timetables and utilisation of physical facilities by learners with disability ($\chi^2 = 17.581$, $df = 8$ & $p\text{-value} = 0.025$).

Table 4.16: Disability issues captured by institutional timetables

| Frequency of capturing disability issues in timetables | Consistent | | Inconsistent | | Not Sure | | Total | |
|--|------------|--------------|--------------|--------------|-----------|--------------|------------|--------------|
| | Freq | % | Freq | % | Freq | % | Freq | % |
| <i>Use of assistive devices</i> | | | | | | | | |
| Never | 27 | 33.3 | 69 | 39.7 | 23 | 88.5 | 119 | 42.3 |
| Rarely | 20 | 24.7 | 57 | 32.8 | 2 | 7.7 | 79 | 28.1 |
| Sometimes | 20 | 24.7 | 38 | 21.8 | 1 | 3.8 | 59 | 21.0 |
| Often | 11 | 13.6 | 8 | 4.6 | 0 | 0.0 | 19 | 6.8 |
| Always | 3 | 3.7 | 2 | 1.1 | 0 | 0.0 | 5 | 1.8 |
| Total | 81 | 100.0 | 174 | 100.0 | 26 | 100.0 | 281 | 100.0 |
| <i>Specialist visits</i> | | | | | | | | |
| Never | 27 | 33.3 | 57 | 32.8 | 15 | 57.7 | 99 | 35.2 |
| Rarely | 23 | 28.5 | 66 | 37.9 | 11 | 42.3 | 100 | 35.6 |
| Sometimes | 24 | 29.6 | 44 | 25.3 | 0 | 0.0 | 68 | 24.2 |
| Often | 6 | 7.4 | 5 | 2.9 | 0 | 0.0 | 11 | 3.9 |
| Always | 1 | 1.2 | 2 | 1.1 | 0 | 0.0 | 3 | 1.1 |
| Total | 81 | 100.0 | 174 | 100.0 | 26 | 100.0 | 281 | 100.0 |
| <i>Provision of right resources for learning</i> | | | | | | | | |
| Never | 24 | 29.6 | 55 | 31.4 | 15 | 57.7 | 94 | 33.3 |
| Rarely | 17 | 21.0 | 50 | 28.6 | 9 | 34.6 | 76 | 27.0 |
| Sometimes | 23 | 28.4 | 59 | 33.7 | 2 | 7.7 | 84 | 29.8 |
| Often | 10 | 12.4 | 7 | 4.0 | 0 | 0.0 | 17 | 6.0 |
| Always | 7 | 8.6 | 4 | 2.3 | 0 | 0.0 | 11 | 3.9 |
| Total | 81 | 100.0 | 175 | 100.0 | 26 | 100.0 | 282 | 100.0 |
| <i>Provision of technological devices</i> | | | | | | | | |
| Never | 26 | 32.2 | 66 | 37.7 | 14 | 53.9 | 106 | 37.6 |
| Rarely | 21 | 25.9 | 49 | 28.0 | 11 | 42.3 | 81 | 28.7 |
| Sometimes | 21 | 25.9 | 49 | 28.0 | 1 | 3.8 | 71 | 25.2 |
| Often | 9 | 11.1 | 7 | 4.0 | 0 | 0.0 | 16 | 5.7 |
| Always | 4 | 4.9 | 4 | 2.3 | 0 | 0.0 | 8 | 2.8 |
| Total | 81 | 100.0 | 175 | 100.0 | 26 | 100.0 | 282 | 100.0 |
| <i>Flexible lessons</i> | | | | | | | | |
| Never | 26 | 32.1 | 57 | 32.6 | 18 | 69.2 | 101 | 35.8 |
| Rarely | 17 | 21.0 | 45 | 25.7 | 5 | 19.3 | 67 | 23.8 |
| Sometimes | 23 | 28.4 | 50 | 28.6 | 3 | 11.5 | 76 | 27.0 |
| Often | 10 | 12.3 | 15 | 8.5 | 0 | 0.0 | 25 | 8.9 |
| Always | 5 | 6.2 | 8 | 4.6 | 0 | 0.0 | 13 | 4.5 |
| Total | 81 | 100.0 | 175 | 100.0 | 26 | 100.0 | 282 | 100.0 |

The results in Table 4.16 further show that 11 (3.9%) participants stated that *provision of right resources for learning* was ‘always’ captured by institutional timetables. This group included 7 (8.6%) participants who believed that learners with disability were ‘consistent’ in utilising physical facilities and 4 (2.3%) who indicated that such learners were ‘inconsistent’ in utilising the facilities. Besides, 17 (6.0%) participants felt that the aspect was ‘often’ captured by institutional timetables. Those who indicated that the aspect was ‘never’ captured by the timetables were 94 (33.3%), while those who felt that the aspect was ‘rarely’ captured by the

timetables were 76 (27.0%). Cumulatively, about two-thirds of the participants, 170 (60.3%), reported a low frequency with which *provision of right resources for learning* was captured by institutional timetables, while 28 (9.9%) reported a high frequency regarding the aspect. The analysis obtained a significant relationship between frequency with which *provision of right resources for learning* was captured by institutional timetables and utilisation of physical facilities by learners with disability ($\chi^2 = 27.154$, $df = 8$ & p -value = 0.001).

More still, 8 (2.8%) participants stated that *provision of technological devices* was 'always' captured by institutional timetables, while 16 (5.7%) felt that the aspect was 'often' captured by the timetables. The latter included 9 (11.1%) participants stating that learners with disability were 'consistent' in utilising physical facilities and 7 (4.0%) who stated that such learners were 'inconsistent' users of the facilities. However, those who felt that *provision of technological devices* was 'never' captured by institutional timetables were 106 (37.6%), while those who hinted that the aspect was 'rarely' captured were 81 (28.7%). More still, cumulative results show that the proportion, which reported a low frequency with which the aspect was captured in institutional timetables, 187 (66.3%), was higher than that which reported a high frequency regarding the aspect, 24 (8.5%). The analysis showed that frequency with which *provision of technological devices* was captured by institutional timetables significantly associated with utilisation of physical facilities by learners with disability ($\chi^2 = 18.418$, $df = 8$ & p -value = 0.016).

The results further show that 13 (4.5%) participants said that *flexible lessons* was 'always' a key feature of institutional timetables, while 25 (8.9%) indicated that the aspect was 'often' captured by the timetables. The latter included 10 (12.3%) participants believing that learners with disability were 'consistent' in utilising physical facilities and 15 (8.5%) who said

that such learners were ‘inconsistent’ users of the facilities. Contrastingly, 101 (35.8%) participants stated that *flexible lessons* was ‘never’ captured by institutional timetables, while 67 (23.8%) indicated that the aspects ‘rarely’ featured in the timetables. Besides, cumulative results show that up to 168 (59.6%) participants reported a low frequency with which *flexible lessons* were captured by institutional timetables, while 38 (13.4%) reported a high frequency with which the aspect featured in the timetables. Based on this, the analysis obtained a significant relationship between frequency with which *flexible lessons* were captured by institutional timetables and utilisation of physical facilities by learners with disability ($\chi^2 = 17.282$, $df = 8$ & p -value = 0.027).

The study found that inclusion of M&E aspects in institutional timetables was likely to influence utilisation of physical facilities by learners with disability. In this regard, the analysis revealed that utilisation of such facilities significantly associated with how often the following aspects were captured by institutional timetables: *use of assistive devices* ($\chi^2 = 35.734$, $df = 8$ & p -value = 0.000); *specialist visits* ($\chi^2 = 17.581$, $df = 8$ & p -value = 0.025); and *provision of right resources for learning* ($\chi^2 = 27.154$, $df = 8$ & p -value = 0.001). Utilisation of physical facilities by learners with disability also related significantly with how often the *provision of technological devices* ($\chi^2 = 18.418$, $df = 8$ & p -value = 0.016), and *flexible lessons* ($\chi^2 = 17.282$, $df = 8$ & p -value = 0.027) were captured by institutional timetables. These findings bring out the importance of capturing various M&E aspects in institutional timetables, which ensures that provision of necessary support and services to learners with disability become a routine activity. In view of this, incorporating such aspects in institutional timetables is crucial for successful integration of learners with disability in national polytechnics, which includes promoting consistent utilisation of physical facilities by the same group.

Previous studies underscore the importance of integrating programme monitoring in routine activities of an organisation. For instance, Mackay (2007) reported that integration of programme monitoring in departmental work plans enabled M&E systems to produce valid and timely data continuously, which aided day-to-day decision-making processes. Similarly, a study commissioned by IFRC (2007) reported that integration of programme monitoring in organisational calendar of activities facilitated early learning and adjustment of programme activities. However, none of the previous studies focused on inclusion of disability aspects in the timetables of academic institutions; and how such initiative influenced utilisation of physical facilities by learners with disability.

4.4.3.2 Extent to which institutional duty roster considers aspects of disability

The inclusion of disability aspects in institutional duty rosters ensures that all staff members are given opportunity to participate in M&E activities of disability programmes. This study sought to establish the extent to which duty rosters in national polytechnics captured various aspects of disability. The results presented in Table 4.17 show that 7 (2.5%) participants were of the view that *data on reporting time by learners with disability* were ‘always’ captured by institutional duty rosters, while 16 (5.7%) felt that such data were ‘often’ captured by duty rosters. The latter included 8 (9.9%) participants reporting that learners with disability were ‘consistent’ in utilising physical facilities and another 8 (4.6%) who felt that such learners were ‘inconsistent’ users of the facilities. However, 102 (36.2%) participants stated that *data on reporting time by learners with disability* were ‘never’ captured by institutional duty rosters, while 92 (32.6%) indicated that the aspect ‘rarely’ featured in such duty rosters. Moreover, cumulative results show that most participants, 194 (68.8%), reported a low frequency with

which the aspect was captured by duty rosters, while 23 (8.2%) reported a high frequency for the same. The analysis revealed that the frequency with which *data on reporting time by learners with disability* was captured by institutional duty rosters significantly associated with utilisation of physical facilities by learners with disability ($\chi^2 = 33.757$, $df = 8$ & p -value = 0.000).

Table 4.17: Frequency with which duty roster captures disability data

| Frequency with which duty roster captures disability data | Consistent | | Inconsistent | | Not Sure | | Total | |
|---|------------|--------------|--------------|--------------|-----------|--------------|------------|--------------|
| | Freq | % | Freq | % | Freq | % | Freq | % |
| <i>Data on reporting time by learners with disability</i> | | | | | | | | |
| Never | 27 | 33.3 | 53 | 30.3 | 22 | 84.6 | 102 | 36.2 |
| Rarely | 26 | 32.1 | 62 | 35.4 | 4 | 15.4 | 92 | 32.6 |
| Sometimes | 18 | 22.2 | 47 | 26.9 | 0 | 0.0 | 65 | 23.0 |
| Often | 8 | 9.9 | 8 | 4.6 | 0 | 0.0 | 16 | 5.7 |
| Always | 2 | 2.5 | 5 | 2.8 | 0 | 0.0 | 7 | 2.5 |
| Total | 81 | 100.0 | 175 | 100.0 | 26 | 100.0 | 282 | 100.0 |
| <i>Data on responsibilities of learners with disability</i> | | | | | | | | |
| Never | 24 | 29.6 | 46 | 26.3 | 15 | 57.7 | 85 | 30.1 |
| Rarely | 30 | 37.1 | 61 | 34.9 | 9 | 34.6 | 100 | 35.5 |
| Sometimes | 15 | 18.5 | 50 | 28.5 | 2 | 7.7 | 67 | 23.8 |
| Often | 9 | 11.1 | 11 | 6.3 | 0 | 0.0 | 20 | 7.1 |
| Always | 3 | 3.7 | 7 | 4.0 | 0 | 0.0 | 10 | 3.5 |
| Total | 81 | 100.0 | 175 | 100.0 | 26 | 100.0 | 282 | 100.0 |
| <i>Data on specific duties for learners with disability</i> | | | | | | | | |
| Never | 26 | 32.1 | 49 | 28.0 | 15 | 57.7 | 90 | 31.9 |
| Rarely | 26 | 32.1 | 55 | 31.4 | 9 | 34.6 | 90 | 31.9 |
| Sometimes | 15 | 18.6 | 53 | 30.3 | 2 | 7.7 | 70 | 24.8 |
| Often | 10 | 12.3 | 13 | 7.4 | 0 | 0.0 | 23 | 8.2 |
| Always | 4 | 4.9 | 5 | 2.9 | 0 | 0.0 | 9 | 3.2 |
| Total | 81 | 100.0 | 175 | 100.0 | 26 | 100.0 | 282 | 100.0 |

Those who stated that *data on responsibilities of learners with disability* were ‘always’ captured by duty rosters were 10 (3.5%), while those who thought that such data were ‘often’ captured were 20 (7.1%). The latter included 9 (11.1%) participants who felt that learners with disability were ‘consistent’ in utilising physical facilities and 11 (6.3%) who said that such learners were ‘inconsistent’ in utilising the facilities. Contrastingly, 85 (30.1%) participants hinted that data on the aspect were ‘never’ captured by duty rosters, while 100 (35.5%) felt that the aspect was ‘rarely’ captured. Cumulatively, Table 4.17 shows that up to 185 (65.6%) participants reported a low frequency with which data on *responsibilities of learners with*

disability were captured by duty rosters, while only 30 (10.6%) reported a high frequency with which the aspect was captured. Based on this, the analysis found that the frequency with which *data on responsibilities of learners with disability* were captured by duty rosters significantly associated with utilisation of physical facilities by the same group ($\chi^2 = 17.843$, $df = 8$ & ρ -value = 0.022).

Regarding *data on specific duties for learners with disability*, the results show that 9 (3.2%) participants indicated that such were ‘always’ captured by duty rosters, while 23 (8.2%) stated that such data were ‘often’ captured by duty rosters. This consisted of 10 (12.3%) participants who believed that learners with disability were ‘consistent’ in utilising physical facilities and 13 (7.4%) who thought that such learners were ‘inconsistent’ users of the facilities. Those who stated that *data on specific duties for learners with disability* were ‘never’ captured by institutional duty rosters were 90 (31.9%), and they included 26 (32.1%) participants who indicated that learners with disability were ‘consistent’ in utilising physical facilities, 49 (28.0%) who felt that such learners were ‘inconsistent’ in utilising the facilities and 15 (57.7%) who were ‘not sure’.

More still, whereas up to 180 (63.8%) participants reported a low frequency with which *data on specific duties for learners with disability* were captured by duty rosters, only 32 (11.4%) reported a high frequency regarding the same aspect. The analysis revealed a significant relationship between the frequency with which *data on specific duties for learners with disability* were captured by duty rosters and utilisation of physical facilities by the same group ($\chi^2 = 18.445$, $df = 8$ & ρ -value = 0.018).

The findings show that utilisation of physical facilities by learners with disability is a function of how often various aspects of disability are captured by institutional duty rosters.

More specifically, the study revealed a significant relationship between utilisation of physical facilities by learners with disability and how often the following aspects featured in institutional duty rosters: *data on reporting time by learners with disability* ($\chi^2 = 33.757$, $df = 8$ & p -value = 0.000); and *data on responsibilities of learners with disability* ($\chi^2 = 17.843$, $df = 8$ & p -value = 0.022). The other significant factor was *data on specific duties for learners with disability* ($\chi^2 = 18.445$, $df = 8$ & p -value = 0.018). These findings amplify the importance of incorporating aspects of disability in institutional duty rosters, which in turn, makes them part of obligations carried out by teaching staff on a daily basis. The initiative ensures consistency of support and services provided by teaching staff to learners with disability, which is likely to improve utilisation of physical facilities by the same group.

Previous studies such as Hardlife and Zhou (2013) as well as ADRA (2007), affirm that participation of staff members in programme monitoring is crucial for the establishment of effective M&E systems. Notably though, none of the studies dwelt on the inclusion of disability aspects in institutional duty rosters; and how such influences utilisation of physical facilities by learners with disability.

4.4.3.3 Dissemination of information through institutional assemblies

Institutional assemblies provide important platforms for disseminating information on disability and promoting utilisation of physical facilities. The frequency with which such information is disseminated through institutional assemblies is an important indicator of programme monitoring effectiveness. The study captured participants' views regarding how often information on various aspects of disability was disseminated through institutional assemblies. In this regard, the results presented in Table 4.18 show that out of 282 participants,

13 (4.6%) said that information on *learning resources for learners with disability* was ‘always’ disseminated through institutional assemblies, while 26 (9.2%) opined that such information was ‘often’ disseminated through the assemblies. The latter included 13 (16.0%) participants who believed that learner with disability were ‘consistent’ in utilising physical facilities and 13 (7.4%) who stated that such learners were ‘inconsistent’ users of the facilities. However, 107 (37.9%) participants said that such information was ‘never’ disseminated through the assemblies, while 61 (21.6%) felt that the information was ‘rarely’ disseminated through the stated channel. The latter included 15 (18.5%) participants who indicated that learners with disability were ‘consistent’ in utilising physical facilities, 43 (24.6%) who believed that such learners were ‘inconsistent’ in utilising the facilities and 3 (11.5%) who were ‘not sure’.

In addition, cumulative results show that up to 168 (59.5%) participants reported a low frequency regarding dissemination of *information on learning resources for learners with disability* through institutional assemblies, while 39 (13.8%) reported a high frequency regarding the same aspect. Based on this, the analysis revealed a significant relationship between how often information on *learning resources for learners with disability* was disseminated through institutional assemblies and utilisation of physical facilities by the same group ($\chi^2 = 34.428$, $df = 8$ & $p\text{-value} = 0.000$).

The results further show that 11 (3.9%) participants were of the view that information on *movement in the institution by learners with disability* was ‘always’ disseminated through institutional assemblies, while 34 (12.1%) stated that such information was ‘often’ disseminated through the assemblies. This group consisted of 16 (19.8%) participants who felt that learners with disability were ‘consistent’ in utilising physical facilities and 18 (10.3%) who indicated that such learners were ‘inconsistent’ users of the facilities. Contrastingly, 88 (31.2%) participants,

including 23 (28.4%) who believed that learners with disability were 'consistent' in utilising physical facilities and 53 (30.3%) who were of the view that such learners were 'inconsistent' users of the facilities, felt that the information was 'never' disseminated through the assemblies.

Cumulatively, whereas up to 154 (54.6%) participants reported a low frequency with which information regarding *movement in the institution by learners with disability* was disseminated through institutional assemblies, only 45 (16.0%) reported a high frequency with which information on the aspect was disseminated through the assemblies. Based on this, the analysis yielded a significant relationship between the frequency with which information on *movement in the institution by learners with disability* was disseminated through institutional assemblies and utilisation of physical facilities by the same group ($\chi^2 = 24.254$, $df = 8$ & ρ -value = 0.002).

The results in Table 4.18 further show that 14 (5.0%) participants said that information on *access to classrooms by learners with disability* was 'always' disseminated through institutional assemblies. This group included 7 (8.6%) participants saying that learners with disability were 'consistent' in utilising physical facilities and another 7 (4.0%) who felt that such learners utilised the facilities 'inconsistently'. Besides, 27 (9.5%) said that information on the same aspect was 'often' disseminated through the assemblies. Those who felt that the information was 'never' disseminated through the assemblies were 87 (30.9%) and they included 22 (27.2%) participants who stated that learners with disability were 'consistent' in utilising physical facilities, 52 (29.7%) who were of the view that such learners were 'inconsistent' users of the facilities and 13 (50.0%) who were 'not sure'.

Table 4.18: Frequency of information dissemination through assemblies

| Frequency of information dissemination through institutional assemblies | Consistent | | Inconsistent | | Not Sure | | Total | |
|---|------------|--------------|--------------|--------------|-----------|--------------|------------|--------------|
| | Freq | % | Freq | % | Freq | % | Freq | % |
| <i>Learning resources for learners with disability</i> | | | | | | | | |
| Never | 25 | 30.9 | 60 | 34.3 | 22 | 84.7 | 107 | 37.9 |
| Rarely | 15 | 18.5 | 43 | 24.6 | 3 | 11.5 | 61 | 21.6 |
| Sometimes | 22 | 27.2 | 52 | 29.7 | 1 | 3.8 | 75 | 26.7 |
| Often | 13 | 16.0 | 13 | 7.4 | 0 | 0.0 | 26 | 9.2 |
| Always | 6 | 7.4 | 7 | 4.0 | 0 | 0.0 | 13 | 4.6 |
| Total | 81 | 100.0 | 175 | 100.0 | 26 | 100.0 | 282 | 100.0 |
| <i>Movement in the institution by learners with disability</i> | | | | | | | | |
| Never | 23 | 28.4 | 53 | 30.3 | 12 | 46.2 | 88 | 31.2 |
| Rarely | 13 | 16.0 | 41 | 23.4 | 12 | 46.2 | 66 | 23.4 |
| Sometimes | 24 | 29.6 | 57 | 32.6 | 2 | 7.6 | 83 | 29.4 |
| Often | 16 | 19.8 | 18 | 10.3 | 0 | 0.0 | 34 | 12.1 |
| Always | 5 | 6.2 | 6 | 3.4 | 0 | 0.0 | 11 | 3.9 |
| Total | 81 | 100.0 | 175 | 100.0 | 26 | 100.0 | 282 | 100.0 |
| <i>Access to classrooms by learners with disability</i> | | | | | | | | |
| Never | 22 | 27.2 | 52 | 29.7 | 13 | 50.0 | 87 | 30.9 |
| Rarely | 17 | 21.0 | 40 | 22.9 | 12 | 46.2 | 69 | 24.5 |
| Sometimes | 21 | 25.9 | 63 | 36.0 | 1 | 3.8 | 85 | 30.1 |
| Often | 14 | 17.3 | 13 | 7.4 | 0 | 0.0 | 27 | 9.5 |
| Always | 7 | 8.6 | 7 | 4.0 | 0 | 0.0 | 14 | 5.0 |
| Total | 81 | 100.0 | 175 | 100.0 | 26 | 100.0 | 282 | 100.0 |
| <i>Purchase of learning resources for learners with disability</i> | | | | | | | | |
| Never | 23 | 28.4 | 60 | 34.3 | 11 | 42.3 | 94 | 33.3 |
| Rarely | 20 | 24.7 | 38 | 21.7 | 11 | 42.3 | 69 | 24.5 |
| Sometimes | 22 | 27.2 | 57 | 32.6 | 4 | 15.4 | 83 | 29.4 |
| Often | 9 | 11.1 | 14 | 8.0 | 0 | 0.0 | 23 | 8.2 |
| Always | 7 | 8.6 | 6 | 3.4 | 0 | 0.0 | 13 | 4.6 |
| Total | 81 | 100.0 | 175 | 100.0 | 26 | 100.0 | 282 | 100.0 |
| <i>Improvement of facilities used by learners with disability</i> | | | | | | | | |
| Never | 23 | 28.4 | 49 | 28.0 | 14 | 53.8 | 86 | 30.5 |
| Rarely | 17 | 21.0 | 43 | 24.6 | 8 | 30.8 | 68 | 24.1 |
| Sometimes | 23 | 28.4 | 63 | 36.0 | 4 | 15.4 | 90 | 31.9 |
| Often | 12 | 14.8 | 13 | 7.4 | 0 | 0.0 | 25 | 8.9 |
| Always | 6 | 7.4 | 7 | 4.0 | 0 | 0.0 | 13 | 4.6 |
| Total | 81 | 100.0 | 175 | 100.0 | 26 | 100.0 | 282 | 100.0 |

Cumulative results show that more than one-half of the participants, 156 (55.4%), reported a low frequency with which information on the aspect was disseminated through institutional assemblies, while 41 (14.5%) reported a high frequency regarding the same. The analysis yielded a significant relationship between how often information on *access to classrooms by learners with disability* was disseminated through institutional assemblies and utilisation of physical facilities by the same group ($\chi^2 = 29.724$, $df = 8$ & ρ -value = 0.000).

Of the 282 participants, 13 (4.6%) reported that information on the *purchase of learning resources for learners with disability* was ‘always’ disseminated through institutional assemblies, while 23 (8.3%) stated that such information was ‘often’ disseminated through the assemblies. This group included 9 (11.1%) participants who felt that learners with disability were ‘consistent’ in utilising physical facilities and 14 (8.0%) who indicated that such learners utilised the facilities ‘inconsistently’. Those who reported that information on the aspect was ‘never’ disseminated through the assemblies were 94 (33.3%) and they included 23 (28.4%) participants saying that learners with disability utilised the facilities ‘consistently’, 60 (34.3%) who believed that such learners were ‘inconsistent’ users of the facilities and 11 (42.3%) who were ‘not sure’.

More still, whereas up to 163 (57.8%) participants reported a low frequency with which information on the *purchase of learning resources for learners with disability* was disseminated through institutional assemblies, 36 (12.8%) reported a high frequency regarding the same. Based on this, the analysis obtained a significant relationship between the frequency with which information on the *purchase of learning resources for learners with disability* was disseminated through institutional assemblies and utilisation of physical facilities by learners with disability ($\chi^2 = 15.243$, $df = 8$ & $p\text{-value} = 0.055$).

Regarding the *improvement of facilities used by learners with disability*, 13 (4.6%) participants were of the view that information on the aspect was ‘always’ disseminated through institutional assemblies, while 25 (8.9%) stated that such information was ‘often’ disseminated through the stated channel. This group consisted of 12 (14.8%) participants indicating that learners with disability utilised physical facilities ‘consistently’ and 13 (7.4%) who felt that such learners utilised the facilities ‘inconsistently’. Contrastingly, 86 (30.5%) participants stated that such information was ‘never’ disseminated through the assemblies. This group included 23

(28.4%) participants who thought that learners with disability were 'consistent' in utilising physical facilities, 49 (28.0%) who believed that such learners were 'inconsistent' users of the facilities and 14 (53.8%) who were 'not sure'.

Cumulative result further show that whereas up to 154 (54.6%) participants reported a low frequency with which the information on the *improvement of facilities used by learners with disability* was disseminated through the assemblies, only 38 (13.5%) reported a high frequency regarding the aspect. The analysis revealed a significant relationship between the frequency with which information on the *improvement of facilities used by learners with disability* was disseminated through institutional assemblies and utilisation of physical facilities by the same group of learners ($\chi^2 = 18.061$, $df = 8$ & $p\text{-value} = 0.021$).

Furthermore, FDG participants affirmed that the institutions often utilised weekly assemblies to disseminate information on various aspects of disability as well as advocate for support to learners with disability. More specifically, the institutions utilised assemblies to talk about academic progress of all learners, including those with disability, as well as mobility and utilisation of physical facilities by those with disability. However, the subject of mobility and utilisation of physical facilities often featured following events such accidents involving learners with disability. Reportedly, such occasions were utilised to encourage institutional community to extend support to learners with disability; thus, enable them cope with challenges experienced in accessing learning as well as participating in extra-curricular activities.

The study found that institutional assemblies were important forums for disseminating information on various aspects of disability, with a view to influencing utilisation of physical facilities by learners with disability. In view of this, the analysis revealed significant relationships between utilisation of such facilities and how often information on the following

aspects was disseminated through assemblies: *learning resources for learners with disability* ($\chi^2 = 34.428$, $df = 8$ & p -value = 0.000); and *movement in the institution by learners with disability* ($\chi^2 = 24.254$, $df = 8$ & p -value = 0.002). The other significant factor was *access to classrooms by learners with disability* ($\chi^2 = 29.724$, $df = 8$ & p -value = 0.000). More still, the study found significant relationships between utilisation of physical facilities and the frequency with which information on the following aspects was disseminated through the assemblies: *purchase of learning resources for learners with disability* ($\chi^2 = 15.243$, $df = 8$ & p -value = 0.055); and *improvement of facilities used by learners with disability* ($\chi^2 = 18.061$, $df = 8$ & p -value = 0.021).

Even though the findings show that dissemination of information on disability through institutional assemblies is likely to influence utilisation of physical facilities by learners with disability, more than one-half of participants indicated a low frequency with which the channel was used to disseminate such information. This corroborates information provided by FGD participants, which suggested that information on disability only featured in assemblies following accidents involving learners with disability; suggesting that the assemblies had not been fully used to influence utilisation of physical facilities,.

Previous studies acknowledge that M&E systems in public and non-public institutions have the role of disseminating M&E information to propagate learning in various parts of the organisation. For instance, Simister (2009) reported that organisations use various methods to disseminate M&E information to facilitate learning in sectors and across work teams. Some of the methods, which are commonly used to disseminate M&E information include review forums, face-to-face meetings, assemblies, written reports, newsletters, group emails, presentations, videos, as well as exchange visits (Simister, 2009). However, no previous study ever examined methods used by academic institutions to disseminate information on disability, and neither had

any study determined the relationship between dissemination of disability information and utilisation of physical facilities by learners with disability.

4.4.3.4 Departmental meetings and M&E of learners with disability

Departmental meetings provide crucial forums through which M&E issues related to learners with disability can be discussed and solutions identified. The frequency with which such aspects are discussed in departmental meetings is an important indicator of programme monitoring effectiveness. The information sourced by this study revealed the frequency with which particular aspects of M&E of learners with disability were discussed in departmental meetings in national polytechnics; and how this influenced utilisation of physical facilities learners with disability. The results which are presented in Table 4.19, show that out of 282 participants, 4 (1.4%) said that *utilisation of M&E results* is a subject that ‘always’ featured in departmental meetings; while a slightly higher proportion, 19 (6.7%), felt that the subject ‘often’ featured in the meetings. The latter included 7 (8.6%) participants saying that learners with disability were ‘consistent’ in utilising physical facilities and 12 (6.9%) who stated that such learners were ‘inconsistent’ users of the facilities.

Contrastingly, 106 (37.6%) participants hinted that departmental meetings ‘never’ captured the subject. This group included 22 (27.2%) participants who indicated that learners with disability were ‘consistent’ in utilising physical facilities, 62 (35.3%) who felt that such learners were ‘inconsistent’ users of the facilities and 22 (84.7%) who were ‘not sure’. The analysis further reveals that up to 177 (62.8%) participants reported a low frequency with which the subject featured in departmental meetings, while less than one-tenth, 23 (8.1%) indicated a high frequency regarding the same. Besides, the analysis revealed a significant relationship

between how often *utilisation of M&E results* was discussed in departmental meetings and utilisation of physical facilities by learners with disability ($\chi^2 = 35.350$, $df = 8$ & ρ -value = 0.000).

Table 4.19: Departmental meetings and various aspects of M&E of learners with disability

| Frequency with which departmental meetings captured aspects of M&E of learners with disability | Consistent | | Inconsistent | | Not Sure | | Total | |
|--|------------|--------------|--------------|--------------|-----------|--------------|------------|--------------|
| | Freq | % | Freq | % | Freq | % | Freq | % |
| <i>Utilisation of M&E results</i> | | | | | | | | |
| Never | 22 | 27.2 | 62 | 35.3 | 22 | 84.7 | 106 | 37.6 |
| Rarely | 18 | 22.2 | 50 | 28.6 | 3 | 11.5 | 71 | 25.2 |
| Sometimes | 31 | 38.3 | 50 | 28.6 | 1 | 3.8 | 82 | 29.1 |
| Often | 7 | 8.6 | 12 | 6.9 | 0 | 0.0 | 19 | 6.7 |
| Always | 3 | 3.7 | 1 | 0.6 | 0 | 0.0 | 4 | 1.4 |
| Total | 81 | 100.0 | 175 | 100.0 | 26 | 100.0 | 282 | 100.0 |
| <i>Number of learners with disability in the institution</i> | | | | | | | | |
| Never | 23 | 28.4 | 55 | 31.4 | 18 | 69.3 | 96 | 34.0 |
| Rarely | 20 | 24.7 | 54 | 30.9 | 7 | 26.9 | 81 | 28.7 |
| Sometimes | 22 | 27.2 | 45 | 25.7 | 1 | 3.8 | 68 | 24.1 |
| Often | 10 | 12.3 | 13 | 7.4 | 0 | 0.0 | 23 | 8.2 |
| Always | 6 | 7.4 | 8 | 4.6 | 0 | 0.0 | 14 | 5.0 |
| Total | 81 | 100.0 | 175 | 100.0 | 26 | 100.0 | 282 | 100.0 |
| <i>Academic progress records of learners with disability</i> | | | | | | | | |
| Never | 23 | 28.4 | 49 | 28.0 | 12 | 46.2 | 84 | 29.8 |
| Rarely | 24 | 29.6 | 63 | 36.0 | 10 | 38.5 | 97 | 34.4 |
| Sometimes | 19 | 23.5 | 47 | 26.9 | 4 | 15.3 | 70 | 24.8 |
| Often | 12 | 14.8 | 13 | 7.4 | 0 | 0.0 | 25 | 8.9 |
| Always | 3 | 3.7 | 3 | 1.7 | 0 | 0.0 | 6 | 2.1 |
| Total | 81 | 100.0 | 175 | 100.0 | 26 | 100.0 | 282 | 100.0 |
| <i>Achievement of work plans promoting inclusivity</i> | | | | | | | | |
| Never | 21 | 25.9 | 52 | 29.7 | 16 | 61.5 | 89 | 31.6 |
| Rarely | 22 | 27.2 | 61 | 34.9 | 6 | 23.1 | 89 | 31.6 |
| Sometimes | 25 | 30.9 | 49 | 28.0 | 4 | 15.4 | 78 | 27.5 |
| Often | 10 | 12.3 | 13 | 7.4 | 0 | 0.0 | 23 | 8.2 |
| Always | 3 | 3.7 | 0 | 0.0 | 0 | 0.0 | 3 | 1.1 |
| Total | 81 | 100.0 | 175 | 100.0 | 26 | 100.0 | 282 | 100.0 |
| <i>Barriers encountered by learners with disability</i> | | | | | | | | |
| Never | 20 | 24.7 | 49 | 28.0 | 13 | 50.0 | 82 | 29.1 |
| Rarely | 21 | 25.9 | 55 | 31.5 | 9 | 34.7 | 85 | 30.1 |
| Sometimes | 22 | 27.2 | 49 | 28.0 | 3 | 11.5 | 74 | 26.2 |
| Often | 13 | 16.0 | 13 | 7.4 | 1 | 3.8 | 27 | 9.6 |
| Always | 5 | 6.2 | 9 | 5.1 | 0 | 0.0 | 14 | 5.0 |
| Total | 81 | 100.0 | 175 | 100.0 | 26 | 100.0 | 282 | 100.0 |

The results further show that 14 (5.0%) participants stated that the *number of learners with disability in the institution* ‘always’ featured in the agenda of departmental meetings, while 23 (8.2%) felt that the subject was ‘often’ covered in the meetings. The latter consisted of 10

(12.3%) participants who indicated that learners with disability were 'consistent' in utilising physical facilities and 13 (7.4%) who believed that such learners utilised the facilities 'inconsistently'. Those who were of view that the subject was 'never' covered by departmental meetings were 96 (34.0%) and they included 23 (28.4%) participants indicating that learners with disability were 'consistent' in utilising physical facilities, 55 (31.4%) who felt that learners with disability were 'inconsistent' users of the facilities and 18 (69.3%) who were 'not sure'. Cumulative results show that up to 177 (62.8%) reported a low frequency with which the subject featured in the agenda of departmental meetings, while 37 (13.2%) reported a high frequency regarding the subject. The analysis revealed a significant relationship between how often the *number of learners with disability in the institution* featured in the agenda of departmental meetings and utilisation of physical facilities by learners with disability ($\chi^2 = 22.556$, $df = 8$ & p -value = 0.004).

Those who indicated that *academic progress records of learners with disability* was 'always' covered in departmental meetings were 6 (2.1%), while those who felt that the subject 'often' featured in the meetings were 25 (8.9%). This group included 12 (14.8%) participants who indicated that learners with disability were 'consistent' in utilising physical facilities and 13 (7.4%) who believed that such learners were 'inconsistent' users of the facilities. Those who felt that the subject 'never' featured in the agenda of departmental meetings were 84 (29.8%) and they included 23 (28.4%) participants reporting that learners with disability utilised physical facilities 'consistently', 49 (28.0%) who were of the view that such learners were 'inconsistent' in utilising the facilities and 12 (46.2%) who were 'not sure'. Cumulative results show that most participants, 181 (64.2%), reported a low frequency with which the subject featured in the agenda of departmental meetings, while only 31 (11.0%) reported a high frequency for the same.

Nonetheless, the analysis obtained no significant relationship between the frequency with which *academic progress records of learners with disability* was covered in departmental meetings and utilisation of physical facilities by the same group of learners.

Of the 282 participants, only 3 (1.1%) said that *achievement of work plans promoting inclusivity* is a subject that ‘always’ featured in departmental meetings, while 23 (8.2%) indicated the view that the subject was ‘often’ discussed in such meetings. This group included 10 (12.3%) participants who stated that learners with disability were ‘consistent’ in utilising physical facilities and 13 (7.4%) who believed that such learners utilised the facilities ‘inconsistently’. However, about one-third, 89 (31.5%), stated that the subject was ‘never’ covered in departmental meetings. This group included 21 (25.9%) who believed that learners with disability were ‘consistent’ users of physical facilities, 52 (29.7%) who felt that such learners were ‘inconsistent’ in utilising the facilities and 16 (61.5%) who were ‘not sure’. Cumulatively, up to 178 (63.2%), reported a low frequency with which *achievement of work plans promoting inclusivity* featured in departmental meetings, while only 26 (9.3%) reported a high frequency for the same. Based on this, the analysis revealed a significant relationship between how often *achievement of work plans promoting inclusivity* was discussed in departmental meetings and utilisation of physical facilities by learners with disability ($\chi^2 = 23.246$, $df = 8$ & p -value = 0.003).

Regarding *barriers encountered by learners with disability*, the results in Table 4.19 show that 14 (5.0%) participants stated that the subject ‘always’ featured in the agenda of departmental meetings, while 27 (9.6%) stated that the subject was ‘often’ discussed in the same meetings. The latter included 13 (16.0%) participants who were of the view that learners with disability were ‘consistent’ users of physical facilities, 13 (7.4%) who felt that such learners were

'inconsistent' utilising the facilities and 1 (3.8%) who was 'not sure'. Those who felt that the subject 'never' featured in the meetings were 82 (29.1%) and they included 20 (24.7%) participants who believed that learners with disability were 'consistent' in utilisation of physical facilities, 49 (28.0%) who felt that such learners were 'inconsistent' users of the facilities and 13 (50.0%) who were 'not sure'. More still, cumulative results show that up to 167 (59.2%) participants reported a low frequency with which *barriers encountered by learners with disability* were covered in departmental meetings, while 41 (14.6%) reported a high frequency regarding the subject. The analysis yielded a significant relationship between the frequency with which *barriers encountered by learners with disability* were discussed in departmental meetings and utilisation of physical facilities by learners with disability ($\chi^2 = 14.460$, $df = 8$ & p -value = 0.071).

The findings suggest that integrating aspects of M&E of learners with disability in departmental meetings is likely to influence utilisation of physical facilities by the same group. More specifically, the analysis showed that utilisation of physical facilities by such learners significantly associated with how often the following aspects featured in the agenda of departmental meetings: *utilisation of M&E results* ($\chi^2 = 35.350$, $df = 8$ & p -value = 0.000) and the *number of learners with disability in the institution* ($\chi^2 = 22.556$, $df = 8$ & p -value = 0.004). Other significant aspects included *achievement of work plans promoting inclusivity* ($\chi^2 = 23.246$, $df = 8$ & p -value = 0.003) and *barriers encountered by learners with disability* ($\chi^2 = 14.460$, $df = 8$ & p -value = 0.071). Nevertheless, in each case, about two-thirds of the participants reported a low frequency with which the subjects were discussed in departmental meetings. This suggests that the institutions had not fully integrated aspects of M&E of learners with disability in departmental meetings. Consequently, a programme designed to promote utilisation of physical

facilities by learners with disability should consider making aspects of M&E of learners with disability part of the agenda discussed in departmental meetings.

In addition, KII and FGD sessions revealed that both institutions created forums where various aspects of disability were discussed and issues related to learners with disability monitored. The meetings, which were coordinated by disability-mainstreaming committees, were conducted quarterly. Typical subjects discussed in the meetings, included modification of physical facilities to ease mobility of learners with disability; utilisation of the facilities, as well as implementation of work plans. Although the meetings provided important forums where issues of disability were discussed, participants felt that the meetings were limited in terms of publicity and representation of learners with disability. In view of this, publicity of such meetings and sufficient representation of learners should be prioritised by the institutions. Studies conducted in the past recognise that M&E information should be disseminated and used for learning in various parts of an organisation, including departments and work teams (Simister, 2009). However, none of the studies ever demonstrated the relationship between integration of M&E aspects in departmental meetings and utilisation of physical facilities by learners with disability, particularly in academic institutions.

4.4.3.5 Discussion of various aspects of learners with disability in student forums

Student forums provide opportunity where learners can discuss and address various issues related to disability. The frequency with which such forums are used to address disability issues is an important indicator of effectiveness in programme monitoring. In view of this, participants were asked to indicate their views about how often particular aspects of disability were discussed in student forums. The results presented in Table 4.20 show that of the 282

participants, 10 (3.5%) stated that *ease of movement* was 'always' a key subject in student forums, while 39 (13.8%) said that the aspect was 'often' discussed in the forums. This consisted of 16 (19.8%) participants who indicated that learners with disability were 'consistent' in utilising physical facilities and 22 (12.6%) who believed that such learners were 'inconsistent' users of the facilities. However, 58 (20.6%) participants, including 6 (7.4%) who believed that learners with disability were 'consistent' in utilising physical facilities, 37 (21.1%) who stated that such learners were 'inconsistent' in utilising the facilities and 15 (57.8%) who were 'not sure'; indicated that the aspect was 'never' discussed in the said forums. Cumulative results show that whereas 128 (45.4%) participants reported a low frequency with which *ease of movement* was discussed in student forums, 49 (17.3%) reported a high frequency regarding discussion of the subject in the forums. The analysis further obtained a significant relationship between frequency with which *ease of movement* was discussed in student forums and utilisation of physical facilities by learners with disability ($\chi^2 = 35.707$, $df = 8$ & $p\text{-value} = 0.000$).

The second aspect was *building design/structures*, which 20 (7.1%) participants said was 'always' discussed in student forums. This group included 11 (13.6%) participants stating that learners with disability were 'consistent' users of physical facilities and 9 (5.1%) who felt that such learners were 'inconsistent' in utilising the facilities. Besides, 49 (17.4%) participants reported that the aspect was 'often' discussed in the said forums, while 44 (15.5%) stated that the aspect was 'never' discussed in the said forums. The latter 'consistent' of 6 (7.4%) participants who believed that learners with disability were 'consistent' in utilising physical facilities, 27 (15.4%) who hinted that such learners were 'inconsistent' users of the facilities and 11 (42.3%) who were 'not sure'. Cumulatively, up to 111 (39.3%) participants reported a low frequency with which *building design/structures* was discussed in student forums, compared to 49 (24.5%) who

reported a high frequency regarding the same. Based on this, the analysis yielded a significant relationship between the frequency with which *building design/structures* was discussed in student forums and utilisation of physical facilities by learners with disability ($\chi^2 = 28.490$, $df = 8$ & ρ -value = 0.000).

Table 4.20: Frequency with which disability aspects were discussed in student forums

| Frequency with which disability aspects were discussed in student forums | Consistent | | Inconsistent | | Not Sure | | Total | |
|--|------------|--------------|--------------|--------------|-----------|--------------|------------|--------------|
| | Freq | % | Freq | % | Freq | % | Freq | % |
| <i>Ease of movement</i> | | | | | | | | |
| Never | 6 | 7.4 | 37 | 21.1 | 15 | 57.8 | 58 | 20.6 |
| Rarely | 19 | 23.5 | 44 | 25.1 | 7 | 26.9 | 70 | 24.8 |
| Sometimes | 37 | 45.6 | 65 | 37.2 | 3 | 11.5 | 105 | 37.3 |
| Often | 16 | 19.8 | 22 | 12.6 | 1 | 3.8 | 39 | 13.8 |
| Always | 3 | 3.7 | 7 | 4.0 | 0 | 0.0 | 10 | 3.5 |
| Total | 81 | 100.0 | 175 | 100.0 | 26 | 100.0 | 282 | 100.0 |
| <i>Building design/structures</i> | | | | | | | | |
| Never | 6 | 7.4 | 27 | 15.4 | 11 | 42.3 | 44 | 15.5 |
| Rarely | 17 | 21.0 | 42 | 24.0 | 8 | 30.8 | 67 | 23.8 |
| Sometimes | 30 | 37.0 | 66 | 37.8 | 6 | 23.1 | 102 | 36.2 |
| Often | 17 | 21.0 | 31 | 17.7 | 1 | 3.8 | 49 | 17.4 |
| Always | 11 | 13.6 | 9 | 5.1 | 0 | 0.0 | 20 | 7.1 |
| Total | 81 | 100.0 | 175 | 100.0 | 26 | 100.0 | 282 | 100.0 |
| <i>Classroom arrangements</i> | | | | | | | | |
| Never | 7 | 8.6 | 30 | 17.1 | 8 | 30.8 | 45 | 16.0 |
| Rarely | 19 | 23.5 | 39 | 22.3 | 7 | 26.9 | 65 | 23.0 |
| Sometimes | 29 | 35.8 | 63 | 36.0 | 8 | 30.8 | 100 | 35.5 |
| Often | 18 | 22.2 | 32 | 18.3 | 2 | 7.7 | 52 | 18.4 |
| Always | 8 | 9.9 | 11 | 6.3 | 1 | 3.8 | 20 | 7.1 |
| Total | 81 | 100.0 | 175 | 100.0 | 26 | 100.0 | 282 | 100.0 |
| <i>Support to learners with disability</i> | | | | | | | | |
| Never | 6 | 7.4 | 34 | 19.4 | 9 | 34.7 | 49 | 17.4 |
| Rarely | 13 | 16.0 | 42 | 24.0 | 5 | 19.2 | 60 | 21.3 |
| Sometimes | 35 | 43.3 | 63 | 36.0 | 7 | 26.9 | 105 | 37.2 |
| Often | 15 | 18.5 | 25 | 14.3 | 4 | 15.4 | 44 | 15.6 |
| Always | 12 | 14.8 | 11 | 6.3 | 1 | 3.8 | 24 | 8.5 |
| Total | 81 | 100.0 | 175 | 100.0 | 26 | 100.0 | 282 | 100.0 |
| <i>Promotion of inclusiveness policy</i> | | | | | | | | |
| Never | 7 | 8.6 | 39 | 22.3 | 9 | 34.6 | 55 | 19.5 |
| Rarely | 19 | 23.5 | 40 | 22.9 | 4 | 15.4 | 63 | 22.4 |
| Sometimes | 31 | 38.3 | 55 | 31.4 | 4 | 15.4 | 90 | 31.9 |
| Often | 15 | 18.5 | 26 | 14.8 | 5 | 19.2 | 46 | 16.3 |
| Always | 9 | 11.1 | 15 | 8.6 | 4 | 15.4 | 28 | 9.9 |
| Total | 81 | 100.0 | 175 | 100.0 | 26 | 100.0 | 282 | 100.0 |

Furthermore, 20 (7.1%) participants indicated the view that *classroom arrangements* is a topic that was ‘always’ discussed in student forums, while 52 (18.4%) said that the subject ‘often’ featured in the forums. The latter included 18 (22.2%) participants who were of the view

that learners with disability utilised physical facilities ‘consistently’, 32 (18.3%) who felt that such learners utilised the facilities ‘inconsistently’ and 2 (7.7%) who was ‘not sure’. Those who felt that the subject of *classroom arrangements* was ‘never’ discussed in student forums were 45 (16.0%) and they included 7 (8.6%) participants saying that learners with disability were ‘consistent’ in utilising of physical facilities, 30 (17.1%) who indicated that such learners were ‘inconsistent’ users of the facilities and 8 (30.8%) were ‘not sure’. In addition, cumulative results show that whereas 110 (39.0%) participants reported a low frequency with which the subject was discussed in student forums, 72 (25.5%) indicated a high frequency regarding the aspect. Nonetheless, the analysis revealed no significant relationship between how often *classroom arrangements* was discussed in student forums and utilisation of physical facilities by learners with disability.

Support to learners with disability is another subject that was ‘always’ discussed in student forums according to 24 (8.5%) participants. Those who felt that the subject was ‘often’ discussed in the forums were 44 (15.6%) and they included 15 (18.5%) participants believing that learners with disability were ‘consistent’ in utilising physical facilities, 25 (14.3%) who thought that such learners were ‘inconsistent’ users of such facilities and 4 (15.4%) who were ‘not sure’. Contrastingly, 49 (17.4%) participants hinted that *support to learners with disability* ‘never’ featured in the agenda of student forums, while 60 (21.3%) admitted that the subject was ‘rarely’ discussed. Cumulative results show that whereas up to 109 (38.7%) participants reported a low frequency with which the subject was discussed in student forums, 68 (24.1%) indicated a high frequency regarding the same aspect. Besides, the analysis yielded a significant relationship between the frequency with which *support to learners with disability* was discussed in student

forums and utilisation of physical facilities by learners with disability ($\chi^2 = 18.898$, $df = 8$ & p -value = 0.015).

Regarding *promotion of inclusiveness policy*, the results show that 28 (9.9%) participants indicated the view that the subject was ‘always’ discussed in student forums. Besides, 46 (16.3%) participants, including 15 (18.5%) who stated that learners with disability were ‘consistent’ in utilising physical facilities, 26 (14.8%) who believed that such learners were ‘inconsistent’ users of the facilities and 5 (19.4%) who were ‘not sure’; felt that the subject was ‘often’ discussed in the forums. Contrastingly, 55 (19.5%) participants indicated that the subject was ‘never’ discussed, while 63 (22.4%) said that the subject was ‘rarely’ discussed in student forums. The results further show that cumulatively, up to 118 (41.9%) participants reported a low frequency with which the subject was discussed in the forums, while 74 (26.2%) reported a high frequency regarding the same aspect. Based on this, the analysis obtained a significant relationship between the frequency with which *promotion of inclusiveness policy* was discussed in student forums and utilisation of physical facilities by learners with disability ($\chi^2 = 14.356$, $df = 8$ & p -value = 0.073).

The study found that integrating various aspects of disability in student forums is likely to influence utilisation of physical facilities by learners with disability. In this regard, the analysis yielded significant relationships between utilisation of the facilities by learners with disability and the frequency with which the following aspects were discussed in student forums: *ease of movement* ($\chi^2 = 35.707$, $df = 8$ & p -value = 0.000); as well as *building design/structures* ($\chi^2 = 28.490$, $df = 8$ & p -value = 0.000). Utilisation of physical facilities also associated significantly with how often the following aspects were covered in student forums: *support to learners with disability* ($\chi^2 = 18.898$, $df = 8$ & p -value = 0.015); and *promotion of inclusiveness policy* ($\chi^2 =$

14.356, $df = 8$ & ρ -value =0.073). In addition, about one-quarter of the participants indicated that the stated aspects of disability featured in the agenda of student forums repeatedly, which suggests that student forums played a crucial role in facilitating integration of learners with disability.

Tied to this, FGD sessions revealed that student unions were consistent advocates for the welfare of learners with disability, particularly, regarding the need for resources and physical facilities to ease mobility. However, participants pointed out that the effectiveness of such unions was constrained by lack of official mechanisms for monitoring and collecting information regarding participation in academic and extra-curricular activities by learners with disability. Arguably, the approach adopted by student unions was more of reaction to events such as accidents involving learners with disability, rather than proactive programming aimed at achieving sustainable results. In view of this, national polytechnics should consider strengthening student forums in terms of necessary skills and budgetary allocation to enable the forums initiate appropriate programmatic interventions and M&E systems, aimed at promoting utilisation of physical facilities by learners with disability, as well as improving participation in learning and extra-curricular activities.

A review of existing literature reveals that no study had ever determined the statistical relationship between discussion of various M&E aspects in student forums and utilisation of physical facilities by learners with disability. Nonetheless, a number of studies encourage participation of all stakeholders in M&E processes, including staff members, partners and more importantly, targeted beneficiaries (ADRA, 2007; Simister, 2009; UNESCO, 20113). In the national polytechnics, target beneficiaries of disability programmes were learners with disability. Consequently, discussion of M&E aspects in student forums provided opportunity for such

learners to participate in programme monitoring, which in turn, encouraged utilisation of physical facilities for better participation in learning and extra-curricular activities.

4.4.3.6 Monitoring and evaluation of learners with disability by government agencies

Government agencies are key stakeholders of public institutions, which gives them the right to participate in decision-making processes, including M&E of programme activities in such institutions. The information sourced by this study identifies government agencies involved in the M&E of disability programmes in the national polytechnics, the type of information collected during programme monitoring, as well as inherent challenges. In view of this, key informant interview sessions revealed that the Ministry of Education officers often collected data on various aspects of disability during monthly monitoring visits, as well as during quarterly review/planning meetings. The processes captured data on aspects such as population of learners with disability, enrolment by gender per course; access to education by the girl-child, level of integration with their able-bodied colleagues as well as staff returns. The officers also targeted information on available physical facilities and their utilisation; as well as adaptations made to such facilities, including ramps, rails, and walkways, to ease utilisation.

Similar information was also collected by the National Council of Persons Living with Disability (NCPLWD). The agency uses such information to improve their programming activities and decisions for continued support to learners with disability. In addition, the Ministry conducted annual audits of physical facilities - a process that identified gaps *vis-à-vis* changes in the population of learners with disability. In spite of such initiatives, participants expressed concern about lack of feedback forums where stakeholders can be engaged for appropriate interventions to address emerging gaps, weaknesses, and challenges in utilisation of physical

facilities by learners with disability. In view of this, participants emphasised the need for regular feedback sessions organised by the agencies where M&E reports can be discussed and appropriate interventions identified to improve utilisation of the facilities, mobility, and participation by the learners in question.

Existing literature confirms that in other developing countries, government agencies participate in M&E processes within public institutions through monitoring visits, data collection, skills transfer, as well as dissemination and learning, among others. However, their participation is often affected budgetary and logistical constraints, which impedes consistent participation (Kusek & Rist, 2004; Mackay, 2007; Simister, 2009; Izuka, 2010).

4.4.3.7 Testing null hypothesis three (H_03)

The process sought to establish the statistical relationship between programme monitoring process and utilisation of physical facilities by learners with disability. In this regard, three indicators of programme monitoring process were identified and aggregated. The indicators included frequency of capturing disability issues in institutional timetables; frequency of discussing disability aspects in student forums; as well as frequency of capturing M&E aspects in departmental meetings. The results presented in Table 4.21 show that significant correlations were obtained between utilisation of physical facilities by learners with disability and all the three indicators.

Table 4.21: Summary of correlation analysis for programme monitoring process

| | | Correlations | | |
|-----------------|--|-------------------------|------------------------------------|--|
| | | | Utilisation of physical facilities | Capturing M&E aspects by institutional timetable |
| Spearman's rho | Utilisation of physical facilities | Correlation Coefficient | 1.000 | 0.642 |
| | | Sig. (2-tailed) | . | 0.000*** |
| | N | 282 | 282 | 282 |
| | Capturing M&E aspects by institutional timetable | Correlation Coefficient | 0.642 | 1.000 |
| Sig. (2-tailed) | | 0.000*** | . | |
| N | | 282 | 282 | |
| | | | Utilisation of physical facilities | Dissemination of M&E information through student forums/assemblies |
| Spearman's rho | Utilisation of physical facilities | Coefficient Correlation | 1.000 | 0.654 |
| | | Sig. (2-tailed) | . | 0.000*** |
| | N | 282 | 282 | 282 |
| | Dissemination of M&E information through student forums/assemblies | Correlation Coefficient | 0.654 | 1.000 |
| Sig. (2-tailed) | | 0.000*** | . | |
| N | | 282 | 282 | |
| | | | Utilisation of physical facilities | Frequency of capturing M&E aspects in departmental meetings |
| Spearman's rho | Utilisation of physical facilities | Correlation Coefficient | 1.000 | 0.599 |
| | | Sig. (2-tailed) | . | 0.001*** |
| | N | 282 | 282 | 282 |
| | Frequency of capturing M&E aspects in departmental meetings | Correlation Coefficient | 0.599 | 1.000 |
| Sig. (2-tailed) | | 0.001*** | . | |
| N | | 282 | 282 | |
| | | | Utilisation of physical facilities | M&E system support and supervision |
| Spearman's rho | Utilisation of physical facilities | Correlation Coefficient | 1.000 | 0.561 |
| | | Sig. (2-tailed) | . | 0.007*** |
| | N | 282 | 282 | 282 |
| | M&E system support and supervision | Correlation Coefficient | 0.561 | 1.000 |
| Sig. (2-tailed) | | 0.007*** | . | |
| N | | 282 | 282 | |

*, **, *** show significance at $p < 0.1$, $p < 0.05$ and $p < 0.01$ error margins, respectively

Further analysis involved aggregation of the three indicators into a variable – programme monitoring process. Again, the results reveal up to 99% chance that there was a significant positive correlation between programme monitoring process and utilisation of physical facilities by learners with disability ($r_s = 0.561$ & p -value = 0.007), which was moderate in terms of

strength. The results led to rejection of the null hypothesis (H_03), stating that *there is no significant correlation between programme monitoring process and utilisation of physical facilities by learners with disability*. This implies that all the three indicators were likely to influence utilisation of physical facilities by learners with disability. Consequently, national polytechnics should ensure that disability issues are considered while preparing institutional timetables to make them part of routine activities to be carried out. Besides, the institutions should consider integrating disability aspects in student forums, which provide important platforms for creating awareness on disability aspects, influencing attitudes, and encouraging able-bodied learners to support their colleagues with disability to utilise the facilities consistently.

Equally important is the need for national polytechnics to include M&E aspects as part of agendas discussed in periodical departmental meetings. This avenue is crucial for enhancing awareness among teaching staff, influencing attitudes, as well as improving skills in the M&E of disability programmes. This is likely to influence more teaching staff to support learners with disability, monitor key indicators of physical facilities' utilisation, as well as improve the quality of support provided to learners with disability.

The influence of programme monitoring on the achievement of organisational or programme objectives is a subject that has been tackled by many previous empirical and policy studies. For instance, Hardlife and Zhou (2013) reported that programme monitoring process enabled managers of development agencies in Zimbabwe to make appropriate adjustments during implementation in order to achieve objectives. In this regard, routine programme monitoring process provides stakeholders with regular feedback on progress made towards achievement of institutional goals (UNDP, 2009). Notably though, none of the previous studies

determined the statistical relationship between programme monitoring and utilisation of physical facilities in academic institutions.

4.4.4 Influence of M&E System Support on Utilisation of Physical Facilities

Continued support and supervision are crucial for functionality of M&E systems in public institutions. The purpose of support and supervision is to encourage conformity to organisational norms and values, in the process of achieving performance targets (Miller, 2002; Pont *et al.*, 2008). This study captured various aspects of support and supervision to M&E systems in the national polytechnics and the influence of such on utilisation of physical facilities by learners with disability.

4.4.4.1 Helpfulness of support provided by administrators/managers

While assisting learners with disability to utilise physical facilities and to participate in learning activities, teaching staff require administrative support to enable them overcome or cope with challenges associated with their work. This study captured participants' views about perceived helpfulness of support provided by various administrators/managers, as they fulfil their mandate of assisting learners with disability to utilise physical facilities and participate fully in learning as well as extra-curricular activities. The results presented in Table 4.22 show that of the 282 participants, 109 (38.7%) indicated that the support provided by *principals* was 'highly helpful'. This group included 30 (37.0%) participants who believed that learners with disability were 'consistent' in utilising physical facilities, 62 (35.4%) who indicated that such learners were 'inconsistent' users of the facilities and 17 (65.4%) who were 'not sure'. Besides, 113 (40.1%) participants indicated that the support provided by *principals* was 'helpful', while 7

(2.4%) thought that such support 'did not help at all'. Cumulatively, the results show that most participants, 222 (78.8%), reported a high level of satisfaction with the support provided by *principals*, while only 26 (9.1%) expressed a low level of satisfaction with such support. Based on this, the analysis obtained a significant relationship between perceived helpfulness of the support provided by *principals* and utilisation of physical facilities by learners with disability ($\chi^2 = 17.512$, $df = 8$ & p -value = 0.025).

Those who felt that the support provided by *heads of departments* was 'highly helpful' were 72 (25.5%) and they included 23 (28.4%) who felt that learners with disability were 'consistent' in utilising physical facilities, 36 (20.6%) who stated that such learners were 'inconsistent' users of such facilities and 13 (50.0%) who were 'not sure'. Besides, slightly more than one-half of the participants, 147 (52.1%) rated the support provided by *heads of departments* as 'helpful'. Contrastingly, only 6 (2.1%) participants stated that the support provided by *heads of departments* 'did not help at all', while 20 (7.1%) felt that such support was 'somehow helpful'. Cumulative results show that whereas 219 (77.6%) participants reported a high level of satisfaction with the support provided by *heads of departments*, 26 (9.2%) indicated a low level of satisfaction regarding the same. Thus, the analysis obtained a significant relationship between perceived helpfulness of support provided by *heads of departments* and utilisation of physical facilities by learners with disability ($\chi^2 = 16.282$, $df = 8$ & p -value = 0.039).

Table 4.22 Perceived helpfulness of support provided by administrators/managers

| Helpfulness of support from administrators/managers | Consistent | | Inconsistent | | Not Sure | | Total | |
|---|------------|--------------|--------------|--------------|-----------|--------------|------------|--------------|
| | Freq | % | Freq | % | Freq | % | Freq | % |
| <i>Principals</i> | | | | | | | | |
| Do not help at all | 1 | 1.2 | 5 | 2.9 | 1 | 3.8 | 7 | 2.4 |
| Somehow helpful | 4 | 4.9 | 11 | 6.3 | 4 | 15.4 | 19 | 6.7 |
| Moderately helpful | 12 | 14.8 | 22 | 12.5 | 0 | 0.0 | 34 | 12.1 |
| Helpful | 34 | 42.1 | 75 | 42.9 | 4 | 15.4 | 113 | 40.1 |
| Highly helpful | 30 | 37.0 | 62 | 35.4 | 17 | 65.4 | 109 | 38.7 |
| Total | 81 | 100.0 | 175 | 100.0 | 26 | 100.0 | 282 | 100.0 |
| <i>Heads of departments</i> | | | | | | | | |
| Do not help at all | 0 | 0.0 | 5 | 2.9 | 1 | 3.8 | 6 | 2.1 |
| Somehow helpful | 4 | 4.9 | 13 | 7.4 | 3 | 11.6 | 20 | 7.1 |
| Moderately helpful | 12 | 14.8 | 23 | 13.1 | 2 | 7.7 | 37 | 13.2 |
| Helpful | 42 | 51.9 | 98 | 56.0 | 7 | 26.9 | 147 | 52.1 |
| Highly helpful | 23 | 28.4 | 36 | 20.6 | 13 | 50.0 | 72 | 25.5 |
| Total | 81 | 100.0 | 175 | 100.0 | 26 | 100.0 | 282 | 100.0 |
| <i>Lecturers</i> | | | | | | | | |
| Do not help at all | 0 | 0.0 | 4 | 2.3 | 1 | 3.8 | 5 | 1.8 |
| Somehow helpful | 9 | 11.1 | 17 | 9.7 | 3 | 11.5 | 29 | 10.2 |
| Moderately helpful | 10 | 12.3 | 31 | 17.7 | 3 | 11.5 | 44 | 15.6 |
| Helpful | 38 | 46.9 | 97 | 55.4 | 18 | 69.4 | 153 | 54.3 |
| Highly helpful | 24 | 29.7 | 26 | 14.9 | 1 | 3.8 | 51 | 18.1 |
| Total | 81 | 100.0 | 175 | 100.0 | 26 | 100.0 | 282 | 100.0 |
| <i>Dean of students</i> | | | | | | | | |
| Do not help at all | 0 | 0.0 | 5 | 2.9 | 1 | 3.8 | 6 | 2.1 |
| Somehow helpful | 4 | 4.9 | 11 | 6.3 | 5 | 19.2 | 20 | 7.1 |
| Moderately helpful | 7 | 8.6 | 22 | 12.6 | 6 | 23.1 | 35 | 12.4 |
| Helpful | 38 | 46.9 | 93 | 53.1 | 14 | 53.9 | 145 | 51.4 |
| Highly helpful | 32 | 39.6 | 44 | 25.1 | 0 | 0.0 | 76 | 27.0 |
| Total | 81 | 100.0 | 175 | 100.0 | 26 | 100.0 | 282 | 100.0 |
| <i>Quality assurance officers</i> | | | | | | | | |
| Do not help at all | 0 | 0.0 | 8 | 4.6 | 3 | 11.5 | 11 | 3.9 |
| Somehow helpful | 4 | 4.9 | 15 | 8.6 | 6 | 23.1 | 25 | 8.9 |
| Moderately helpful | 15 | 18.5 | 36 | 20.6 | 9 | 34.7 | 60 | 21.3 |
| Helpful | 37 | 45.7 | 83 | 47.3 | 7 | 26.9 | 127 | 45.0 |
| Highly helpful | 25 | 30.9 | 33 | 18.9 | 1 | 3.8 | 59 | 20.9 |
| Total | 81 | 100.0 | 175 | 100.0 | 26 | 100.0 | 282 | 100.0 |

Table 4.22 further shows that 51 (18.1%) participants described the support provided by *lecturers* as ‘highly helpful’, while more than one-half, 153 (54.3%), thought that such support was ‘helpful’. This group included 38 (46.9%) participants stating that learners with disability were ‘consistent’ in utilising physical facilities, 97 (55.4%) who felt that such learners were ‘inconsistent’ users of the facilities and 1 (3.8%) who was ‘not sure’. By contrast, 5 (1.8%) participants said that support provided by *lecturers* ‘did not help at all’, while 29 (10.2%) thought that the support was ‘somehow helpful’. Cumulatively, up to 204 (72.4%) participants reported a high level of satisfaction with the support provided by *lecturers* to improve the

effectiveness of M&E system, while 34 (12.0%) expressed a low level of satisfaction with such support. Based on this, the analysis obtained a significant relationship between perceived helpfulness of support provided by *lecturers* and utilisation of physical facilities by learners with disability ($\chi^2 = 15.617$, $df = 8$ & ρ -value = 0.048).

Furthermore, 76 (27.0%) participants described the support provided by *deans of students* as 'highly helpful', while 145 (51.4%) felt that the support was 'helpful'. Constituting this group were 38 (46.9%) participants reporting that learners with disability were 'consistent' in utilising physical facilities, 93 (53.1%) who felt that learners with disability were 'inconsistent' users of such facilities and 14 (5.9%) who were 'not sure'. However, 6 (2.1%) participants were of the view that the support provided by *deans of students* 'did not help at all', while 20 (7.1%) said that such support was 'somehow helpful'. Cumulative results show that whereas up to 221 (78.4%) expressed a high level of satisfaction with the support provided by deans of students, 26 (9.2%) indicated a low level of satisfaction with the same. The analysis obtained a significant relationship between perceived helpfulness of support provided by *deans of students* and utilisation of physical facilities by learners with disability ($\chi^2 = 24.336$, $df = 8$ & ρ -value = 0.002).

Regarding *quality assurance officers*, 59 (20.9%) participants described their support as 'highly helpful', while 127 (45.0%) felt that support provided by the officers was 'helpful'. This group consisted of 37 (45.7%) participants who indicated that learners with disability were 'consistent' in utilising physical facilities, 83 (47.3%) who believed that such learners were 'inconsistent' users of the facilities and 7 (26.9%) who were 'not sure'. Those who thought that support provided by *quality assurance officers* 'did not help at all' were 11 (3.9%), while those who felt that such support was 'somehow helpful' were 25 (8.9%).

Cumulatively, up to 186 (65.9%) participants reported a high level of satisfaction with the support provided by *quality assurance officers*, while 36 (12.8%) reported a low level of satisfaction with support provided by such officers. Based on this, the analysis obtained a significant association between perceived usefulness of the support provided by *quality assurance officers* and utilisation of physical facilities by learners with disability ($\chi^2 = 27.036$, $df = 8$ & p -value = 0.001).

The study found that support provided by administrators/managers at various levels influenced utilisation of physical facilities by learners with disability. In this regard, the analysis revealed significant relationships between utilisation of physical facilities by such learners and support provided by the following administrators/managers: *principals* ($\chi^2 = 17.512$, $df = 8$ & p -value = 0.025); *heads of departments* ($\chi^2 = 16.282$, $df = 8$ & p -value = 0.039); as well as *lecturers* ($\chi^2 = 15.617$, $df = 8$ & p -value = 0.048).

Besides, utilisation of physical facilities by learners with disability significantly associated with support provided by *deans of students* ($\chi^2 = 24.336$, $df = 8$ & p -value = 0.002); and *quality assurance officers* ($\chi^2 = 27.036$, $df = 8$ & p -value = 0.001). On average, more than 70% of participants expressed a high level of satisfaction with support provided by all the administrators/managers to improve the effectiveness of M&E system. This implies that the support and supervision to M&E systems in national polytechnics were functional, which in turn, may have improved the quality of support provided to learners with disability, particularly those intended to improve utilisation of physical facilities.

Similarly, Rice and Warren (2004) found that 41% of the teachers in USA indicated satisfaction with support provided by their departmental heads while 59% expressed dissatisfaction with support provided by departmental heads. In addition, the study reported a

significant relationship between satisfaction with support provided by departmental heads and performance of students. In this regard, among those who indicated satisfaction with the level of support provided by departmental heads, 67% reported improved performance of their students; among those who were dissatisfied with the support, only 19% reported improved performance of their students. Nonetheless, the study provides a broad picture regarding the influence of support provided by administrators on learning achievement among students. It did not focus on the utilisation of physical facilities by learners with disability.

4.4.4.2 Channels used for collecting data on learners with disability

Collection of data on learners with disability is a key aspect of M&E systems support and the channels used determines effectiveness of the process. This study captured participants' views regarding the frequency with which selected channels were used to collect data on learners with disability; and how such related with utilisation of physical facilities. The results, which are presented in Table 4.23 show that 8 (2.8%) participants felt that *interviews*, were 'always' used to collect data on such learners, while 25 (8.9%) indicated that the channel was 'often' used. This group consisted of 15 (18.5%) participants who stated that learners with disability were 'consistent' in utilising physical facilities and 10 (5.7%) who believed that such learners were 'inconsistent' in utilising the facilities. However, 85 (30.1%) participants indicated that *interviews* were 'never' used to collect data on learners with disability, while 68 (24.2%) stated that the channel was 'rarely' used. The latter included 26 (32.1%) participants reporting that learners with disability were 'consistent' in utilising physical facilities, 40 (22.9%) who were of the view that such learners were 'inconsistent' users of the facilities and 2 (7.7%) who were 'not sure'.

Table 4.23: Channels used for collecting data on learners with disability

| Channels used for collecting data on disable students | Consistent | | Inconsistent | | Not Sure | | Total | |
|---|------------|--------------|--------------|--------------|-----------|--------------|------------|--------------|
| | Freq | % | Freq | % | Freq | % | Freq | % |
| <i>Interviews</i> | | | | | | | | |
| Never | 8 | 9.9 | 54 | 30.9 | 23 | 88.5 | 85 | 30.1 |
| Rarely | 26 | 32.1 | 40 | 22.9 | 2 | 7.7 | 68 | 24.2 |
| Sometimes | 26 | 32.1 | 69 | 39.4 | 1 | 3.8 | 96 | 34.0 |
| Often | 15 | 18.5 | 10 | 5.7 | 0 | 0.0 | 25 | 8.9 |
| Always | 6 | 7.4 | 2 | 1.1 | 0 | 0.0 | 8 | 2.8 |
| Total | 81 | 100.0 | 175 | 100.0 | 26 | 100.0 | 282 | 100.0 |
| <i>Questionnaires</i> | | | | | | | | |
| Never | 8 | 9.9 | 52 | 29.7 | 21 | 80.8 | 81 | 28.6 |
| Rarely | 22 | 27.2 | 43 | 24.6 | 4 | 15.4 | 69 | 24.5 |
| Sometimes | 25 | 30.8 | 67 | 38.3 | 1 | 3.8 | 93 | 33.0 |
| Often | 16 | 19.8 | 11 | 6.3 | 0 | 0.0 | 27 | 9.6 |
| Always | 10 | 12.3 | 2 | 1.1 | 0 | 0.0 | 12 | 4.3 |
| Total | 81 | 100.0 | 175 | 100.0 | 26 | 100.0 | 282 | 100.0 |
| <i>Suggestion boxes</i> | | | | | | | | |
| Never | 2 | 2.5 | 38 | 21.7 | 13 | 50.0 | 53 | 18.8 |
| Rarely | 19 | 23.5 | 44 | 25.1 | 8 | 30.8 | 71 | 25.2 |
| Sometimes | 27 | 33.2 | 54 | 30.9 | 5 | 19.2 | 86 | 30.5 |
| Often | 19 | 23.5 | 27 | 15.4 | 0 | 0.0 | 46 | 16.3 |
| Always | 14 | 17.3 | 12 | 6.9 | 0 | 0.0 | 26 | 9.2 |
| Total | 81 | 100.0 | 175 | 100.0 | 26 | 100.0 | 282 | 100.0 |
| <i>Student leadership</i> | | | | | | | | |
| Never | 5 | 6.2 | 37 | 21.1 | 10 | 38.5 | 52 | 18.5 |
| Rarely | 22 | 27.2 | 47 | 26.9 | 10 | 38.5 | 79 | 28.0 |
| Sometimes | 20 | 24.7 | 59 | 33.7 | 5 | 19.2 | 84 | 29.8 |
| Often | 24 | 29.6 | 23 | 13.2 | 1 | 3.8 | 48 | 17.0 |
| Always | 10 | 12.3 | 9 | 5.1 | 0 | 0.0 | 19 | 6.7 |
| Total | 81 | 100.0 | 175 | 100.0 | 26 | 100.0 | 282 | 100.0 |
| <i>External consultants</i> | | | | | | | | |
| Never | 10 | 12.3 | 44 | 25.1 | 11 | 42.3 | 65 | 23.0 |
| Rarely | 30 | 37.0 | 51 | 29.2 | 4 | 15.4 | 85 | 30.2 |
| Sometimes | 25 | 30.9 | 66 | 37.7 | 11 | 42.3 | 102 | 36.2 |
| Often | 7 | 8.7 | 12 | 6.9 | 0 | 0.0 | 19 | 6.7 |
| Always | 9 | 11.1 | 2 | 1.1 | 0 | 0.0 | 11 | 3.9 |
| Total | 81 | 100.0 | 175 | 100.0 | 26 | 100.0 | 282 | 100.0 |
| <i>Ministry of education officers</i> | | | | | | | | |
| Never | 10 | 12.3 | 42 | 24.0 | 10 | 38.5 | 62 | 22.0 |
| Rarely | 26 | 32.1 | 46 | 26.3 | 5 | 19.2 | 77 | 27.3 |
| Sometimes | 28 | 34.6 | 71 | 40.6 | 9 | 34.6 | 108 | 38.3 |
| Often | 11 | 13.6 | 14 | 8.0 | 2 | 7.7 | 27 | 9.6 |
| Always | 6 | 7.4 | 2 | 1.1 | 0 | 0.0 | 8 | 2.8 |
| Total | 81 | 100.0 | 175 | 100.0 | 26 | 100.0 | 282 | 100.0 |
| <i>NCPLWD officers</i> | | | | | | | | |
| Never | 10 | 12.3 | 41 | 23.4 | 10 | 38.5 | 61 | 21.6 |
| Rarely | 28 | 34.6 | 40 | 22.9 | 2 | 7.7 | 70 | 24.8 |
| Sometimes | 28 | 34.6 | 66 | 37.7 | 11 | 42.3 | 105 | 37.3 |
| Often | 9 | 11.1 | 23 | 13.1 | 3 | 11.5 | 35 | 12.4 |
| Always | 6 | 7.4 | 5 | 2.9 | 0 | 0.0 | 11 | 3.9 |
| Total | 81 | 100.0 | 175 | 100.0 | 26 | 100.0 | 282 | 100.0 |

In addition, cumulative results show that 153 (54.3%) participants reported a low frequency with which *interviews* were used to collect data on learners with disability, while 33

(11.7%) reported a high frequency regarding the same. Based on this, the analysis yielded a significant relationship between the frequency with which *interviews* were used to collect data on learners with disability and utilisation of physical facilities by the same group of learners ($\chi^2 = 75.365$, $df = 8$ & p -value = 0.000).

The results in Table 4.23 further show that 12 (4.3%) participants affirmed that *questionnaires* were ‘always’ used to collect data on learners with disability, while 27 (9.6%) felt that the channel was ‘often’ used for the stated purpose. The latter group consisted of 16 (19.8%) participants stating that learners with disability were ‘consistent’ in utilising physical facilities and 11 (6.3%) who felt that such learners were ‘inconsistent’ users of the facilities. Those who reported that *questionnaires* were ‘never’ used were 81 (28.6%) and they consisted of 8 (9.9) participants who stated that learners with disability were ‘consistent’ in utilising physical facilities, 52 (29.7%) who were of the view that such learners were ‘inconsistent’ users of the facilities and 21 (80.8%) who were ‘not sure’.

More still, cumulative results show that whereas up to 150 (53.1%) participants reported a low frequency with which *questionnaires* were used to collect data, while 39 (13.9%) reported a high frequency with which the channel was used. Based on this, the analysis revealed a significant relationship between how often *questionnaires* were used to collect data on learners with disability and utilisation of physical facilities by the same group of learners ($\chi^2 = 74.790$, $df = 8$ & p -value = 0.000).

Those who felt that *suggestion boxes* were ‘always’ used to collect data regarding learners with disability were 26 (9.2%) and they consisted of 14 (17.3%) participants who believed that learners with disability were ‘consistent’ users of physical facilities and 12 (6.9%) who thought that such learners were ‘inconsistent’ in utilising the facilities. Besides, 46 (16.3%)

participants indicated that *suggestion boxes* were ‘often’ used to collect data on learners with disability. Contrastingly, 53 (18.8%) participants stated that *suggestion boxes* were ‘never’ used, while 71 (25.2%) hinted that *suggestion boxes* were ‘rarely’ used to collect data. The results show that cumulatively, 124 (44.0%) participants reported a low frequency with which *suggestion boxes* were used to collect data on learners with disability, while 72 (25.5%) reported a high frequency with which the channel was used to collect data. Again, the analysis revealed a significant relationship between the frequency with which *suggestion boxes* were used to collect data on learners with disability and utilisation of physical facilities by learners with disability ($\chi^2 = 43.503$, $df = 8$ & $p\text{-value} = 0.000$).

The results show that *student leadership* is among the channels that were ‘always’ used to collect data on learners with disability, according to 19 (6.7%) participants, while 48 (17.0%) participants felt that the channel was ‘often’ used to collect data. The latter consisted of 24 (29.6%) participants who believed that learners with disability were ‘consistent’ in utilising physical facilities, 23 (13.2%) who were of the view that such learners were ‘inconsistent’ users of the facilities and 1 (3.8%) who was ‘not sure’. Those who stated that *student leadership* was ‘never’ used to collect data were 52 (18.5%) and they included 5 (6.2%) participants who indicated that learners with disability were ‘consistent’ in utilising physical facilities, 37 (21.1%) who felt that such learners were ‘inconsistent’ users of the facilities and 10 (38.5%) who were ‘not sure’. Cumulatively, up to 131 (46.5%) participants reported a low frequency with which *student leadership* was used to collect data on learners with disability, while 67 (23.7%) reported a low frequency regarding the aspect. Based on this, the analysis revealed a significant relationship between the frequency with which *student leadership* was used to collect data on

learners with disability and consistency in the utilisation of physical facilities by the same group of learners ($\chi^2 = 34.615$, $df = 8$ & p -value = 0.000).

According to 11 (3.9%) participants, *external consultants* were ‘always’ used to collect data on learners with disability, while 19 (6.7%) indicated that *external consultants* were ‘often’ used to collect data. The latter consisted of 7 (8.7%) participants who felt that learners with disability were ‘consistent’ in utilising physical facilities and 12 (6.9%) who believed that learners with disability were ‘inconsistent’ users of the facilities. However, 65 (23.0%) participants said that *external consultants* were ‘never’ used in data collection, while 85 (30.2%) stated that such consultants were ‘rarely’ used. Again, the latter consisted of 30 (37.0%) participants indicating that learners with disability were ‘consistent’ in utilising physical facilities, 51 (29.2%) who felt that such learners were ‘inconsistent’ in utilising the facilities and 4 (15.4%) who were ‘not sure’. Cumulatively, up to 150 (53.2%) participants reported a low frequency with which *external consultants* were used to collect data on learners with disability, while 30 (10.6%) reported a high frequency regarding the involvement of external consultants in data collection. Consequently, the analysis showed a significant relationship between the frequency with which *external consultants* were used to collect data on learners with disability and utilisation of physical facilities by the same group ($\chi^2 = 30.187$, $df = 8$ & p -value = 0.000).

More still, 8 (2.8%) participants said that *Ministry of Education officers* were ‘always’ used to collect data on learners with disability, while 27 (9.6%) said that such officers were ‘often’ involved in data collection. Cross-tabulation analysis shows that the latter consisted of 11 (13.6%) participants who stated that learners with disability were ‘consistent’ in utilising physical facilities, 14 (8.0%) who reported that such learners were ‘inconsistent’ users of the facilities and 2 (7.7%) who were ‘not sure’. Those who indicated that *Ministry of Education*

officers were ‘never’ used to collect information were 62 (22.0%) and they consisted of 10 (12.3%) participants saying that such learners were ‘consistent’ in utilising physical facilities, 42 (24.0%) who thought that such learners were ‘inconsistent’ users of the facilities and 10 (38.5%) who were ‘not sure’. Cumulative results show that whereas 139 (49.3%) reported a low frequency with which *Ministry of Education officers* were used in data collection, 35 (12.4%) reported a high frequency regarding the same aspect. Based on this, the analysis revealed a significant relationship between perceived frequency with which *Ministry of Education officers* were used to collect data on learners with disability and perceived consistency in the utilisation of physical facilities by learners with disability ($\chi^2 = 19.328$, $df = 8$ & p -value = 0.013).

Those who felt that *NCPLWD officers* were ‘always’ used to collect data on learners with disability were 11 (3.9%), while those who said that such officers were ‘often’ involved in data collection were 35 (12.4%). The latter included 9 (11.1%) participants who believed that learners with disability were ‘consistent’ in utilising physical facilities, 23 (13.1%) who indicated that such learners were ‘inconsistent’ in utilising the facilities and 3 (11.5%) who were ‘not sure’. Contrastingly, 61 (21.6%) participants indicated that *NCPLWD officers* were ‘never’ involved in data collection regarding learners with disability, while 70 (24.8%) said that such officers were ‘rarely’ involved in the exercise.

Cumulatively, the results show that up to 131 (46.4%) participants reported a low frequency regarding the use of *NCPLWD officers* in data collection, while 46 (16.3%) reported a high frequency for the same aspect. Consequently, the analysis obtained a significant relationship between how often *NCPLWD officers* were involved in data collection about learners with disability and utilisation of physical facilities by the same group of learners ($\chi^2 = 17.943$, $df = 8$ & p -value = 0.022).

The findings bring out the importance of channels used to collect data on learners with disability vis-à-vis utilisation of physical facilities by the same group. More specifically, the study found significant relationships between utilisation of physical facilities and how often the following channels were used to collect data on disability: *interviews* ($\chi^2 = 75.365$, $df = 8$ & p -value = 0.000); *questionnaires* ($\chi^2 = 74.790$, $df = 8$ & p -value = 0.000); *suggestion boxes* ($\chi^2 = 43.503$, $df = 8$ & p -value = 0.000). Other channels that were also significant included *student leadership* ($\chi^2 = 34.615$, $df = 8$ & p -value = 0.000); *external consultants* ($\chi^2 = 30.187$, $df = 8$ & p -value = 0.000); *Ministry of Education officers* ($\chi^2 = 19.328$, $df = 8$ & p -value = 0.013); as well as *NCPLWD officers* ($\chi^2 = 17.943$, $df = 8$ & p -value = 0.022).

The results suggest that all the channels that were examined seemed to be important in promoting utilisation of physical facilities by learners with disability. However, study did not assess merits and demerits of each channel. Consequently, the national polytechnics need to focus on such, while choosing appropriate channels for collecting data on various aspects of disability. Regardless of the choice, empirical evidence suggests that each channel has the potential of influencing utilisation of physical facilities by learners with disability.

Previous studies identify channels that are commonly used by government and non-government organisations to collect M&E data, including field visits, periodical M&E reports, consultancy services, and rapid assessments, among others (Mackay, 2007; Hardlife & Zhou, 2013). However, contrary to this study, previous studies did not say anything about the frequency with which the channels were used by various organisations and the influence of that on the achievement of organisational goals.

4.4.4.3 Adequacy and functionality of physical facilities for learners with disability

Provision of physical facilities is an important aspect of M&E systems support and supervision, particularly in academic institutions. Equally important are the adequacy and functionality of such physical facilities, which in turn, are indicators of effectiveness in M&E systems. This study found that physical facilities for learners with disability were inadequate in both institutions. “Surely what you are asking can’t make sense in a government institution, when even universities lack such facilities yet they are leading institutions of learning”

In this regard, KII participants identified facilities that were inadequate, which included adaptive beds, ramps and modified toilets for learners with impaired lower and upper limbs. Some participants attributed the inadequacy of physical facilities to inability to modify buildings to suit the needs of learners with disability. In this regard, a participant asserted that “...since these buildings were done in those days before the policy we cannot temper with the aesthetic of the building simply because of a ramp”. Such arguments suggest the existence of negative attitudes towards learners with disability among some teaching staff. Besides, participants noted that even though most of the available facilities were functional, some did not meet safety standards, which in turn, prevented consistent utilisation by learners with disability. For instance, participants cited that some ramps were too steep; thus, preventing access and consistent utilisation. Plate 4 shows a toilet facility at one of the institutions, which may pose challenges for learners with disability because of height (Appendix IX).

Furthermore, participants indicated that the Ministry of Education had an important role of providing assistive physical facilities; however, attention seemed to be more skewed towards facilities utilised by learners with physical forms of disability (lower and upper limbs); than

towards those utilised by learners with other forms of disability, including visual, hearing, speech, and multiple disabilities. Participants further pointed out that due to shortage of appropriate physical facilities, the institutions failed to admit learners with such forms of disability. In the words of a key informant, “...this institution is not meant for learners with severe forms of disability, as affording equipment and human resource is a nightmare.”

The findings call for more action from the government by increasing budgetary allocation and prioritisation of physical facilities based on needs established through M&E systems. The government also has the option of encouraging non-governmental agencies to establish and equip TVET centres to provide opportunity for learners whose needs may not be met by national polytechnics. In this regard, the government has the duty to formulate favourable taxation policies, such as zero-rating facilities that may be imported by agencies willing to take up the challenge. Plate 5 shows climb-up walkways and safety rails that are adapted for use by learners with disability one of the institutions (Appendix IX).

Adequacy of physical facilities is a subject that has been investigated by previous studies. For instance, Izuka (2010) reported that lack of appropriate physical facilities affected the quality of support and services provided to learners with disability in Nigerian post secondary education institutions, which in turn, impeded performance and lengthened course duration. Lack of inadequacy of appropriate physical facilities has also been mentioned in other developing countries, including South Africa (Matshediso, 2007); Bangladesh (Kusek & Rist, 2004).

4.4.4.4 Financing the maintenance of facilities used by learners with disability

Maintenance of physical facilities used by learners with disability is another important element of M&E systems support. The frequency with which maintenance of such facilities is financed is crucial for consistent functionality and utilisation by learners with disability. In view

of this, the study captured participants' views regarding how often the maintenance of various physical facilities was financed by the institutions. Plate 6 shows a toilet facility at one of the institutions, which provides indications of poor state of maintenance (Appendix IX).

The results, which are presented in Table 4.24 show that of the 282 participants, 27 (9.6%) reported that *lighting in buildings* was 'always' financed by the administration. This group consisted of 16 (19.8%) participants who indicated that learners with disability were 'consistent' in utilising physical facilities and 11 (6.3%) who believed that such learners were 'inconsistent' in utilising the facilities. Besides, 46 (16.3%) participants indicated that maintenance of *lighting in buildings* was 'often' financed, while 48 (17.0%) stated that the aspect was 'never' financed by administration. Cumulative results show that 116 (41.1%) participants reported a low frequency of financing the maintenance *lighting in the buildings*, while 73 (25.9%) reported a high frequency of financing by the institutions. In addition, the analysis obtained a significant relationship between how often the maintenance of *lighting in buildings* was financed by the institutions and utilisation of physical facilities by learners with disability ($\chi^2 = 81.804$, $df = 8$ & $p\text{-value} = 0.000$).

Table 4.24: Frequency of financing maintenance of facilities used by learners with disability

| Frequency with which maintenance of various facilities was financed | Consistent | | Inconsistent | | Not Sure | | Total | |
|---|------------|--------------|--------------|--------------|-----------|--------------|------------|--------------|
| | Freq | % | Freq | % | Freq | % | Freq | % |
| <i>Lighting in the buildings</i> | | | | | | | | |
| Never | 1 | 1.2 | 29 | 16.6 | 18 | 69.2 | 48 | 17.0 |
| Rarely | 14 | 17.3 | 48 | 27.4 | 6 | 23.1 | 68 | 24.1 |
| Sometimes | 31 | 38.2 | 60 | 34.3 | 2 | 7.7 | 93 | 33.0 |
| Often | 19 | 23.5 | 27 | 15.4 | 0 | 0.0 | 46 | 16.3 |
| Always | 16 | 19.8 | 11 | 6.3 | 0 | 0.0 | 27 | 9.6 |
| Total | 81 | 100.0 | 175 | 100.0 | 26 | 100.0 | 282 | 100.0 |
| <i>Walkways</i> | | | | | | | | |
| Never | 2 | 2.5 | 19 | 10.9 | 5 | 19.2 | 26 | 9.2 |
| Rarely | 15 | 18.5 | 48 | 27.4 | 15 | 57.8 | 78 | 27.7 |
| Sometimes | 21 | 25.9 | 60 | 34.3 | 5 | 19.2 | 86 | 30.5 |
| Often | 27 | 33.3 | 37 | 21.1 | 0 | 0.0 | 64 | 22.7 |
| Always | 16 | 19.8 | 11 | 6.3 | 1 | 3.8 | 28 | 9.9 |
| Total | 81 | 100.0 | 175 | 100.0 | 26 | 100.0 | 282 | 100.0 |
| <i>Security appliances</i> | | | | | | | | |
| Never | 24 | 29.6 | 72 | 41.1 | 5 | 19.2 | 101 | 35.8 |
| Rarely | 18 | 22.2 | 39 | 22.3 | 8 | 30.8 | 65 | 23.0 |
| Sometimes | 16 | 19.8 | 43 | 24.6 | 12 | 46.2 | 71 | 25.2 |
| Often | 18 | 22.2 | 17 | 9.7 | 1 | 3.8 | 36 | 12.8 |
| Always | 5 | 6.2 | 4 | 2.3 | 0 | 0.0 | 9 | 3.2 |
| Total | 81 | 100.0 | 175 | 100.0 | 26 | 100.0 | 282 | 100.0 |
| <i>Ramps</i> | | | | | | | | |
| Never | 1 | 1.2 | 14 | 8.0 | 4 | 15.4 | 19 | 6.7 |
| Rarely | 16 | 19.7 | 34 | 19.4 | 4 | 15.4 | 54 | 19.1 |
| Sometimes | 22 | 27.2 | 72 | 41.2 | 12 | 46.1 | 106 | 37.7 |
| Often | 22 | 27.2 | 35 | 20.0 | 4 | 15.4 | 61 | 21.6 |
| Always | 20 | 24.7 | 20 | 11.4 | 2 | 7.7 | 42 | 14.9 |
| Total | 81 | 100.0 | 175 | 100.0 | 26 | 100.0 | 282 | 100.0 |
| <i>Electrical appliances</i> | | | | | | | | |
| Never | 20 | 24.7 | 73 | 41.8 | 5 | 19.2 | 98 | 34.7 |
| Rarely | 25 | 30.9 | 28 | 16.0 | 3 | 11.5 | 56 | 19.9 |
| Sometimes | 15 | 18.5 | 35 | 20.0 | 5 | 19.2 | 55 | 19.5 |
| Often | 13 | 16.0 | 30 | 17.1 | 12 | 46.3 | 55 | 19.5 |
| Always | 8 | 9.9 | 9 | 5.1 | 1 | 3.8 | 18 | 6.4 |
| Total | 81 | 100.0 | 175 | 100.0 | 26 | 100.0 | 282 | 100.0 |

The results show that 28 (9.9%) participants reported that maintenance of *walkways* was ‘always’ financed by the institutions, while 64 (22.7%) stated that the aspect was ‘often’ financed. This group consisted of 27 (33.3%) participants reporting that learners with disability utilised physical facilities ‘consistently’ and 37 (21.1%) who felt that such learners were ‘inconsistent’ in utilising the facilities. Contrastingly, 26 (9.2%) participants said that maintenance of *walkways* was ‘never’ financed, while 78 (27.7%) indicated that the aspect was ‘rarely’ financed by the institutions. Moreover, cumulative results show that whereas 104

(36.9%) participants reported a low frequency with which maintenance of *walkways* was financed by the institutions, 92 (32.6%) reported a high frequency regarding the aspect. The analysis yielded a significant relationship between the frequency with which maintenance of *walkways* was financed by the institutions and utilisation of physical facilities by learners with disability ($\chi^2 = 42.036$, $df = 8$ & $p\text{-value} = 0.000$). Plate 7 shows a well maintained walkway at one of the institutions (Appendix IX).

More still, 9 (3.2%) participants were of the view that maintenance of *security appliances* was 'always' financed, while 36 (12.8%) felt that maintenance of such facilities was 'often' financed. The latter group consisted of 18 (22.2%) participants believing that learners with disability were 'consistent' in utilising physical facilities, 17 (9.7%) who indicated that such learners were 'inconsistent' in utilising the facilities and 1 (3.8%) who was not sure. Those who felt that maintenance of *security appliances* was 'never' financed were 101 (35.8%) and they included 24 (29.6%) participants who said that learners with disability were 'consistent' in utilising physical facilities, 72 (41.1%) who believed that such learners were 'inconsistent' users of the facilities and 5 (19.2%) who were 'not sure'.

Cumulatively, about two-thirds of the participants, 166 (58.8%), reported a low frequency with which maintenance of *security appliances* was financed by the institutions, while 45 (16.0%) reported a high frequency regarding the aspect. Consequently, the analysis revealed a significant relationship between the frequency with which maintenance of *security appliances* was financed by the institutions and utilisation of physical facilities by learners with disability ($\chi^2 = 22.612$, $df = 8$ & $p\text{-value} = 0.004$).

Furthermore, 42 (14.9%) participants, including 20 (24.7%) who believed that learners with disability were 'consistent' in utilising physical facilities, another 20 (11.4%) who stated

that such learners were ‘inconsistent’ users of the facilities and 2 (7.7%) who were ‘not sure’; reported that maintenance of *ramps* was ‘always’ financed by the institutions. The results further show that 61 (21.6%) participants were of the view that maintenance of *ramps* was ‘often’ financed. However, 19 (6.7%) participants felt that maintenance of *ramps* was ‘never’ financed, while 54 (19.1%) indicated that the aspect was ‘rarely’ financed by the institutions. Cumulative results show that whereas 103 (36.5%) participants reported a high frequency regarding financing the maintenance of *ramps*, 73 (25.8%) reported a low frequency regarding the same aspect. Based on this, the analysis obtained a significant relationship between the frequency with which maintenance of *ramps* was financed by the institutions and utilisation of physical facilities by learners with disability ($\chi^2 = 19.960$, $df = 8$ & $p\text{-value} = 0.010$).

Regarding maintenance of *electrical appliances*, 18 (6.4%) participants were of the view that the aspect was ‘always’ financed, while 55 (19.5%) indicated that it was ‘often’ financed. This group consisted of 13 (16.0%) participants who believed that learners with disability were ‘consistent’ in utilising physical facilities, 30 (17.1%) who felt that such learners were ‘inconsistent’ in utilising the facilities and 12 (46.3%) who were ‘not sure’. Those who reported that maintenance of *electrical appliances* was ‘never’ financed were 98 (34.7%) and they included 20 (24.7%) participants stating that learners with disability were ‘consistent’ in utilising physical facilities, 73 (41.8%) who thought that such learners were ‘inconsistent’ users of the facilities and 5 (19.2%) who were ‘not sure’. Cumulative results show that whereas more than one-half of the participants, 154 (54.6%), reported a low frequency with which maintenance of electrical appliances was financed by the institutions, 73 (25.9%) indicated a low frequency regarding the same aspect. The analysis revealed a significant relationship between the frequency

with which maintenance of *electrical appliances* was financed by the institutions and utilisation of physical facilities by learners with disability ($\chi^2 = 26.521$, $df = 8$ & p -value = 0.001).

The findings show that utilisation of physical facilities by learners with disability was a function of how often the maintenance of such facilities was financed by the authorities. More specifically, the study established significant relationships between utilisation of physical facilities by such learners and how often maintenance of the following physical facilities was financed: *lighting in buildings* ($\chi^2 = 81.804$, $df = 8$ & p -value = 0.000); *walkways* ($\chi^2 = 42.036$, $df = 8$ & p -value = 0.000); as well as *security appliances* ($\chi^2 = 22.612$, $df = 8$ & p -value = 0.004). Besides, utilisation of the facilities significantly associated with the frequency with which the institutions financed maintenance of *ramps* ($\chi^2 = 19.960$, $df = 8$ & p -value = 0.010); and *electrical appliances* ($\chi^2 = 26.521$, $df = 8$ & p -value = 0.001).

These findings amplify the importance of regular maintenance of physical facilities utilised by learners with disability. However, an average of 129 (45.6%) participants reported a low frequency with which maintenance of the cited facilities was financed. This suggests that financing the maintenance of such facilities was not regular, which may have contributed to under-utilisation by the intended beneficiaries. The assertion is corroborated by FGD and KII findings, which showed that maintenance of physical facilities was infrequent in both institutions. In this regard, some participants pointed out that the institutions focused more on creating new physical facilities than maintaining existing ones, which is good for expanding opportunities for learners with disability to access technical education.

Due to resource constraints, no institution can create physical facilities every year. Thus, a proper maintenance plan is important for keeping existing physical facilities functional and supportive to learners with disability at a relatively lower cost. In view of this, the institutions

should focus on improving their facility maintenance programmes, particularly by seeking more funding as well as mobilising additional resources through internal revenue sources and where possible, mobilise external resources from development agencies. Keeping physical facilities in good condition is important for encouraging 'consistent' utilisation by learners with disability, which in turn, is likely to facilitate participation in various learning and extra-curricular activities. Plate 8 shows a doorstep at Kisumu Polytechnic that was modified to facilitate passage of learners with disability (Appendix IX).

Similar findings were reported by Abosi (2007) that in Botswana, utilisation of physical facilities by learners with disability was constrained by lack of funds for repair and maintenance; thereby, leading to overcrowded classrooms and basic places in the institution of higher learning. In Nigeria, Izuka (2010) linked low utilisation of physical facilities to budgetary constraints for maintenance of the facilities, which in turn, contributed to accidents among learners with disability. As noted by UNICEF (2009), weak M&E systems have implications on the maintenance and functionality of physical facilities, which in turn, affects their use

4.4.4.5 Priority in the maintenance of various facilities used by learners with disability

The level of priority accorded to the maintenance of various facilities used by learners with disability is a key indicator of effectiveness in M&E systems support, as well as utilisation of such facilities. In view of this, participants were requested to indicate their views about the level of priority accorded to various physical facilities utilised by learners with disability in terms of maintenance. The results, which are presented in Table 4.25 show that of the 282 participants, 15 (5.3%) indicated that maintenance of *dining halls* was 'essential', while 63 (22.4%) felt that the aspect was accorded a 'high priority'. This group included 30 (37.0%) participants reporting

that learners with disability were ‘consistent’ in utilising physical facilities and 33 (18.9%) who indicated that such learners were ‘inconsistent’ users of the facilities.

Table 4.25: Perceived level of priority in the maintenance of various facilities

| Level of priority in maintenance of various facilities | Consistent | | Inconsistent | | Not Sure | | Total | |
|--|------------|--------------|--------------|--------------|-----------|--------------|------------|--------------|
| | Freq | % | Freq | % | Freq | % | Freq | % |
| <i>Dining halls</i> | | | | | | | | |
| Not a priority | 2 | 2.5 | 43 | 24.5 | 20 | 76.9 | 65 | 23.0 |
| Low priority | 8 | 9.9 | 39 | 22.3 | 4 | 15.4 | 51 | 18.1 |
| Medium priority | 30 | 37.0 | 56 | 32.0 | 2 | 7.7 | 88 | 31.2 |
| High priority | 30 | 37.0 | 33 | 18.9 | 0 | 0.0 | 63 | 22.4 |
| Essential | 11 | 13.6 | 4 | 2.3 | 0 | 0.0 | 15 | 5.3 |
| Total | 81 | 100.0 | 175 | 100.0 | 26 | 100.0 | 282 | 100.0 |
| <i>Hostels</i> | | | | | | | | |
| Not a priority | 1 | 1.2 | 31 | 17.7 | 9 | 34.6 | 41 | 14.5 |
| Low priority | 10 | 12.4 | 41 | 23.4 | 14 | 53.9 | 65 | 23.0 |
| Medium priority | 27 | 33.3 | 66 | 37.7 | 2 | 7.7 | 95 | 33.8 |
| High priority | 33 | 40.8 | 32 | 18.3 | 1 | 3.8 | 66 | 23.4 |
| Essential | 10 | 12.3 | 5 | 2.9 | 0 | 0.0 | 15 | 5.3 |
| Total | 81 | 100.0 | 175 | 100.0 | 26 | 100.0 | 282 | 100.0 |
| <i>Administration block</i> | | | | | | | | |
| Not a priority | 1 | 1.2 | 29 | 16.5 | 2 | 7.7 | 32 | 11.3 |
| Low priority | 15 | 18.5 | 43 | 24.6 | 15 | 57.7 | 73 | 25.9 |
| Medium priority | 26 | 32.1 | 64 | 36.6 | 8 | 30.8 | 98 | 34.8 |
| High priority | 26 | 32.1 | 34 | 19.4 | 1 | 3.8 | 61 | 21.6 |
| Essential | 13 | 16.1 | 5 | 2.9 | 0 | 0.0 | 18 | 6.4 |
| Total | 81 | 100.0 | 175 | 100.0 | 26 | 100.0 | 282 | 100.0 |
| <i>Toilets</i> | | | | | | | | |
| Not a priority | 5 | 6.2 | 25 | 14.3 | 3 | 11.5 | 33 | 11.7 |
| Low priority | 15 | 18.5 | 41 | 23.4 | 13 | 50.0 | 69 | 24.5 |
| Medium priority | 21 | 25.9 | 70 | 40.0 | 10 | 38.5 | 101 | 35.8 |
| High priority | 28 | 34.6 | 31 | 17.7 | 0 | 0.0 | 59 | 20.9 |
| Essential | 12 | 14.8 | 8 | 4.6 | 0 | 0.0 | 20 | 7.1 |
| Total | 81 | 100.0 | 175 | 100.0 | 26 | 100.0 | 282 | 100.0 |
| <i>Walkways</i> | | | | | | | | |
| Not a priority | 1 | 1.2 | 11 | 6.3 | 2 | 7.7 | 14 | 5.0 |
| Low priority | 11 | 13.6 | 36 | 20.6 | 6 | 23.1 | 53 | 18.8 |
| Medium priority | 26 | 32.2 | 79 | 45.1 | 14 | 53.8 | 119 | 42.2 |
| High priority | 30 | 37.0 | 41 | 23.4 | 4 | 15.4 | 75 | 26.6 |
| Essential | 13 | 16.0 | 8 | 4.6 | 0 | 0.0 | 21 | 7.4 |
| Total | 81 | 100.0 | 175 | 100.0 | 26 | 100.0 | 282 | 100.0 |
| <i>Classrooms</i> | | | | | | | | |
| Not a priority | 2 | 2.5 | 14 | 8.0 | 3 | 11.5 | 19 | 6.7 |
| Low priority | 12 | 14.8 | 34 | 19.4 | 4 | 15.4 | 50 | 17.8 |
| Medium priority | 27 | 33.3 | 81 | 46.3 | 10 | 38.5 | 118 | 41.8 |
| High priority | 28 | 34.6 | 39 | 22.3 | 9 | 34.6 | 76 | 27.0 |
| Essential | 12 | 14.8 | 7 | 4.0 | 0 | 0.0 | 19 | 6.7 |
| Total | 81 | 100.0 | 175 | 100.0 | 26 | 100.0 | 282 | 100.0 |
| <i>Ramps</i> | | | | | | | | |
| Not a priority | 5 | 6.2 | 10 | 5.7 | 3 | 11.5 | 18 | 6.4 |
| Low priority | 7 | 8.6 | 32 | 18.3 | 1 | 3.8 | 40 | 14.2 |
| Medium priority | 23 | 28.4 | 69 | 39.4 | 7 | 26.9 | 99 | 35.1 |
| High priority | 30 | 37.0 | 47 | 26.9 | 11 | 42.4 | 88 | 31.2 |
| Essential | 16 | 19.8 | 17 | 9.7 | 4 | 15.4 | 37 | 13.1 |
| Total | 81 | 100.0 | 175 | 100.0 | 26 | 100.0 | 282 | 100.0 |

Those who felt that maintenance of *dining halls* was 'not a priority' were 65 (23.0%) participants, and this included 2 (2.5%) participants who stated that learners with disability were 'consistent' in utilising physical facilities, 43 (24.5%) who thought that such learners utilised the facilities 'inconsistently', and 20 (76.9%) who were 'not sure'. Cumulative results show that 116 (41.1%) participants reported a low level of priority regarding maintenance of *dining halls*, while 78 (27.7%) indicated a high level of priority regarding the aspect. The analysis obtained a significant relationship between level of priority in the maintenance of *dining halls* and utilisation of physical facilities by learners with disability ($\chi^2 = 89.546$, $df = 8$ & p -value = 0.000).

The results show that 15 (5.3%) participants stated that maintenance of *hostels* was 'essential'. This group included 10 (12.3%) participants who felt that learners with disability were 'consistent' users of physical facilities and 5 (2.9%) who thought that such learners were 'inconsistent' in utilising the facilities. Besides, 66 (23.4%) participants stated that maintenance of *hostels* was accorded a 'high priority', 41 (14.5%) indicated that the aspect was 'not a priority', while 65 (23.0%) felt that the aspect was given a 'low priority'. Cumulatively, the results show that up to 106 (37.5%) participants reported a low level of priority regarding maintenance of *hostels*, as compared to 81 (28.7%) who reported a high level of priority. The analysis revealed a significant relationship between level of priority accorded to maintenance of *hostels* and utilisation of physical facilities by learners with disability ($\chi^2 = 66.585$, $df = 8$ & p -value = 0.000).

Furthermore, 18 (6.4%) participants indicated that maintenance of *administrative blocks* was considered 'essential', while 61 (21.6%) felt that the aspect was accorded a 'high priority'. This group consisted of 26 (32.1%) participants who believed that learners with disability

utilised physical facilities ‘consistently’, 34 (19.4%) who felt that such learners were ‘inconsistent’ users of the facilities and 1 (3.8%) who was ‘not sure’. Those who felt that maintenance of *administrative blocks* was ‘not a priority’ were 32 (11.3%) and they included 1 (1.2%) person who thought that learners with disability were ‘consistent’ in utilising physical facilities, 29 (16.5%) who believed that such learners utilised the facilities ‘inconsistently’ and 2 (7.7%) who were ‘not sure’. Cumulative results show that whereas 105 (37.2%) participants reported a low level of priority regarding maintenance of *administrative blocks*, 79 (28.0%) reported a high level of priority regarding the same. Consequently the analysis obtained a significant relationship between level of priority in the maintenance of *administrative blocks* and utilisation of physical facilities by learners with disability ($\chi^2 = 49.463$, $df = 8$ & p -value = 0.000).

Table 4.25 further shows that 20 (7.1%) participants, including 12 (14.8%) who indicated that learners with disability were ‘consistent’ in using physical facilities and 8 (4.6%) who believed that such learners were ‘inconsistent’ users of the facilities, rated the level of priority in the maintenance of *toilets* as ‘essential’. Besides, 59 (20.9%) participants indicated that maintenance of *toilets* was accorded a ‘high priority’, 33 (11.7%) felt that the aspect was ‘not a priority’, while 69 (24.5%) stated that the aspect was given a ‘low priority’. Besides, cumulative results show that 102 (36.2%) participants reported low levels of priority in the maintenance of *toilets*, while 79 (28.0%) reported a high level of priority regarding the aspect. Based on this, the analysis revealed a significant relationship between level of priority in the maintenance of *toilets* and utilisation of physical facilities by learners with disability ($\chi^2 = 38.142$, $df = 8$ & p -value = 0.000).

The results show that 21 (7.4%) participants rated the level of priority in the maintenance of *walkways* as 'essential', while 75 (26.6%) indicated that the aspect was accorded a 'high priority'. The latter included 30 (37.0%) participants who felt that learners with disability were 'consistent' in utilising physical facilities, 41 (23.4%) who stated that such learners utilised the facilities 'inconsistently', and 4 (15.4%) who were 'not sure'. Contrastingly, 14 (5.0%) participants indicated that maintenance of walkways was 'not a priority', while 53 (18.8%) indicated that the aspect was accorded a 'low priority'. Cumulative results show that more than one-third of participants, 96 (34.0%), reported a high level of priority regarding maintenance of *walkways*, while 67 (23.8%) reported a low level of priority regarding the aspect. The analysis yielded a significant relationship between level of priority in accorded to maintenance of *walkways* and utilisation of physical facilities by learners with disability ($\chi^2 = 25.286$, $df = 8$ & ρ -value = 0.001).

Those who felt that maintenance of *classrooms* was considered 'essential' were 19 (6.7%), and they included 12 (14.8%) participants saying that learners with disability were 'consistent' in utilising physical facilities and 7 (4.0%) who stated that such learners were 'inconsistent' users of the facilities. Moreover, 76 (27.0%) participants indicated that maintenance of *classrooms* was accorded a 'high priority'; while 19 (6.7%) reported that the aspect was 'not a priority' in their institutions. Whereas 95 (33.7%) participants indicated a high level of priority regarding maintenance of *classrooms*, 69 (24.5%) reported a low level of priority regarding the aspect. Based on this, the analysis showed that level of priority in the maintenance of *classrooms* significantly associated with utilisation of physical facilities by learners with disability ($\chi^2 = 21.811$, $df = 8$ & ρ -value = 0.005).

Regarding *ramps*, 37 (13.1%) participants rated the priority accorded to maintenance of the facilities as ‘essential’, while 88 (31.2%) indicated that the aspect was accorded a ‘high priority’. The latter consisted of 30 (37.0%) participants saying that that learners with disability were ‘consistent’ in utilising physical facilities, 47 (26.9%) who believed that such learners were ‘inconsistent’ in utilising the facilities and 11 (42.4%) who were ‘not sure’. Those who felt that maintenance of *ramps* was ‘not a priority’ were 18 (6.4%), while those indicating thought that the aspect was accorded a ‘low priority’ were 40 (14.2%). The latter included 7 (8.6%) participants believing that learners with disability were ‘consistent’ in utilising physical facilities, 32 (18.3%) who said that such learners were ‘inconsistent’ users of the facilities and 1 (3.8%) who was not sure. Cumulative results show that most participants, 125 (44.3%), reported a high level of priority regarding maintenance of *ramps*, while 58 (20.6%) reported a low level of priority regarding the aspect. Besides, the analysis obtained a significant relationship between level of priority in the maintenance of *ramps* and utilisation of physical facilities by learners with disability ($\chi^2 = 16.801$, $df = 8$ & $p\text{-value} = 0.032$).

The study found that prioritisation of various physical facilities for maintenance is likely to influence utilisation of such facilities by learners with disability. In this regard, the study revealed that utilisation of physical facilities by learners with disability significantly associated with the level of priority accorded to the maintenance of: *dining halls* ($\chi^2 = 89.546$, $df = 8$ & $p\text{-value} = 0.000$); *hostels* ($\chi^2 = 66.585$, $df = 8$ & $p\text{-value} = 0.000$); and *administrative blocks* ($\chi^2 = 49.463$, $df = 8$ & $p\text{-value} = 0.000$). In addition, the study found significant relationships between utilisation of the facilities and the level of priority given to maintenance of *toilets* ($\chi^2 = 38.142$, $df = 8$ & $p\text{-value} = 0.000$); *walkways* ($\chi^2 = 25.286$, $df = 8$ & $p\text{-value} = 0.001$); *classrooms* ($\chi^2 = 21.811$, $df = 8$ & $p\text{-value} = 0.005$); and *ramps* ($\chi^2 = 16.801$, $df = 8$ & $p\text{-value} = 0.032$).

These findings suggest that maintenance of each physical facility was likely to cause a significant influence in the utilisation of such facilities by learners with disability. Consequently, the institutions should consider all types of facilities for maintenance as resources permit. The choice of facilities to be maintained may also be dictated by factors such as extent of malfunction, number of users, and availability of financial resources. In addition, the study found that maintenance of *ramps* was accorded the highest level of priority, according to 125 (44.3%) participants; followed by *walkways*, 96 (34.0%); *classrooms*, 95 (33.7%); and *hostels*, 81 (28.7%). Nonetheless, programmes initiated to improve utilisation of physical facilities by learners with disability should prioritise the maintenance of all types of facilities.

4.4.4.6 Testing null hypothesis four (H_04)

Hypothesis testing process examined the influence of M&E system support and supervision on utilisation of physical facilities by learners with disability. The results in Table 4.26 show three indicators, which operationalized the variable M&E system support and supervision, viz. perceived usefulness of support provided by administrators/managers at various levels; frequency of maintenance of facilities used by learners with disability; as well as level of priority in the maintenance of various facilities used by learners with disability. The results show that learners with disability significantly correlate all the three indicators with utilisation of physical facilities.

Table 4.26: Summary of correlation analysis for M&E system support and supervision

| Correlations | | | | |
|---------------------|--|-------------------------|---------------------------------------|--|
| | | | Utilisation of physical facilities | Perceived helpfulness of administrators/ma nagers |
| Spearman's rho | Utilisation of physical facilities | Correlation Coefficient | 1.000 | 0.464 |
| | | Sig. (2-tailed) | . | 0.013** |
| | | N | 282 | 282 |
| | Perceived helpfulness of administrators/managers | Correlation Coefficient | 0.464 | 1.000 |
| | | Sig. (2-tailed) | 0.013** | . |
| | | N | 282 | 282 |
| | | | Utilisation of physical facilities | Frequency of financing maintenance of facilities used by disabled learners |
| Spearman's rho | Utilisation of physical facilities | Correlation Coefficient | 1.000 | 0.517 |
| | | Sig. (2-tailed) | . | 0.000*** |
| | | N | 282 | 282 |
| | Frequency of financing maintenance of facilities used by disabled learners | Correlation Coefficient | 0.517 | 1.000 |
| | | Sig. (2-tailed) | 0.000*** | . |
| | | N | 282 | 282 |
| | | | Utilisation of physical facilities | Priority in maintenance of various facilities |
| Spearman's rho | Utilisation of physical facilities | Correlation Coefficient | 1.000 | 0.497 |
| | | Sig. (2-tailed) | . | 0.001*** |
| | | N | 282 | 282 |
| | Priority in maintenance of various facilities | Correlation Coefficient | 0.497 | 1.000 |
| | | Sig. (2-tailed) | 0.001*** | . |
| | | N | 282 | 282 |
| | | | Utilisation of physical facilities | Program monitoring process |
| Spearman's rho | Utilisation of physical facilities | Correlation Coefficient | 1.000 | 0.650 |
| | | Sig. (2-tailed) | . | 0.000*** |
| | | N | 282 | 282 |
| | Program monitoring process | Correlation Coefficient | 0.650 | 1.000 |
| | | Sig. (2-tailed) | 0.000*** | . |
| | | N | 282 | 282 |

, **, * show significance at $\rho < 0.1$, $\rho < 0.05$ and $\rho < 0.01$ error margins, respectively*

The three indicators were further aggregated to create new values for the variable - M&E system support and supervision. The analysis further revealed a significant and positive correlation between M&E system support and supervision and utilisation of physical facilities by

learners with disability ($r_s = 0.650$ & $p\text{-value} = 0.000$). The correlation was strong, according to the categorisation developed by Myers and Well (2003). More specifically, the results show up to 99% chance that M&E system and support significantly correlated to utilisation of the facilities by learners with disability, which led to rejection of the fourth null hypothesis (H_04), stating that *there is no significant correlation between M&E support and supervision and utilisation of physical facilities by learners with disability*.

The results imply that programmes initiated to improve utilisation of physical facilities by learners with disability should focus on improving the M&E system support and supervision, by improving the quality of support provided by administrators/managers at various levels to teaching staff as well as to learners. This may be achieved through regular training programmes for administrators/managers, coupled with effective motivation and performance management initiatives.

More still, programmes designed to improve utilisation of physical facilities by learners with disability should consider creating a proper maintenance programme for all types of facilities utilised by such learners. Maintenance programmes can be made effective by having sufficient budgetary allocations, appropriate technical skills, as well as a coordination system to ensure that all departments are supported by the programme. However, given that national polytechnics are not sufficiently funded by sectoral budgets, there is need for institutional administrators/managers to explore alternative ways of generating supplementary resources to finance facility maintenance programmes. In other words, the institutions need to initiate appropriate revenue ventures to improve the budget for facility maintenance programmes.

4.4.5 Technical and Vocational Education and Training Policy, M&E Systems and Utilisation of Physical Facilities by Learners with Disability

The TVET Policy aims at improving equitable access to technical education and training by all learners, regardless of gender, disability status, or ethnic background. In this regard, the policy aims at achieving a gross enrolment rate of 20% in TVET by the year 2023, in all counties, sub-counties, and institutions, including national polytechnics (GoK, 2012a). All institutions providing technical education and training are expected to contribute towards realisation of the goal by developing own policy guidelines in line with the national TVET and or Ministry of Education policies, in order to facilitate integration of learners with disability as well as improve the monitoring and evaluation of disability programmes within the institutions. This study examined the availability of TVET/MoE policy on disability and its influence on utilisation of physical facilities by learners with disability. The results are presented in the following sub-sections.

4.4.5.1 TVET/MoE disability policy guidelines and perceptions about equal access rights

The availability of TVET/MoE policy guidelines on disability is crucial for facilitating integration of learners with disability in educational institutions by promoting mobility and participation in learning and extra-curricular activities. In view of this, the study captured participants' views regarding availability of TVET/MoE policy guidelines in their institutions.. The results presented in Figure 4.2 show that of the 282 participants, 202 (71.6%) confirmed the existence of such policy guidelines. This group consisted of 65 (80.2%) participants believing that learners with disability were 'consistent' in utilising physical facilities, 124 (70.9%) who stated that such learners were 'inconsistent' users of the facilities and 13 (50.0%) who were 'not

sure'. In addition, the analysis revealed a significant relationship between availability of policy guidelines for integration of learners with disability and utilisation of physical facilities by the same group ($\chi^2 = 8.997$, $df = 2$ & ρ -value = 0.011).

Similarly, KII participants reported that the institutions had formulated policy guidelines promoting the integration of learners with all forms of disability, in line with provisions of the national TVET/MoE policy frameworks on disability. However, some participants noted that such policy guidelines were neither documented nor disseminated. In this regard, about one-third of the participants (teaching staff), 80 (28.4%), were not aware of the existence of such policy guidelines. In view of this, some KII participants observed that there was no guarantee for admission to learners with disability, neither was there 'consistent' support in the utilisation of physical facilities to facilitate mobility and participation.

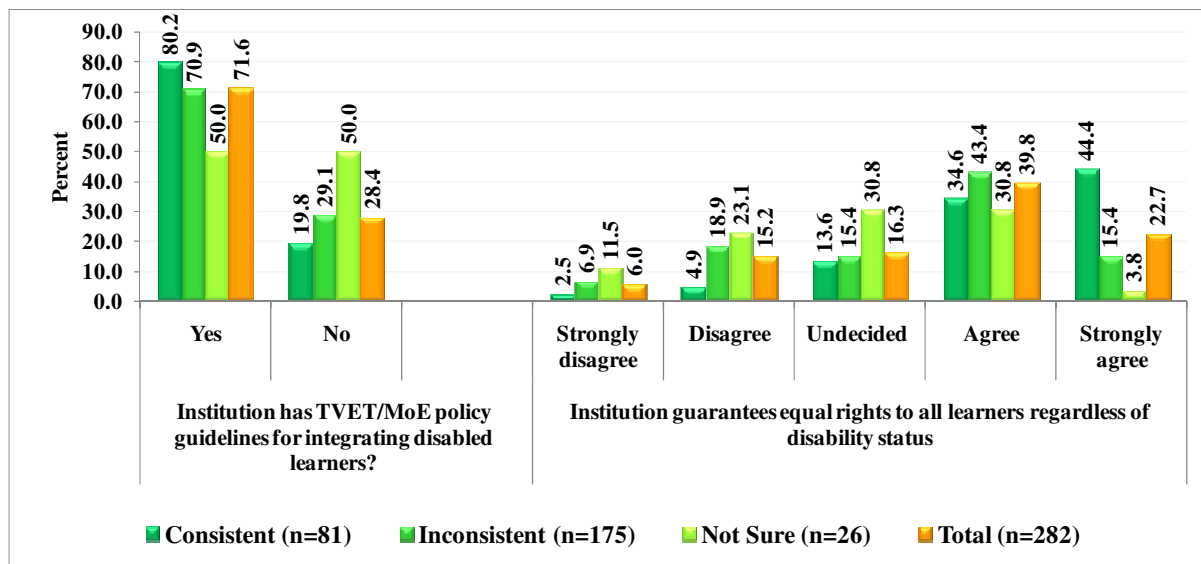


Figure 4.2: Availability of disability policy guidelines and perceptions about dropout rates

Furthermore, the study captured participants' views regarding the extent to which the institutions guaranteed equal rights to all learners regardless of disability status. The results in

Figure 4.2 show that of the 282 participants, 64 (22.7%) agreed strongly that the institutions guaranteed equal rights to all learners regardless of disability status, while 112 (39.8%) agreed with the assertion. This included 28 (34.6%) participants saying that learners with disability were 'consistent' in utilising physical facilities, 76 (43.4%) who believed that such learners were 'inconsistent' users of the facilities and 8 (30.8%) who were 'not sure'.

Contrastingly, 17 (6.0%) participants reported 'strong disagreement', while 43 (15.2%) participants 'disagreed' with the assertion. This group consisted of 4 (4.9%) participants believing that learners with disability were 'consistent' in utilising physical facilities, 33 (18.9%) who stated that such learners were 'inconsistent' users of the facilities and 6 (23.1%) who were 'not sure'. More still, cumulative results show that whereas most participants, 176 (62.4%), reported agreement that the *institutions guaranteed equal rights to all learners regardless of disability status*, up to 60 (21.2%) indicated disagreement with the assertion. The cumulative results suggest that the institutions made effort to enable all learners enjoy equal rights, notwithstanding their disability status. Based on this, the analysis obtained a significant relationship between perceptions regarding the extent to which the institutions guaranteed equal rights to all learners regardless of disability status and utilisation of physical facilities by learners with disability ($\chi^2 = 41.880$, $df = 8$ & $p\text{-value} = 0.000$).

Still on equal rights, KII sessions confirmed that the institutions had in place policies guaranteeing equal rights of participation to all learners, including those with disability. This regard, some facilities were modified to ease mobility and participation in learning as well as extra-curricular activities. The institutions also provided scholarships and new physical facilities with the support of agencies such as NCPLWD, which also facilitated participation in learning, interaction, and mobility of learners with disability. In addition, the policies encouraged learners

with disability to share most facilities, including hostels, playing grounds, classes, and sanitation rooms, among others, with their able-bodied colleagues. Nonetheless, participants pointed out that even though the institutions took some measures to increase physical facilities for learners with disability, attention was more skewed towards facilities used by those with physical disability (lower and upper limbs), than to learners with other forms of disability. This suggests that as much as the institutions guaranteed equal rights to all learners, existing policy guidelines had not addressed the needs of learners with other forms of disability, including visual, hearing, and speech. In view of this, programmes designed to improve utilisation of physical facilities by learners with disability should focus on making existing policy guidelines more responsive to the needs of all learners, including those with visual, hearing, and speech forms of disability.

4.5 Influence of Monitoring and Evaluation Systems on Utilisation of Physical Facilities by Learners with Disability

Utilisation of physical facilities by learners with disability may be influenced by various aspects of M&E systems. In this regard, bivariate analysis results in sub-sections 4.4 to 4.8 revealed significant relationship between utilisation of physical facilities by learners with disability and aggregated indicators of M&E, including human resource capacity for M&E (*HRcapacity*); M&E work plan indicators (*WPindicators*); programme-monitoring process (*PMprocess*); as well as M&E system support and supervision (*SSsupervision*). Besides, utilisation of physical facilities also significantly associated with existence of policy guidelines (*TVETpolicy*) promoting the integration of learners with disability in the institutions. To determine the influence of M&E systems in national polytechnics on the utilisation of physical facilities by learners with disability, the aggregated indicators of M&E (independent variables)

were incorporated in a binary logistic regression model, using stepwise likelihood ratio method. The analysis generated the model, whose output is summarised in Table 4.27.

4.5.1 Collinearity diagnostics

Collinearity refers to interrelationships between independent variables, which affects the accuracy of regression models in predicting dependent variables. In this study, interrelationships between independent variables were tested for collinearity indicators. Using the default outlier value of 2.0, standard errors (S.E.) associated with regression coefficients (β) were we examined. In this regard, standard error larger than 2.0 indicated collinearity effects. However, in this study, none of the independent variables showed signs of collinearity with other independent variables. Consequently, none of the variables was dropped from the regression analysis.

4.5.2 Odds ratios

Odds ratios (OR) is the probability of variation in a dependent variable in response to a unit change in an independent variable. In this study, OR was obtained by exponentiating partial regression coefficients or beta coefficients (β). In Table 4.27, the results show OR in the $\text{Exp}(\beta)$ column. In this regard, the results suggest that participants perceiving their capacity in M&E to be high had about 6.4 times the odds of influencing positively, utilisation of physical facilities by learners with disability as their colleagues perceiving their capacity in M&E to be low (p -value = 0.022, $\beta = 1.854$, OR = 6.385, C.I. = 2.097-19.439). The results suggest up to 95% chance that improving the capacity of teaching staff in M&E practice is likely to have a positive influence by increasing utilisation of physical facilities by learners with disability. Consequently, national polytechnics should invest in the training of teaching staff on M&E of disability programmes,

through periodical workshops and seminars. This will require the institutions to seek strategic partnerships with relevant government institutions and non-governmental organisations, as well as bilateral development agencies to support a ‘consistent’ programme for staff development.

Furthermore, the institutions should consider formulating a policy linking teaching staff and M&E departments. Such initiative is likely to provide opportunities for teaching staff to participate in M&E activities, which is an important avenue for gaining hands-on experience and improving their capacity. Human resource capacity in M&E may also be improved by providing appropriate resource materials and making such accessible to all targeted beneficiaries. Continuous engagement with M&E resource materials and their authors is important for deepening knowledge, sharpening M&E skills and improving the quality of support provided to learners with disability.

The results further show that participants who felt that M&E work plan indicators were always formulated in their institutions had about 2.6 times the odds of improving utilisation of physical facilities by learners with disability as their colleagues who felt that such work plan indicators were never formulated (p -value = 0.014, β = 0.938, OR = 2.555, C.I. = 1.375-4.746). The results suggest up to 95% chance that institutions that always formulate M&E work plan indicators are in a better position of improving utilisation of physical facilities by learners with disability. In view of this, national polytechnics should ensure that such M&E work plan indicators are formulated ‘consistently’ and various learning aspects measured continuously to identify gaps for redress.

Table 4.27: Summary results of the adjusted logistic regression model

| Covariates | β | S.E. | Wald | df | Sig. | Exp(β) | 95% C.I. for EXP(β) | |
|----------------------|---------|-------|--------|-------|----------|----------------|-----------------------------|--------|
| | | | | | | | Lower | Upper |
| <i>HRcapacity</i> | | | 14.663 | 2 | 0.075* | | | |
| High | 1.854 | 0.568 | 10.654 | 1 | 0.022** | 6.385 | 2.097 | 19.439 |
| Average | 0.352 | 0.180 | 3.824 | 1 | 0.249 | 1.422 | 0.999 | 2.023 |
| Low (RC) | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 |
| <i>WPindicators</i> | | | 12.241 | 2 | 0.000*** | | | |
| Always | 0.938 | 0.316 | 8.811 | 1 | 0.014** | 2.555 | 1.375 | 4.746 |
| Occasionally | 0.341 | 0.701 | 0.236 | 1 | 0.627 | 1.406 | 0.356 | 5.554 |
| Never (RC) | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 |
| <i>PMprocess</i> | | | 21.613 | 2 | 0.000*** | | | |
| Always | 1.099 | 0.312 | 12.408 | 1 | 0.036** | 3.001 | 1.628 | 5.532 |
| Occasionally | 0.427 | 1.320 | 0.105 | 1 | 0.433 | 1.533 | 0.115 | 20.373 |
| Never (RC) | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 |
| <i>SSsupervision</i> | | | 17.566 | 2 | 0.000*** | | | |
| Always | 2.273 | 0.761 | 14.927 | 1 | 0.003*** | 9.710 | 2.186 | 43.135 |
| Occasionally | 1.198 | 0.311 | 8.839 | 1 | 0.022** | 3.313 | 1.801 | 6.096 |
| Never (RC) | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 |
| <i>TVETpolicy</i> | | | 24.932 | 1 | 0.000*** | | | |
| Yes | 2.105 | 0.424 | 24.647 | 1 | 0.005*** | 8.207 | 3.575 | 18.841 |
| No (RC) | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 |
| Constant | 1.773 | 0.417 | 18.078 | 1 | 0.012** | 5.888 | | |

*, **, *** show significance at $p < 0.1$, $p < 0.05$ and $p < 0.01$ error margins, respectively

Furthermore, participants in institutions that always conducted routine programme monitoring process had about 3 times the odds of influencing positively, the utilisation of physical facilities by learners with disability as those in institutions that never conducted routine monitoring systems (p -value = 0.036, β = 1.099, OR = 3.001, C.I. = 1.628-5.532). The results suggest that having in place routine programme monitoring process is likely to encourage utilisation of physical facilities by learners with disability, by ensuring that M&E aspects are routinely captured by institutional timetables; utilising student forums to disseminate M&E information; as well as ensuring that M&E aspects feature in the agenda of departmental meetings.

In addition, participants in institutions where M&E system was supported and supervised always were about 9.7 times as likely to improve utilisation of physical facilities by learners with disability as their colleagues in institutions lacking such support and supervision (p -value =

0.003, $\beta = 2.273$, OR = 9.710, C.I. = 2.186-43.135). This implies that national polytechnics should improve M&E systems' support and supervision, particularly by putting in place measures such as training all administrators/managers at various levels to improve the quality of supervision. The initiative further requires the institutions to develop proper plans for maintenance of facilities used by learners with disability, as well as ensure that all facilities are given due priority as far as maintenance is concerned.

4.5.3 The Model's Goodness-of-fit

The model's goodness-of-fit refers to the strength in predicting a dependent variable from a set of independent and moderating variables. This study determined the model's strength in predicting utilisation of physical facilities by learners with disability from the set of four independent variables (*HRcapacity*, *WPindicators*, *PMprocess*, and *SSsupervision*), and a moderating variable (*TVETpolicy*) using Nagelkerke's R^2 and Hosmer-Lemeshow (H-L) goodness-of-fit statistic. In this regard, the adjusted regression model (adjusted for the moderating variable) obtained a Nagelkerke's R^2 of 0.375 implying that the model predicted up to 37.5% of variance in utilisation of physical facilities by learners with disability. The results suggest that the adjusted model was a fair estimation of M&E factors influencing utilisation of physical facilities by learners with disability.

The H-L goodness-of-fit statistic shows that a logistic regression model is well-fitting observed data at an acceptable level when the resultant p -value is greater than 0.05; further indicating that the model prediction does not significantly differ from observed frequencies. In this study, the H-L table obtained a χ^2 value of 7.270, with 7 degrees of freedom and a p -value of 0.401, which is higher than 0.05. This result confirms that the adjusted model was a fair fit of the

observed data. In addition, omnibus tests of model coefficients obtained a computed χ^2 value of 33.193, with 9 degrees of freedom and a ρ -value of 0.000, which was significant at 0.01 error margin, confirming up to 99% chance that the model-fit was statistically significant.

4.5.4 Testing null hypothesis five (H_{05})

The results suggest up to 99% chance that the adjusted model was statistically significant. This implies that the influence of M&E systems on the utilisation of physical facilities by learners with disability was statistically significant. As a result the fifth null hypothesis (H_{05}), stating that *there is no significant influence of monitoring and evaluation systems on utilisation of physical facilities by learners with disability*, was rejected for being untrue.

4.9.5 Testing null hypothesis six (H_{06})

The analysis generated two models: the first one incorporated independent variables only (***HRcapacity, WPindicators, PMprocess, and SSsupervision***), while the second model (adjusted model) incorporated independent and a moderating variable (***TVETpolicy***). The addition of the moderating variable in the second model caused a change in the goodness-of-fit. More specifically, the value of Nagelkerke's R^2 changed from 0.350 to 0.375. This implies that whereas the first model accounted for 35.0% variance in the utilisation of physical facilities by learners with disability, addition of the moderating variable caused the predictive power to increase marginally to 37.5%.

Nonetheless, the analysis revealed that the change caused in the model's predictive power by adding the moderating variable was not statistically significant ($\chi^2 = 0.441$; $df = 1$ & ρ -value = 0.907). In addition, the H-L goodness-of-fit statistic shows that both models were well-fitting

the observed data because resultant ρ -values were greater than 0.05, in each case. Based on this, the null hypothesis (H_0), stating that *TVET policy/MoE guidelines has no significant influence the relationship between combined M&E systems and utilisation of physical facilities by learners with disability*, was not rejected for insufficiency of evidence. This suggests that availability of TVET/MoE guidelines did not have any significant influence on the relationship between the M&E systems and utilisation of physical facilities by learners with disability.

CHAPTER FIVE

SUMMARY OF FINDINGS, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

This chapter provides a summary of findings and draws conclusions of such, in line with objectives of the study. The chapter also presents recommendations for appropriate programmatic and/or policy interventions, which should strengthen M&E systems in national polytechnics and therefore, utilisation of physical facilities by learners with disability. The last two sections of the chapter focus on contributions of the study and recommendations for further research.

5.2 Summary of findings

The purpose of this study was to examine the influence of M&E systems on utilisation of physical facilities by learners with disability in Kenyan national polytechnics, namely Eldoret and Kisumu. In this regard, the study was expected to establish the influence of four independent variables, viz. human resource capacity for M&E (*HRcapacity*); M&E work plan indicators (*WPindicators*); programme monitoring process (*PMprocess*) and M&E systems support and supervision (*SSsupervision*) on utilisation of physical facilities by learners with disability.

5.2.1 Background profile

The study found that of the 282 participants (teaching staff), 149 (52.8%) were stationed at Eldoret Polytechnic, while 133 (47.2%) served at Kisumu Polytechnic. In addition, the two institutions varied significantly in terms of position (cadres) held by participants ($\chi^2 = 9.976$, $df =$

1 & ρ -value = 0.084); length of professional experience ($\chi^2 = 13.112$, $df = 3$ & ρ -value = 0.004); and education level ($\chi^2 = 9.652$, $df = 5$ & ρ -value = 0.086). However, there was no significant variation in terms of age and gender distribution.

Of the 282 participants, 81 (28.7%) believed that learners with disability were 'consistent' in utilising physical facilities; 175 (62.1%) indicated that such learners were 'inconsistent', while 26 (9.2%) were 'not sure' whether the learners were 'consistent' or 'inconsistent' in utilising the facilities. Besides, the two institutions varied significantly in terms of perceptions regarding utilisation of physical facilities by learners with disability ($\chi^2 = 11.983$, $df = 2$ & ρ -value = 0.003).

5.2.2 Human resource capacity and utilisation of physical facilities

The findings show significant and positive correlations between utilisation of physical facilities by learners with disability and all the four indicators of human resource capacity for M&E that were examined by the study. The indicators included *access to training on M&E of disability programmes* ($r_s = 0.608$ & ρ -value = 0.004), *participation in M&E activities* ($r_s = 0.383$ & ρ -value = 0.016), *level of experience in M&E practices* ($r_s = 0.475$ & ρ -value = 0.003), as well as *frequency of reading M&E resource materials* ($r_s = 0.569$ & ρ -value = 0.004). The four indicators were aggregated to create the independent variable – human resource capacity for M&E.

A significant correlation was found between utilisation of physical facilities by learners with disability and human resource capacity for M&E ($r_s = 0.341$ & ρ -value = 0.042). Based on this, the first null hypothesis (H_{01}), which stated that *there is no significant correlation between utilisation of physical facilities by learners with disability and human resource capacity for*

M&E, was rejected for being inconsistent with empirical data. Furthermore, participants grading their capacity in M&E as ‘high’ were about 6.4 times as likely to positively influence utilisation of physical facilities by learners with disability as their colleagues describing their capacity as ‘low’ (ρ -value = 0.022, β = 1.854, OR = 6.385, C.I. = 2.097-19.439). The results suggest up to 95% chance that improving the capacity of teaching staff in M&E practice was likely to have a positive influence by increasing utilisation of physical facilities by learners with disability.

5.2.3 M&E work plan indicators and utilisation of physical facilities

Significant correlations were further obtained between utilisation of physical facilities by learners with disability and the three indicators of M&E work plan that were examined by the study. The indicators included *frequency of measuring learning aspects* (r_s = 0.487 & ρ -value = 0.012), *frequency of M&E work plan formulation* (r_s = 0.320 & ρ -value = 0.045), and *frequency of participation in the M&E of various disability forms* (r_s = 0.618 & ρ -value = 0.000). Aggregation of the three indicators obtained the independent variable – M&E work plan indicators. Again, the study found that utilisation of physical facilities by learners with disability correlated significantly with M&E work plan indicators r_s = 0.552 & ρ -value = 0.000. This led to rejection of the second null hypothesis (H_02), which stated that *there is no significant correlation between utilisation of physical facilities by learners with disability and M&E work plan indicators*.

In addition, participants who indicated that M&E work plan indicators were ‘always’ formulated in their institutions had about 2.6 times the odds of positively influencing utilisation of physical facilities by learners with disability as their colleagues who felt that such indicators were ‘never’ formulated (ρ -value = 0.014, β = 0.938, OR = 2.555, C.I. = 1.375-4.746). The

findings suggest up to 95% chance that teaching staff in institutions that formulated M&E work plan indicators ‘always’ were in a better position of influencing an improvement in the utilisation of physical facilities by learners with disability.

5.2.4 Programme monitoring and utilisation of physical facilities by learners with disability

The findings show that utilisation of physical facilities significantly associated with the three indicators of programme monitoring process measured by the study. The indicators included *frequency of capturing disability issues in institutional timetables* ($r_s = 0.642$ & ρ -value = 0.000); *frequency of discussing disability aspects in student forums* ($r_s = 0.654$ & ρ -value = 0.000); as well as *frequency of capturing M&E aspects in departmental meetings* ($r_s = 0.599$ & ρ -value = 0.001).

In addition, a significant and positive correlation was obtained between utilisation of physical facilities by learners with disability and the aggregated independent variable - programme monitoring process ($r_s = 0.561$ & ρ -value = 0.007). In this regard, the analysis revealed up to 99% chance that utilisation of physical facilities by learners with disability significantly correlated with programme monitoring process, which led to rejection of the third null hypothesis (H_{03}), stating that *there is no significant correlation between utilisation of physical facilities by learners with disability and programme monitoring process*.

More still, participants perceiving that routine programme monitoring process was ‘always’ done in their institutions had about 3 times the odds of influencing positively, the utilisation of physical facilities by learners with disability as those perceiving that the process was ‘never’ conducted in their institutions (ρ -value = 0.036, $\beta = 1.099$, OR = 3.001, C.I. = 1.628-5.532). Besides, the analysis show up to 95% chance that the higher the consistency of

programme monitoring process the better the odds of teaching staff influencing improvements in the utilisation of physical facilities by learners with disability.

5.2.5 Influence of M&E system support on utilisation of physical facilities

Again, utilisation of physical facilities significantly correlated with the three indicators of M&E systems support and supervision. The indicators included *perceived usefulness of support provided by administrators/managers at various levels* ($r_s = 0.464$ & ρ -value = 0.013); *frequency of maintenance of facilities used by learners with disability* ($r_s = 0.517$ & ρ -value = 0.000); as well as *level of priority in the maintenance of various facilities used by learners with disability* ($r_s = 0.497$ & ρ -value = 0.001). Based on this, a significant and positive correlation was found between the aggregate independent variable - M&E system support and supervision and utilisation of physical facilities by learners with disability ($r_s = 0.650$ & ρ -value = 0.000). This led to rejection of the fourth null hypothesis (H_{04}), stating that *there is no significant correlation between utilisation of physical facilities by learners with disability and M&E system support and supervision*.

In addition, participants perceiving that M&E system in their institution was supported and supervised 'always' were about 9.7 times as likely to cause a positive influence on utilisation of physical facilities by learners with disability as their colleagues who perceived that the system was 'never' supported and supervised (ρ -value = 0.003, $\beta = 2.273$, OR = 9.710, C.I. = 2.186-43.135). This implies up to 99% chance that the more consistent the M&E system support and supervision, the better the chances of teaching staff causing a positive influence on utilisation of physical facilities by learners with disability.

5.2.6 Influence of the M&E system on the utilisation of physical facilities

The findings show that M&E systems support and supervision had the highest odds (9.7 times) of influencing utilisation of physical facilities by learners with disability. This was followed by human resource capacity (6.4 times), programme monitoring (3.0 times), and work plan indicators (2.6 times). In addition, the adjusted regression model predicted up to 37.5% of variance in utilisation of physical facilities by learners with disability, which was a fair estimation of M&E system factors influencing the utilisation of such facilities by learners with disability. More still, the analysis revealed up to 99% chance that the model-fit was statistically significant, which led to rejection of the fifth null hypothesis (H₀₅), stating that *there is no significant influence of monitoring and evaluation systems on utilisation of physical facilities by learners with disability*.

Furthermore, whereas model 1, which included independent variables only, accounted for 35.0% variance in the utilisation of physical facilities by learners with disability, the addition of a moderating variable caused the model's predictive power to increase marginally to 37.5%. However, the change caused in the model's predictive power by adding the moderating variable was not statistically significant ($\chi^2 = 0.441$; $df = 1$ & $p\text{-value} = 0.907$). Consequently, the sixth null hypothesis (H₀₆), stating that *TVET policy/MoE guidelines has no significant influence the relationship between combined M&E systems and utilisation of physical facilities by learners with disability*, was not rejected for insufficiency of evidence.

5.3 Conclusions

Conclusions presented under this sub-section are drawn from the findings and have been organised under the following themes, in line with objectives of the study.

5.3.1 Human resource capacity and utilisation of physical facilities

Human resource is an important element in the effectiveness of all M&E systems in all sectors, including technical education and training institutions. Human resource is particularly important in terms of capacity to develop systematic monitoring frameworks and sound work plans, as well as information quality standards, among others. In this regard, the study revealed that teaching staff rating their capacity in M&E as ‘high’ had better odds of positively influencing utilisation of physical facilities by learners with disability as their colleagues grading their capacity as ‘low’. The findings further show up to 95% chance that improving the capacity of teaching staff in M&E practice is likely to improve consistency in the utilisation of physical facilities by learners with disability. In view of this, improving human resource capacity for M&E is a key factor that all stakeholders, including national polytechnics, Ministry of Education, TSC, and the National Treasury, should prioritise in order to strengthen M&E systems in the institutions; thereby, improve utilisation of physical facilities by learners with disability.

Improving human resource capacity in M&E requires interventions at two levels; viz. national and institutional. At the national level, the Ministry of Education, TSC, and Treasury have an important role by allocating more funds for developing the capacity of teaching staff on M&E; as well as recruiting more teachers who are specialised in visual, audio and speech forms of disability. This should go hand-in-hand with providing a variety of physical facilities to national polytechnics to improve the quality of support provided by teaching staff. The stakeholders should also create favourable policies to encourage non-government agencies and faith-based institutions to initiate TVET programmes to absorb learners who may not get places at the national polytechnics due to human resource capacity gaps.

At the institutional level, the content of training curriculums should be improved to make them more responsive to the needs of all learners with disability, particularly regarding utilisation of physical facilities. The institutions should also procure and/or subscribe for appropriate M&E resource materials, sensitise teaching staff about the same to encourage continuous reading in order to deepen knowledge in M&E within contexts of disability, sharpen M&E skills and improve the quality of support provided to learners with disability.

Improving human resource capacity at the institutional level will also require appropriate policies encouraging participation of teaching staff in various M&E activities, including awareness creation, monitoring utilisation of physical facilities, as well as utilisation of M&E results. Participation in such activities is an important avenue for teaching staff to gain hands-on experience as well as improve their capacity and responsiveness to the needs of learners with disability. Equally important is the need for strategic partnerships with relevant government institutions such as NCPLWD and non-governmental organisations, as well as bilateral development agencies, through which additional financial and technical resources can be mobilised to support staff capacity development.

5.3.2 M&E work plan indicators and utilisation of physical facilities

Work plan indicators are an integral component of effective M&E systems in educational institutions, as they enable stakeholders to match interventions with all aspects of education access, equity, and quality for all learners, including those with disability (OECD, 2008). This study revealed that teaching staff perceiving that their institutions formulated M&E work plan indicators ‘always’ had better odds of positively influencing utilisation of physical facilities by learners with disability than their colleagues who perceived M&E work plan indicators were

'never' formulated in their institutions. In view of this, improving the consistency of M&E work plan indicators' formulation and revision is likely to strengthen M&E systems in national polytechnics, which in turn, is likely to improve utilisation of the facilities by learners with disability.

Improving the status of M&E work plan indicators may be achieved through a number of interventions, including strengthening of disability-mainstreaming committees through training and allocation of more budgetary resources to facilitate their operations, including formulation of M&E work plan indicators in collaboration with relevant departments. Besides, formulation of M&E work plan indicators should be decentralised to various administrative hierarchies, including departments, sections and units. Each administrative unit should be encouraged to formulate own M&E work plan indicators, which should correlate with those contained in the institutional M&E work plans. Decentralised M&E work plans should also link services provided at the various levels to institutional policies on disability.

Strengthening M&E work plan indicators should also entail consistency in measuring various learning aspects, including class discussions, practicals and reading, among others. Measuring such aspects consistently is likely to identify gaps that should be addressed in order to improve utilisation of physical facilities by learners with disability, participation in academic and extra-curricular activities, as well as learning achievement. More still, strengthening M&E work plan indicators requires appropriate policies encouraging participation of teaching staff in the M&E activities of various forms of disability, including physical (upper and lower limbs), visual, audio, and speech. It is important to point out that disability-mainstreaming committees remain at the hub of M&E work plan indicators strengthening, through skills transfer, decentralisation of responsibilities to lower administrative levels, as well as formulation of policies encouraging

participation of teaching staff in teachers' participation in the planning, implementation of M&E activities of all forms of disability.

5.3.3 Programme monitoring and utilisation of physical facilities by learners with disability

Programme monitoring process is an important tool, continuously generating information that enables stakeholders to know about progress being made towards achieving objectives; thereby, choose appropriate measures to address issues arising and improve the quality of services delivered to targeted beneficiaries (UNDP, 2009). In this study, the analysis revealed that teachers perceiving that programme monitoring process was 'always' conducted in their institutions had better odds of positively influencing utilisation of physical facilities by learners with disability than those who perceived that the process was 'never' conducted in their institution. Consequently, improving the consistency of programme monitoring process is a crucial step towards strengthening M&E systems in national polytechnics, which in turn, is likely to cause positive changes in the utilisation of physical facilities by learners with disability.

The findings amplify the need for the institutions to improve programme monitoring process in order to strengthen their M&E systems and improve utilisation of physical facilities by learners with disability. This may be achieved through various options, including integrating disability aspects in institutional timetables, to ensure that provision of necessary support and services to learners with disability become part of routine operational activities. Again, integrating disability aspects in institutional timetables is crucial for successful integration of learners with disability in national polytechnics, which includes promoting consistent utilisation of physical facilities.

Besides, student forums/unions should be encouraged to integrate disability aspects in their programming. Such forums/unions provide important platforms for creating awareness on disability aspects, influencing attitudes, and encouraging able-bodied learners to support their colleagues with disability to utilise facilities consistently. Student forums/unions also contribute significantly to M&E systems by monitoring utilisation of physical facilities by disable members. Integrating disability aspects in the agenda of student forums gives learners the opportunity to influence programme monitoring process at the institutional level, which in turn, is likely to influence utilisation of physical facilities by those with disability. Student forums are also better placed to advocate for sufficient representation of learners and more particularly, those with disability in meetings convened by disability-mainstreaming committees.

The effectiveness of student forums/unions in carrying out their mandate is a key issue that also deserve attention in order to improve programme monitoring process. The forums/unions should be strengthened in terms of necessary skills and funds to enable them initiate appropriate programme monitoring interventions aimed at strengthening M&E systems in national polytechnics, as well as promoting utilisation of physical facilities by learners with disability. Equipped with necessary skills and resources, student forums/unions should develop proper mechanisms for collecting information regarding participation in academic and extra-curricular activities by learners with disability.

In addition, programme monitoring process may also be improved by integrating M&E of disability aspects in the agenda of routine departmental meetings. The initiative is likely to enhance awareness among teaching staff, influence attitudes, as well as improve skills in the M&E of disability programmes. Besides, the initiative should influence more teaching staff to support learners with disability, monitor indicators regarding utilisation of physical facilities, as

well as improve the quality of support provided to learners with disability. In addition, integrating M&E of disability in departmental meetings creates an opportunity for departmental teams to identify and proactively address issues affecting utilisation of physical facilities at their levels. The initiative further ensures consistency of support and services provided by teaching staff to learners with disability at departmental levels, which is important for improving utilisation of physical facilities.

Improving programme monitoring process in national polytechnics also requires the participation of external stakeholders, including the Ministry of Education and NCPLWD. Notably, the two institutions often monitor various aspects of disability during monthly supervisory visits; quarterly review/planning meetings, as well as annual audits of physical facilities - a process that identifies gaps in the physical facilities *vis-à-vis* changes in the population of learners with disability. The institutions can contribute more significantly by creating and facilitating periodical feedback forums, where stakeholders can engage for appropriate interventions to address emerging weaknesses and challenges in utilisation of physical facilities by learners with disability.

5.3.4 Influence of M&E system support on utilisation of physical facilities

Monitoring and evaluation systems require continuous support and supervision, where administrators/managers organize, guide, oversee, and influence implementation of M&E activities to achieve programme objectives (Pont et al., 2008). In the context of national polytechnics, the purpose of M&E systems support and supervision is to improve effectiveness, performance, and delivery of quality services to targeted beneficiaries. In this study, the analysis indicated that teaching staff perceiving that M&E system in their institution was supported and

supervised 'always' had better odds of causing a positive influence on utilisation of physical facilities by learners with disability as their colleagues who perceived that the system was 'never' supported and supervised. Consequently, improving the consistency of support and supervision is likely to strengthen M&E systems in national polytechnics; thereby, making teaching staff more supportive and influential regarding utilisation of physical facilities by learners with disability.

In view of the above, there is need for appropriate interventions that would improve support and supervision for M&E systems in national polytechnics. This may include training all administrators/managers at various levels to improve awareness as well as the quality of support and supervision. Although the high proportion of teaching staff expressing satisfaction with support provided by administrators/managers, (70%), suggests that the support and supervision to M&E systems in national polytechnics was functional, there is need for more resources to be invested in capacity development to upgrade skills and deepen knowledge in M&E practice. Training should be coupled with effective motivation and performance management initiatives.

Furthermore, improving support to M&E systems in national polytechnics requires sufficient physical facilities, which is a key function of mobility and participation in academic and extra-curricular activities by learners with disability. However, stakeholders should ensure that physical facilities are provided to the institutions, based on need established through M&E systems. Nonetheless, the institutions need to put in place a nominal number of facilities relevant to learners with other forms of disability, including visual, audio, and speech; thereby correct the notion that attention and resources have been skewed in favour of learners with physical forms of disability (upper and lower limbs).

Again, it's worth noting that providing physical facilities for learners with disability can be a capital-intensive undertaking, for institutions with a large population of such learners. Consequently, stakeholders should consider various options, when tackling the issues. For instance, consideration should be given to increasing budgetary allocations to national polytechnics, depending on macro-economic conditions; encouraging the institutions to generate own resources, as well as encouraging, through favourable taxation policies, non-governmental agencies to establish and equip TVET centres to provide opportunity to learners whose needs may not be met by national polytechnics.

Strengthening support for M&E systems also require appropriate measures ensuring that physical facilities meet quality and safety standards to encourage utilisation by intended beneficiaries. This would require national polytechnics to develop comprehensive plans, which should prioritise maintenance of physical facilities used by learners with disability. Developing and implementing such plans would ensure that all physical facilities are maintained regularly; as well as kept functional in accordance with safety standards and supportive to learners with disability.

In view of this, the institutions should focus on improving facility maintenance programmes by seeking more funding from the government as well as mobilising additional resources through internal revenue sources and where possible, mobilise external resources from development agencies to supplement government funding. Furthermore, support to M&E systems may be improved by acquiring appropriate technical skills and putting in place a coordination system to ensure that all departments benefit from maintenance plans. Establishing facility maintenance plans is important for avoiding the cost of replacing facilities that break down, as well as encouraging consistent utilisation by learners with disability.

5.3.5 Influence of the M&E system on the utilisation of physical facilities by learners with disability

The findings show that all the M&E system factors examined by the study, including human resource capacity, work plan indicators, programme monitoring process as well as M&E systems support and supervision, had a positive influence on utilisation of physical facilities by learners with disability. Regarding the magnitude of influence, M&E systems support and supervision had the highest odds (9.7 times) of influencing variance in the utilisation of physical facilities; followed by human resource capacity (6.4 times), programme monitoring (3.0 times), and work plan indicators (2.6 times). In view of this, programmatic and policy interventions aimed at strengthening M&E systems should be prioritised in accordance with the relative importance of each components. Doing so will ensure that available resources are invested in components that are likely to cause greatest improvements in utilisation of physical facilities by learners with disability.

The adjusted regression model accounted for up to 37.5% of variance in the utilisation of physical facilities by learners with disability; implying that quite a big proportion of variance (62.5%) was not explained by the variables examined by this study. The big proportion of variance in utilisation of the facilities may be accounted for by other factors not included in this study. Even though the regression model generated by this study was statistically significant, it was not a perfect estimation of the influence of M&E systems on utilisation of physical facilities by learners with disability. Consequently, there is need for more such studies, but with better designs, to generate models that are more accurate in estimating the relationship between M&E systems and utilisation of physical facilities by learners with disability.

The findings show that TVET/MoE policy guidelines did not have a significant influence on the relationship between M&E systems and utilisation of physical facilities by learners with disability. However, this finding contradicts natural course of logic, which may postulate that availability of such policy guidelines should facilitate integration learners with disability in educational institutions; thereby, improve utilisation of physical facilities. However, availability of TVET/MoE policy guidelines may necessarily translate into application. Even though 202 (71.6%) participants affirmed that such policy guidelines were available in their institutions, the proportion of institutions using the guidelines to integrate learners with disability may be far less. This study did not examine the extent to which TVET/MoE policy guidelines were applied by the institutions. Apparently, this is a gap, which should be explored by similar studies conducted in the future.

5.4 Recommendations

5.4.1 Human resource capacity and utilisation of physical facilities

Recommendations for the Ministry of Education, TSC and Treasury

1. Allocate more resources for developing the capacity of existing teaching staff on M&E of disability programmes in educational institutions. Improving the capacity of such staff is likely to awareness, knowledge, skills and the quality of support provided to learners with disability.
2. Recruit and post more teaching staff to national polytechnics, particularly those specialised in visual, audio and speech forms of disability. This intervention is likely to

improve opportunities for such learners to access technical education and training, which is crucial for their employability and self-reliance.

3. Provide a variety of physical facilities to national polytechnics to improve the quality of support provided by teaching staff. Again, this intervention is likely to make national polytechnics more facilitative and accommodative to learners with all types of disability.
4. Encourage non-government agencies and faith-based institutions to initiate TVET programmes to absorb learners who may not get places at the national polytechnics due to human resource capacity gaps. Such programmes should complement government efforts and gaps in addressing all human resource capacity needs.

Recommendations for National Polytechnics

5. Improve the content of M&E training curriculums to make them more responsive to the needs of all learners with disability, particularly regarding utilisation of physical facilities.
6. Procure and/or subscribe for appropriate M&E resource materials, sensitise teaching staff about the same to: encourage reading, deepen knowledge in M&E of disability programmes, sharpen M&E skills and improve the quality of support provided to learners with disability.

7. Formulate appropriate policies, encouraging participation of teaching staff in various M&E activities, including awareness creation, monitoring utilisation of physical facilities, as well as utilisation of M&E results. Participation in such activities is an important avenue for teaching staff to gain hands-on experience as well as improve their capacity and responsiveness to the needs of learners with disability.

8. Establish strategic partnerships with relevant government institutions such as NCPLWD and non-governmental organisations, as well as bilateral development agencies, through which additional financial and technical resources can be mobilised to support staff capacity development.

5.4.2 M&E work plan indicators and utilisation of physical facilities

Recommendations for National Polytechnics

1. Strengthen disability-mainstreaming committees through training and funding to facilitate their operations, including formulation of M&E work plan indicators in collaboration with relevant departments.

2. Decentralise formulation of M&E work plan indicators to various administrative hierarchies, including departments, sections and units. Each administrative unit should be encouraged to formulate own M&E work plan indicators, which should correlate with those defined at the institutional level. Decentralised M&E work plans should also link services provided at the various levels to institutional policies on disability.

3. Ensure consistency in measuring various learning aspects, including class discussions, practicals and reading, among others, in order to identify gaps that should be addressed to improve utilisation of physical facilities by learners with disability, participation in academic and extra-curricular activities, as well as learning achievement.
4. Formulate appropriate policies encouraging participation of teaching staff in M&E activities of various forms of disability, including physical (upper and lower limbs), visual, audio, and speech.

5.4.3 Programme monitoring and utilisation of physical facilities by learners with disability

Recommendations for National Polytechnics

1. Integrate disability aspects in institutional timetables to ensure that provision of necessary support and services to learners with disability become part of routine operational activities.
2. Encourage student forums/unions to integrate disability aspects in their core activities to influence programme monitoring process at the institutional level, which in turn, is likely to influence utilisation of physical facilities by those with disability. Student forums are also better placed to advocate for sufficient representation of learners and more particularly, those with disability, in meetings convened by disability-mainstreaming committees.
3. Strengthened the capacity of student forums/unions by providing necessary skills and funds to enable them initiate appropriate programme monitoring interventions aimed at

strengthening M&E systems in national polytechnics, as well as promoting utilisation of physical facilities by learners with disability.

4. Integrate M&E of disability aspects in the agenda of departmental meetings. The initiative is likely to enhance awareness among teaching staff, influence attitudes, as well as improve skills in monitoring indicators of facility utilisation. In addition, departmental meetings create an opportunity for departmental teams to identify and proactively address issues affecting utilisation of physical facilities at their levels.

Recommendations for the Ministry of Education and NCPLWD

5. Create and facilitate periodical feedback forums, where stakeholders can validate M&E reports, as well as engage and identify appropriate interventions to address emerging weaknesses and challenges in utilisation of physical facilities by learners with disability.

5.4.4 Influence of M&E system support on utilisation of physical facilities

Recommendations for National Polytechnics

1. Train all administrators/managers at various levels to improve awareness as well as the quality of support and supervision. The initiative is likely to deepen knowledge in supervision of M&E systems within the context of disability programmes in educational institutions.
2. Develop comprehensive plans, which should prioritise maintenance of physical facilities used by learners with disability. Developing and implementing such plans would ensure

that all physical facilities are maintained regularly; as well as kept functional in accordance with safety standards and supportive to learners with disability. This may be achieved by seeking more funding from the government as well as mobilising additional resources through internal revenue sources and where possible, mobilising external resources from development agencies to supplement government funding.

3. Improve the effectiveness of facility maintenance plans by recruiting appropriate technical staff to provide back-up support and putting in place a coordination system to ensure that all departments benefit from maintenance plans.

Recommendations for the Ministry of Education, NCPLWD, and Treasury

4. Provide more physical facilities, based on needs established through M&E systems, in order to facilitate mobility and participation in academic and extra-curricular activities by learners with disability. This may be achieved by increasing budgetary allocations to national polytechnics, depending on macro-economic conditions and education sectors expenditure dynamics; as well as encouraging, through favourable taxation policies, non-governmental agencies to establish TVET centres and provide opportunity to learners whose needs may not be met by national polytechnics.

5.4.5 Influence of the M&E system on the utilisation of physical facilities by learners with disability

Recommendation for national Polytechnics, Ministry of Education, NCPLWD and Treasury

1. Prioritise programmatic and policy interventions aimed at strengthening M&E systems in accordance with the relative importance of variables examined by this study, viz. M&E systems support and supervision, human resource capacity, programme monitoring process and work plan indicators. This should ensure that available resources are invested in components that are likely to cause greatest improvements in the utilisation of physical facilities by learners with disability.

5.5 Contribution of the study

The influence of M&E systems on the utilisation of physical facilities and access to education by learners with disability is an aspect that has repeatedly featured in policy discourses and documentations in various contexts. For instance, Brandjes (2002) notes that effective M&E systems can promote utilisation of physical facilities by enabling decision-makers to identify and mark gaps in the adequacy, functionality, and relevance of such facilities for appropriate corrective interventions. On the same note, World Bank (2004) points out that consistent utilisation of the facilities is likely to improve participation in learning and extra-curricular activities by learners with disability; as well as make educational institutions more accommodative and facilitative (UNESCO, 2013).

In Kenya, no academic process had ever examined the influence of M&E systems and utilisation of physical facilities by learners with disability, particularly in the context of national polytechnics, prior to this study. Being the first of its kind in Kenya, the study provides an important benchmark against which similar studies in future shall be compared. Secondly, the study enriches existing academic literature on M&E and more particularly, in the context of disability programmes in educational institutions. The study is not only informative but also and

more importantly, a catalyst for appropriate policy and programmatic engagements that are aimed at strengthening M&E systems in national polytechnics; thus, improve utilisation of physical facilities, mobility, and participation in academics and extra-curricular activities by learners with disability.

5.6 Recommendations for further research

1. The regression model that was generated by this study accounted for 37.5% of variance in the utilisation of physical facilities by learners with disability. However, this means that up to 62.5% of variance may be explained by other factors not included in this study. This further implies that the regression model generated by this study was not a perfect estimation of the influence of M&E systems on utilisation of physical facilities by learners with disability. This gap justifies further research, with better designs, to generate models that will provide better estimations of the influence M&E systems on utilisation of physical facilities by learners with disability.
2. Most participants (71.6%) affirmed that TVET/MoE policy guidelines were available in their institutions. However, this study did not examine the proportion of institutions applying such policy guidelines, as well as the extent to which the guidelines were applied to facilitate the integration of learners with disability. This gap should be explored by similar studies conducted in future.

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APPENDICES

Appendix I: Letter of Transmittal

Owuor Fredrick Ochieng'
Moi University
P.O. Box 3900 – 30100, Eldoret
Email: fredrickochiengo@yahoo.com
Cell phone: +254722813979

30th January 2015

Dear Sir/Madam,

RE: ACADEMIC RESEARCH

I am a PhD student at the University of Nairobi. As part of the requirements of the doctoral degree in Project Planning and Management, I am conducting a research as a prerequisite for the course in project planning and management. This will lead to strengthening of M&E systems, proper utilisation of physical facilities and access to education in national polytechnics by learners with disability in Kenya.

To enable me collect data for the research, you have been selected as one of the participants of the study. Kindly complete the questionnaire attached or arrange for a date of appointment for the interview as per the schedule attached.

The research is for academic purposes only and thus your responses was treated with utmost confidence and privacy. You are requested to give your responses with as much honesty as possible. Thank you in advance for participating in this research.

Yours sincerely,

Owuor Fredrick Ochieng'
Student, School of Continuing and Distance Education
Department of Extra Mural Studies
University of Nairobi

Appendix II: Survey Questionnaire

TARGET RESPONDENTS: *DEPARTMENTAL HEADS AND LECTURERS*

INTRODUCTION AND CONSENT

Hello. My name is **Fredrick Ochieng'**. I am a PhD student at the University of Nairobi. I'm conducting a research, as part of requirements for the doctoral degree in Project Planning and Management. The purpose of the study is to generate information that was shared with stakeholders to influence interventions aimed at strengthening of M&E systems and utilisation of physical facilities by learners with disability in national polytechnics.

questions about the study or regarding your participation using the contacts provided below. After that you can decide to participate or decline the request. However, given the importance of the exercise, I request you to participate by filling the attached questionnaire. The information you provide was kept strictly confidential and was used for the purpose of this study only. You are requested to give your responses with as much honesty as possible. Thank you in advance for participating in the study.

Yours sincerely,

Fredrick Ochieng' Owuor

Student,
School of Continuing and Distance Education,
Department of Extra Mural Studies,
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MONITORING AND EVALUATION SYSTEMS ON UTILISATION OF PHYSICAL INFRASTRUCTURAL FACILITIES BY LEARNERS WITH DISABILITY IN NATIONAL POLYTECHNICS IN KENYA

| | | | | |
|------------|-------------------------|------------------|--|---------------------|
| 1.0 | DEMOGRAPHIC DATA | | | |
| | <i>QUESTIONS</i> | <i>RESPONSES</i> | | <i>INSTRUCTIONS</i> |

MONITORING AND EVALUATION SYSTEMS ON UTILISATION OF PHYSICAL INFRASTRUCTURAL FACILITIES BY LEARNERS WITH DISABILITY IN NATIONAL POLYTECHNICS IN KENYA

| | | | | |
|------------|--|--|-----------------------------------|-------------------------------|
| 1.0 | DEMOGRAPHIC DATA | | | |
| | <i>QUESTIONS</i> | <i>RESPONSES</i> | | <i>INSTRUCTIONS</i> |
| 1.1 | Gender | Male Female | [] [] | Select the most appropriate |
| 1.2 | Age bracket | <25yrs 26-35yrs 36-45yrs >45yrs | [] [] [] [] | Select the most appropriate |
| 1.3 | How long have you taught in TVET institution(s)? | Less than 5yrs 6-10yrs 11-15yrs More than 16yrs | [] [] [] [] | Select the most appropriate |
| 1.4 | What is your highest academic qualification? | Diploma Degree Post graduate diploma Masters Any other | [] [] [] [] _____ | Select the most appropriate |
| 1.5 | Your position in this institution | | | Mention in the space provided |
| 1.6 | Department | | | Mention in the space provided |

2.0 HUMAN RESOURCE CAPACITY FOR M & E

| | | | | |
|-----|--|---------------------------------|-------------------|-------------------------------|
| 2.1 | How many times have you attended training on disability? | Never Occasionally Always | [] [] [] | Select the most appropriate |
| 2.2 | Indicate the content of disability training that you attended last | | | Mention in the space provided |

| | | | | | | | |
|----------------------------|--|--------------------------------|-----------------------|-------------|-------------|-------------|------------------|
| 2.3 | Indicate the competency level of the following individuals in assisting learners with disability in your institution | | Capacity level | | | | |
| | | | Very Poor | Poor | Fair | High | Very high |
| | | i. Psychiatrist | | | | | |
| | | ii. Psychologist | | | | | |
| | | iii. Sign language interpreter | | | | | |
| | | iv. Braille instructors | | | | | |
| | | v. Physiotherapists | | | | | |
| | | vi. Teacher aides (additional) | | | | | |
| vii. Other resource people | | | | | | | |

| | | | | | | | |
|------------|--|---|---------------------------------|-------------------------------|---------------------|--------------|-----------------|
| 2.4 | How many times do you create awareness on disability issues in your institution? | Never Occasionally Always | [] [] [] | Select the most appropriate | | | |
| 2.5 | What is the duration you have been in contact with learners with disability? | | | Mention in the space provided | | | |
| 2.5 | Are there M&E resource materials on disability in your institution? | Yes No | [] [] | Select the most appropriate | | | |
| 2.6 | How often do you read articles on M&E of disability programmes? | Never Rarely Occasionally Often Always | [] [] [] [] [] | Select the most appropriate | | | |
| | | | | | | | |
| 2.7 | To what extent have you attended training on the following area of disability? | M & E systems workshops on disability | Never | Rarely | Occasionally | Often | Always |
| | | Awareness on the right of education to all | | | | | |
| | | Monitoring and evaluation of disability programmes | | | | | |
| | | Infrastructure and facilities for disabled learners | | | | | |
| | | Utilisation of M&E results | | | | | |
| | | Decision making | | | | | |
| | | | | | | | |
| 2.8 | Indicate your experience and competencies in the following monitoring and evaluating activities | Activity | M&E experience | | | | |
| | | | Very high | High | Average | Low | Very low |
| | | Design of M&E tools | | | | | |
| | | Collecting data on M&E | | | | | |
| | | Reporting of M&E | | | | | |
| | | Utilisation of M&E | | | | | |
| | | Communicating results of M&E | | | | | |
| | | Utilisation of M&E systems | | | | | |
| | | | | | | | |
| 2.9 | Frequency of reading disability articles on M&E | Disability Articles | Frequency of reading | | | | |
| | | | Never | Rarely | Occasionally | Often | Always |
| | | Projects | | | | | |
| | | Reports of M&E | | | | | |
| | | M&E plans | | | | | |
| | | M&E matrices | | | | | |
| | | M&E methods and tools | | | | | |
| | | | | | | | |
| 3.0 | M&E WORK PLAN INDICATORS | | | | | | |
| 3.1 | How frequent do you record the participation of learners with disability in the following areas in classrooms? | | Frequency | | | | |
| | | | Never | Rarely | Occasionally | Often | Always |
| | | Class discussion | | | | | |
| | | Practicals | | | | | |
| | | Leading | | | | | |
| | | Answering questions | | | | | |
| | | Group work | | | | | |

| 3.2 | Indicate the extent to which lesson is planned for disabled learners | Never Rarely Occasionally Often Always | [] [] [] [] [] | Select the most appropriate | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|---|--|---------------------------------|--|--------|--------------|-------|--------|---------------|--------|--------------|-------|--------|----------------------------|------------|--|--|--|--|--------------------------|----------|--|--|--|--|----------------------------|------|--|--|--|--|--|-------|--|--|--|--|--------------------------------------|-----------------------------|--|--|--|--|--|
| 3.3 | How frequently do disabled learners participate in examinations | Never Rarely Occasionally Often Always | [] [] [] [] [] | Select the most appropriate | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 3.4 | How frequently do disabled learners participate in class discussion | Never Rarely Occasionally Often Always | [] [] [] [] [] | Select the most appropriate | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 3.5 | How frequently do disabled learners participate in group work | Never Rarely Occasionally Often Always | [] [] [] [] [] | Select the most appropriate | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 3.6 | Indicate the extent to which M&E action plans are formulated | <table border="1"> <thead> <tr> <th>Level</th> <th>Never</th> <th>Rarely</th> <th>Occasionally</th> <th>Often</th> <th>Always</th> </tr> </thead> <tbody> <tr> <td>Institutional</td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>Department</td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>Sections</td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>Unit</td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>Class</td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </tbody> </table> | Level | Never | Rarely | Occasionally | Often | Always | Institutional | | | | | | Department | | | | | | Sections | | | | | | Unit | | | | | | Class | | | | | | Select the most appropriate | | | | | |
| Level | Never | Rarely | Occasionally | Often | Always | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Institutional | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Department | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Sections | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Unit | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Class | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 3.7 | Which category of disabled learners are you able to assist in movement | Physically impaired Virtually impaired Hearing impaired Any other (Specify) | [] [] [] _____ | Select the most appropriate (you can tick more than one) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 4.0 | ROUTINE PROGRAMME MONITORING PROCESS | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 4.1 | Indicate whether departmental meetings capture disability issues in your institution? | <table border="1"> <thead> <tr> <th rowspan="2">Aspect</th> <th colspan="5">Frequency of data collection</th> </tr> <tr> <th>Never</th> <th>Rarely</th> <th>Occasionally</th> <th>Often</th> <th>Always</th> </tr> </thead> <tbody> <tr> <td>Utilisation of M&E results</td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>Disabled learners access</td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>Disabled learners progress</td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>Realisation of action plans on promoting inclusion</td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>Barriers to disabled learners access</td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </tbody> </table> | Aspect | Frequency of data collection | | | | | Never | Rarely | Occasionally | Often | Always | Utilisation of M&E results | | | | | | Disabled learners access | | | | | | Disabled learners progress | | | | | | Realisation of action plans on promoting inclusion | | | | | | Barriers to disabled learners access | | | | | | |
| Aspect | Frequency of data collection | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Never | Rarely | Occasionally | Often | Always | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Utilisation of M&E results | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Disabled learners access | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Disabled learners progress | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Realisation of action plans on promoting inclusion | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Barriers to disabled learners access | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 4.2 | In student forums, to what extent do they collect information on the following | <table border="1"> <thead> <tr> <th rowspan="2"></th> <th colspan="5">Extent to which data is collected from forums</th> </tr> <tr> <th>Never</th> <th>Rarely</th> <th>Occasionally</th> <th>Often</th> <th>Always</th> </tr> </thead> <tbody> <tr> <td>Ease of movement</td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>Building structures</td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>Classroom arrangements</td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>Support to disabled learners</td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>Promotion of inclusion policies</td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </tbody> </table> | | Extent to which data is collected from forums | | | | | Never | Rarely | Occasionally | Often | Always | Ease of movement | | | | | | Building structures | | | | | | Classroom arrangements | | | | | | Support to disabled learners | | | | | | Promotion of inclusion policies | | | | | | |
| | Extent to which data is collected from forums | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Never | Rarely | Occasionally | Often | Always | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Ease of movement | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Building structures | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Classroom arrangements | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Support to disabled learners | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Promotion of inclusion policies | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 4.3 | How often does the institutional council discuss various issues | <table border="1"> <thead> <tr> <th rowspan="2"></th> <th colspan="5">Process of collecting data on utilisation of facilities</th> </tr> <tr> <th>Never</th> <th>Rarely</th> <th>Occasionally</th> <th>Often</th> <th>Always</th> </tr> </thead> <tbody> <tr> <td>Disabled learners resource</td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </tbody> </table> | | Process of collecting data on utilisation of facilities | | | | | Never | Rarely | Occasionally | Often | Always | Disabled learners resource | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Process of collecting data on utilisation of facilities | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Never | Rarely | Occasionally | Often | Always | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Disabled learners resource | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

| | | | | | | | |
|-----|---|--|---|----------------|-----------------|------------------|-----------------|
| | that affect learners with disability? | Movement in the school environment | | | | | |
| | | Attendance of lessons | | | | | |
| | | Purchase of facilities | | | | | |
| | | Design improvement of school structures | | | | | |
| | | | | | | | |
| 4.4 | Does the institutional timetable captures the following issues related to utilisation of infrastructural facilities | | Frequency to which data is captured | | | | |
| | | | Never | Rarely | Occasionally | Often | Always |
| | | Use of assistive devices in teaching | | | | | |
| | | Specialists visits | | | | | |
| | | Provision of right resource for learning | | | | | |
| | | Provision of technological devices for disabled learners | | | | | |
| | | Lesson flexibility | | | | | |
| 4.5 | To which extent does the institutional duty rotas consider the following: | | Frequency to which data is captured | | | | |
| | | | Never | Rarely | Occasionally | Often | Always |
| | | Disabled learners reporting time | | | | | |
| | | Disabled learners responsibilities | | | | | |
| | | Allocate specific duties to aid disabled learners | | | | | |
| 5.0 | M&E SYSTEMS SUPPORT AND SUPERVISION | | | | | | |
| 5.1 | Indicate the extent to which the following persons services are utilised at your institution | | Availability and familiarity | | | | |
| | | | Not all aware | Slightly aware | Somewhat aware | Moderately aware | Extremely aware |
| | | Complaints officer | | | | | |
| | | Quality Assurance and Standards officer | | | | | |
| | | M&E specialist | | | | | |
| | | Data manager | | | | | |
| 5.2 | Indicate whether the following channels are provided in collecting systems data on infrastructural facilities at your institution? | | Frequency to which data is captured | | | | |
| | | | Never | Rarely | Occasionally | Often | Always |
| | | Interviews | | | | | |
| | | Questionnaires | | | | | |
| | | Suggestions boxes | | | | | |
| | | Through student leadership | | | | | |
| | | External consultant (s) | | | | | |
| | MOE officers | | | | | | |
| | | NCPD officers | | | | | |
| 5.3 | Indicate the frequency to which finance is provided by your institution to repair and maintain infrastructural facilities by learners to enhance access | | Frequency to which finance is provided | | | | |
| | | | Never | Rarely | Occasionally | Often | Always |
| | | Re-design of building | | | | | |
| | | Constructions of walkways & pathway | | | | | |
| | | Installation of alarms | | | | | |
| | | Ramps | | | | | |
| | | Building lighting | | | | | |
| | | Technological appliances | | | | | |
| 5.4 | What is the state of the following features that require | | Facilities and resources requiring repairs and maintenance to facilitate access | | | | |
| | | | Not a priority | Low priority | Medium priority | High priority | Essential |

| | | | | | | |
|---|----------------------|--|--|--|--|--|
| maintenance in your institution by indicating its current quality | Dining areas | | | | | |
| | Hostels | | | | | |
| | Administration block | | | | | |
| | Toilets | | | | | |
| | Paths / walkways | | | | | |
| | Classrooms | | | | | |
| | Library | | | | | |
| | Ramps | | | | | |
| Building | | | | | | |

Appendix III: Focus Group Discussion Guide

TARGET PARTICIPANTS: DISABLE AND ABLE-BODIED LEARNERS

INTRODUCTION AND CONSENT

Hello. My name is **Fredrick Ochieng'**. I am a PhD student at the University of Nairobi. I'm conducting a research, as part of requirements for the doctoral degree in Project Planning and Management. The purpose of the study is to generate information that was shared with stakeholders to influence interventions aimed at strengthening of M&E systems and utilisation of physical facilities by learners with disability in national polytechnics.

The purpose of this explanation is to give you the information you may need to participate in the study voluntarily. You may ask questions about the study or regarding your participation. After that you can decide to participate or decline the request. However, given the importance of the exercise, I request you to participate in intended focus group discussion. The information you provide was kept strictly confidential and was used for the purpose of this study only. You are requested to give your responses with as much honesty as possible. Thank you in advance for participating in the study.

Yours sincerely,

Fredrick Ochieng' Owuor

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**INFLUENCE OF MONITORING AND EVALUATION SYSTEMS ON UTILISATION OF PHYSICAL
INFRASTRUCTURAL FACILITIES BY LEARNERS WITH DISABILITY IN NATIONAL
POLYTECHNICS IN KENYA**

| | | | |
|------------|------------------------|--|--|
| | | | |
| 1.0 | INTRODUCTION | | |
| 1.1 | Date of FGD | _____ | |
| 1.2 | Group | Learners with disability Able-bodied learners | <input type="checkbox"/> [] <input type="checkbox"/> [] |
| 1.3 | Number of participants | Males Female Total | _____ _____ _____ |
| 1.4 | Venue | _____ | |
| 1.5 | Facilitator | _____ | |
| 1.6 | Note taker | _____ | |

2.0 HUMAN RESOURCE CAPACITY FOR M&E

2.1. What is your view about the interest of teaching and non-teaching staff in working with learners with disability at your institution?

- a) Teaching staff
- b) Non-teaching staff

2.2. In your institution, are there collaborations and partnerships established with departments to develop a continuous quality improvement approach to inclusive and effective teaching, research and assessment practice on disability?

2.3. Do teaching staff method of instruction promote inclusive (education able and differently able learners) in your institution?

2.4. Are management and teaching staff provide relevant disability related information to applicants about institutional policies, facilities, or services in your institutions?

2.5. How much information is provided to applicants before joining the institution, regarding institutional policies concerning learners with disability, available physical facilities to support learners with disability, and services provided to learners with disability? **[PROBE FOR EACH]**

3.0. M&E WORK PLAN INDICATORS

3.1. How is monitoring data collected from class rooms, examinations, lessons participations for learners with disability in your institution?

3.2. What is your view about the level of follow-ups on the participation of learners with disability in class, examinations, and extra-curricular activities by the central administration? How often is this done? How is it done? Who is involved in the follow

up? What do they focus on? What do you consider as gaps in the follow up on the participation of learners with disability on various academic and extra-curricular activities?

4.0 PROGRAMME MONITORING PROCESS

4.1. a) How often does the institution conduct meetings to monitor various issues related to disability? Who convenes such meetings? Where? Who attend the meetings? **PROBE:** Are learners with disability represented in the meetings?

b) What issues of disability are often discussed in such review meetings? [**PROBE FOR: ACCESS TO PHYSICAL FACILITIES, PROGRESS, WORK PLAN IMPLEMENTATION, INCLUSION, BARRIERS TO ACCESS OF PHYSICAL FACILITIES**]

In student forum, to what extent do they collect information on the following?

- a) isable student movement D
- b) dvocate for provision of resources and facilities for disable students A

4.2. Indicate whether assembly/ parade disseminate information on disable student learning and movement in your institution

- a) isable leaners movement within the school environment D
- b) earner with disabilityLearners with disability progress L
- c) arriers to disable students access B

5.0. M&E SYSTEMS SUPPORT AND SUPERVISION

5.1. What is your opinion about the level of continuous support provided to enable learners with disability acquire skills for proper utilisation of physical facilities? Who/what offices provide the support? How easily accessible are the individuals/offices? Are all learners with disability aware of the individuals/offices proving such support? Please, explain.

5.2. Does the institution provide a supportive working environment that maximises awareness of disability issues among staff, along with access and participation?

5.3. Are all staff provided with the necessary resources to maintain a supportive environment for learners with disability? What type of resources/facilitation do staff members have access to? What types of resources do you think are necessary, but not provided to staff to facilitate their supportive roles to learners with disability?

5.4. Are there opportunities developed for staff to learn and appreciate the lives experience of disability in your institution?

5.5. What is your view regarding the frequency of repair and maintenance of physical facilities utilised by learners with disability? What is the status of the physical facilities? Which once are maintained most frequently and why? Which ones are maintained less frequently and why?

What can you say on the level at which repair and maintenance is conducted in schools, facilities to ensure they are fit for use and movement by learner with disabilitylearners with disability?

6.0 UTILISATION OF PHYSICAL RESOURCES

6.1. Does the school provide an innovative, creative, flexible and open learning environment that maximises access, participation and success for all learner with disability learners with disability?

6.2. Is there a policy promoting equal support to learners with all types of disability? Learners of both gender? What does the policy say? What is your view about the extent to which the policy has been implemented in your institution?

6.3. What measures have been initiated by your institution to increase physical facilities for use by learners with disability? Have these measures favoured learners with various types of disability? What are the gaps, if any?

THANK YOU

Appendix IV: Key Informant Interview Guide for the Principals

INTRODUCTION AND CONSENT

Hello. My name is **Fredrick Ochieng'**. I am a PhD student at the University of Nairobi. I'm conducting a research, as part of requirements for the doctoral degree in Project Planning and Management. The purpose of the study is to generate information that was shared with stakeholders to influence interventions aimed at strengthening of M&E systems and utilisation of physical facilities by learners with disability in national polytechnics.

The purpose of this explanation is to give you the information you may need to participate in the study voluntarily. You may ask questions about the study or regarding your participation. After that you can decide to participate or decline the request. However, given the importance of the exercise, I request you to participate in intended interview. The information you provide was kept strictly confidential and was used for the purpose of this study only. You are requested to give your responses with as much honesty as possible. Thank you in advance for participating in the study.

Yours sincerely,

Fredrick Ochieng' Owuor

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**INFLUENCE OF MONITORING AND EVALUATION SYSTEMS ON UTILISATION OF PHYSICAL
INFRASTRUCTURAL FACILITIES BY LEARNERS WITH DISABILITY IN NATIONAL
POLYTECHNICS IN KENYA**

| | | | | |
|------------|-----------------------------------|--|--|-------------------------|
| | | | | |
| 1.0 | INTRODUCTION | | | |
| 1.1 | Date of interview | _____ | | |
| 1.2 | Name of the institution | _____ | | |
| 1.3 | Participant's gender | Male Female | <input type="checkbox"/> <input type="checkbox"/> | Please tick one |
| 1.4 | Period of stay at the institution | Less than 2 years 2 to 4 years 5 to 6 years More than 6 years | <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> | Select most Appropriate |
| 1.5 | Venue | _____ | | |
| 1.6 | Facilitator | _____ | | |
| 1.7 | Note taker | _____ | | |

2.0. BACKGROUND OF LEARNERS WITH DISABILITY

2.1. Please indicate the number of disable students admitted and those ongoing with their studies (even if they are on attachment,) at your institution for the past five years.

Year Type of disability

2.2. What is your view about the level of integration for learners with disability in your institution? **PROBE:** Do all learners with disability and their able-bodied colleagues share facilities? What types of facilities are shared? What measures have you put in place to promote sharing of facilities by the two groups?

3.0. HUMAN RESOURCE CAPACITY FOR M&E

3.1. a) Which category of disable students are you in a position to assist in movement teaching among other help they require?

3.2. What can you say about the capacity of other teaching staff (non-special ones) towards assisting learner with disability learners with disability in utilising infrastructure resource to support movement and learning in your institution on the following areas

- a) Number of trainings on M&E for teaching staff and administrators
- b) Frequency of applying M&E skills
- c) Experience in M&E by teaching staff
- d) Reading articles and books on M& E

3.3. What is your view about the competency of teaching and non-teaching staff in your institution regarding monitoring and evaluation of physical facilities utilised by learner with disability learners with disability?

- a) Teaching staff
- b) Non-teaching staff

3.4. What is your opinion about the following aspects in relation to your staff (teaching and administrative)?

- a) Training in M&E systems. **PROBE FOR: NUMBER TRAINED AND LEVEL OF TRAINING**
- b) Experience in M&E systems. **PROBE FOR: Frequency of application of M&E in disability programmes**

3.5. In your institution, are there programmes for building the capacity of teaching and non-teaching staff regarding M&E of physical facilities utilised by learner with disability learners with disability? **IF YES:** How do such programmes work? How often are staff exposed to the programmes? **[PROBE FOR TEACHING AND NON-TEACHING STAFF, SEPARATELY]**

3.6. What do you think about the level of awareness, among teaching and non-teaching staff, regarding the physical facilities available in the institution to support learners with various types of disability? Who is more aware and why? Which physical facilities are most known and which ones are least known?

- a) Teaching staff
- b) Non-teaching staff

3.7. How much information is provided to applicants before enrolment, regarding institutional policies on disability, available physical facilities and services provided to learners with disability? **[PROBE FOR EACH]**

3.8. How does the institution carry out the screening procedure for learner with disability learners with disability to determine relevant and appropriate physical facilities for them?

4.0. PROGRAMME-MONITORING PROCESS

4.1. a) How often does the institution conduct meetings to monitor various issues related to disability? Who convenes such meetings? Where? Who attend the meetings? **PROBE:** Are learners with disability represented in the meetings?

b) What issues of disability are often discussed in such review meetings? **[PROBE FOR: ACCESS TO PHYSICAL FACILITIES, PROGRESS, WORK PLAN IMPLEMENTATION, INCLUSION, BARRIERS TO ACCESS OF PHYSICAL FACILITIES]**

4.2. In what other ways do your staff monitor the welfare of learners with disability, including utilisation of physical facilities for mobility and learning? Explain the procedures.

4.3. a) How frequently does the Directorate of TVET conduct monitoring and evaluation assessments to ensure your institutional compliance requirements for quality education for all learners, including those living with disability?

b) Which other people or organisations are involved in routine monitoring and evaluation of institutional programmes for utilisation of physical facilities by learners with disability?

c) What is the frequency of auditing is conducted in your institution? How often do auditing processes target utilisation of physical facilities by learners with disability?

5.0. M&E SYSTEMS SUPPORT AND SUPERVISION

5.1. What is your opinion about the level of continuous support provided to enable learners with disability acquire skills for proper utilisation of physical facilities? Who/what offices provide the support? How easily accessible are the individuals/offices? Are all learners with disability aware of the individuals/offices providing such support? Please, explain.

5.2. What would you say about the amount of information available to staff members and all learners regarding learners with disability and the utilisation of physical facilities? In what form is the information? Who has the most access to such information and why? Who has the least access to such information and why? Has the information helped to create a supportive environment for learners with disability? How?

5.3. Are all staff members provided with the necessary resources to maintain a supportive environment for learners with disability? What type of resources/facilitation do staff members have access to? What types of resources do you think are necessary, but not provided to staff to facilitate their supportive roles to learners with disability?

5.4. Has the institution created forums for staff and learners to meet and share experiences and appreciate the challenges faced by learners with disability, regarding the utilisation of physical facilities?

5.5. What is your view regarding the frequency of repair and maintenance of physical facilities utilised by learners with disability? What is the status of the physical facilities? Which ones are maintained most frequently and why? Which ones are maintained less frequently and why?

5.6. How do you supervise your teaching staff in ensuring learning of learner with disability learners with disability with easiness? How do you motivate your staff who are involved in supporting learners with disability to access all facilities within the school?

5.7. What is your view about the attitude of staff towards learner with disability learners with disability in your school? What measures have you taken to influence the attitude of staff towards learners with disability?

6.0. M&E WORK PLAN INDICATORS

6.1 Are there M&E work plans in your institution promoting the utilisation of physical facilities by learners with disability? **IF YES, ASK:** At what level do they exist? **[PROBE FOR: FACULTY, DEPARTMENT, UNIT, ETC].** How well do such plans take into consideration of the needs of learners with disability? What do you think are the shortfalls of the plans?

6.2 What is your view about the level of follow ups on the participation of learners with disability in learning and extra-curricular activities by the central administration? How often is this done? How is it done? Who is involved in the follow up? What do they focus on? What do you consider as gaps in the follow up on the participation of learners with disability on various academic and extra-curricular activities?

7.0. UTILISATION OF PHYSICAL RESOURCES

7.1 How often do learners with disability utilise various resources in your institution? **[PROBE FOR: CLASSROOMS, SOCIAL CENTRES, LIBRARY, PLAY GROUND AND DINING HALLS]** Who have difficulties accessing and utilising these facilities? What measures have been initiated by the institution to facilitate access and utilisation of the stated resources by learners with disability?

7.2 Is there a policy promoting equal support to learners with all types of disability? Learners of both gender? What does the policy say? What is your view about implementation of the policy?

7.3 What measures have been initiated by your institution to increase resources for use by learners with disability? Have these measures favoured learners with various types of disability? What are the gaps, if any?

THANK YOU

Appendix V: Key Informant Interview Guide for MOE Officers

INTRODUCTION AND CONSENT

Hello. My name is **Fredrick Ochieng'**. I am a PhD student at the University of Nairobi. I'm conducting a research, as part of requirements for the doctoral degree in Project Planning and Management. The purpose of the study is to generate information that was shared with stakeholders to influence interventions aimed at strengthening of M&E systems and utilisation of physical facilities by learners with disability in national polytechnics.

The purpose of this explanation is to give you the information you may need to participate in the study voluntarily. You may ask questions about the study or regarding your participation. After that you can decide to participate or decline the request. However, given the importance of the exercise, I request you to participate in intended interview. The information you provide was kept strictly confidential and was used for the purpose of this study only. You are requested to give your responses with as much honesty as possible. Thank you in advance for participating in the study.
Yours sincerely,

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**INFLUENCE OF MONITORING AND EVALUATION SYSTEMS ON UTILISATION OF PHYSICAL
INFRASTRUCTURAL FACILITIES BY LEARNERS WITH DISABILITY IN NATIONAL
POLYTECHNICS IN KENYA**

| | | | |
|------------|---------------------------|----------------|------------|
| | | | |
| 1.0 | INTRODUCTION | | |
| 1.1 | Date of interview | _____ | |
| 1.2 | Participant's designation | _____ | |
| 1.3 | Participant's gender | Male Female | [] [] |
| 1.4 | Venue | _____ | |
| 1.5 | Facilitator | _____ | |
| 1.6 | Note taker | _____ | |

2.0. TVET EDUCATION POLICY FOR LEARNERS WITH DISABILITY

2.1. a) What is the policy of the Ministry regarding access to TVET education by learners with disability in national polytechnics? Please elaborate.

b) **IF NOT CLEAR, PROBE:** Are there specific policy measures guaranteeing learners with disability admission in national polytechnics? **IF YES, ASK:** What do such policy measures say?

3.0. HUMAN RESOURCE CAPACITY FOR M&E

3.1. What is the ministerial role in promoting human resource capacity towards ensuring disable students access TIVET education?

3.2. What is your view about the human resource in the national polytechnics in terms of the number trained in special education? Adequacy for all forms of disability? What are gaps, if any?

4.0. M&E WORK PLAN INDICATORS

4.1. Do you provide support to the national polytechnics when developing plans for the inclusion of all students in TIVET education? **IF YES, PROBE:** What type of support do you provide? Are there any specific activities for facilitating the utilisation of physical facilities? Are there specialised teachers on different forms of disability in national polytechnics?

4.2. Do the national polytechnics have self-monitoring and evaluation mechanisms for ensuring consistent utilisation of appropriate physical facilities by learners with disability? **IF YES:** Please elaborate

5.0. M&E SYSTEMS SUPPORT AND SUPERVISION

5.1. a) How often do your officers monitor the implementation of inclusive education policy in the national polytechnics? What type of supervisory services do they provide to the institutions during such monitoring visits?

b) What do the officers check for when they visit the national polytechnics? IF NOT MENTIONED, PROBE FOR: UTILISATION OF PHYSICAL FACILITIES BY LEARNERS WITH DISABILITY. How have your officers promoted consistent utilisation of physical facilities by learners with disability?

c) What is the Ministry's position on the auditing of physical facilities used students in National polytechnic? Are there provisions for promoting physical supervision, staff motivation and attitude?

5.2. What is your view about the adequacy and functionality of physical facilities for learners with disability in the national polytechnics? What are the gaps, if any? What challenges are experienced by the institutions in acquiring adequate facilities, if any? What challenges are experienced in the maintenance of such facilities?

Are there adequate physical resources for learners with disability in national Polytechnics? What is the ministerial position on the provision of right infrastructure resources?

5.3. In your opinion, how have the national polytechnics performed with regards to monitoring and evaluation of the disability programme, which they run? What do you perceive as the key gaps and challenges? How, can the M&E system in the institutions be strengthened to improve the disability programme?

Where is the future for learner with disabilitylearners with disability in accessing TVET education in national Polytechnics?

THANK YOU

Appendix VI: Key Informant Interview Guide for NCPLWD Officials

INTRODUCTION AND CONSENT

Hello. My name is **Fredrick Ochieng'**. I am a PhD student at the University of Nairobi. I'm conducting a research, as part of requirements for the doctoral degree in Project Planning and Management. The purpose of the study is to generate information that was shared with stakeholders to influence interventions aimed at strengthening of M&E systems and utilisation of physical facilities by learners with disability in national polytechnics.

The purpose of this explanation is to give you the information you may need to participate in the study voluntarily. You may ask questions about the study or regarding your participation. After that you can decide to participate or decline the request. However, given the importance of the exercise, I request you to participate in intended focus group discussion. The information you provide was kept strictly confidential and was used for the purpose of this study only. You are requested to give your responses with as much honesty as possible. Thank you in advance for participating in the study.

Yours sincerely,

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MONITORING AND EVALUATION SYSTEMS ON UTILISATION OF PHYSICAL INFRASTRUCTURAL FACILITIES BY LEARNERS WITH DISABILITY IN NATIONAL POLYTECHNICS IN KENYA

| | | | |
|------------|---------------------------|----------------|------------|
| | | | |
| 1.0 | INTRODUCTION | | |
| 1.1 | Date of interview | _____ | |
| 1.2 | Participant's designation | _____ | |
| 1.3 | Participant's gender | Male Female | [] [] |
| 1.4 | Venue | _____ | |
| 1.5 | Facilitator | _____ | |
| 1.6 | Note taker | _____ | |

2.0. ACCESS TO TVET EDUCATION BY LEARNERS WITH DISABILITY

2.1. a) What is the current status of access to education by disable students in national polytechnic in Kenya?

b) **Are** there adequate institutional policies for promoting access, movement and learning of disable students in institutions of higher education in Kenya?

2.2. What has the organisation done to promote access to TVET education by learners with disability in national polytechnics in Kenya?

2.3. Has any of your interventions targeted learners with disability in national polytechnics? Which interventions? PROBE for interventions aimed at:

- a) improving utilisation of physical facilities
- b) improving M&E of learners' utilisation of physical facilities
- c) improving formulation of policies on the utilisation of physical facilities by learners with disability

2.4. What is the role of NCPLWD in enhancing the life of learner with disabilitylearners with disability in National polytechnics in relation to:

- a) utilisation policy formulation and implementation
- b) roper and regular utilisation of physical facilities for learner with disabilitylearners with disability
- c) ollow up mechanisms and review of existing utilisation policies

U

p

f

2.5. a) What action do you think should be taken and by who to facilitate the movement, learning and participation in extra-curricular activities by learners with disability in TVET institutions?

b) What specific actions should be taken to improve utilisation of physical facilities by learners with disability?

c) What activities should improve the M&E of disability programme in TVET institutions, including the national polytechnics?

THANK YOU

Appendix VII: Observation Checklist

Monitoring and evaluation system on utilisation of physical infrastructural facilities

| Area | Areas to look at | |
|------------------------|---|----------|
| | | Comments |
| Buildings | Design | |
| | Building distance from one to another | |
| | Entrances | |
| | Ramps | |
| | Toilets | |
| | Elevators | |
| | Special classrooms | |
| | Students centre | |
| | Canteen | |
| | Dormitory | |
| | Administration blocks | |
| Environment | Walkways | |
| | Alerting devices e.g. audio announcements | |
| | Assembly areas | |
| | Corridors | |
| Classrooms | Sitting arrangement | |
| | Student population | |
| | Special seats | |
| | Braille equipment's | |
| | Special rooms/classes | |
| | Room lighting | |
| | Hearing aids | |
| | Personal aides | |
| | | |
| Other resources | Walking sticks | |
| | Wheelchairs | |
| | Speakers positioned on strategic places | |
| | Special toilets/latrines | |
| | Crutches | |
| | Walking frames | |
| | Tactile pictures and maps | |

Appendix VIII: Document Analysis

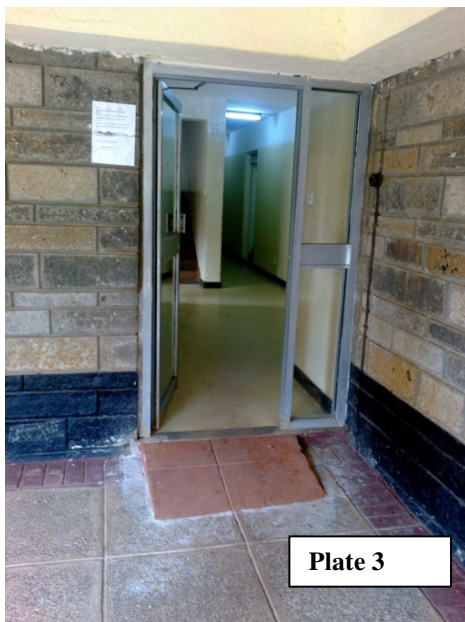
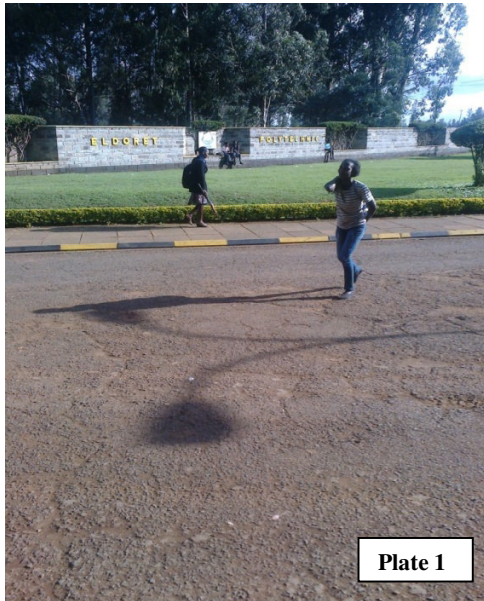
Monitoring and evaluation system on utilisation of physical infrastructural facilities

| | Document to check | Content | Comments |
|---|--------------------------------------|---------|----------|
| Human resource capacity for M&E | – Workshops | | |
| | – Seminars | | |
| | – Conferences | | |
| | – Personnel (special) | | |
| | – Other courses/ special interest | | |
| M&E work plan indicators | – Class register | | |
| | – Lesson plan | | |
| | – Examination register | | |
| | | | |
| Routine programme and utilisation of physical resources | – Master time table | | |
| | – Schemes of work | | |
| | – Lessons and notes | | |
| Level of supportive supervision and data auditing | – Refects report | | |
| | – Lecturer's report | | |
| | – Departmental Heads report | | |
| | – Administrators report | | |
| | – Supervisors/ TVET officials report | | |
| TVET policy/ MOE guideline | – Register | | |
| | – Enrolment policy | | |
| | – Building policy | | |
| | – Learning policy | | |
| | – Utilisation of | | |

| | | | |
|--|---------------------------|--|--|
| | - nfrastructure policy | | |
| Utilisati on of infrastr ucture facilitie s | - lassrooms | | |
| | - ibrary | | |
| | - ocial clubs | | |
| | - ining hall | | |
| | - avement/ corridors | | |
| | | | |

Thank you for taking your time to participating in this study.

Appendix IX: Pictures of observed physical facilities



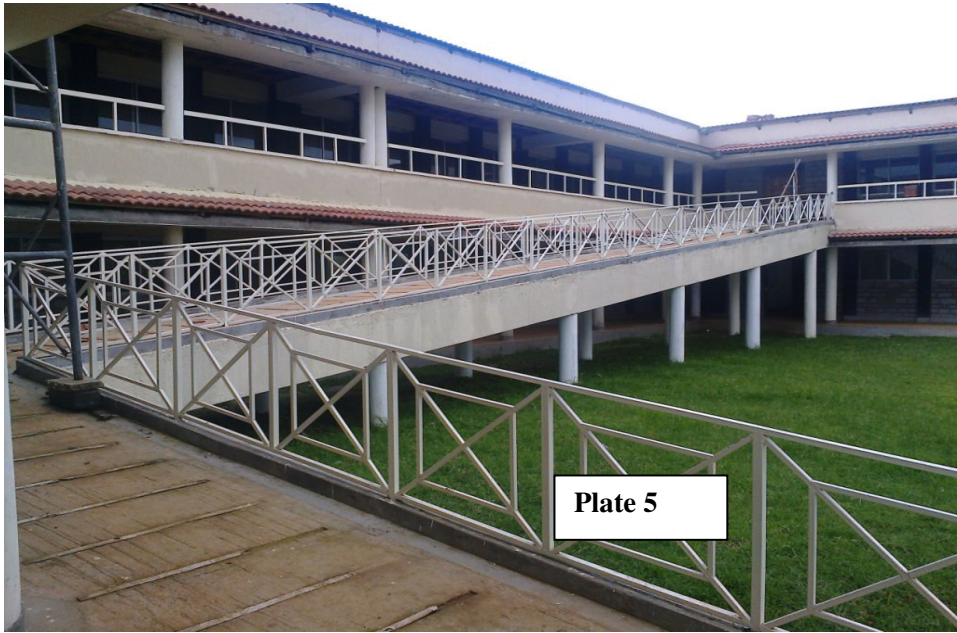


Plate 5



Plate 6

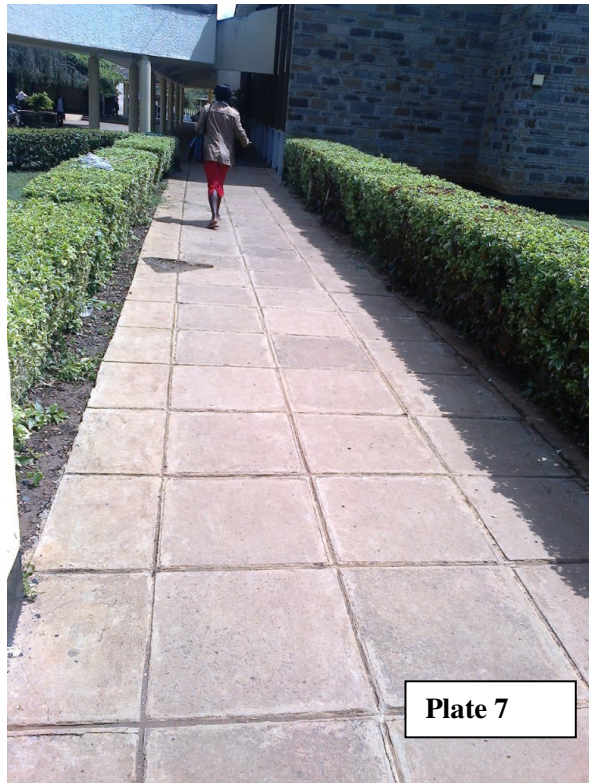


Plate 7



Plate 8