AN EXPLORATION OF YOUTH INVOLVEMENT IN THE METAL FABRICATION INFORMAL APPRENTICESHIP ON KATIMA MULILO ROADSIDE IN GARDEN COMPOUND OF LUSAKA ZAMBIA

By

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2024

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DECLARATION

I, **Anolt Leonard Himmelman Moonga** do hereby declare that this thesis represents my own work, and that it has not been previously submitted for a degree, diploma or other qualification at this or any other University. This makes me fully responsible for all errors and omissions herein.

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CERTIFICATE OF APPROVAL

This PhD thesis of **Anolt Leonard Himweemba Moonga** has been approved as fulfilling the requirements for the award of the Doctor of Philosophy degree in Adult Education by the University of Zambia.

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ABSTRACT

The study explored youth involvement in the Metal Fabrication Informal Apprenticeship (MFIA) on Katima Mulilo roadside in Garden Compound of Lusaka Zambia anchored on the Situated Learning theory (SL) proposed by Wenger and Lave (1991). It was a case study design using qualitative approach. The target population of the study are all out-of-school youths (OSY) and artisans; Graduate Apprentices (GAP)(Journeymen) and Providers/Master trainers/Craftsmen (PMC). The study population of thirty participants comprised ten from each category of Participating out of school youth (POSY), GAP and PMC sampled using purposive, convenient and snowball techniques. Data was collected using semi- structured interviews and a participant observation at the participants' workplaces. It was analyzed using the Thematic Analysis (TA) framework (Braun and Clarke, 2006). The findings of the study show that the youth apprenticeship on Katima Mulilo roadside of Garden Compound of Lusaka, Zambia is weak attributed to the ineffective methods of information dissemination kinship, individual (personal) inquiry and location employed. Most youth are not awareness of the MFIA on Katima Mulilo roadside in Garden Compound of Lusaka Zambia. The youth have a positive perception of the MFIA due to the value of the MFIA they acquire the metal fabrication skill. The skill enables them to find employment in the informal sector and become entrepreneurs. Not many youths participate in the apprenticeship in metal fabrication riddled with gender disparity favoring males. The youth in Garden Compound of Lusaka Zambia follow the SL theory recommended training process in the MFIA. The youth face numerous work-related challenges as employment supersedes training in the integrated apprenticeship in the MFIA. The findings further reveal the non-use of the education system to disseminate information about the MFIA on Katima Mulilo roadside in Garden Compound of Lusaka, Zambia causing youth not to be aware and participate in the apprenticeship in the MFIA. Other findings reveal that the MFIA on Katima Mulilo roadside in Garden Compound of Lusaka Zambia is a perilous working site without a governance system riddled with multiple challenges. The study concludes that the information dissemination methods in the MFIA are responsible for the non-awareness and participation of youths in the MFIA on Katima Mulilo roadside in Garden Compound of Lusaka Zambia. The study recommends that information about the MFIA on Katima Mulilo roadside in Garden Compound of Lusaka, Zambia should be made available to the youth through the education system and other objective public methods to broaden youth apprenticeship. The MFIA on Katima Mulilo roadside in Garden Compound of Lusaka Zambia needs a governance system to sustain its operations. The significance of the study is the potential of the MFIA to mitigate poverty among the youth in Garden Compound of Lusaka, Zambia and the city of Lusaka in general through skills acquisition. If not redressed, the youth in Garden Compound of Lusaka Zambia will continue living in poverty.

Key words: Awareness, informal apprenticeship, metal fabrication, involvement, Apprenticeship.

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ABBREVIATIONS AND ACRONYMS

7NDP	-	Seventh National Development Plan
8NDP		Eighth National Development plan
AIDS	-	Anti-deficiency syndrome
ANTA	-	Australian National Training Authority
CAC	-	Central Apprenticeship Council
CAF-FAC	-	Canadian Apprenticeship Forum
CBD	-	Central Business District
CDC	-	Curriculum Development Centre
CIPD	-	Chartered Institute of Personnel Development
DV	-	Dependent variable
ECE	-	Early Childhood Education
EFA	-	Education for all
EU	-	European Union
GAP	-	Graduate Apprenticeship
GRZ	-	Government of the Republic of Zambia
HIV	-	Human Immune Virus
HTI	-	Higher Training Institute
ILO	-	International Labor Organization
LAC	-	Latin America and Caribbean
LC	-	Learning Context/situation
LENCO	-	Lusaka Engineering Company
LP	-	Learner participation
LPP	-	Legitimate peripheral participation
MC	-	Master Craftsman
MFIA	-	Metal fabrication informal apprenticeship
NAPS	-	National Apprenticeship Promotion Scheme
NCVER	-	National Centre for Vocational Entrepreneurship Resource
NFE	-	Non-formal Education
NQA	-	National \qualification Authority

NVQ	-	National Vocational Qualification
OECD	-	Organization for Economic Co-operation and Development
OECD/ILO	-	Organization for Economic Co-operation and Development with International Labor organization
OSY	-	Out-of-school youth
PhD	-	Doctor of Philosophy
PMC	-	Provider/Master trainer craftsman
POSY	-	Participating out-of- school–youth
SAP	-	Structural Adjustment Program
SDGs	-	Sustainable Development Goals
SL	-	Situated Learning
SSA	-	Sub Saharan Africa
TA	-	Thematic Analysis
TEVETA	-	Technical Education, Vocational Entrepreneurship Training Authority
TEVT	-	Technical Education and Vocational Training
U.S	-	United States
UN	-	United Nations
UNECA	-	United Nations Economic Commission for Africa
UNESCO	-	United Nations Education and Scientific Commission
UNFP	-	United Nations Food Program
VET	-	Vocational Education and Training
ZIALE	-	Zambia Institute for Advanced Legal Education

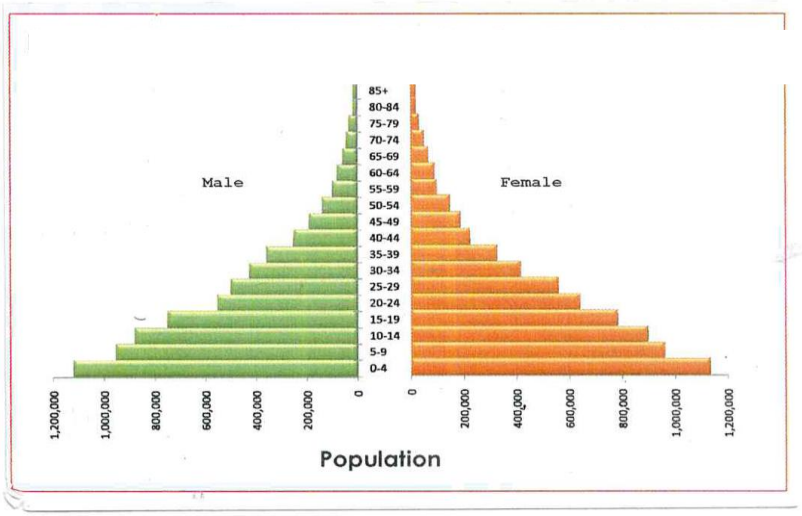
CHAPTER ONE
INTRODUCTION

1.1 Overview

This study aimed to explore youth involvement in the Metal Fabrication Informal Apprenticeship (MFIA) on Katima Mulilo roadside in Garden Compound of Lusaka Zambia. The MFIA on Katima Mulilo roadside in Garden Compound of Lusaka Zambia (also referred to in this paper as the MFIA denotes the informal apprenticeship in metal fabrication on Katima Mulilo roadside in Garden Compound in Lusaka Zambia. This arises from the backdrop of many unemployed out-of-school youth (OSY) with limited access to tertiary education in the Lusaka Central Business District (CBD) in Garden Compound of Lusaka Zambia where the study was done. There is no similar study known to the researcher on this subject in this location of the city of Lusaka in Lusaka Zambia. However, Hansen (2010) and Ryan (2015) examined youth participation in informal apprenticeships in Lusaka at large not focusing on a specific skill or location like the present study. This study sought to discover and understand youth involvement in the MFIA on Katima Mulilo roadside in Garden Compound of Lusaka Zambia. The study was anchored on the interpretivist philosophical paradigm which focuses on understanding and interpreting human experiences, and social phenomena in different contexts. The paradigm views reality as subjective, multifaceted, and complex. This is vital to mitigate the volatile youth unemployment and poverty situation in Garden compound of Lusaka Zambia.

Youth is the most productive age group in society and plays a crucial role in driving growth and development (Bekeh and David, 2015). There are different youth age ranges in the world and communities. In Zambia, the official youth age range is 15 to 35 years (GRZ 2016). This differs by one year on the lower part with that of the United Nations which is 14 to 24 years. Over half of the total population in Zambia falls in the youth age range, hence the claim that the country has a very young population, with potential for continued growth (CSO, 2012) see figure 1.1.

Figure 1:1 Zambia population characteristics.



Source: CSO; 2010.

The study aimed to investigate how the youth are apprenticed in the MFIA on Katima Mulilo roadside in Garden Compound of Lusaka Zambia. This was to be supported by the youth awareness, perception, participation, training process and challenges of the MFIA on Katima Mulilo roadside in Garden Compound of Lusaka, Zambia. Further it aimed to design a training to enhance the youth in the MFIA on Katima Mulilo roadside in Garden Compound of Lusaka Zambia. These elements were examined for their linkage to youth involvement in the MFIA and how it affects the youth.

The study focused on Katima Mulilo roadside in Garden Compound of Lusaka Zambia and a specific skill; metal fabrication, to establish youth involvement in the MFIA. Katima Mulilo roadside in Garden Compound is a serious undertaking with over 150 people. The study is significant through its contribution to the existing knowledge on youth apprenticeship the MFIA, highlighting the opportunities and obstacles available in that locality.

This first chapter of this thesis presents the background and context of the study, the problem statement, study purpose, objectives and research questions. The justification, significance, scope and delimitation and limitations of the study and definitions of key terms follow. The chapter concludes with the organization of the thesis and the chapter summary.

1.2 Background to the Study

Globally, apprenticeship integrates economic and pedagogic issues. It is both a form of employment and a process of education and training (Setawati and Riyanto,2011). In the dual functions of apprentices, the trainee is also earning an income. One learns how to do a trade or profession and is an employee seeking rewards and satisfaction from his job while satisfying the demands and requirements of his employer. This dual nature of apprenticeship runs the training and employment of apprentices simultaneously enabling apprentices to meet their objectives. Youths across the world face serious challenges regarding skills and jobs, challenges fundamentally different from those their parents faced.

In the globalized economy, competition has become intensified among firms and industries in developing and developed countries requiring their workers to have higher levels of skills to enable them to engage in innovation, improve the quality of products/services, and increase efficiency in their production processes or even to the point of improving the whole value chain process. Further, rapid technological change demands a greater intensity of knowledge and skills in producing, applying and diffusing technologies (Okada, 2012). Consequently, all these have changed the nature, content, and types of skills that industry demands due to an efficient training system.

Society transmits its accumulated knowledge, skills and values from one generation to another through the education process. Education is not limited to a classroom or a school only. It is considered a lifelong process where all the experiences, knowledge and wisdom that an individual acquires at different stages of one's life using different ways (Anjusha,2018). Apprenticeships, therefore, have been central in the development of many countries as a form of education and training. For example, in England apprenticeships are experiencing a revival and have been placed at the core of the government's Vocational Education and Training (VET) policies to contribute to the future skill needs in a rapidly evolving economy (Pirrion, 2018). However, skills development strategies often overlook the informal sector despite that in developing countries, income-generating activities in the informal sector often far exceed those of the formal sector (Sonnenberg, 2012).

Policy makers from Latin America and the Caribbean (LAC) are worried about the youth labor market challenges their countries face and, as a result, are seeking potential solutions to increase their access to quality jobs by improving their skills (the youth's) and enabling positive employability pathways. Young people are facing high unemployment and underemployment that may limit their long-term success. Young men, particularly those from low-and even middle-income families, are falling behind in school and experiencing large declines in job prospects (Fazio, et al., 2016). Such people require education in the form of informal apprenticeships to uplift them.

The nonfarm informal sector is a significant economic force and a major source of employment and earnings in Sub-Saharan Africa (SSA). However, the informal nonfarm sector has been growing rapidly in recent years and is becoming an increasingly important part of the economy. This sector includes activities such as small-scale manufacturing, services, and trade. Many people in SSA engage in these activities to supplement their income from farming or as their primary source of employment. Household enterprises account for most nonfarm employment in the region. With a rapidly growing and youthful work force and continued urbanization, this portion of the economy will continue to play a significant role for job creation and livelihoods in the future. To address these challenges and promote poverty reduction, strategies need to focus on improving the skills of the workforce in the nonfarm sector. This can be done through vocational training programs, entrepreneurship education, and other initiatives that provide workers with the skills they need to succeed in nonfarm activities. Nevertheless, farming has been the main stay of economic activities in SSA (Adams, Johnson and Razman,2013).

ILO (2011) recognizes the importance of informal apprenticeship in the development of a country, describing it as an important training system in many urban and rural informal economies. Alhassan (2016) citing both ILO (2011) and Brockmann et al. (2010) explains that informal apprenticeship is based on a training agreement between an apprentice and an expert craftsperson. Further, he describes it as the process of learning new and valuable skills from a seasoned professional; it is viewed as a way of bringing theoretical and practical knowledge together. Expert craftsperson commits to training the apprentice in all the skills relevant to his or her trade over a period, thus between one and four years, while the apprentice commits to contributing productively to the work of the business. So, the Master craftsman is teaching while the apprentice is learning.

Training is integrated into the production process and apprentices learn by working alongside experienced craftspeople. Ojang, Chineda, Ukamaka and Irimiah (2020) espouse that apprenticeship is solely responsible for the transmission of values and skills from generation to generation. The MFIA on Katima Mulilo roadside in Garden Compound of Lusaka Zambia provides skills training in metal fabrication that young people desire, however, how the youth are involved in it remains indefinite. This research baseline study revealed that many young people in Garden Compound of Lusaka Zambia are not significantly engaged in the MFIA. The MFIA gives the out-of-school youth in Garden Compound opportunities to learn appropriate skills in metal fabrication within their locality. This justifies the study purpose to understand youth involvement in the MFIA on Katima Mulilo roadside in Garden Compound of Lusaka Zambia through their awareness, perception, participation, training process and the challenges therein.

1.3 Importance of Apprenticeship

Apprenticeships or skills training at all levels have become essential and aligned with the Zambian government's goal of unlocking the country's potential in all sectors of the economy and promoting sustainable, holistic, and inclusive national development with the aim of returning the country to the trajectory of its 2030 Vision of becoming a prosperous middle-income nation (GRZ,2022). This gives the youth in Garden compound of Lusaka Zambia, the rare opportunity to acquire appropriate skills in metal fabrication within their neighborhood. Additionally, learning metal fabrication can also foster creativity and innovation among the youth. By working with metal steel and understanding the various techniques and processes involved, they can develop their problem-solving skills and think critically to design and create unique products or structures. Moreover, metal fabrication requires precision and attention to detail. The youth in Garden compound can benefit from honing these skills, as they are transferable to many other areas of life. Whether it is in academics, personal projects, or even everyday tasks, having a keen eye for detail can greatly enhance their overall performance and success.

The importance of apprenticeship globally has been acknowledged by individuals and organizations. In Nigeria, apprenticeship is a rational economic decision that uses cheap labor to build up human resources among the Igbo people, while creating the opportunity of developing self-employed individuals (Obi, 2020). Additionally, Obi describes apprenticeship as the act of

learning business, trade or work under a master for a period of time. This is the case for most countries in Africa, especially in West Africa where apprenticeship has been an integral part of their economic life. On the other hand, apprenticeship is a widely practiced system of training aimed at skills transfer from the master or expert to the learner, the apprentice. The Organization for Economic Co-operation and Development (OECD) and International Labor Organization (ILO) posit that apprenticeships and other work-based training opportunities are valuable training pathways for improving the transition from school to work (OECD/ILO, 2017). About 90% of apprenticeship training is done through job-on-training (JOT). It is a job-on-training system in that it involves doing the job in the training process**.** Through apprenticeship, individuals and communities are empowered to improve their livelihoods using the skills acquired (Hayes, 2013). The existence and practice of apprenticeship has crossed generations in many societies, becoming pivotal in the training of artisans and blacksmiths.

The European Centre for the Development of Vocational Training (CEDEPOF) (2018) considers it increasingly important to understand the relevance and role of apprenticeships in national policies for collective skills formation, as part of human capital development strategies. A resolution among member countries of the European Union (EU) was made that there was a greater need to understand the relevance and the role of apprenticeships as part of collective skills formation, to improve their quality in line with the proposal for establishing a European framework for quality and effective apprenticeships, boost cross-country mobility of apprentices, and reflect on future developments of this traditional learning tool in the context of industry. To this effect, the role of apprenticeship in the economic life of individual countries and regional organizations requires no exaggeration. The OECD (2018) in Okadi et al. (2020) reveals that the unemployment rates among young people in countries with dual education system is considerably lower, which leads to the conclusion that apprenticeship training in line with the labor market, facilitates employment, especially among young people. The centre emphasizes that as policy makers contemplate new ways to connect education and workforce training, apprenticeship stands out as a compelling, but underutilized option. Apprenticeship is a proven educational model that integrates on-the-job and classroom learning. It is highly effective for helping learners connect theory and practice and works particularly well for people who learn best by doing. In this respect,

apprentices gain valuable work experience and access to professional mentors and networks (Parton, 2017).

According to the Trade Union Council (TUC) and Confederation of European Unions' Council (CEEUC), (n.d) trade unions in the EU recognize the importance of apprenticeship. Both contend that though apprenticeships cannot solve the problems of youth unemployment, they can bridge the gap between school and the labor market. They further confirm that apprenticeships offer a tried and tested way of helping young people with work. In some countries, apprenticeship has led to legislative changes to enhance its role and significance. The Federation Indian Chamber of Commerce and Industry (FICCI) (n.d) explains that India reviewed its laws to incorporate apprenticeship after it had faded out. Recognizing the need for simplifying and easing the process of apprenticeship, the Indian government, introduced several amendments to the Apprenticeship Act of 1961. The apprenticeship (Amendment) Bill 2014 was a crucial landmark in bringing-in the much-needed reforms. It was followed by the introduction of the National Apprenticeship Promotion Scheme (NAPS) in 2016. The Central Apprenticeship Council (CAC) also carried out reforms in July 2019 to expand apprenticeship opportunities. According to the FICCI Government introduced many changes and reforms in the Apprenticeship Act of 1961 to make it industry friendly. This gave apprenticeship latitude to contribute to skills acquisition and development of the country as an organized training method. It also benefits from associations that spearhead its values and promotion.

The United Nations Educational, Scientific and Cultural Organization (UNESCO) acknowledges the role and importance of apprenticeship in helping to alleviate human suffering around the globe as it is entrusted to lead and coordinate the Education 2030 Agenda, which is part of a global movement to eradicate poverty through 17 Sustainable Development Goals (SDGs) by 2030 (UN,2017). Education, essential to achieve all these goals, has its own dedicated Goal number, 4, which aims to, "ensure inclusive and equitable quality education and promote lifelong learning opportunities for all." The Education 2030 Framework for Action provides guidance for the implementation of this ambitious goal and commitments (UNESCO, 2017). Sonnenberg (2012) citing the *EFA Global Monitoring Report* (UNESCO, 2012) asserts that traditional apprenticeships are an important way of acquiring transferable and job-specific skills. Ghana and Senegal have

long histories of traditional apprenticeship and that this form of skills training reaches more youths than formal technical and vocational training (Walther, 2008).

1.4 Purpose of Apprenticeship

Apprenticeship is provided as post-secondary education to prepare learners for specific roles in industry in many developed countries including India. In some cases, it has been offered as a separate curriculum pathway for skills development in readiness for industrial placement. Gessler (2019) identifies different ways in which apprenticeship is provided in Europe and other developed regions; work-based and class-based. Work-based provision of apprenticeship requires that learners are recruited as employees and later undergo apprenticeship training while class-based apprenticeship starts with admitting learners in a training institution where apprenticeship is included as part of the training. The latter is commonly practiced in Zambia.

Many countries in the world adopted apprenticeship because it is sustainable and cheap (McGurk and Allen, 2016). Industrial giants like Germany, America and England have used apprenticeship to support their rapid industrial growth using energetic and cheap labor (Fuller and Unwin,2003). There are several tools to help the youth improve their skills and employability. Apprenticeships are one of those tools that have proven successful and effective for countries outside of the region, making LAC countries increasingly interested in experimenting with this type of approach (Fazio et al., 2016). Wallis (2007) affirms that apprenticeship was identified to have a comparable importance in Europe and England as the main route into skilled manufacturing, service and mercantile occupations. Kizer (n.d) claims that apprenticeship was an early form of education in the American colonies when the need for skilled workers was great, due to a constant influx of new immigrants and the "new world" (America) had a wealth of raw materials which needed many hands to develop. Today, youths across the world face serious challenges regarding skills and jobs, challenges fundamentally different from those their parents faced. In the globalized economy, competition has become intensified among firms and industries in developing and developed countries alike, requiring their workers to have higher levels of skills to enable them to engage in innovation, improve the quality of products/services, and increase efficiency in their production processes or even to the point of improving the whole value chain process (Okada, 2012).

In Africa, apprenticeship has been an avenue for skills and knowledge transfer from the old to the youth for a long time. West Africa has used apprenticeship to impart skills to the young generations at household and community levels for centuries. Youths are attached to experts or master trainers for a period to help them acquire different skills according to the needs of the individual or community. The learners observe the master or experts perform their work and slowly imitate and practice; they learn the trade or craft. The Igbo tribe business acumen can be attributed to the work of apprenticeship which helps them to acquire skills and pass them from one generation to another (Obi, 2021).

In Zambia, apprenticeship supports both traditional and modern societies. Mwanakatwe (2013) explains how the training of the youth in a community was done according to gender by the elderly. The young accompanied the elderly in their daily chores and later began to carry out the same tasks by imitating the elderly. In formal education, apprenticeship was part of the certification system in the Technical Education and Vocational Training (TEVT) program in the Trades Training Institutes (TTI) at craft level (Mukuni, 2020). Trainees were required to do an apprenticeship by being attached to experienced industrialists for a period to qualify for certification after two years of college-based training. This made apprenticeship an integral part of the skills training program and enabled a smooth transfer of skills across generations.

1.5 Recognition of Apprenticeship

Globally, apprenticeship has been applauded as an efficient but cheap way of skills transfer. UNESCO (2015) acknowledged apprenticeship as an effective intervention and potential remedy to the problem of youth unemployment. The organization affirms that the global youth employment crisis has brought apprenticeship back on the international policy agenda and further encourages countries facing youth unemployment to use apprenticeship as an intervention. UNESCO discerns that in the face of large cohorts of unemployed youths and mismatches in skills and qualification levels, many countries wish to explore and introduce apprenticeship to tackle youth unemployment and reduce future labor market imbalances. The recognition of apprenticeship as an effective intervention by UNESCO further emphasizes the importance of this approach in tackling youth unemployment globally. By encouraging countries to adopt

apprenticeship programs, UNESCO recognizes the potential of this model to address the challenges posed by large numbers of unemployed youth and skills mismatches.

In Australia, a comparison of skilled vacancies data with trends in traditional apprenticeship commencements gives an indication of the current environment of skills shortages in the trades. In addition, surveys conducted by peak industrial bodies (for example, the Australian Council of Trade Unions and the Australian Industry Group) point to continued skills shortages in traditional trades (Misko and Saunders, 2007).

Filgueira and Axmann (2017) identify several benefits of apprenticeship. These include facilitation of school-to-work transition, promote coordination between education and industry and reduce skills mismatches, makes good business sense, and cost-effective delivery of vocational training. Apprenticeship programs allow employers to train the workers their enterprise needs while apprentices can demonstrate their productivity potential to employers as well as making well informed choices about education and training. They also note that if the government brokers a partnership between education/training institution and industry, the former can tap into resources of companies (for example, equipment and facility, and accumulated expertise) broker sort of a win- win situation as the latter can also benefit from the partnership.

The European Commission acknowledges the key role played by apprenticeship is supporting young people in the transition between school and work (Chankseliani, Kepp and Wilde, 2017). The G20 Employment and Labor Ministers have highlighted the importance of developing quality apprenticeship programs, which can provide businesses with the skilled workers they need to succeed in a rapidly changing global marketplace. Broadening the availability of apprenticeship program requires collaboration and co-ordination between a range of stakeholders at the local level, including the private sector, civil society, the third sector, as well as young people themselves (OECD/ILO, 2017).

In Ghana, employers also play a key role in skills development through skills learned on-the-job, through short-term training, and, of course, traditional apprenticeships offered mainly by the informal sector (Sonnenberg,2012). Countries with well-established apprenticeship systems tend to be better at managing school-to-work transitions for youth and enjoy lower ratios of youth

unemployment rate to adult unemployment rate (Axmann and Hofman,2013). Apprenticeship is often seen as a panacea for a wide range of policy ills; employment, skills shortages, skills mismatch, social exclusion, and economic problems (Chankseliani et al., 2017).

Traditional apprenticeship is an important form of training for the youth, essential for providing skills to those unable to access formal training. In Ghana and Senegal, governments have created policies and program to increase access to and the quality of these non-formal skills training approaches to better prepare their populations for work in the informal sector (Sonnenberg, 2012). Ojang et al. (2020) allude to the EU recognition of apprenticeship and affirm the potential of apprenticeship in reducing unemployment. The European Commission affirms that countries that engage their youths in work and school – based learning programs have reduced unemployment rates under 9 percent for 15 – 24-year-olds as compared to 16 percent in U. S. and other OECD countries as a whole and over 36 percent in most Asian and African countries.

Amidst escalating technological development in the world, apprenticeship was sidelined as a training program. However, after a period of fading interest in apprenticeship systems internationally, the aggravated global youth employment crisis has brought apprenticeship back to the policy agenda in tandem with the contention that its jobs and skills have long been appreciated by countries eager to promote growth and ease transition from full time education to work for young people (Anokye and Afrane, 2014) and (UNESCO,2015). Apprenticeship is an effective means of bridging school and work for young people making it possible for them [young people] to acquire work experience along with technical and professional training. Smith (n.d) affirms that the G20 countries recognized that during and immediately after the global financial crisis, apprenticeship was often cited to reduce the rate of youth unemployment, which rose to extremely high levels in some countries (including several in southern Europe).

In Zambia, the Seventh National Development Plan (7NDP) resounds the importance of apprenticeship in national development and acknowledges its ability to increase access to skills training (GRZ, 2016). The Government, therefore, resolved to enhance implementation of the strategies started in the Sixth National Development Plan (SNDP) which include workplace/on-the-job training. Vision 2030 aspires to live a strong and dynamic middle-income industrial nation that provides opportunities for improving the well-being of all embodying values of social;

economic justice underpinned by the four key aspirations numbered *k, m, p* and *s* (GRZ, 2006). The same echoes in the 8NDP despite the change of government; on the multi-sectoral integrated development planning approach introduced in the 7NDP. This approach goes beyond articulating sectoral and provincial interventions by ensuring that there is horizontal and vertical integration, as well as convergence in the execution of interventions across sectors (GRZ,2022). Overall, the recognition of apprenticeship as an efficient and cost-effective way of skills transfer, along with the acknowledgment of its potential to address youth unemployment, highlights the importance of investing in apprenticeship programs globally. By providing young people with practical training and employment opportunities, apprenticeships can help bridge the gap between education and employment, reduce skills shortages, and ensure a more balanced labor market in the future.

1.6 Youth exit from school.

Youth exit from the formal school system at various points in Zambia apart from the designated examination grades at Seven, Nine and Twelve levels due to a myriad of reasons. According to the United Nations Population Fund (UNFP) (2018), transitioning from primary to lower secondary grades (8 to 9) and to upper secondary grades (10 to 12) and tertiary (college or university) in Zambia is equally low. Transition rates from lower secondary to upper secondary school consistently remained below 50% from 2009 to 2016, which means that less than half of those who completed lower secondary school transitioned to upper secondary education - most (more than half) dropped out. ILO (1998) attributes this to many reasons and notes that most youngsters drop out of the education system at an earlier stage, upon completion of primary education or even before.

A range of factors contribute to the high proportion of out-of-school youth in Africa, among which are the inadequate capacity of the educational system, the low incomes and living standards in most families (poverty), and the introduction of cost-recovery measures at the level of basic education. The inadequate capacity of the educational system in Zambia is a significant factor in youth exiting from school. Limited resources, including classrooms, teachers, and teaching materials, make it difficult for schools to accommodate all students. This leads to overcrowded classrooms, which affects the quality of education and hampers students' ability to learn effectively.

Many countries in Africa, including Zambia, are severely affected by the HIV and AIDS pandemic, which results in an increasing number of AIDS-related orphans, many of whom lack the necessary guidance and support to be able to complete their schooling (ILO, 1998). Kelly (1991) and Ryan (2015) acknowledge these factors and explain that lack of access to tertiary education institutions and high school fees force children out of school. Masaiti and Kwalombota (2019) established similar hurdles to youth school attendance in Mongu in the Western Province of Zambia. These youths and their counterparts with lower education qualifications need apprenticeship to uplift them in the informal sector.

There is a clear association between informal work and education; those with no or little education are almost all informally employed. Secondary education is associated with a small reduction in informality, while informality rates drop very significantly for workers with an A-level or a post-graduate degree (OECD/ILO) (2019). All such school leavers and dropouts need a system of training such as apprenticeship that can empower them with skills for survival. The link between classroom learning and workplace schedules as in formal apprenticeships can be appreciated by apprentices when they learn on the job, thus breaking the traditional dichotomy between school learning and industry processes (Ojang et al., 2020).

Apprenticeship is practiced in the MFIA on Katima Mulilo roadside in Garden Compound of Lusaka, Zambia, where youths acquire skills in metal fabrication. The study investigated youth awareness, perception, participation, training process and challenges with MFIA on Katima Mulilo roadside in Garden compound of Lusaka Zambia to establish youth involvement in the MFIA there. The findings of the study might help to address the problems youths face in acquiring the metal fabrication skill for employability and entrepreneurship. The Government of the Republic of Zambia recognizes the importance of apprenticeship in addressing youth unemployment, which is attributed to a weak education system that does not focus on practical work-related skills. Zambia's youth unemployment is attributed to a weak education system that does not support practical work-related skills (Shamenda, 2012).

The 8th National Development Plan of Zambia emphasizes the significance of skills training in preparing youth for employment, especially those who have not completed their primary or secondary education. The government plans to implement measures to encourage the private sector

to provide internships, mentorships, and apprenticeships. The 8NDP emphasizes that skills training has the highest potential to capacitate the youth for employability, many do not complete their primary or secondary level education. Further, measures will be put in place to incentivize the private sector in facilitating internships, mentorships and apprenticeships (GRZ,2022).

By understanding youth awareness, perception, participation, training process and challenges faced by the youth in the MFIA apprenticeship program, the study can provide insights and recommendations to improve the program and enhance youth involvement. This, in turn, can contribute to reducing youth unemployment and equipping them with the necessary skills for successful employment and entrepreneurship. The outcome of the study has the potential to interpose in numerous problems the youth face in acquiring appropriate skills for employability and entrepreneurship. From the discussion above, the Government of the Republic of Zambia acknowledges the value of apprenticeship in addressing the myriad of problems facing the youth.

Ryan (2015) affirms that informal apprenticeship takes place in Zambia and young people participate in different informal sector activities for their livelihoods. Many Lusaka residents, including even more young people, create a living from a range of extra-legal activities that are most visible in public space (Hansen, 2010). The dexterity of apprenticeship in imparting numerous human skills and knowledge cannot be over emphasized.

The agility and universal recognition of apprenticeship as an intervention for youth malaise motivated the researcher to undertake the study. Apprenticeship programs have been recognized as a successful approach in addressing unemployment and providing skills training to young people. The researcher observed the fast-growing MFIA on Katima Mulilo roadside in Garden Compound of Lusaka, Zambia, which presents opportunities for apprenticeship programs. The aim of this study was to explore the level of youth awareness, perception, participation, training process, and challenges regarding the MFIA on Katima Mulilo roadside of Garden compound in Lusaka. Despite the long history and significance of the MFIA in this area, the researcher knows no other study on this topic.

1.7 What is Apprenticeship?

Apprenticeship is a complex concept that embraces both economic and educational facets. It is a traditional method of training that has been used in various economies around the world. Apprenticeship involves learning valuable skills from an experienced professional, combining theoretical and practical knowledge, and actively participating in work while learning. It has evolved over the years and now used to represent various forms of skills acquisition, ranging from the traditional craftsperson – apprentice training to modern day designs that integrate education/training institutions and workplace training (Okadi et al., (2020). This agrees with ILO (2012) that Apprenticeship training system is conceived under three typologies of traditional, informal and formal apprenticeship training systems. Traditional apprenticeship between an expert and an apprentice is a common and principal medium for skills development.

The 2011 Pathways to Prosperity report published by the Harvard Graduate School of Education, difficulties related to entry and access into the labor market will continue to rise as the population of youth ages 16-24 years continues to increase. This age is critical for the development of career skills and competencies, yet people in this age group are not able to get the experiences they will need to be successful in the work environment (Symonds, 2012) in (Andrews-Standafer, 2018). Apprenticeships become the best option for intervention in which the master craftsperson takes on the responsibility of training the apprentice in all the relevant skills of the trade over a period, typically one to four years. In turn, the apprentice commits to contributing productively to the business. Training is integrated into the production process, and apprentices learn by working alongside experienced professionals (Alhassan, 2016).

According to ILO (2019), apprenticeship is an old way of training where an apprentice learns a craft or occupation while in the service of a skilled practitioner. It dates to many centuries in the pre–industrial times. Among the Igbo people of Nigeria, apprenticeship is an old practice that has been in existence for ages, but as means of wealth creation, economic development and national building. It is a systematic leadership and informal learning process that involves serial years of business mentorship and tutorship (Obi**,** 2021). Gessler (2019) considers apprenticeship as one of the oldest, yet most popular forms of training at the interface of work and learning and/or world of education and world of work. Apprenticeship has been defined differently to suit the diverse

contexts in which it is practiced**.** UNESCO (2015:6) adopted the ILO (2012) definition of apprenticeship as:

> A unique form of vocational education, combining on-the-job learning and school-based training, for specifically defined competencies and work processes. It is regulated by law and based on written employment contract with a compensatory payment, and standard social protection scheme. A formal assessment and a recognized certification come at the end of a clearly identified duration (UNESCO,2015:6).

This definition presages the multiple character of apprenticeship applicable in the formal sector. It is an exceptional form of vocational education involving on-the-job-training and school-based training. Nevertheless, apprenticeship is school-based training for specific competencies and work processes (Glessler,2019). Further, apprenticeship is regulated by law and involves contracts ILO (2012) in UNESCO (2015). This associates apprenticeship with institutionalized or formal learning situations. Obi (2021) on the other hand, aligned apprenticeship mostly to a business environment among the Igbo people of Nigeria. Clearly, the latter is not institutionalized as businesses differ in many ways.

As a multifarious concept, apprenticeship is likely to vary from place to place to suit the context and purpose in line with the situated theory of Wenger and Lave. Obviously, the parameters used to define apprenticeship by ILO (2012) are not universally applicable. For example, the combination of the job and training could be covered differently in Europe from what obtains in Africa and other parts of the world. Indeed, it does, as most European countries include apprenticeship in their national qualification framework (NQF) unlike most of Africa (Pye, et al., 2004). In some cases, the training might not involve school-based with supporting legal provisions as all might be centered on the master trainer and his working environment. ILO (2012) also refers to apprenticeship as a systematic acquisition of complete skill sets at the workplace, for a full occupation. The systematic aspect of apprenticeship is also mentioned by Obi (2021) when describing it as a systematic leadership and informal learning process. However, the variation is on what is systematic: acquisition and leadership for ILO and Obi respectively. This variation in the systems of apprenticeship implies that it is embedded in the social economic fabric of a community with clearly defined regulatory and structural patterns. For example, among the Igbo

of Nigeria, apprenticeship involves three stage operations namely, ability, mentorship and settlement contrary to the systematic nature of apprenticeship from the ILO perspective not based on the stages given by Obi (2021).

Gessler (2019) posits that apprentices might be considered as 'employees' who learn while they work at the company in one situation and differently in another. The learning experience is usually supported by complementary school-based training and, upon successful completion, certified with a valid certification. Andrews-Standfer (2018) completely opposes what Gessler claims on school-based training and argues that work-based learning is an instructional strategy aimed at connecting students at every educational level to industry professionals who can foster a deeper understanding of the skills, educational requirements, and context of a specific career field.
This difference is in tandem with the situated learning theory by Wenger and Lave (1991) where learning is deemed to take place in different situations or contexts. the learner is found. The SL contends that learning always takes place in a context and the learners must not be passive but should participate actively.

The learning experience is usually supported by complementary school-based training and, upon successful completion, certified with a valid certification. These features of the ILO (2012) description of apprenticeship are not applicable universally as seen above. They vary according to context as well. Therefore, the ILO (2012) definition of apprenticeship should be taken as one applicable to a specific context and not a general fit-all definition.

The arguments above trigger the belief in Zambia that apprenticeship encompasses even those without formal education such as school- dropouts at various levels of the education ladder; due to a myriad of factors; including limited access to education and capacity of the system and high school fees (Kelly, 1991). Maimbolwa and Masaiti (2020) found pregnancy, financial challenges and truancy as major reasons responsible for school dropout among pupils in Mongu district of western Zambia. While pregnancy emerged as the single most influential factor contributing to dropping out amongst girls, financial challenges was mostly attributed to boys.

Apprenticeship is distinguished from general education which tends to cover general knowledge and is school based though it might have some field experiences such as industrial attachments to support the training. Apprenticeship is linked to skills training which assists young people to find employment or become entrepreneurs. Traditional apprenticeships are an important way of acquiring transferable and job-specific skills, particularly for the informal sector (Sonnenberg, 2012). It is a form of adult and non-formal education which supports out-of-school youths and women. Adult and Non-Formal Education (NFE) provides opportunities to adults and the youth to continue their education at any level and in various forms. That way, individuals fulfill their needs and that of society. These needs may require achieving new knowledge and skills for handling life challenges. The end of World War II saw the recognition of adult and non-formal education by many nations as a vital and indispensable tool for individual and national development (Mayachi and Hussein, 2012). The researcher in the present study holds this view as well.

In some traditional trades, such as carpentry or blacksmithing, apprenticeship is a long-term commitment where an apprentice works under the guidance of an expert craftsman for several years. The apprentice learns the trade through hands-on experience, observation, and instruction from the master. This type of apprenticeship is often seen to impart and preserve traditional skills and craftsmanship. In other industries, such as healthcare or information technology, apprenticeships may be shorter in duration and focus more on practical skills and on-the-job training. These apprenticeships are often designed to address specific skill gaps in the workforce and provide a pathway to employment for individuals who may not have a formal education in the field. Apprenticeships can also vary in terms of their structure and format. Some apprenticeships may be structured as a formal program with a set curriculum and designated training providers, while others may be more informal and flexible, with learning happening on the job.

The term apprenticeship has been defined differently in different situations and locations. This creates the probability of understanding it differently depending on the type practiced in each circumstance. Although apprenticeship has one goal of transferring skills and knowledge from the expert to the learners, it is applied at different levels for varying reasons and context.

1.7.1 Apprenticeship in Australia and America

The Australian National Training Authority (ANTA) (2001) adopts the Concise Oxford Dictionary definition of an apprentice as a 'learner of a craft, bound to serve, and entitled to instruction from his employer for a specific term, beginner, and 'novice'. This definition gives apprenticeship specific and more generic meanings. The specific meaning points to a contractual relationship between employer and employee while the more generic one is limited to the activity of learning or training in a skill for a purpose but not necessarily contractual.

The aspect of learning with a contract between the learner and the trainer is principal to the definition and UNESCO (2015) explains that the assumption that apprenticeship should necessarily include school-based training was challenged by some participants. Participants referred to well-functioning apprenticeship experiences, often traditional apprenticeships, which have for many generations fueled the development of societies, including the generation of impressive architecture and artworks, without complementary school training.

Encyclopedia Britannica (n.d) defines apprenticeship as training in an art, trade or craft under a legal agreement that defines the duration and conditions of the relationship. Although in the traditional form common in Africa, the provisions stipulated by the encyclopedia might not totally be met. Nonetheless, the areas of training in art and trade are consistent with what Ryan (2015) includes in defining apprenticeship in the African context where informal apprenticeship is dominant. Ryan is silent on the legal requirements as these might not be as stringent as in formal apprenticeship systems. Apprenticeship has never been the sole means of obtaining skills in its long history as a way of learning while working, particularly for the craft or trades occupations ANTA (2001) should be understood from the context of the type of apprenticeship involved.

In Indonesia, apprenticeship is part of a job training system that integrates training at a training institute working directly under the tutelage and supervision of an instructor or more experienced worker/laborer in the process of producing goods and services in an enterprise to master a certain skill or trade (ILO, 2019). Note here that ILO is silent on the legal aspect of apprenticeship given earlier by ILO (2012). The legal aspect of defining apprenticeship is also not emphasized in the American context. For example, the United States Department of Labor (2017) describes

apprenticeship as a combination of on-the-job-training and related instructions in which workers learn the practical and theoretical aspects of a highly skilled occupation. This alludes to the combination of work-based and class–based apprenticeship debate. Typically, differences arise because of the desire of employers to profit from employing apprentices and the desire of apprentices (endorsed by their parents) not to be exploited as cheap labor.

1.7.2 Apprenticeship in Africa

In Africa, apprenticeship often takes place in informal and traditional settings, rather than in formal apprenticeship programs like those in America, Europe, and Australia. This means that the structure and practices of apprenticeship in Africa differ from those in other regions. During the period of training, the apprentice is expected to live with the head craftsman and work under their guidance and supervision. The expert craftsman is responsible for providing the necessary training, tools, and materials for the apprentice. The apprenticeship system in Nigeria is often seen to pass down traditional skills and knowledge from one generation to the next. It is commonly practiced in trades such as carpentry, blacksmithing, tailoring, and pottery, among others (Okadi et al., 2020).

The duration of apprenticeship varies depending on the trade and the agreement between the parent/guardian and the master craftsman. It can range from a few months to several years. The apprenticeship period is seen as a time of learning and practical experience, where the apprentices gradually develop their skills and knowledge in the chosen trade.

The emphasis is on learning the skill from an experienced person. In colonial Nigeria the principal form of education for going into any occupation or profession was the apprenticeship system whereby a young person was apprenticed to a master craftsman who taught the young person the skills of a vocation and after several years of learning, the trainee was allowed to start his own workshop or business (Adekola, 2013). This definition of apprenticeship is consistent with others in several respects. However, it lacks precision of location and context of the apprenticeship practice. It does not clearly state whether this is class-based or work–based training. The duration of apprenticeship training in Africa is not fixed either. This shows the obligation of skill acquisition by the learner.

The legal aspect of contracts is loose in the form of some understanding between the apprentices, their families and the master trainer. The terms of the agreement are made by the parents and the master craftsman on behalf of the apprentice. The oral agreement usually covers the duration of apprenticeship, accommodation of the apprentice during the period of apprenticeship (whether the parent's house or master trainer's house), feeding and other welfare schemes. Among the Igbo people of Nigeria apprenticeship is a word which simply means the act of learning business, trade, or work under a master for a period. It is a rational economic decision that uses cheap labor to build up human resources, while creating opportunities of developing self–employed individuals. Apprenticeship is a mentorship, craftsmanship or tutorship (Obi, 2021). This emphasizes the acquisition of the skill and regardless of whether it is school or work based as noted earlier.

In Africa, apprenticeship is defined differently from continents; Europe, America and Australia; especially where it has not been placed as a form of skills training for premier jobs. Whereas, in other continents the definitions of apprenticeship reflect elements of classification such as highly skilled occupations, the African version is non stratified and described as a one-level fits all type. This is the traditional and informal level referred to as informal apprenticeship. The duration of apprenticeship is not predetermined in the Zambian case, and training agreements overall appear unclear and not strictly binding (Ryan, 2015).

1.7.3 Historical Description of Apprenticeship by ILO

In more recent years, the ILO has adapted its definition of apprenticeship to reflect changing labor market dynamics. In 2019, the ILO defined apprenticeship as a system of training for employment, which combines on-the-job learning with related instruction, typically in a formalized arrangement between an employer and an apprentice. This definition highlights the importance of both practical training and theoretical education but is silent on venue in apprenticeship programs. The shift in definition also highlights the importance of combining practical experience with theoretical knowledge in apprenticeship programs. By incorporating formalized arrangements and related instruction. The ILO acknowledges that apprenticeships should not solely focus on on-the-job training but should also provide a comprehensive learning experience; to include theory and practice.

Furthermore, the emphasis on skills development and lifelong learning reflects the evolving nature of the labor market. In today's fast-paced and rapidly changing economy, workers need to continuously update their skills and adapt to modern technologies and industries. Apprenticeship programs that prioritize lifelong learning enable individuals to acquire a broader range of skills and remain competitive in the job market throughout their careers. The ILO's recognition of the need to align apprenticeship programs with the changing needs of the labor market is crucial for ensuring the relevance and effectiveness of such programs. By adapting apprenticeships to meet the demands of the modern workforce, the ILO promotes the development of a skilled and adaptable workforce that can contribute to economic growth and social development.

The 1939 ILO definition of apprenticeship is merited for its being concise while containing all the important terms: “any system by which an employer undertakes by contract to employ a young person and train him [her] or have him [her] trained systematically for a trade for a period the duration of which has been fixed in advance and in the course of which the apprentice is bound to work in the employer’s service (Werquin, 2021). The apprentice was looked after by the trainer as was reported in Nigeria that oral agreements usually cover issues of duration of apprenticeship, residence of the child (apprentice) during the period of apprenticeship (whether the parent’s house or master’s house), feeding and other welfare schemes (Adekola,2013). The duality of being an economic and pedagogic issue continues to be enhanced.

In 1962, ILO described apprenticeship as a systematic long-term training for a recognized occupation taking place. This was a general definition of a concept that has several characteristics. This definition is open and applicable to all forms of apprenticeship training globally. The 1962 ILO recommendation also emphasizes that apprenticeship training should be systematic and of long duration, be occupationally specific, be subject to specified standards, involve a significant amount of work in the enterprise, and be subject to a written contract. The Recommendation contains provisions on the content of the apprenticeship contract: conditions of access, duration, relationship between on-and off-the-job training, assessment, qualification, remuneration, accident insurance, and paid leave. It also addresses the accreditation and supervision of companies that took apprentices, as well as the types of trades that can be apprenticed (Werquin, 2021).

In 2012, ILO described apprenticeship as a system by which a young learner acquires the skills for a trade or craft in a micro or small enterprise, learning and working side-by-side with an experienced craftsperson. This definition draws the attention of ILO to the youth 'young learner' and informal sector, 'micro or small enterprise' which has been associated with apprenticeship especially in Africa and other developing continents. It should, therefore, be accepted that ILO (2012) in UNESCO (2015) considers apprenticeship a form of workplace learning different from others which combine schooling and training. A systematic acquisition of complete skills set at the workplace, for a full occupation. A learning experience usually accompanied by lessons at the workplace and, upon successful completion, certified with a valid certification. This definition is a 'fit all' as it leaves out many parameters applied only to specific contexts and types of apprenticeships. It also recognizes the dual nature of apprenticeship as one gets a skill for a trade or learning and working side by side. The present study adopts this definition which fits in many situations except the aspect of certification which might not be universal especially for informal apprenticeships. As a multifaceted concept, apprenticeship is understood differently by users in different contexts and levels. The many versions of apprenticeship are justified to suit the different contexts and purposes of practice.

The complexity of apprenticeship refers to the numerous factors and elements involved in the process of learning a skill through practical experience. In the present study, the complexity of apprenticeship is appropriate because it helps to understand the nature and extent of the training taking place in the MFIA on Katima Mulilo roadside in Garden Compound of Lusaka, Zambia. It should, therefore, be accepted that apprenticeship does not have a standard definition as different countries and industries may have their own description and practices of apprenticeship. Therefore, it is critical to understand the specific context and characteristics of apprenticeship in the MFIA on Katima Mulilo roadside in Garden Compound of Lusaka, Zambia hence the importance of the present study. Nevertheless, the activities in the MFIA involve training in the skill of metal fabrication. Apprentices are learning and acquiring practical skills in this field at their workplaces. It aligns with the general concept of apprenticeship, which typically involves on-the-job training and learning from experienced practitioners. This makes the investigation on the youth involvement in the MFIA on Katima Mulilo roadside in Garden Compound of Lusaka Zambia.

The complexity of apprenticeship reflects the various factors and elements involved in the process of learning a skill through practical experience. In the present study, the complexity of apprenticeship is relevant because it helps to understand the nature and extent of the training taking place in the MFIA on Katima Mulilo roadside in Garden Compound of Lusaka Zambia. One important aspect is that apprenticeship does not have a standard definition. Different countries and industries might have their own descriptions and practices of it. Therefore, it is crucial to understand the specific context and characteristics of apprenticeship in the MFIA on Katima Mulilo roadside of Lusaka Zambia.

The MFIA involves training and employment of youths in the skill of metal fabrication. Apprentices are learning and acquiring practical experiences in this field while working at their workplace guided by their trainers/employers. This is consistent with the general concept of apprenticeship, which typically includes on-the-job training and learning from experienced practitioners. Moreover, the apprenticeship in the MFIA is considered informal as it excludes the school-based type. Informal apprenticeships are often characterized by a lack of formal structure, certification, or recognition by official educational or vocational systems. Instead, they rely on practical training and knowledge transfer at the workplace. By acknowledging the complexity and informal nature of the apprenticeship in the MFIA, the present study recognizes the unique context and characteristics of the training taking place there. This understanding is essential for accurate understanding of the impact and effectiveness of the apprenticeship program, as well as identifying any challenges therein.

The complexity of apprenticeship has a bearing on the present study. Given that apprenticeship has no standard definition, the activities taking place in the MFIA on Katima Mulilo roadside in Garden Compound of Lusaka, Zambia do comprise some training and employment in the skill of metal fabrication at the workplace and therefore qualify to be informal apprenticeship. This agrees with Ryan (2015) that training within the informal economy is widely undertaken in Lusaka. Ryan further notes that the informal institutional framework for apprenticeships in Lusaka's informal economy is currently less well established compared to those in West Africa. The system was less stringent as written contracts were found to be non-existent, and verbal training agreements were considerably undefined. There is no specific term used for apprentices within the informal economy–young people join businesses as *athandiza* (helpers), but this term may apply both to

those in an apprenticeship role, and casual workers brought in for temporary work. Hansen (2010) acknowledges the use of the term helper for apprentices in Zambia.

The study aimed to investigate youth involvement in the metal fabrication informal apprenticeship on Katima Mulilo roadside in Garden Compound of Lusaka Zambia in from different perspectives forms. However, it specifically focused on youth awareness or knowledge about apprenticeship, their perceptions of it, their participation in it, the training process they undergo, and the challenges thereby encountered. By examining these elements, the study targeted to gain a comprehensive understanding of how youth involvement is reflected in the metal fabrication informal apprenticeship in the study site. This information would be valuable in assessing the effectiveness of the apprenticeship program in Garden Compound of Lusaka, Zambia and identifying areas of improvement.

1.7.4 Craft Guilds and Apprenticeship

Apprenticeship cannot be clearly understood without reflecting on its functions and nature during the Trade and Guild era. Historically, the guilds played a crucial role in regulating and maintaining apprenticeship standards in various industries during the medieval period. They ensured that the products produced by their members met certain quality standards, and they supervised the methods of production to ensure efficiency and consistency. Work conditions were also a concern for the guilds, as they aimed to protect the rights and well-being of their members. They set rules and regulations regarding working hours, wages, and safety measures to ensure fair treatment of workers.

The guilds were controlled by master craftsmen who had achieved a high level of skill and expertise in their respective trades. These masters were responsible for overseeing the apprenticeship process, which typically lasted for seven years. During this time, the apprentice would receive training and education under the guidance of the master, eventually gaining the necessary qualifications to become a full-fledged member of the guild. The guilds not only provided practical training but also served as a socializing force. Apprentices were immersed in the beliefs, norms, and values of the guild, creating a sense of companionship and loyalty among its members. This allowed the guild leaders to exert control over the trade and skills training process, ensuring the continuation of their influence and power.

Gessler (2019) reports that apprenticeships were restricted subsequently making governments to contend with the fees against outsiders to prevent them from entering a trade. Even apprenticeships could be restricted, with preference given to the sons of guild members or the sons of wealthy acquaintances. He claims that in responding to these improprieties, the English government tried to define the conditions of apprenticeship with the Statute of Artificers of 1563, which attempted to limit exclusionary practices and to ensure adequate labor. The system offered a strongly interconnected professional and security character which declined due to consumer preferences which led to its dissolution by decree. However, Germany restored the guild system by the monarch authority in the 19th century. This is the era that Gessler (2019) refers to as the standard-based which remained in force in Ireland until the 1990/91.

The notion of individual training was extended beyond the craft Guilds in the Middle Ages (Gessler, 2019). For example, universities advanced the same principle with the master's degree, as did religious orders that required newcomers to pass through a novitiate. In medicine, the guild system applied to the surgeon, who also acted as barriers and was regarded as a craftsman with less prestige than the physician. Lawyers still do apprenticeships by working under a senior counsel in the profession.

The system described in the passage is an example of formal apprenticeship practiced in Zambia. In this system, graduate lawyers undergo a period of attachment to experienced attorneys who provide them with practical training in legal practice. The Zambia Institute for Advanced Legal Education (ZIALE) oversees the training and provides the classroom-based part of the course, while law firms supervise the work-based component. This system allows for the transfer of skills and knowledge from experienced practitioners to young lawyers, contributing to the strict and elaborate procedures and decorum in legal practice in Zambia. It also preserves the quality of the skills and knowledge.

1.7.5 The development of Apprenticeship

The spread of European civilization to other parts of the world, such as America, Australia, and Africa, played a significant role in the expansion of the apprenticeship system. As migrants from Europe settled in these new lands, they brought with them the practice of apprenticeship, which was then accepted and used by the local populations. In Nigeria, for example, Adekola (2013) explains that apprenticeship originated from the penetration of Europeans into Africa. The industrial revolution in Europe introduced new types of jobs, such as painting, mechanics, bicycle repair, driving, and printing, to the Africans. This led to an increase in awareness and a shift away from the traditional family monopolies of certain types of work.

Parents in Nigeria started sending their children to skilled individuals for training in the chosen fields of work. This marked the beginning of the apprenticeship system in Nigeria. Similar processes occurred in other parts of the world, as the industrial revolution and colonialism expedited the growth of apprenticeship in different places at different times and levels. Teal (2016) describes apprenticeship as an old-time system of training that has evolved from a simple to a multifarious activity alongside human development. This highlights the adaptability and development of the apprenticeship system throughout history.

As European civilization expanded through exploration and colonization, the apprenticeship system spread to other parts of the world. European powers established colonies and trading posts in Africa, Asia, and the Americas, bringing with them their cultural practices and institutions. The apprenticeship system was one such institution that found its way into these new territories. The introduction of new types of jobs and industries also contributed to the expansion of apprenticeships. As European powers established plantations, mines, and factories in their colonies, they needed a skilled workforce to operate and maintain these ventures. Apprenticeships provided a means of training workers in the necessary skills. The apprenticeship system originated in Europe during the Middle Ages, primarily in guilds. Guilds were associations of craftsmen and merchants that controlled the production and trade of goods within a particular city or region. These guilds established apprenticeship programs to ensure the transfer of knowledge and skills from experienced craftsmen to the next generation.

As European civilization expanded through exploration and colonization, the apprenticeship system spread to other parts of the world. European powers established colonies and trading posts in Africa, Asia, and the Americas, bringing with them their cultural practices and institutions. The apprenticeship system was one such institution that found its way into these new territories. The introduction of new types of jobs and industries also contributed to the expansion of apprenticeships. As European powers established plantations, mines, and factories in their colonies, they needed a skilled workforce to operate and maintain these ventures. Apprenticeships provided a means of training workers in the necessary skills. Andres-standfer (2018) describes apprenticeship as the oldest known type of vocational education in the United States and has long been used as a method for developing workplace competence. Apprenticeship went to America in the early colonial period resembling European models that were modified to suit conditions in the New World. It was the sole opportunity for the poor to be educated in colonial times.

Over time, the apprenticeship system evolved and adapted to the specific needs and circumstances of different societies. In some cases, it merged with existing indigenous training practices, incorporating local knowledge and traditions. In other cases, it became a tool for social and economic control, as colonial powers used apprenticeships to maintain their dominance over indigenous populations. Mwanakatwe (2013) alludes to this when discussing the missionary education in Zambia before the creation of the Department of Technical Education and Vocational Training DTEVT) in Zambia.

In many societies, apprenticeships have become a multifaceted activity, serving various purposes beyond just skill transfer. They became a means of socialization, where young people not only learned a trade but also imbibed the values, norms, and customs of their community. They also became a means of social mobility, providing opportunities for individuals to rise above their social status through acquiring valuable skills.

Today, the apprenticeship system continues to exist in various forms around the world. It has adapted to the changing needs of modern economies, with apprenticeships now available in a wide range of industries, including technology, healthcare, and finance. Governments and organizations recognize the value of apprenticeships in addressing skills gaps and promoting economic

development. Overall, the spread of European civilization and the introduction of new types of jobs played a crucial role in the expansion of the apprenticeship system to other parts of the world. This system of training has evolved and adapted alongside human development, becoming a multifaceted activity in various societies.

Apprenticeship went to many other parts of the world almost in a similar way. It reached Australia with the establishment of the colony of New South Wales in 1788. The colony adopted English law relating to masters and apprentices, and this became the basis of subsequent laws throughout Australia (Ray, 2001). Similarly, apprenticeship was taken to America by immigrants. Apprenticeship was a system of on-the-job training which was based on ancient and medieval practices. It was also used as a form of education in the migration era; an early form of education in the American colonies was apprenticeship. The need for skilled workers was great as the constant influx of new immigrants continued to arrive by ship. The "new world" had a wealth of raw materials which needed many hands to develop (Kizer, n.d). However, the apprenticeship practice in America and Australia was not the same despite being of the same origin. The variation can only be attributed to the difference in contexts or situations of practice justifying the various definitions of apprenticeship in various parts of the world.

1.7.6 Apprenticeship in Sub-Saharan Africa

Apprenticeship training has a long history in Sub-Saharan Africa (SSA) and it continues to expand (Teal, 2016). In Nigeria the practice of apprenticeship is also an old story, as it grew up in Nupe when the guilds and craftsmen in the area tried to protect their trade and proclaimed guidelines and measures for new entrants. As regulators the medieval guilds supervised the relations of master and apprentice, as government, should do today. According to the African tradition, males born into a family are expected to acquire a trade, either that of the family line or that of any of his kinsman that he sees will benefit him to prosper in the future (Achigo and Chigbo ,2014).

Many countries and kingdoms used apprenticeships to train artisans in essential knowledge and skills (Walther, 2008). This is consistent with the affirmation by Adekola (2013) that apprenticeship is not limited to a single skill. It is the most common form of non-academic training in Sub-Saharan Africa provided by the private sector for a fee leading to self-employment rather than wage jobs (Teal, 2016). It can, therefore, be noted that the origin of apprenticeship is

synonymous with human evolution but has developed differently in different parts of the world through migration and other human activities. The general trend of the development of apprenticeship its growth from a family to a larger community activity over the years. One can therefore associate human industrial growth from pre-historic times to the work of apprenticeship. The origin and development of apprenticeship is important in the present study as it shows the mutability of a concept that permeates community and national boundaries over the years. This gives a firm leverage to a study seeking to appreciate youth involvement in the MFIA on Katima Mulilo roadside in garden Compound of Lusaka, Zambia.

1.7.7 Apprenticeship and the Industrial Revolution

According to Encyclopedia britanica.com the industrial revolution also led to the rise of factories and mass production, which required a larger workforce. As a result, apprenticeships became more formalized and structured, with apprentices receiving training and guidance from experienced craftsmen or professionals. This allowed for the transfer of specialized knowledge and skills from one generation to the next. Additionally, the industrial revolution brought about significant technological advancements, such as the steam engine and the mechanization of production processes. This increased the demand for skilled workers who could operate and maintain these new machines. Apprenticeships became a crucial pathway for individuals to acquire the necessary skills and knowledge to work in these industries.

Furthermore, the development of trade unions during the industrial revolution played a significant role in the growth and importance of apprenticeships. Trade unions were formed to protect the rights and interests of workers, including ensuring fair wages, safe working conditions, and opportunities for skill development. Apprenticeships became a means for trade unions to control recruitment and maintain quality standards within their respective industries.

1.7.8 Organization of Apprenticeship

As a complex activity apprenticeship is organized differently in different epochs, locations and levels of human development. This suits the Lave and Wenger (1991) notion of the Situated Learning theory on apprenticeship teaching in different contexts. For example, in India and many European countries, America and Australia apprenticeship has been adopted as a national activity

linking tertiary education to industrial practice. The Indian Apprenticeship Act (1961) was drawn up based on the principles of 'learning by earning' and 'learning by doing'. It was envisaged as being able to target and fully utilize the facilities available in industry for practical training with a view to meeting the requirements of skilled workforce for industry (World Bank, 2013).

The Australian National Training Authority (2001) gives several ways in which apprenticeship is organized in Europe and Australia which they call brands, The Australian brand of apprenticeship has evolved from the English model. Both ILO (2012) and World Bank (2013) acknowledge the development of apprenticeship in England and indicate that it is inferior to that of Germany. Gessler (2019) attributes this to the company-based apprenticeship that German uses which is rare in other countries. Company-based apprenticeship is synonymous to work-based. Graduates at various levels of education; certificate, diploma and degree in different fields undergo apprenticeship of different durations and magnitude as induction into the real practices of industry (The World Bank, 2013).

The number of apprenticeships started in England each year has almost tripled over the past decade. The Conservative Government sees apprenticeships as a tool to increase national productivity and improve the wage and employment prospects of individuals (Lass, 2017). Andrew-Standfer (2018) post that the Obama administration increased spending to scale up apprenticeship programs that pair hands-on learning with related academic instruction, recognizing that investment in skilled-labor yields added productivity and greater future earning potential. This is a sign that apprenticeship is beyond the acquisition of skills that support human development. It is an economic phenomenon that countries use to support national productivity. Through apprenticeship a country can attain economic prosperity.

While in some countries, apprenticeship is seen only as a 'school-to-work' program, it is not so in all countries. Systems have been opened to adults even when they were formerly confined to young people. Such changes have not been without opposition. In England, for example, the opening of apprenticeships to adults met with opposition and funding has been reduced for adult apprenticeships. It is likely that such opposition may be related to relative degrees of youth unemployment. In one case, France, apprenticeship for adults is only available to people with disabilities, although the new French 'professionalization contract' has extended to all adults

(Smith and Brennan, 2013). However, the present study investigated youth involvement in the metal fabrication informal apprenticeship with a view to contextualize the national development efforts through the informal sector.

In Italy, the European Union (2017) identifies three main apprenticeship schemes in place:
Type 1 apprenticeship (Type1), apprenticeship for vocational qualification diploma, upper secondary education diploma and high technical specialization certificate (33): This covers Vocational Education Training (VET) program at upper secondary level (currently there are 21 qualifications and 22 diplomas codified as nationally valid and included in the national repository) and post-secondary level.

(a) Type 2 apprenticeship (Type 2), occupation-oriented apprenticeship (34): This does not correspond to any education level and leads to an occupational qualification. This is a qualification recognized by the relevant national sectoral collective agreement applied in the hiring company, outside the VET system (2 075 qualifications reported in the national repository).
(b) Type 3 apprenticeship (Type 3), higher training/education and research apprenticeship (35).

This includes two sub-types:

(i) higher training/education apprenticeships leading to university degrees, HTI diplomas, and doctoral degrees corresponding to the tertiary level.
(ii) apprenticeship for research activities leads to a contractual qualification, which is not valid within the education and training system. During an apprenticeship contract the learner alternates learning periods at an education and training institution (regional training centre/schools/ universities) and a company.

Type 1 and Type 3 for higher training/education apprenticeships are associated with formal education and training programs, while Type 2 and Type 3 for research activities are not. In any case, this is all formal or registered apprenticeship with qualifications leading to formal employment. There is no direct equivalent to the informal and traditional apprenticeship commonly found in Africa and other developing places.

As a survival strategy and coping mechanism for a good many of those who drop out at the Basic Education level, the best option has been learning a trade and settling in the informal economy.

This obviously brought a new awakening and increased interest in the informal economy in Ghana especially the apprenticeship system. Traditional apprenticeships in West Africa are widespread. In Ghana, the practice has particularly been linked to the informal economy. The market for apprenticeships has gained a toe hold in Ghana and is especially commonplace in urbanizing area (Anokye and Afrane, 2014).

ILO (2011) acknowledges that informal apprenticeship is very well established in Ghana and describes the situation there and other African countries as where Informal apprenticeship is believed to be responsible for most of all skills development in Ghana. It accounts for almost 90 per cent of all training for trades in Benin, Senegal and Cameroon. Informal apprenticeship systems exist in some countries as diverse as Indonesia, Turkey and the United States. In less developed countries such as Indonesia, India and Egypt, the existence of informal apprenticeships is the product of the multiplicity of micro, small and medium-sized businesses covering every trade. In these informal apprenticeships employers engage younger workers, sometimes for only very short periods of time, and train them on the job to do very specific tasks that are not necessarily expected to be transferable to other work contexts. These informal apprenticeships are not regulated, and the apprentices do not receive any kind of certification (Smith and Brennan, 2013).

In Malawi, at least 90 per cent of the population has their main activity in the informal sector. Most of the youth acquire skills through informal apprenticeship as the formal training system has limited capacity to develop and train them. This situation in Malawi and Zambia reflects the challenges faced by many African countries in providing adequate skills training and employment opportunities for their youth. The number engaged in the informal sector highlights the need for more inclusive and accessible vocational training programs. Furthermore, formal technical and vocational education and training (TVET) is not accessible to many Malawian disadvantaged youths due to various financial and non-financial barriers including unaffordable fees, illiteracy, physical disability, stereotyping, etc (ILO, 2010).

Apprenticeship in Zambia and many other African countries is in two types; the first involves training for jobs in the formal sector while the second type trains participants for the informal sector and traditional society. The apprenticeship involving training for formal jobs is narrow and

fails to accommodate the many youths coming out of the school system at various levels. Vocational training institutions cannot accommodate the vast numbers of school leavers every year, and often charge fees that are prohibitive to young people from poorer families. Young people remain significantly overrepresented in Zambia's unemployment statistics (Ryan, 2015).

Informal apprenticeship is the traditional mode of training in most countries in Africa and obviously is most often found in the informal sector. That is how many young people get their skills. The advantages of informal training, as seen in traditional or informal apprenticeship, are: it does not have to conform to set times; the workplace, which is also the training venue, is accessible; it is usually relevant to the market in which the master craftsman (MC) operates; there are few entry qualifications required; and it is affordable for the rural and urban poor (Neil and Shapiro 2009). In Zambia, at least 90 per cent of the employed population has their main activity in the informal sector. With limited capacity in the formal training system, many young people are acquiring skills through working in informal enterprises (Ryan, 2015).

1.7.9 Associations and clusters of apprenticeships

Clusters and Associations of apprenticeships are sometimes alternative apprenticeship systems outside official ones managed by governments. Egypt, for example, has a well-established alternative apprenticeship system that is managed by the Egyptian Federation of Building and Construction Contractors and Turkey also has a parallel formalized scheme, managed by the Turkish Confederation of Tradesmen and Craftsmen. The latter is for occupations not covered by the relevant legislation (Smith and Brennan, 2013). The MFIA on Katima Mulilo roadside in Garden Compound of Lusaka are informal enterprises used to impart skills to young people in Garden Compound of Lusaka and Lusaka city at large. The gist of the present study was to explore youth involvement in apprenticeship in metal fabrication through youth awareness, perception, participation, training process and challenges with the MFIA on Katima Mulilo roadside in Garden Compound of Lusaka. The understanding that apprenticeships can lead to clusters of skills which turn up to be recognized by governments for statutory obligations makes informal apprenticeship important and necessary. In the context of the present study knowledge of youth involvement would clearly show how the youth contribute to national development.

1.7.10 Apprenticeship Qualifications

In England apprenticeship is provided according to the qualification sought and level of the trades which have been linked to the National Qualification Framework (NQF). To appreciate the scope of contemporary apprenticeship training in England, it is necessary to place it within the wider NQF. There are currently three main levels of apprenticeships in England: Intermediate; Advanced; and Higher. These sit within a qualifications' framework of eight levels, encompassing all recognized academic and vocational qualifications in the country. They range from 'entry-level' certificates at Level 1, such as in Basic English and Mathematics, to Doctor of Philosophy (PhD) at Level 8 (McGurk and Allen, 2016).

The intermediate level is equivalent to the NVQ2 like the Zambian upper primary school certificate. The advanced level is at NVQ3 like the Zambian Junior secondary school certificate while the higher level is equivalent to higher education qualification ranging from certificate to post graduate degree. The learner selects either the apprenticeship or the school-based education pathway but still gets a recognized qualification within the NQF. Contrary to this, the Zambia Education Curriculum Framework (ZECF) completely leaves out Non formal education in its pathways structure in the education system in Zambia (CDC, 2015). This is contrary to the resolutions of the world conference on Education in Thailand and Dakar which adopted and created an implementation framework for NFE as an alternative to the achievement of Education for all (Little 1992) and UNESCO (2000) respectively.

In Europe and other countries, apprenticeship comes after completing the general education phase. Most school leavers opt for the academic education pathway leading to direct university entrance while some take a one-year apprenticeship in a vocational job. Apprenticeship, therefore, does not stop the learner from advancing. The preference among school-leavers for full-time education over apprenticeships is to some extent a general trend across the OECD (Wolf, 2011). The relative decline of manufacturing, where there had been large numbers of traditional apprenticeships, and the gradual raising of compulsory school-leaving ages have meant that full-time education has become the norm.

In England, however, especially significant, has been the increase in the provision of full-time vocational educational qualifications for young people delivered by schools and colleges, rather

than workplace-based apprenticeships. The preference for full-time education over apprenticeships was further accentuated in recent years, with new law in 2013 so that all 16–17-year-olds in England, and all 16–18-year-olds from 2015, remained in some form of education and training. In consequence, employers have been increasingly reluctant to take on young people until they complete their general school education (McGurk and Allen, 2016).

This is different from the Zambian attempt to give pupils pathways at grade 8 level. The 2013 ZECF has also linked all the levels, from Early Childhood Education (ECE) to tertiary education and adult literacy. The possible career pathways for learners at secondary school level have been provided. This will accord learners an opportunity to progress according to their abilities and interests (CDC,2015).

However, it is vital to note that the children at the secondary school entry level of grade 8, in Zambia, are too young to make career decisions by selecting or accepting a specific pathway. This negates the claim that the curriculum would equip learners at all levels of education with vital knowledge, skills, and values that are necessary for contributing to the development of society and the economy (CDC, 2015). Instead, this justifies the observation that besides redefining the teaching content, the Ministry also introduced a two-tier curriculum for Grades 8 to 12. It was noted that at grade 8 level in Zambia, the learners will not have acquired sufficient general knowledge to enable them to select a pathway they can live to like (Parliamentary Committee on Education Science and Technology, 2020).

On the other hand, the British NQF presents no likelihood of depriving any one access to general education by coercing them into apprenticeship. All learners enjoy the privilege of getting high school qualification; those who select to do apprenticeship are still free or able to pursue higher education studies later since they possess the basic entry qualifications (McGurk and Allen (2016). This gives the learner sufficient background knowledge to understand issues and make the appropriate decisions. The ZECF excludes the learners from identified pathways making it a difficult life decision for both parents and children.

The situation in India is different. There is an intersection between apprenticeship and labor market issues there. While many other countries are experiencing uncertainty and controversy in this area,

the challenges in India are particularly great, not only because of its size and lack of homogeneity, but also because of the large proportion of informal apprenticeships (The World Bank, 2013). Suffice to state that the pathways in the Zambian 2013 ZECF are introduced rather too early as learners (12–14-year-olds) would miss a lot of general knowledge necessary in life which is covered at secondary school level. However, India advocates for early exposure of learners to apprenticeship.

In India, apprenticeship is an integral part of the school system from the early years to post-secondary stage. The diagram below shows the early engagement of the child into apprenticeship which gives the child ample time to appreciate apprenticeship and make informed decisions in their pathway selection after secondary education.

***Figure** 1.2* Integrated apprenticeship training system in India

APPRENTICESHIP

Source: FICCI (n.d)

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1.7.11 Typology of Apprenticeship

Apprenticeship takes many forms according to practice, beneficiaries, providers, context and other parameters globally. All this depends on varied factors. Traditionally, apprenticeship has three major types namely, Formal or Registered, Informal and Traditional (UNESCO, 2015). These can be distinguished but not limited by organization, complexity, participants; apprentices and providers, skill or knowledge attained and imparted and training process, target market and methods. In this study, apprenticeship was taken as a unitary concept encompassing the three types. The study specifically therefore dealt with informal apprenticeship which includes traditional traits. There was no strict delineation of types of apprenticeship since they share a lot in common. However, a clinical understanding of the concept of apprenticeship is not complete without addressing the three separate types.

1.7.12 Formal or Registered Apprenticeship

Formal apprenticeship is the modern formalized quality training opportunity under good working conditions. This is quality standard of training and content with respect for human rights and safety (UNESCO, 2015). The apprenticeship described by Ray (2001) in Australia, England and German is the formal type. It trains people in specific skills for the formal sector labor-market. This apprenticeship is mostly provided as pre-employment post general education meant to induct the trainees into industrial or professional practices. The trainees learn theory and practice of the target skill and is certified by a competent regulatory authority or organization. The common types of formal apprenticeship are company or work-based and college or school-based. This is common in Europe and other developed countries as transitory education at post -secondary education level. It is also found in the formal sector of developing countries like Zambia functioning as transitory education as well.

1.7.13 Informal Apprenticeship

Scholars have described informal apprenticeship differently; with some emphasizing the context more than the process. Informal apprenticeship is an informal system of skills transfer from a master craftsperson to a young apprentice who acquires skills by way of observation, imitation and repetition while working with the master craftsperson. The apprentice and master craftsperson conclude a training agreement that is established by the trade association (Gwengwe and Mutenga, 2015).

Informal apprenticeship refers to the system by which a young apprentice acquires the skills for a trade or craft, in a micro or small enterprise, learning and working side by side with an experienced practitioner (Werquin, 2021). These two descriptions of informal apprenticeship are at variance in that each reflects the environment in which it is applicable. It is informal because its organization remains incomplete, and there is still much room for improvement. This paradox is only apparent because it is indeed a system and it is unavoidable: it is in place and has been for a long time if we consider that it has gradually taken over from traditional apprenticeship, which is even more family-based (ILO, 2012). The two descriptions also authenticate the SL as an appropriate theory of apprenticeship training as it takes place in varied contexts.

The description by Gwengwe and Mutenga (2015) can be associated to Africa where the traditional and informal types of apprenticeship are still prominent while the second one does not cover the method of training but simply dwells on the size of the enterprise; micro or small which responds to the type in European or developed countries. Informal apprenticeship is no longer seen as a primitive practice or a form of exploitation of young people, but as a training system for the informal economy, which has evolved from traditional learning based on the immediate and extended family and has the potential to develop. Informal apprenticeship systems are an integral part of a society's institutions, whether formal or informal. As developed countries have shown, a successful transition to modern learning systems is possible; a gradual improvement of an indigenous training system is possible. This requires raising the level of competences, improving the capacity of expert crafts persons to innovate and diversify, and encouraging enterprises to learn the latest knowledge and adopt innovative technologies (Werquin, 2021).

This description of apprenticeship highlights the key elements of on-the-job training, guidance from a master trainer, payment for work done, and the expectation of the trainee to pay for tuition. It also mentions the common practice in Zimbabwe of the trainer paying the trainee for their work and the possibility of the apprentice receiving a stipend as they become more skilled and productive (Neli and Sapro, 2010). This aligns with the traditional understanding of apprenticeship as a system of learning and skill development through practical experience under the guidance of an experienced professional.

The description above shows how apprenticeship is known and practiced in various parts of the world. It is, therefore, clear that apprenticeship is described differently to suit the context and level of development in a particular location, hence its complexity. Altogether, informal apprenticeship is a real system. It has a form of organization, although there are local variations, considering important social and cultural aspects. It is unavoidable because it has no credible alternatives, either in the short or in the medium term. The greatest merit that apprenticeship offers is a training solution to many young people in an efficient and effective way compared to potential alternatives (Werquin, 2021).

Apprenticeship is a form of workplace learning distinguished from others which combine schooling and training. It is a systematic acquisition of complete skill sets at the workplace for a full occupation. The others such as industrial attachment, internship and community experience differ from apprenticeship in that the workplace does not constitute a major part of the training (UNESCO,2015). The workplace experience merely augments the school-based training which is the major component. In the present study, the MFIA are on Katima Mulilo roadside in Garden Compound of Lusaka the work-place training venue. There is no school–based training in the MFIA on Katima Mulilo roadside hence it qualifies to be an informal apprenticeship. Apprenticeship, therefore, has been defined according to its different parameters of context and practices.

Informal apprenticeship is the middle and second type on the continuum between the formal and traditional types. It is slightly more developed than the traditional type but it is still located in the family and community dealing with basic skills and knowledge. The ILO finds this to be more open than the traditional apprenticeship as it includes more than just the family. Informal apprenticeship exists side by side with traditional apprenticeship and is dominant in the informal sector in Africa (Monk, et al.,2008). It is, nevertheless, a common approach in countries with a dominant informal economy with micro and small enterprises as in many countries in Africa, Asia and South America (Gessler, 2019). Gessler further explains that the two principal attributes of informal apprenticeship are the on-the-job-training and the master-apprentice-relationship. Between the master and the apprentice, the contracts are not legally binding, certificates not recognized and government funding not available and not part of the vocational Training policy

and the national qualification framework. For example, the TEVT policy in Zambia does not cover the informal apprenticeship on Katima Mulilo Roadside in Garden Compound of Lusaka.

Informal apprenticeship remains the most common form of non-academic training in sub-Saharan Africa. Apprenticeships are provided by the private sector, for a fee, and lead to self-employment rather than to wage jobs (Teal, 2016). Informal apprenticeship is the traditional mode of training in most countries in Africa and is often found in the informal sector. Young people are attached to experienced blacksmiths and other experts to learn various skills and knowledge (Nell and Shapiro, 2009). It is an avenue through which most young people get their skills. Informal apprenticeship systems that transmit the skills of a trade to a young person in a micro or small enterprise have operated for generations in many African countries (ILO, 2012). Apprenticeship is found mostly in the informal sector in Lusaka, Zambia. Training with the informal economy is widely undertaken in Lusaka region and that most numbers of Zambian young people are still gaining skills through working and learning in informal economic enterprises (Ryan, 2015). With a fallen transition rate to upper secondary education, from 50 per cent in 2007 to 37 per cent in 2014 (GRZ, 2016) informal apprenticeship presents itself as an alternative for those who fail to continue in the formal school system. Apprenticeship training is therefore justified for youths who drop out of school as an avenue of empowerment for sustainable living.

1.7.14 Traditional Apprenticeship

Traditional apprenticeship is dominant in Nigeria and West Africa in general and covers many moral and skills transfer to family members (Adekola, 2013). An extensive review of the literature of Ghana and Senegal reveals that these two countries have long histories of traditional apprenticeship and that this form of skills training reaches more youth than formal technical and vocational training (Krystyna, 2012). It is the lowest level of apprenticeship on the hierarchy. Traditional apprenticeship is a closed system involving family members with strict gender divide; women teach girls while men teach boys (ILO, 2012). Traditional apprenticeship is practiced in sub-Saharan Africa and covers many moral and skills transfer to family members (Haan, 2002). Mwanakatwe (2013) explains how children in Zambia were trained in different skills by working closely with their elderly relatives. Traditional apprenticeship was dealing with traditional skills and knowledge, most of which was passed from one generation to another.

In most African countries traditional apprenticeship is found in the informal sector of the economy and works side by side with the informal apprenticeship. The common apprenticeship training in the informal sector in Zambia, like in many other African countries, is the traditional informal type. This is a mixture of traditional and informal apprenticeships and is mostly based at household or family or community level. parliamentary committee.

Traditional apprenticeships have both strengths and weaknesses. They are self-financing and self-regulating and provide practical, hands-on- training with good prospects for employment after the training. At the same time, traditional apprenticeships suffer from weak education among the entrants, where literacy is an issue. Few participants pass beyond a lower-secondary education and many will not have completed a primary education. In addition, choices of trades follow gender biases. Master crafts persons, in turn, do not provide theoretical knowledge alongside practical experience and, often, teach outdated technologies (Adam, 2013).

ILO has been working to upgrade the apprenticeship system in Africa from the traditional to formal because traditional apprenticeships impart mainly traditional skills, not new skills needed for successful innovation, they lead almost exclusively to self-employment not to wage jobs, where returns are dependent on access to physical capital (ILO, 2015). Currently, most countries in Sub-Saharan Africa are still in the traditional and informal apprenticeship stages. Informal apprenticeship training in the informal economy is an important source of skills in many African countries. The apprentice acquires opportunities to be either employed or self-employed. However, countries with widespread informal apprenticeship systems face challenges to formally recognize the skills obtained and ensure high standards of training are provided (Gwengwe and Mutenga, 2015).

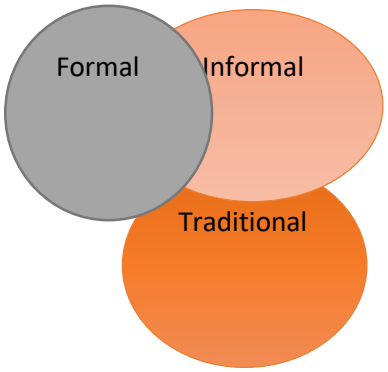
All the types of apprenticeship, just like the definitions given earlier, apply to different contexts according to various parameters of the practice. They are presented here in the development continuum from the simplest; traditional to the most advanced: formal through the informal stage. These types of apprenticeship are not exclusive as can be seen in the informal and traditional types. This study explored the contribution of awareness, perception, participation, training process and challenges to the youth involvement in skills acquisition activities on Katima Mulilo roadside in Garden Compound of Lusaka, Zambia.

Since 1991 the informal sector in Zambia has grown rapidly with activities taking place even in nontraditional areas like roadsides. Chigunta et al. (2015) describe a scenario where many young people are seen throughout Chawama, a low-income settlement in Lusaka, engaging in income generating activities in the streets. Similarly, Encyclopedia Britannica (n.d) explains how many youths are seen doing business in cottages after privatization leading to retrenchments. Hansen (2010) reports about the clashes between the state and the vendors in the erection of street stalls called *tuntemba*. All these are manifestations of informality in the Zambian economy (Mubita et al. (2017). The metal Fabrication informal apprenticeship in Katima Mulilo roadside in Garden Compound of Lusaka Zambia is an indicator of informality which has engulfed the Zambian economy.

Ryan (2015) estimates that about 80% employment opportunities in Zambia are in the informal sector. Oluranti (2010) describes a similar scenario in Nigeria where the informal sector has become a major provider of employment especially in developing and transitional economies. The work available in the informal economy is diverse and multifarious. It stretches from casual and unstable employment like garbage picking, street trading, domestic help, and so on; to self-employment as master-craftsman in any given trade. Potentially in Zambia, this makes informal apprenticeship the most available option to many people, especially the youth, who have found themselves in the informal sector where apprenticeship has become the main avenue for employment and self-reliance (Lanning, 2016). Neil and Shaparon (2009) attribute this to globalization and observe that with increasing globalization some adaptations of the traditional system, met by some adaptation to the industrialized system, are increasingly being sought.

There is a mixture of traditional and formal apprenticeship in the informal sector. The situation in the MFIA on Katima Mulilo roadside in Garden Compound was examined for its nature to meet the informal sector description through youth awareness, perception, participation training process and challenges. Contributions of the three types of apprenticeship to the MFIA on Katima Mulilo roadside in Garden Compound of Lusaka, Zambia should clearly be identified. The relationship among the three types of apprenticeship is illustrated by the diagram below.

***Figure** 1.3:* Diagrammatic presentation of the typology of apprenticeship



A clear understanding of these types of apprenticeship is vital in this study to discern the type practiced in the MFIA on Katima Mulilo roadside in Garden Compound of Lusaka Zambia. This will guide the study to place the MFIA in an appropriate category of economic and pedagogic activities in the country.

1.7.15 Apprenticeship and TVET in Zambia

Apprenticeship in Zambia can be traced to the time before Europeans penetration to the territory. Mwanakatwe (2013) reveals that boys were often required to accompany their elders on organized expeditions of hunting and fishing. When they had acquired the skills, their courage and ability for physical endurance, were subjected to severe tests. During such organized expeditions, any gaps in the boys' knowledge of the customs, the laws and tribal institutions were filled in. Similarly, for the girls he states.

> …as a girl grew towards adulthood, she gradually learnt the skills required for successful housewifery in later life…in the performance of almost any task, the young girl was constantly. under the eye of an experienced woman or older girl who ensured that the task was promptly and adequately accomplished p.34.

The formation of Technical Education and Vocational training (TEVT) in 1967 in Zambia was recognizant of the prior existence of the traditional and informal apprenticeships. The Commission for Technical Education and Vocational Training amalgamated several types of apprenticeship systems that were run by the local authorities and missionaries into a centrally controlled artisan training institution (Mwanakatwe, 2013). It led to the creation of a centralized curricula and certification for all the centers. This also introduced some full-time school-based training in the colleges, some of which combined with the on-the-job-training as a way of enhancing the quality

of the graduates. Mukuni (2020) affirms that the trades training institute (TTI) graduates were expected to do a mandatory industrial attachment at one stage in their training and were assessed by both the trainers in the college and the supervisors in the industry. Under both British Government rule and Zambian Government rule, apprenticeship training and learning was recognized through development and provision of relevant policy, legislative and/or regulatory instruments (Chakonta, n.d).

Nevertheless, the creation of the TEVT commission and later a department in the Ministry of Education left out the traditional and informal apprenticeship by freelancers in the community. The black smiths and other metal workers were not captured in the curriculum and certification system in the TEVT system. Though Chakonta submits that the Trade Testing system was a way of recognizing apprenticeships that were not included in the school-based curriculum. He contends that the Trade Testing system is the predominant mechanism for recognizing competences acquired mainly through the learning embedded in the daily job task performance. Further, he describes informal apprenticeship in the Zambian context to include on the job and/or social network-based learning situations, where an apprenticeship relationship is defined by supervisor-subordinate, and/or mentor-mentee relationships within formal/informal sector enterprise workplace setting.

The amendment of the Technical Education and vocational Entrepreneurship Training Authority (TEVETA) act of 1996 in Zambia incorporated private training institutions to broaden the provision of vocational skills training in the country. Most of these were non-formal training institutions and not informal apprenticeship providers. This is consistent with the resolution of the 1990 World Education Conference in Thailand which recognized Non-Formal Education (NFE) as a major player to help the world attain the Education for All (EFA) goal (Little, et al, 1994). Even though this resolution was made in the context of basic education, it equally applies to skills training, through apprenticeship, which is a type of NFE. UNESCO (2015) supports education provision through other initiatives like apprenticeship to increase access and equity. The TEVETA operations have become responsive to the needs of the informal economy (ILO, 2012) by including private and informal institutions. Ryan (2015) further affirms that Zambia's TVET has been transformed to accommodate the changing nature of the labor market in the country. The policy document (1996) hence states.

> Training should balance skills supply and demand. It is important to note that although most technical and vocational training is currently aimed at employment in the formal sector, seventy per cent (70%) of the active labour force is engaged in the informal sector. The training needs of the informal sector are therefore not being catered for by the existing system.
> The informal sector labour force is characterized by a high youth and women participation. Most of these youths and women do not have the educational requirements that would enable them to assume the limited places being offered by the technical education and vocational training pattern in the economy. (Ministry of Science Technology and Vocational Training, p.4-5.

The policy is alive to the fact that there is, therefore, a need to match the supply of skilled workforce and the demand of the labor market. To do this, the TVET system will be designed in such a way that it is highly responsive to the demands of employment. However, the policy here refers to the demands of employment in the formal sector.

The TEVETA Act of 1998 set to:

> provide for the establishment of government institutions of technical education, vocational and. entrepreneurship training; constitute management boards for institutions established under the Act and provide for their composition; regulate all institutions providing technical education, vocational and entrepreneurship training; repeal the Technical Education and Vocational Training Act, 1972; and to provide for matters connected " with or incidental to the foregoing. *P.13*

This detached TEVETA from the non-institutionalized informal apprenticeship like the MFIA on Katima Mulilo roadside in Garden Compound of Lusaka. Nevertheless, apprenticeship in the informal sector in Zambia has increased the country's provision of skills training by providing pre-employment education to accommodate the fast-growing youth population. Ryan (2015) and Chakonta (n.d.) estimate that at least 90% of employed population in Zambia has their main activity in the informal sector and that with limited capacity in the formal training system, many young people are acquiring skills through working in the informal enterprises. Most young people do not find placement in the formal sector due to many reasons including demographic (Kelly,

1991), fiscal ones, lack of appropriate skills (GRZ 2016), and weak policy implementation (Lanning, 2016). The Ministry of youth, Sport and Child Development (1996) attributes this to other reasons including the perception of policy makers and beneficiaries; to the youth employment means a job with a wage or salary and working for someone.

The Technical Education and Vocational and Entrepreneurship Training Authority (TEVETA) acknowledges the emergence of other lower-level apprenticeships in Zambia and admits the bias toward the class-based apprenticeship against the workplace-based ones. Chakota describes these lower-level apprenticeships as community-based Skills Training centers by church organizations and local authorities, designed to empower youths from vulnerable households. He admits; a significant growth of Trade Testing candidates coming from classroom-based training rather than workplace-based training. This study sought to establish how the youth in Garden Compound of Lusaka Zambia participate in all these activities by a national regulatory authority of vocational and entrepreneurship education. Are metal fabrication informal apprenticeships recognized in the existence of such a bias against workplace apprenticeships. The study intended to establish the role TEVETA plays in the skills provision of the youth in the MFIA.

The effects of TVET on apprenticeship have been reported elsewhere in the world where the national TVET has embraced the informal sector training programs to increase the awarding of qualifications needed in the formal sector for employment (Ray 2001).The need for a paradigm shift in the perception of youth policy makers and beneficiaries reported by the Ministry of Youth, Sport and Child Development in Zambia invigorated the researcher's interest to examine youth involvement in the MFIA on Katima Mulilo roadside in Garden Compound of Lusaka Zambia by knowing the youth awareness, perception, participation, training process and challenges with the MFIA. The findings would support efforts in youth empowerment through the informal sector in garden Compound of Lusaka Zambia.

1.8 Study Context

The increase in metal fabrication works on the Katima Mulilo roadside in Garden Compound of Lusaka, Zambia is as a response to the need for skills and employment opportunities among young people in the area. Many youths leaving school and lacking formal training, informal

apprenticeships such as metal fabrication provide a way for them to acquire skills for self-sustenance and alleviate poverty.

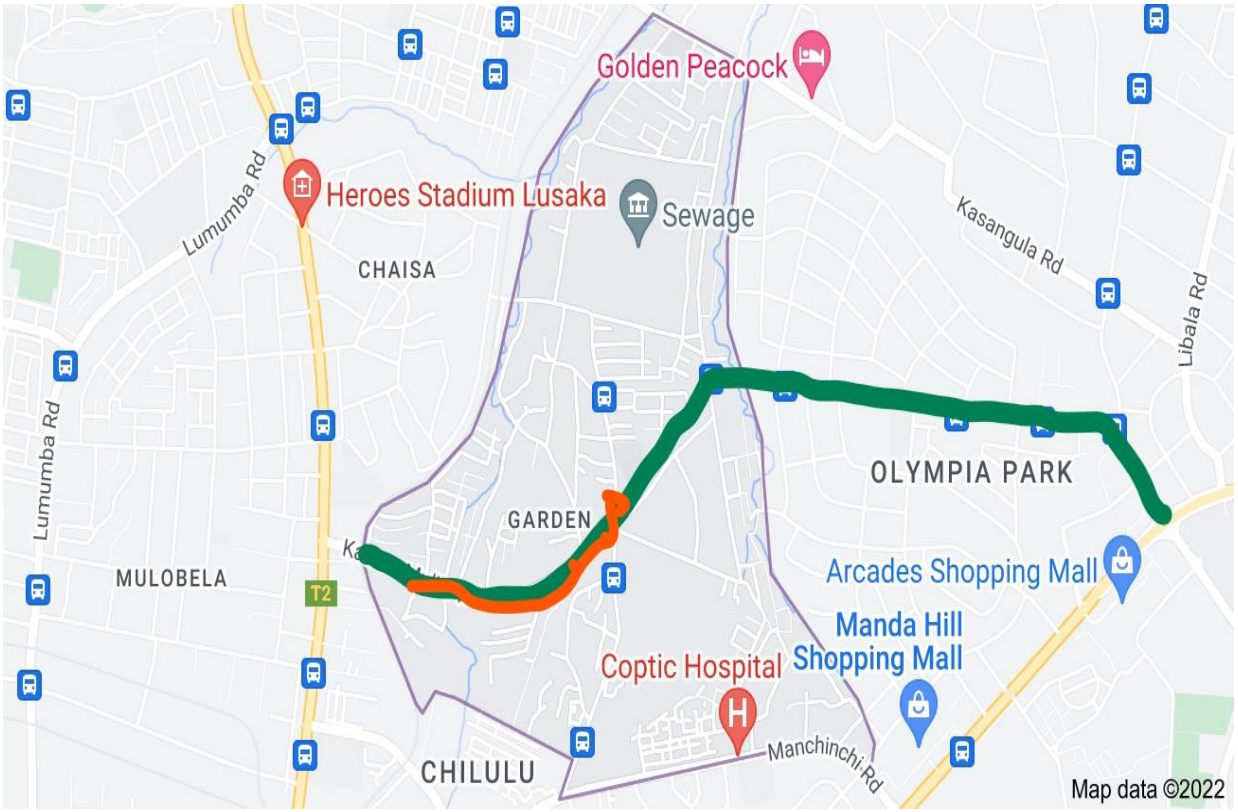
The genesis of informality in Zambia is the Structural Adjustment Program (SAP) implemented in the country with support of the donor community. This program aimed to transition Zambia from a centralized socialist economic system to a capitalist free-market one. However, the process of transitioning to a free-market economy was not smooth, and informality emerged as a result (Mubita, Munalula, Mundia, Nawa and Kanyamuna,2017). In Lusaka, the dynamics of informality have changed over time, with the most noticeable fault line being generational. The younger generation is more likely to engage in informal economic activities, such as setting up self-constructed stalls known as *Tuntembas.* This has led to confrontations over public space, as these informal structures are often in conflict with the law (Hansen,2010).

The economic shift given above was not unique to Zambia. Yusuff (201I) attributes it to the world economic changes from the state-led domination of the 1970s to market-led economic forces in the 1990s and now to an increasingly integrated and globalized world economic growth, with an increased share of informal economy. As populations increase and job opportunities remain limited, individuals are forced to seek employment in the informal sector. This trajectory shows that the share of the informal economy employment in the non-agricultural workforce ranges from 55% in Latin America to 45 - 85% in various parts of Asia to 80% in Africa. Specifically, 47 per cent in the Middle East and North Africa; 51 per cent in Latin America, 71 per cent in Asia, and 72 per cent in sub-Saharan Africa. In Africa, informal work accounts for almost 80 percent of non-agricultural employment, and over 60 percent of urban employment and over 90 percent of new jobs in the recent past. Informality has taken centre stage in the economies of many countries. Additionally, the informal economy provides a means of survival for those who are unable to access formal employment due to various barriers such as lack of education, skills, or capital. It offers flexible working arrangements and low entry barriers, allowing individuals to engage in income-generating activities with minimal resources.

However, it is not clear how the youth in Garden Compound of Lusaka, Zambia participate in this important economic and pedagogic bustle. This raises questions of youth awareness, perception, participation, training process and challenges with the MFIA in Garden Compound of the city of

Lusaka in Zambia. Knowledge of these fundamentals will help to determine youth involvement in the MFIA on Katima Mulilo roadside in Garden Compound of Lusaka Zambia. Metal fabrication is a crucial industry in Zambia, contributing significantly to the country's economy. The sector provides employment opportunities for individuals, including young people who often engage in informal apprenticeships. The roadside of Katima Mulilo in Garden Compound of Lusaka, Zambia has become a hub for metal fabrication activities, attracting youth apprentices and producing products sold within and outside the city of Lusaka. Figure 1.4 below is a google map of the study site in Garden Compound of Lusaka.

***Figure** 1. 4* Google map of Katima Mulilo Road in Garden Compound of Lusaka



Key to the map.

- Katima Mulilo Road from Arcades to Chaisa
- MFIA study part on Katima Mulilo roadside in Garden Compound of Lusaka Zambia.

1.9 Statement of the Problem

Considering the increasing importance of the informal sector in providing job opportunities in urban areas (Lusaka included), apprenticeship has become the dominant training option in this sector (Monketal,2008) and (Kingdom et al., 2006). Employment in the nonfarm informal sector is robust and operates in tandem with industrialization. Capturing the scale and characteristics of informal employment and its contribution to national welfare and poverty reduction is a first step for many countries in development strategies that recognize the informal sector and promote ways to improve its productivity and income. Improving the skills of people employed in the nonfarm informal sector is prevalent among these strategies (Adam et al., 2013).

Training with the informal economy is done in Lusaka region and that most numbers of Zambian young people still gain through working and learning in informal economic enterprises (Ryan,2015). Nonetheless, there is a knowledge gap on youth involvement in the MFIA on Katima Mulilo roadside in Garden Compound of Lusaka Zambia. The study investigated youth involvement in the MFIA on Katima Mulilo roadside in Garden Compound of Lusaka Zambia.

If youth involvement in the MFIA on Katima Mulilo roadside in Garden Compound of Lusaka is misunderstood, efforts to empower the youth in Garden Compound of Lusaka Zambia and Lusaka district at large and even the entire Zambia through metal fabrication skills remains vague and far-fetched. The consequence is that the youth will continue to grapple in poverty due to lack of appropriate knowledge and skills. The present study is, therefore, important as it examined youth awareness, perception, participation, and training process and challenges to establish youth involvement in the metal fabrication informal apprenticeship in the MFIA on Katima Mulilo roadside in Garden Compound of Lusaka Zambia.

1.10 Purpose of the Study

The purpose of this study was to explore youth involvement in the metal fabrication informal apprenticeship on Katima Mulilo roadside in Garden Compound of Lusaka, Zambia.

1.11 Study objectives

The objectives of the study are:

i) Examine youth awareness of the metal fabrication informal apprenticeship on Katima Mulilo roadside in Garden Compound of Lusaka. Zambia.

ii) Describe youth perception of the metal fabrication informal apprenticeship on Katima Mulilo roadside in Garden Compound of Lusaka, Zambia.

iii) Illuminate youth participation in the metal fabrication informal apprenticeship on Katima Mulilo roadside in Garden Compound of Lusaka, Zambia.

iv) describe the youth training process in the metal fabrication informal apprenticeship on Katima Mulilo roadside in Garden Compound of Lusaka, Zambia; and

v) identify the challenges youths face with the metal fabrication informal apprenticeship on Katima Mulilo roadside in Garden Compound of Lusaka, Zambia.

vi) Develop a training framework to enhance youth marketing skills for participants in the MFIA on Katima Mulilo roadside in Garden Compound of Lusaka, Zambia.

1.12 Study questions

The specific study questions are:

i) How is youth awareness of the MFIA on Katima Mulilo roadside in Garden Compound of Lusaka, Zambia?

ii) What is youth perception of the MFIA on Katima Mulilo roadside in Garden Compound of Lusaka, Zambia?

iii) How do the youth of Garden Compound of Lusaka Zambia participate in the MFIA on Katima Mulilo roadside?

iv) What training process do the youth of Garden Compound of Lusaka; Zambia follow in the MFIA on Katima Mulilo roadside?

v) What challenges do the youth in Garden Compound of Lusaka face with the MFIA on Katima Mulilo roadside?

vi) What training framework is appropriate for the youth in the MFIA on Katima Mulilo roadside in Garden Compound of Lusaka, Zambia?

1. 13 Justification of the Study

The study has become a catalyst to youth involvement in the MFIA on Katima Mulilo roadside in Garden Compound of Lusaka, Zambia by revealing challenges therein. It has provided information on the Contributions of awareness, perception, participation, the training process and challenges to youth involvement in the MFIA on Katima Mulilo roadside that can be utilized for sustainable development of Garden Compound of Lusaka, Zambia. The research subject is of national and international concern in search of solutions to youth unemployment and lack of training opportunities. A myriad of factors including limited access to tertiary education are

attributed to the poverty in the area and the study opened opportunities for the youth to mitigate poverty and limited access to tertiary education. The study is in tandem with the national aspiration of making the informal sector a major contributor to the growth of the economy to attain the SDG 2030. It is, therefore, cardinal to understand it and how the youth are involved. The study fills the knowledge gap on youth involvement and how it impacts on the youth livelihoods in garden compound of Lusaka Zambia.

The flexible nature of non-formal education makes it possible for the youth to acquire skills through informal apprenticeship which accommodates learners of diverse characteristics and training needs. In this way, youths transitioning from school to employment in Garden Compound of Lusaka can use the MFIA to acquire skills for meaningful livelihoods. Moreover, apprenticeship in Zambia has emerged in many locations like the MFIA making it a more accessible route to youth empowerment in Lusaka and the country at large. The study presents a good understanding of youth involvement in the MFIA on Katima Mulilo roadside in Garden Compound becomes a turning point in their lives. The study also acknowledges that formal training systems, in most countries in Southern and Eastern Africa, is only the tip of the iceberg, as most of the young women and men acquire skills through informal apprentices, which is cost effective, easily accessible, have low entry barriers and results in better outcomes in terms of employment (Aggarwal,2013).

1.14 Significance of the Study

This study leads to a clear understanding the role of informal apprenticeship in youth empowerment in Garden Compound of Lusaka, Zambia. It informs the development of targeted programs and interventions to promote youth involvement in empowerment initiatives. This is particularly important in Lusaka, where there are limited tertiary education training opportunities and poverty. The findings of this study align with the "Education for All" resolution, which recognizes the importance of non-formal education, including apprenticeship, in expanding educational opportunities worldwide (Little et al., 1994).

By highlighting the benefits of informal apprenticeship in Garden Compound of Lusaka, Zambia, this study supports the idea that such programs can help bridge the gap in education provision. Furthermore, the findings of this study can provide insights into the contribution of informal apprenticeship in youth skills acquisition leading to employability and entrepreneurial skills. By

opting to be involved in the MFIA, young people in Garden Compound can acquire practical skills that can enhance their chances of finding employment or starting their own businesses. Additionally, the study highlights the importance of informal apprenticeship as a means of addressing the prominent levels of unemployment and poverty among youth in Garden Compound of Lusaka, Zambia. By participating in the MFIA, young people can gain practical skills and knowledge that can enhance their employability and enable them to start their own businesses. Moreover, the findings of the study will inform policy and program development in Zambia, particularly in terms of promoting and supporting informal apprenticeship initiatives. This can include providing financial support and resources to organizations like the MFIA, as well as creating an enabling environment for informal apprenticeship to thrive in Garden Compound of Lusaka and the surrounding areas. The study adds literature in the field of youth involvement globally.

Moreover, incorporating apprenticeship programs into tertiary education programs can help bridge the gap in skills training facilities for out-of-school youth. This approach would provide hands-on training and practical experience, equipping young people with the necessary skills to succeed in the job market. The study also highlights the potential benefits of embracing private and community efforts in skills training provision (Chakonta, 2019). By reviewing the TEVETA policy and including small entrepreneurial activities under its authority, the government can tap into the success of micro-level training programs (ILO ,2017). This would not only contribute to the national qualification frameworks but also facilitate the rapid acquisition of vital skills for sustainable development and employment in both the informal and formal sectors of the economy.

Finally, the study's findings have the potential to influence policy decisions regarding skills training and employment for out-of-school youth in Zambia. By implementing accessible and affordable training programs, incorporating apprenticeships into tertiary education, and embracing private and community efforts, the government can address the needs of the growing youth population in the informal sector and promote sustainable development and employment opportunities.

The youth, through the findings of this study might experience a mindset change making them appreciate the MFIA as a viable skills development avenue for lifelong learning of skill sets for employment and entrepreneurs. These can start their own industries, employ other youths and ultimately live sustainably. This might give impetus to the government and municipalities in Zambia to broaden the industrial base and create employment and training opportunities for the growing youth population in the country to mitigate poverty and its offshoots.

1.15 Scope and Delimitation of the Study

The study focused specifically on the MFIA on the Katima Mulilo roadside in Garden Compound of Lusaka, Zambia. It aimed to understand the situation of youth involvement in the MFIA, including their awareness, perception, participation, training process, and challenges. The study solely focused on this specific location and excluded other roadside informal activities (sites) in other parts of Lusaka and streets within Garden Compound where metal fabrication and other roadside skills works take place.

The data for the study was supplied by the participants at their workplaces. This entails that some contributions may not have been accurately transcribed or may not make sense to readers who are not familiar with the context in which they were collected. The study included three categories of participants: Participating out-of-school youths (POSY, Graduate Apprentices (GAP) and Providers, Master trainers/Craftsmen (PMC) in the MFIA on Katima Mulilo roadside in Garden Compound of Lusaka Zambia. However, the study acknowledges that these categories may be limited and could have been enriched by including a broader range of participants.

1.16 Study Limitations

The study had methodological limitations in that it happened in an environment where participants are usually deemed to conflict with the law. Street vending and open-door workshops in public spaces are illegal in Zambia. As a result, participants might have been restrained from giving honest answers in the interviews for fear of retribution. Participants might have viewed the interviews as a gimmick in plotting to remove them from the roadside business stands. Some participants declined to participate as a result while others did so with fear of business loss. To this effect, all the participants refused to sign the commitment form for fear of political retribution as

the country was running political campaigns for the 2021 general elections. This might affect the trustworthiness of the data and results.

The second limitation was the common language of communication. The participants do not use English language in an ordinary conversation. The language used is mixed with local dialects making it difficult to understand at times. The interviews were conducted in a mixture of languages and vital information might have been lost. An insistence on using English would have affected the quality of participants subsequently the data generated.

To mitigate these limitations, the researcher assured the participants that the exercise was purely academic and could not affect them in their economic activities. Further, the researcher entered the community as an ordinary member of the public and integrated with the participants without causing alarm. The researcher made several visits to the area as a customer several times and assured the participants that the exercise of recording was to enable me to accurately transcribe the information collected for the academic work. The researcher also assured the participants that the study had ended and was then found among colleagues to chat with from time to time. Through the visits to the area, participants came to accept the researcher as a member of the community without authority to interfere in their work.

The study sample of thirty participants might not fully represent the enormous number of artisans and youths working on Katima Mulilo roadside in Garden Compound of Lusaka Zambia. The data generation tool of participant observation might not have been effective considering the number of visits that were made to the site. These were not many enough to capture most of the ethos the participants experienced in all the circumstances. Apart from what was observed, the participants might have framed their behavior and speech to suit the researcher's mission.

The issue of familiarity to the researcher was mitigated by working with different groups of participants each time the researcher visited the study site. Some visits were business attached as a customer while others were causal to chat with the participants. This helped to maintain neutrality by the researcher and collect information from different perspectives. These actions helped to mitigate the limitations. However, the translation of the languages might have affected the results of the study in that accuracy could not guaranteed.

1.17 Definition of key terms

Apprentice-A person training or working on job-on-training situation while he/she learns a trade and has an apprenticeship contract with an employer (Gwengwe and Mutenga, 2015).

Apprenticeship- A system of training a new generation of practitioners of a trade or profession with on-the-job-training and often accompanying study (Gwengwe and Mutenga, 2015).

Informal apprenticeship- An informal system of skills transfers from an expert craftsman to young apprentice who acquires skills way of observation, imitation and repetition while collaborating with the expert craft person (Gwengwe and Mutenga, 2015).

Roadside- Along or near the road; Katima Mulilo Road in Garden compound of Lusaka.

Youth - A person aged between 12 to 35 years. (The Zambian Youth Policy document 2015 (GRZ, 2016) the study has adopted the African Unit charter of 15 to 35 years.

1.18 Organization of the thesis

This thesis has six chapters. The first chapter dealt with the introduction and background of the study, the study problem, study context, statement of the problem, study objectives, research questions, study justification, significance, delimitation, Limitations, theoretical framework, definitions of terms, organization of the thesis and chapter summary.

The second chapter deals with the theoretical framework of the study. This is the theory upon which the study on apprenticeship in general and review of related studies on awareness, perception, participation, training process and challenges with skills training and other related fields is based. The next chapter presents the theoretical framework of the study while the third and fourth chapters deal with literature review and methodology respectively. The methodology chapter carries the study philosophical paradigms and its philosophical underpinnings of ontological, epistemological and methodological orientation. It covers the study design, population, sample population, data collection instruments and procedure, study limitations and pilot study. The fifth chapter presents the findings of the study while the sixth chapter is the

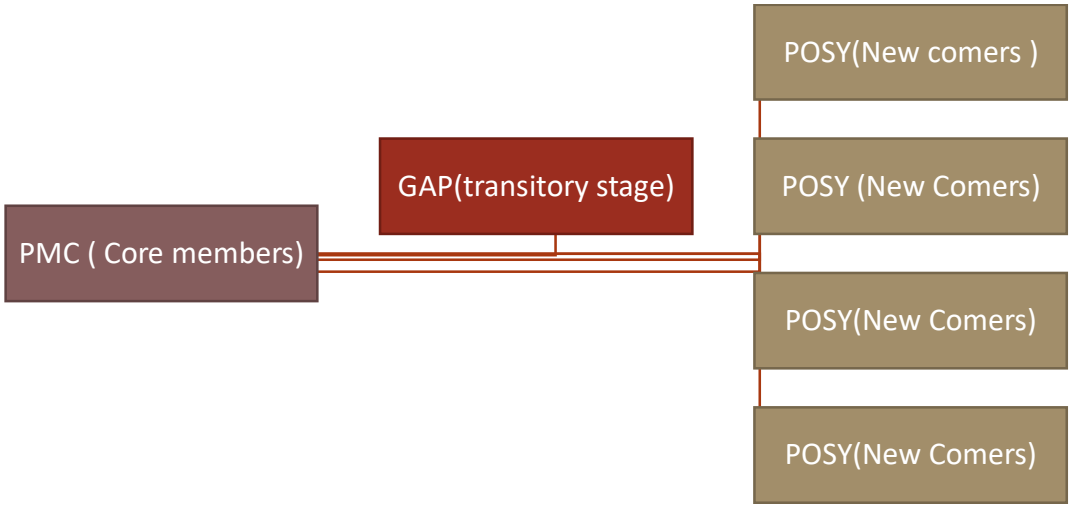
discussion and analysis of the findings. Chapter seven gives the conclusions and recommendations of the study. End references and appendices are finally given at the end.

1.19 Theoretical Framework of the Study

This study was guided by the Situated Learning (SL) theory advocated by Wenger and Lave (1991). In a situated learning environment, learners can observe and interact with more experienced members of the community, who serve as mentors or guides. This social interaction allows learners to acquire knowledge and skills through observation, imitation, and active participation in authentic tasks. The learning process is a process of legitimate peripheral participation, where learners gradually move from the periphery of the community towards full participation and mastery of the practices and knowledge of the community. The SL theory was first espoused and described by Jean Lave and Etienne Wenger (1991) as a theoretical description of learning in a community of practice. Lave and Wenger's immediate definitions are related to non-school based learning with adult learners. The SL theory emphasizes the importance of context and the social nature of learning. It suggests that learning is most effective when it occurs in authentic, meaningful situations that are relevant to the learners' goals and interests. By engaging in real-world tasks and problem-solving, learners can develop a deeper understanding of the subject matter and its applications. A situated learning space is one where learning and its applications take place in the same location.

The SL theory was appropriate for the present study in that the MFIA takes place in a location on Katima Mulilo roadside in Garden Compound of Lusaka, Zambia. Further, the apprenticeship activities in metal fabrication involve a group of people, the youth and their trainers, willing to work together and to support each other (community of practice). Their support for each other was exhibited by the trainers taking on apprentices whom they tutor in the skill of metal fabrication. The trainers are the core members and become leaders while the apprentices are newcomers who take peripheral roles until they master the trade and start their own or become employers to others. Figure 2.1 below illustrates the relationships explained.

***Figure** 1.5* Relationship of participants in the Situated Learning theory.



The theory emanates from the constructivist epistemology based on the constructivism theory which postulates that learners construct knowledge rather than just passively taking in information. Knowledge is kept in the mind of the learner as they construct understanding (Bodner, 1986). Learners do not simply mirror and reflect what they hear or what they read; they look for meaning and will try to find regularity and order in the events of the world even in the absence of full or complete information. They can connect words and thoughts to construct complete ideas and objects. The SL theory does not advocate replication of what the learner has received from the teacher but rather each learner builds own view of reality by trying to find order in the chaos of signals that impinge on their senses. What matters is whether the knowledge constructed from this information functions satisfactorily in the context in which it arises. As people experience the world and reflect upon those experiences, they build their own representations and incorporate added information into their pre-existing knowledge. The consequences of constructivist theory are that:

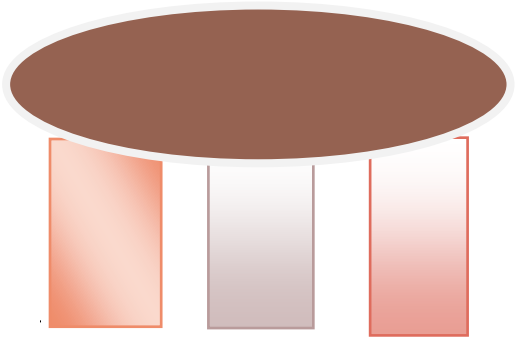
> *Students learn best when engaged in learning experiences rather than passively receiving information. Learning is inherently a social process because it is embedded within a social context as students and teachers work together to build knowledge. Because knowledge cannot be directly imparted to students, the goal of teaching is to provide experiences that facilitate the construction of knowledge.* (The Constructivism Centre for Education n.d),

This agrees with Bodner (1986) that the constructivist model is an instrumentalist view of knowledge. Knowledge is good when it works, when it allows us to achieve our goals, it can be used as an instrument to help us achieve our goals. This contradicts the assumption that knowledge must be common or the same to be acceptable by stating that the key to answering this question is remembering that knowledge must "fit" reality. Construction is a process in which knowledge is both built and continually evaluated. Individuals are not free to construct any knowledge; their knowledge must be viable and it must 'work'. This view resonates with Olusegu (2015) that the views of other scholars on constructionism proposing several implications of constructivist theory for instructional developers stressing that learning outcomes should focus on the knowledge construction process and that learning goals should be determined from authentic tasks with specific objectives.

In apprenticeship, the learner mastering of tasks and knowledge is determined by the outcome of their work as they engage in production of salable goods and services. This resonates with the views that learning is active and not passive. Learners confront their understanding depending on what they encounter in the new learning situation. If what learners encounter is inconsistent with their current understanding, their understanding can change to accommodate new experiences. Learners remain active throughout this process: they apply current understandings, note relevant elements in new learning experiences, judge the consistency of prior and emerging knowledge, and based on that judgment, they can modify knowledge.

Much of the information on constructionist learning model is appropriate to the situation in the MFIA on Katima Mulilo roadside in Garden Compound of Lusaka, Zambia and the study findings should help to show the applicability and relevance of the theory to the MFIA on Katima Mulilo roadside in Garden Compound. Borrowing from the constructivist model, the SL theory describes learning as a practical activity involving the learners. This means learning involves practical work or learning by doing. As a result, the MFIA should be understood from that perspective. The trainees must be engaged in practical work in each situation and eventually acquire metal fabrication skill. The three pillars of the SL theory, figure 2.2, should manifest the situation in the MFIA on Katima Mulilo roadside in Garden Compound of Lusaka Zambia. Should that be applicable then the MFIA activities in metal fabrication would be consistent with the SL theory.

***Figure**1.6 **Three** pillars of the Situated Learning Theory*



Key

LP	=	Learner participation
LC	=	Learning context or situation
LPP	=	Legitimate peripheral learning process or approach

Collin et al. (1991) compare the SL to the apprenticeship where learners can see the processes of work: They watch a parent sow, plant, and harvest crops and help as they are able; they assist a tradesman as he crafts a cabinet; they piece together garments under the supervision of a more experienced tailor. Apprenticeship involves learning a physical, tangible activity. In the MFIA on Katima Mulilo roadside in Garden Compound of Lusaka, the study should establish how apprentices work with their trainers in all the stages of production. This, therefore, should show the provision of apprenticeship training to the youth in the locality. In apprenticeship, the processes of the activity are discernible. This should be sought in the MFIA on Katima Mulilo roadside in Garden Compound of Lusaka Zambia; an open location and the participants must specify how they became aware of it. Details of the three pillars of the SL theory; learning context or situation, learner participation and legitimate peripheral participation is presented below.

1.19.1 Learning Situation or Context

The SL theory accentuates that learning is situated in the context in which it occurs. If what learners encounter is not consistent with their current understanding, their current knowledge can change to accommodate new experiences requiring them to be active. Thus, learners cannot be passive so they remain active throughout this process (Amich and Als, 2015). The new learning situation the

learners enter demands adjustment to keep them active throughout. The learner should be consciously aware of the changes in context. In the MFIA, learners are engaged in production activities under the guidance of their trainers. The study investigated the youth involvement in the MFIA taking place on Katima Mulilo roadside in Garden Compound of Lusaka, Zambia.

The theory advances that the nature of the situation impacts the learning process. Lave and Wenger place learning in the process of co-participation and not in the cognitive process of an individual. This means that the learner and the facilitator are together in the learning and teaching process. Both are participants actively involved. The learner is situated in a certain social context and examines the type of social engagements that provide the proper context for learning. SL places great emphasis on relationships and interactions with others to build understanding. Students learn by making connections to their prior knowledge. Situational learning works to develop the role of the individual within the greater community. As students gain more knowledge in one area, they can collaborate with others and play a more prominent role in the community (Kurt, 2021). Learners can share their understanding in turn and the cycle begins again.

Lave and Wenger (1991) called the situation a community of practice which they describe as a set of relationships among persons, activity and the world overtime and in relation with other tangible and overlapping communities of practice. The community implies a group of people willing to work together and prepared to support each other's coming to know; namely the participating youth, the graduate apprentices and the provider expert trainers/craftsmen in the MFIA on Katima Mulilo roadside in Garden Compound of Lusaka, Zambia. Some members will be core, long-term leaders, while others will be newcomers often with a peripheral role, at least for a time (Brown, 2013). In the study, the PMC are core to the MFIA while the youth trainees and the graduates are the newcomers and long-term leaders, respectively.

The learning activity is much more in the co-participation than in the mind of the learner. The artisans and their teams are located along Katima Mulilo road in Garden Compound which gives them the context in which to learn the skill of metal fabrication. They interact and work in groups based on relationships, such as trainees and trainers, which glue them together. In the present study, the learner is found in the following, but not limited to, communities of practice:

1. Youth participating in the MFIA on Katima Mulilo roadside in Garden Compound of Lusaka Zambia.
2. Youth in a specific training /work group or location under a specific trainer in the MFIA on Katima Mulilo roadside in Garden Compound of Lusaka Zambia.
3. Youth graduate apprentice in the MFIA on Katima Mulilo roadside in Garden Compound of Lusaka Zambia.
4. Youth interacting with different people in the MFIA on Katima Mulilo roadside in Garden Compound of Lusaka Zambia
5. Youth that is in search of a career upon which to depend for their stay in Garden Compound of Lusaka Zambia.

The trainees respond to ethos in various situations. The youth in the MFIA do apprenticeship, on-Job-training activities on Katima Mulilo roadside which thrive on different communities of practice within which they learn different skills including metal fabrication. The MFIA on Katima Mulilo roadside in Garden Compound of Lusaka is a community of practice with ethos that learners must adopt and adapt for survival. The communities of practice are created by the skills and knowledge being taught such as the metal fabrication and the location of operation; by the roadside in the case of Katima Mulilo site, jargon and registers. Kintu and Aheisibwe (2019) highlight the importance of the community of practice in Uganda where they found that artisans train informally in Katwe, a community of practice in Kampala, Uganda. The Kumasi Suame magazine informal Industrial enclave in Ghana (Amirago, et al., 2020). These can do various technical tasks such as operating, servicing, repair and fabricate various equipment and products. These communities of practice are self-organized and selected groups of people who share a common sense of purpose and a desire to learn and know what each other knows (Lave and Wenger, 1991). Passion, commitment, and identification with the group's expertise are the glue that holds these groups together Wenger and Snyder (2000) in (Kintu and Aheisibwe ,2019). This is consistent with Wenger and Lave (1991) that it is with this group that one learns the intricacies of the job; explores the meaning of the work, and encounters learning on the job as an integrated and inseparable aspect of social practice.

Many artisans and craftsmen work together in the same place but engage in different activities. This is like how Amrago, Dachniewski, and Danquah (2020) describe the cluster of artisans at the Suame Magazine in Kumasi, Ghana. They argue that it is an undeniable fact that Suame Magazine is a cluster of small-scale enterprises forming the hub of conglomerate informal industries. However, major sectors and products can be identified. These include manufacturing, vehicle repair and maintenance, metal working, sale of engineering materials and accessories, sale of automobile spare-parts, and the sale of food, drinks and beverages. Communication centers, secretariat services and banks are also silently but steadily creeping into prominence.

The MFIA on Katima Mulilo roadside in Garden Compound of Lusaka, Zambia comprises different communities of practice like those given above. Artisans and craftsmen work together in the same place but engage in different activities but only the metal fabrication skill is the focus of this study. Inevitably, there are other communities of practice in various locations within Lusaka which include the marketplaces and residential areas. The communities of practice are identified by the language or jargon used and how the members relate one to another as a community. The language jargon of metal fabrication (MF) helps to shape the communication patterns of the trainees and other members in the MFIA on Katima Mulilo roadside in Garden Compound of Lusaka, Zambia.

The present study focused on the community of practice for individuals doing metal fabrication on the Katima Mulilo roadside in Garden Compound of Lusaka, Zambia. This community of practice is unique due to its location on a busy road, which increases the risk of accidents during their operations. In this community, learners, trainers, and customers interact in ways that are specific to their trade and purpose. They manage tools and materials in their work, using a language that is unique to their community of practice. They are part of a larger community aligned to their specific trades or skills.

1.19.2 Learner Participation

The bedrock of the SL theory is that the learner should be an active and not a passive participant in the learning process. It contends that learning is an active process in which learners negotiate their understanding considering what they experience in the new learning situation. In this study, the apprentice in metal fabrication is the learner in the MFIA on Katima Mulilo roadside in Garden

Compound of Lusaka, Zambia. The study should establish how the learners participate in the MFIA by through their awareness, perception, participation, training process and challenges therein. The learner works as guided by the trainer/supervisor. Apprentices gain knowledge through their interactions with experts in the field. Situated learning gives students the chance to engage in real-life, problem-solving activities (Kurt, 2020). By so doing, the learner should acquire the knowledge and skills needed to function in that context.

Learning is determined by what the learner does (practice) and not what he remembers (cognitive). It is practical learning or learning by doing where products are made for the market. The learner should participate by following the instructions of the trainer and conducting the tasks assigned (Kurt, 2021). In this respect, there is participation or imitative learning where the learner does what the trainer/supervisor has demonstrated as a model. The study investigated how awareness, perception, participation, training process and challenges are associated to youth involvement in the MFIA.

1.19.3 Legitimate Peripheral Participation

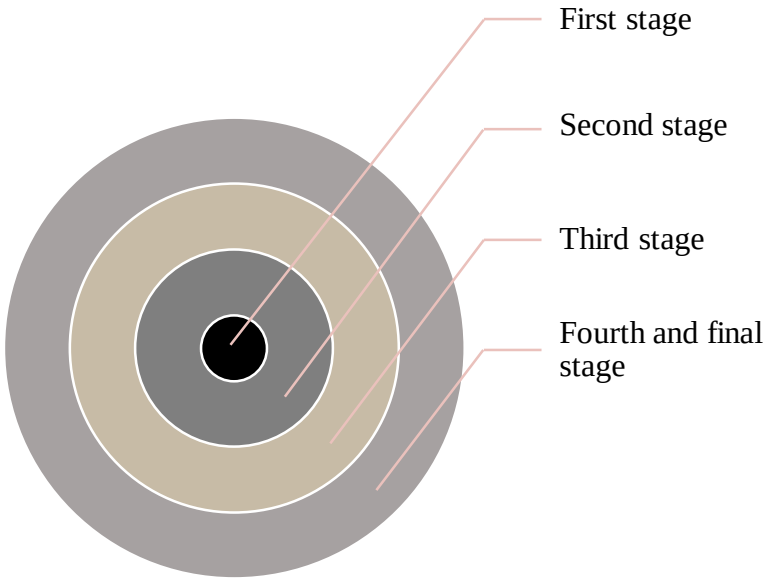
The Legitimate peripheral participation in the SL comprises the process the learner goes through in learning the task. The step-by-step guidance the learner gets from the trainer. The theory advocates that the learner is introduced to the new knowledge and skill through gradual practice from simple to complex in stages and rate at which the learner masters the target skills and knowledge. When there a change in the situation or community of practice and an increase in the degree of responsibility. As the learner advances in the learning process, more responsibilities and tasks are assigned. The learner moves to more complex activities in the production chain and therefore, becomes reputable in the training or production process.

This model, as an informal and naturally occurring process, was typical of traditional apprenticeships. A fundamental characteristic of the situated learning theory as it applies to apprenticeship (Chindgren, 2005). The SL theory advances the notion of Legitimate peripheral participation in the actual practice of experts (Carstern, 2007), the core element which illustrates the process by which a learner becomes part of the community of practice through participation is the actual practice of production. The learner progresses into the trade slowly by participating only to a limited degree with limited access and responsibility in the production and to the product of

the community. A learner starts by doing simple tasks and slowly gets involved in more complex operations under the guidance of the expert. Chindgren (2005) underscores this and expounds that in their, Lave and Wenger, study among two tailor communities; Nen and Gola craft, apprenticeship did not entail formally taught tailoring tasks instead a novice tailor begins by doing "peripheral" and simple activities such as sewing buttons and hemming cuffs. Over time, the trainee tailor takes on more responsibility, and through shared activities within a community, the trainee experts complicated tailoring skills.

The trainers always situate a learning event in the context of people's experience and of their specific participation in the world around them. From an anthropological point of view, Lave and Wenger (1991) observed tailoring workshops in traditional Africa, studied butcher apprentices in a food store, and even examined the mathematical mental activity of people shopping and walking up and down the aisles in a grocery store. Based on these empirical observations, they discovered and conceptualized how people develop and mobilize knowledge in relation to a specific context that is conducive to such development. Moreover, they studied how people, in such communities of action, involve themselves gradually (or are hindered to do so) with the idea of becoming competent actors, tailors, butchers, or consumers (Bélanger, 2000). From this we can infer that the SL is applicable to the learning process of skills. One objective in the present study sought to establish the training process youths follow in the MFIA on Katima Mulilo roadside in Garden Compound of Lusaka in comparison with the Situated learning theory by Lave and Wenger.

***Figure** 1.7.* Legitimate peripheral participation training process in apprenticeship.



Key to stages of peripheral participation training process:

First stage: The learner does peripheral simple activities (almost common sense is enough to do the activities; the limits of responsibility).

Second stage: The learner has acquired basic skills and is introduced to simple operations; with a gradual increase in responsibility.

Third stage: Learning has taken place and the learner can do complex operations; the responsibility increases and is almost complete.

Fourth stage: The learner has mastered the trade and can produce final products with minimum guidance. The learner is ready for graduation; the learner has completed and is now able to produce items like the trainer.

Note: The number of activities and amount of responsibility increase according to stages. The fourth and final stage entails completion of training and doing production work with more responsibilities.

The participants in this study are in the social milieu of the MFIA on Katima Mulilo roadside in Garden Compound of Lusaka, Zambia. They adapt to the unique conditions of this community of practice, which is different from a formal training center. The environment is noisy and polluted

with the beating of metal fabrication work such as cutting, Sharpening and welding. It is a crowded place amidst heavy traffic of trucks and other motor vehicles with people from all walks of life. Additionally, there are various social and economic activities taking place in this location.

The learners in this study deal with multiple "hidden curricula" experiences as they work at their stands. These experiences go beyond the formal training curriculum and include aspects such as problem-solving, marketing, communication, and adaptability in a real-world setting. Overall, the SL theory is suitable for this study because it aligns with the parameters of apprenticeship training, including the location, learner participation, and gradual progression of tasks based on acquired knowledge and experience. The MFIA on Katima Mulilo roadside in Garden Compound of Lusaka serves as a community of practice where learners gain knowledge and skills in the context of informal metal work.

In apprenticeship, the trainee enters the course in stages starting with simpler tasks. This principle of the SL theory should be verified as the study ascertains the training process used in the MFIA on Katima Mulilo roadside in Garden Compound of Lusaka, Zambia. The principle of legitimate peripheral participation by Lave and Wenger was interrogated to establish how it is verified in the MFIA in the area.

Further, the theory is also relevant to this study as it relates to adult learning principles and theories like learning community which is knowledge gained through experience and interaction with others Byliam (2000), London, (2000) and Peace (2000). The SL theory clearly accommodates the Community education and Lifelong learning approach to education which does not limit education to stratified levels and regimentation of the school system in the early or childhood years of the learner. The theory is squarely consistent with (Belinger, n.d.) about the nature and role of adult education in the 21st century; that nowadays, the entire world talks about the importance of lifelong learning. This concept includes the idea that people can learn throughout their lives (lifelong) and in all locations (contextual) if there is motivation to do so. As a field of practice, adult education provides learning opportunities for adults. These are exactly the issues that the SL theory addresses and are fundamental to the present study.

The youth who come to the apprenticeship in the MFIA on Katima Mulilo roadside in Garden Compound of Lusaka, Zambia should clearly indicate their motivation for wanting to learn the skills and knowledge. This is in accordance with the principles of adult learning by Knowles (1993) that adults come to the learning situation for a clear purpose and want to gain knowledge for immediate application. It should be clear whether the learners bring knowledge and experience to share with their trainers while they gain knowledge and skills for use. These are the questions that make up the foundation of adult education, community education and lifelong learning. The researcher is a member of the department of Community Education and Lifelong Learning (CELL) at the University of Zambia where the outcome of the study should be applied to advance the work of the department and the institution, the University of Zambia, at large. Suffice to state that the SL theory is suitable for the study as it addresses all the elements covered in the study objectives.

1.20 Chapter summary

This chapter of the thesis covered the introduction and background, research design, Philosophical paradigm, target population, sample population, statement of the problem, study purpose, objectives and questions, justification, significance of the study the scope and delimitation and limitation of the study. The study questions seek answers to specific questions that direct the study to the main question of youth involvement in the MFIA. The main question of the study is how the youth are apprenticed in the MFIA on Katima Mulilo roadside in Garden Compound of Lusaka Zambia. Apprenticing covers both the training and the employment aspects of apprenticeship. The study has limitations of language in both the interview and the participant observation. This might affect the accuracy of information recorded as the participants are not regular users of the English language at their workplace. They use different local languages which are not easy to interpret and translate. This might have affected the quality of data collected.

This chapter also dealt with the study theoretical framework. The situated Learning theory advanced by Wenger and Lave (1991) emanating from the constructionist learning approach was found suitable for the study as it deals with learning taking place in different contexts like those in the MFIA on Katima Mulilo roadside in Garden Compound of Lusaka Zambia. In the MFIA learning takes place in various situations like open space working on the ground. The theory will assist in confirming the activities of the MFIA as apprenticeship. If the study reflects the principles of this theory and helps to understand the data generated by the tools used, then the MFIA will be

understood from the perspectives of apprenticeship training and employment. The theoretical framework will assist in interpreting the findings in accordance with the philosophical underpinnings and paradigm. The findings of the study will contribute to the development of the MFIA on Katima Mulilo roadside in Garden Compound of Lusaka Zambia. This is the litmus test to confirm the results.

CHAPTER TWO
LITERATURE REVIEW

2.1 Overview

This chapter reviewed literature on apprenticeship and related concepts. The review of literature was guided by the objectives of the study. The review focused on the study elements of awareness, perception, participation training process and challenges as reported by various studies.
Chapter one discussed the concept of apprenticeship, definition, origin, typology, and practices. This section provides a comprehensive understanding of apprenticeship and its historical development over time globally.

By reviewing these studies, the chapter sought to identify knowledge gaps in youth apprenticeship that the present study would fill. This will contribute to the existing body of knowledge on informal apprenticeship in metal fabrication in general, and specifically in the context of the MFIA and its impact on youth apprenticeship on Katima Mulilo roadside in Garden Compound of Lusaka Zambia.

The literature reviewed is benchmark to the present study in establishing common practices on youth apprenticeships globally in comparison with the findings of the study on youth involvement in the MFIA on Katima Mulilo roadside in Garden Compound Lusaka Zambia By reviewing existing literature on apprenticeship and its implication in the MFIA program, the chapter aims to synthesize and summarize the current knowledge on this subject. Through this process, the literature reviewed also identifies any knowledge gaps and limitations in the existing studies. These are in methods, theoretical framework, subject matter, findings, or unanswered questions. By highlighting these gaps, the chapter intended to contribute to the body of knowledge on youth involvement in the informal sector and how it affects their livelihoods. This will result in a better understanding of youth's needs and abilities in their communities. In that way, it highlights the significance of the study and its potential impact in the field of apprenticeship and the MFIA program on Katima Mulilo roadside in Garden Compound of Lusaka, Zambia.

2.2 The Concept of Awareness

Awareness can be categorized into distinct types, depending on the context in which it is used. One common type is self-awareness, which refers to an individual's knowledge and understanding of their own thoughts, emotions, and behaviors. Self-awareness allows individuals to reflect on their actions and make informed decisions. Another type of awareness is social awareness, which involves understanding and empathizing with others' emotions and perspectives. This type of awareness is crucial for effective communication and building positive relationships.

Cultural awareness is another important aspect, which involves understanding and appreciating diverse cultures, beliefs, and values. It helps individuals to be more inclusive and respectful towards people from diverse backgrounds. Environmental awareness is also significant, as it involves understanding and taking responsibility for the impact of human activities on the environment. This type of awareness promotes sustainable practices and conservation efforts.

In addition to these specific types, awareness can also be applied to various subjects or issues. For example, health awareness refers to knowledge and understanding of one's own health and well-being, as well as awareness of diseases, prevention strategies, and healthy lifestyle choices. Similarly, political awareness involves understanding political systems, policies, and current events. This type of awareness empowers individuals to participate in democratic processes and make informed decisions. Overall, awareness is a fundamental aspect of human cognition and plays a crucial role in personal growth, social interactions, and decision-making. It is a dynamic concept developed and enhanced through education, experience, and self-reflection.

Awareness can be created in several ways. Creating awareness, in the light of the public, is to increase knowledge and understanding, to change the thinking and behavior of the people. When one embarks on public awareness, it translates into increasing the knowledge of a phenomenon by people (Borawake, 2017). The first objective of the present study endeavored to establish youth awareness of MFIA on Katima Mulilo in Garden Compound of Lusaka. Wolfgang et al. (2015) identifies six types of awareness namely, Cultural, social, workplace, location and knowledge. Knowledge awareness deals with the ability of a person to judge. Sometimes awareness can be induced by cultural and social factors which might lead to a bias in the way the phenomenon is understood or viewed. Awareness is gained by participation in each program. For example, Kabila, Moonga and Moonga (2018) explain that teachers in the central zone of Lusaka had knowledge of

CPD (Continuous Professional development) since they participated in CPD sessions at school and zonal levels. Some teachers, among them, those with degree qualifications indicated that they had been involved in facilitating CPD sessions.

The concept of awareness like apprenticeship can be understood from different perspectives according to context. It is therefore appropriate to apply the SL to investigate youth awareness of the MFIA on Katima Mulilo roadside in Garden compound of Lusaka Zambia. The issue will be examined from different angles to make it clear in a transparent way.

The present study investigated how the youth in Garden Compound of Lusaka, Zambia became aware of MFIA on the Katima Mulilo roadside in their locality. The research used interviews and participant observation for data collection. The interviews were appropriate as the allow for in depth inquiry about the elements of study. Through the interviews and participant observations in the areas of inquiry, participant inputs can be scrutinized and triangulated to establish the facts applicable. Both Interviews and observations were held with the youth on Katima Mulilo roadside in Garden Compound at their workplaces in the MFIA to gather information about awareness and other elements of the MFIA. The participants were asked about how they became aware of MFIA and their experiences there.

The researcher visited the research site on Katima Mulilo road in Garden Compound, observing the activities related to the MFIA there and conducting interviews with participants. This method allowed for a deeper understanding of youth engagement with the MFIA and how they became aware of the MFIA on Katima Mulilo roadside in Garden Compound of Lusaka, Zambia. The data generated from both interviews and participant observations were analyzed to identify common themes and patterns. By triangulating the information obtained from these two methods, a comprehensive understanding of the youth's awareness of the MFIA on the Katima Mulilo roadside in Garden Compound was established. The present study contributes to existing knowledge about the MFIA on Katima Mulilo roadside in Garden Compound of Lusaka, Zambia.

2.2.1 Youth Awareness of apprenticeship

The first objective of this study was to examine youth awareness of the MFIA on Katima Mulilo roadside in Garden Compound of Lusaka. Despite informal apprenticeship having been widely studied globally, there is no known study to the researcher on youth awareness of the MFIA in this

location. Even the International Labor Organization (ILO) of the United Nations (UN) which has spearheaded studies on apprenticeship worldwide has none on youth awareness in the MFIA in general and on Katima Mulilo roadside in Garden Compound of Lusaka, Zambia in particular. Below are studies on youth awareness of apprenticeship and related subjects reviewed.

2.2.1.1 Youth awareness of apprenticeship in Canada

The Canadian Apprenticeship Forum (CAF-FCA) (n.d) did a study on youth awareness of apprenticeship entitled '*Youth + Jobs = Better future; Youth Skilled trade employment Strategy.'* The study started in Canada and escalated to global level through an online survey. The study findings showed that there was limited awareness and knowledge about apprenticeship and skilled trade careers among the youth. The lack of awareness among the learners was ascribed to their parents and guidance teachers who discouraged the youth to like the apprenticeship pathway. As a result, efforts to promote trade skills yielded nothing.

To reverse the trend, the CAF-FCA organized workshops around the country at various levels national and provincial to investigate the youth awareness of the skilled trades. During these workshops, youths were brought together to share their experiences, expectations and perceptions. Youth drawn from different countries and regions also discussed barriers strategies to trade careers supervised by teachers and trainers from various levels who captured key discussion points and offered observations online (CAF-FCA, n.d).

After the change of strategy by running workshops and other educational programs the youth attitude to apprenticeship pathway changed. Youth awareness of the apprenticeship pathways increased and youths signed up for them. The survey focused specifically on diverse youth because CAF-FCA was interested in identifying the unique challenges faced by immigrants, women and indigenous youths. CAF-FCA solicited feedback from forty-one influencers including policy makers and administrators, high school teachers, indigenous and immigrant-serving organizations, community-based organizations and those who were identified as 'other,' including one employer.

The results showed that students realized that there were more options to one's career than university education. This came through the education system which exposed the youth to knowledge about apprenticeship. The workshops and discussions, all networks of education, held with the youth broadened their understanding of apprenticeship and university education. Many

youths discovered the hidden side of apprenticeship which parents and school counsellors had stigmatized.

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The findings of the study revealed that the students lacked awareness of the skill trades due to the system of information dissemination. Both parents and career guidance teachers had bias for university education against apprenticeship pathways. These only promoted what they favored to their children and pupils leading to their having no information about the apprenticeship pathways.

Lack of awareness can therefore be associated to people's opinions. The teachers and career officers promoted their opinions above the needs of the learners. The students indicated their lack of awareness because of their own lack of knowledge about the trades and the need for greater awareness. The youth were prevented from the knowledge of the skill trades by not being exposed to the information about it. The learners suggested to be exposed to trades-related activities, potentially opening career options they did not previously realize were available. When this was removed, the learners realized their ignorance about available college programs, apprenticeship or health and safety requirements. Some participants said they learned about youth apprenticeship programs too late in high school, while others indicated their schools did not offer trades courses.

To solve the problem of lack of awareness, the youth felt that creating awareness about apprenticeship and the skill trades was important. They suggested using social media and advertising on subways and billboards. Other ways of promoting career trades include various activities in the school system like career fairs, school assemblies, field trips, job shadowing employer talks at schools and hands on-exposure. The youth wanted more apprenticeship information available at their schools. School counselors require specialized training to guide students on apprenticeship.

The education system has the potential to effectively create awareness among the youth due to its large networks, qualified educators, curriculum integration, extra-curricular activities, collaboration with organizations, and parental involvement. By utilizing these resources, the education system can play a crucial role in shaping the awareness and understanding of the youth on various issues. The present study aimed to fill a knowledge gap regarding youth awareness of the MFIA on Katima Mulilo roadside in Garden Compound of Lusaka, Zambia as was covered by

the CAF-FAC study in Canada. This will be compared with the present study in terms of subject matter, methodology, participants, size and location.

2.2.1.2 Apprenticeship Vs Non apprenticeship schools in the United Kingdom

Elnalz Kashefpakdel and Jorfdan Redhill (n.d) did a study entitled '*Teenage Apprenticeships; Converting Awareness to Recruitment*.' The study was done under the Education and Employers Research in the U.K. It was done against the background that although the overall number of apprenticeships was increasing, the number of under 19 starts had stagnated at around 20%. The project explored the characteristics of schools and individuals who buck the trend and asks: what distinguishes schools which guide significant numbers of pupils into apprenticeships from those which do not? What distinguishes young people who express an interest in apprenticeships in their mid-teens and go on to secure one from those who do not? It was a longitudinal study covering 17 years from 2000 to ensure accuracy in the findings.

This longitudinal study used mixed methods. The qualitative methods included interviews with employers to share their experiences of hiring from schools and colleges. They were asked a series of open-ended questions to identify the skills and attitudes employers felt young apprentices, particularly the successful candidates, possessed and which they felt they were lacking. They were also asked to comment on the recruitment process. Schools and colleges were also invited to share their experiences of guiding young people directly into apprenticeships from school and college.

Of interest to this study was the literature by the Chartered Institute of Personnel Development (CIPD) (2013) which covered issues of awareness of working parents. It shows a lack of information and guidance in schools about what apprenticeships might have something to do with this, as only 15% of parents reported that they or their child had received any information on alternatives to university education from their teachers. This conclusion supports the fact that among parents who did not think apprenticeships had the same status as university degrees, more information about apprenticeships, and related career options was cited as the best way of convincing them that apprenticeships are a good career option. The review shows that parental influence is incredibly significant in the provision of apprenticeship among the youth in England.

The study came up with recommendations supporting the use of the school to further understand apprenticeships, to raise the confidence of school staff in providing advice to interested students on the range of frameworks and levels available as well as application and recruitment processes.

Increase and diversify the number of apprenticeship events involving employers, invite ex/current apprentices into school. Schools and colleges were recommended to engage parents as part of wider apprenticeship awareness in order to regard apprenticeship as a genuine alternative to university and that it is important that parents understand their value and potential as a way of helping their children progress in the labor market, as in many cases they will have a significant influence on their children's career choices. These recommendations point to a serious need to involve the education system and not parents alone in the promotion of apprenticeship among the youth, their parents and employers.

The present study aimed to investigate awareness of the MFIA on Katima Mulilo roadside in Garden Compound of Lusaka Zambia. It sought to verify the situation and fill the knowledge gap created by the several factors cited in the reviewed studies. The study by Kashefpakdel and Redhill (n.d) is relevant to the present study as it also focuses on the awareness of apprenticeship among the youth. Although the participating groups and location differ, the central notion of awareness of apprenticeship remains the same. By examining the findings of the previous study, the present study can verify and build upon the issues raised.

2.2.1.3 Connecting high school students to apprenticeship awareness.

Pardon (2017) conducted a study on "*Youth Apprenticeship in America: Connecting high school students to apprenticeship*." The study examined the concept of youth apprenticeship in America in comparison with the one in Europe. The European youth apprenticeship is stronger and more established than its American counterpart. After high school, the youth in America are free to follow an education pathway of one's choice which takes them to university or college degree and diploma respectively while some can pursue a high school diploma which leads to the labor market.

However, it was noted that the university and college pathways were more popular than the labor market pathway. High school graduates had to answer the question, "So, what are you doing next year?" from different stakeholders as they reach the end of their high school career. Parton reports that this was a common question American high school students face from teachers, neighbors, their friends, and parents. For students, it could inspire excitement about the next step after high school, as well as create anxiety about figuring it out.

The study found that apprenticeship was not firmly integrated in the school system as was the case in Germany. As a result, the study found that the most common response to the question currently or presently was, 'college diploma', by the majority. Parton (2017) discovered that enrolling in college right after high school was a narrow path that was not working for enough young people. While high school graduation rates were at historic highs, a third of students did not enroll in post-secondary education after graduation. Of those that did, just over half would graduate with a Bachelor's degree in six years, and their prospects were worse if they started at a two-year college. This made the high school diploma less attractive than the college diploma which became difficult to enter due to a myriad of reasons. Upon completion, the college graduates were not assured of placements as there were limited opportunities. With changes in society, apprenticeship proved to be less laborious and an easier way of joining life sustaining careers.

Apprenticeship was a proven educational model that integrated on-the-job and classroom learning. It was highly effective for helping learners connect theory and practice and worked particularly well for people who learn best by doing. Apprentices gain valuable work experience and access to professional mentors and networks. From day one of the program, the apprentice is a paid employee, developing valuable skills while adding productive value on the job.

According to Parton, to parallel the European apprenticeship system, the American youth apprenticeship was started. Although there is great enthusiasm to expand apprenticeship especially for the youth, only a small number are taking part. The American youth apprenticeship programs allows the employer to hire apprentices while they are still in their junior or senior year of high school. During the program, the apprentice spends a few days a week working under the supervision of skilled mentors. This combined school with work. The courses were related to what the apprentice was learning on the job, but also building the apprentice's general knowledge. Youth apprentices graduate high school on time but continue with the apprenticeship for an additional one to three years.

The findings by Parton reveal that the American youth apprenticeship had been well received but many people were not aware of it. He claimed that Americans were open to youth apprenticeship for high school students, but not many were aware and caveats remained related to program quality. The reasons were that some parents equate apprenticeship to blue collar work or trade,

especially among elderly parents. Nevertheless, the young parents and students tended to see apprenticeship as more of a process or way to learn than associated with any kind of job or person.

The present study in Katima Mulilo roadside in Garden Compound of Lusaka Zambia can benefit from the study in America by exploring different methods of creating awareness of apprenticeship among the youth. The study by Parton (2017) highlighted the importance of involving various stakeholders in education, such as students, teachers, and employers. This can be a valuable approach for the present study in Zambia to consider as it put education at the centre of it all. Additionally, the study in America emphasized the use of formal education system to create awareness of apprenticeship. This indicates that the present study in Zambia could consider expanding its scope beyond Garden Compound of Lusaka, Zambia to gather a more comprehensive understanding of apprenticeship awareness in different regions of the country. The two studies vary in methodology, participants and location. This creates the knowledge gap the present study can fill.

2.2.1.4 Young people's motivation to do apprenticeship in Australia.

The National Centre for Vocational Education Research (NCVER), Misko, Nguyen and Saunders (2007) did a short study in Australia entitled, *"Doing an apprenticeship What young people think; What people claim motivates or inhibits their intentions to pursue apprenticeships*." This was done among students and apprentices who responded to questionnaires and held Focus group discussions. The study objective was to identify what impedes or motivates students and apprentices to pursue the apprenticeship pathways.

The findings of the study were, among others, lack of information which made the participants not aware of the various options such as in trade skills. Awareness plays an extremely critical role in information dissemination. Students cited lack of information about apprenticeships as a key reason for not entering apprenticeship. Apprentices and students both cited the lack of promotion of apprenticeships and information on apprenticeships as additional disincentives. Although just a small group of students understood some of the specific details of the requirements of an apprenticeship, the vast majority of students tended to know only how to access general career information (Misko et al., 2007).

This study shows that useful information flow leads to awareness, a prerequisite to decision making. The lack of information attributed to the lack of awareness by the youths can be resolved by using the school system which disseminates most of the information to the youth. School is a medium for information exchange which can help to overcome the problem of awareness.

The present research aims to fill the information gap by investigating the youth awareness of the MFIA on Katima Mulilo roadside in Garden Compound of Lusaka Zambia. This study focused on out-of-school youths and artisans in the area, which is different from the study in Australia which was done among apprentices and students. Additionally, the methodology and participants in the two studies are also at variance. By interrogating the flow of information, this study sought to understand the effects it has on the youth awareness of the MFIA in the specific location of Katima Mulilo roadside in Garden Compound of Lusaka, Zambia. This is important because the findings from the study in Australia cannot directly be generalize to this context due to the differences in location, subject, methodology, and participants. This is the knowledge gap the study intended to fill.

2.2.1.5 Awareness through advertisements

In Sub-Saharan Africa, a study on awareness was conducted in Ghana by Tandoh (2015). The study was entitled "*The impact of Brand awareness on customer loyalty: a case study of Sinapi Aba savings and loans Ghana Limited*." The study by Tandoh was done amidst competing providers of similar services to establish customer loyalty to a particular brand. It was a case study like the present one but focusing on the impact of awareness on the brand sales. According to Tandoh, the banking industry in Ghana had become extremely competitive as customers had grown and become very modish. Customers switched from one bank to another looking for service brands that would meet their expectations. Some would close their accounts and stop doing business with the bank that was not able to meet their brand expectations. These problems were likely to render some banks non-competitive in the short run and a liquidation overall. There was, therefore, the need to consider brand awareness as important in planning a business strategy for creating customer loyalty.

It was found that the brand used certain activities to stand out from others; among them was the media to advertise the business. The study by Tandoh generally, revealed that, brand awareness strategies and practices were very prominent in the savings and loans industry in Ghana and

customers knew the various brand awareness strategies practiced by Sinapi Aba Savings and Loans Ltd. Events influencing actual decisions to patronize the services of savings and loans industry which included brand trust, corporate reputation, peer group opinion, recall of ad's, service delivery and employee appearance ranked highest. The research purpose in the Tandoh study was to compare the banks in Ghana and identify one with the most popular brand to the customers. Consequently, Sinapi Aba Savings and Loans Ltd had to embark on brand awareness driven activities as a business survival strategy.

A comparison between the two studies shows that the present study does not deal with competition in the youth knowledge of apprenticeship. However, apprenticeships have been provided in many situations involving many clients, especially the youth. The MFIA on Katima Mulilo roadside in Garden Compound of Lusaka, Zambia is specifically focused on mitigating youth problems by engaging them in productive activities. Youth awareness of these activities is crucial to enlist their involvement. On the other hand, the study by Tandoh was meant to discover the popularity of a brand against others.

In terms of location, the study in Ghana focused on a specific region, and the present study also focused on Katima Mulilo roadside location in Lusaka, Zambia. This difference in location may affect the results and generalizability of the findings. Additionally, the purpose of the studies varies. The study in Ghana aimed to assess the popularity of a brand among the general population, while the present study is focused on youth awareness and involvement in productive activities. This difference in purpose may lead to different research questions and methodologies being used.

The studies also vary in methodology. The study in Ghana was quantitative methods while the present study used a qualitative approach. This difference in methodology may affect the type of data collected and the insights gained from the research. Overall, while both studies may be focused on awareness, they differ in terms of purpose, methodology, participants and location.

2.2.1.6 Awareness through Exposure

Zangata, Chalwe and Mumba (2019) did a study on "*Medical students' awareness of the role of Physiotherapy in Health care at the University of Zambia-Ridgeway Campus, Lusaka, Zambia"*. This was a cross sectional study involving one hundred fifty-two (152) medical students at the University of Zambia-Ridgeway Campus. The study was a descriptive type. Each student

completed a self-administered questionnaire that collected information on demographics, awareness of the role of physiotherapists and educational sources of information in health care. The participants' age ranged from 25 to 31 and the findings were that the rate of awareness of the role of physiotherapy in health care was high though many were not aware of its diagnostic role. About 83.6% (n=127) of the students also viewed the role of physiotherapists in the health team as one of aiding for medical work. The participants showed knowledge of the role of physiotherapists by even indicating or mentioning the role physiotherapists play in health care.

Clinical ward rounds were identified as the most common source of information on physiotherapy. It was found that the senior, 6th year students were more aware of the role of physiotherapy than their junior counterparts. This can be attributed to the fact that 6th year students had exposure medical doctors while the others are still training and not yet exposed to full medical operations by going in the wards checking on patients. The 6th year doctors were exposed to more information about the work of the physiotherapists than the other participants, hence the difference in levels of awareness.

The study by Zangata et al. (2019) is relevant to the present one in that it dealt with the issue of awareness especially among a youthful population of participants in the same age range of 15 to 35 years like the present study. The difference in levels of awareness of the role physiotherapy plays in the health care according to exposure emanating from the years of study is vital to the present study which also used participants with varying levels of exposure to the MFIA in their categories of POSY, GAP and PMC. It should be established whether youth awareness would follow a similar pattern of increasing knowledge according to levels of education or exposure to the MFIA as well or not. The two studies are not a replication as they focus on different participants in different fields but using participants of the same age range. The present study sought youth awareness of the MFIA on Katima Mulilo roadside in Garden Compound of Lusaka Zambia while Zangata et al. (2019) investigated medical students' awareness of the role of physiotherapy in the provision of health care in a medical facility.

Both studies sought knowledge of their participants though on different subjects. The Zangata et al. (2019) study was descriptive while the present study followed the field-based case study on Katima Mulilo roadside in Garden Compound of Lusaka Zambia and not in a hospital ward. Further, the subjects of investigation and the participants in the two studies are different. The

Zangata et al study used a homogeneous group of medical students at the University of Zambia while the present study involved distinct groups of participants in the MFIA on Katima Mulilo roadside in Garden Compound of Lusaka namely, POSY, GAP and PMC. The Zangata et al. study used a two-stage study sample while the present study used a four-stage study sample in their respective areas of specialization. This makes the present study relevant as it sought to provide knowledge in a new area of youth awareness of the MFIA on Katima Mulilo roadside in Garden Compound of Lusaka and not in a health facility. There is, therefore, a gap of knowledge for the new study to fill. The identified knowledge gap in youth awareness is that the studies do not cover youth awareness in the MFIA which the present study will fill.

2.3 Youth perception of apprenticeship

The second objective of the study was to establish youth perception of the MFIA on Katima Mulilo roadside in Garden Compound of Lusaka, Zambia. This entails determination of the youth opinion of the MFIA on Katima Mulilo roadside in Garden Compound of Lusaka in Zambia. Perception is a wide concept commonly used in psychology to refer to human understanding of phenomena that trigger positive or negative views or responses. It comes from a Latin word 'percepere' which means the way something is understood, regarded and interpreted (Oluwafani and Oladti ,2015).

Different forms of communication and media help to shape the positive or negative perception of a subject by stakeholders. The objective to examine youth perception of MFIA on Katima Mulilo roadside in Garden Compound of Lusaka, Zambia rides on the assumption that the youth have been exposed to the subject in many ways and they understand it and its activities. This links this second objective of the study directly to the first one which refers to knowledge of a phenomenon. Subsequently, the objective sought to establish the youth perception of the MFIA on Katima Mulilo roadside in Garden Compound of Lusaka, Zambia. In emphasizing the importance of perception in human life. Muchanga (2011) asserts that studying the way people perceive various environmental phenomena is overly critical in the formulation of decisions about environmental phenomena. Therefore, if we are to make workable policies on issues pertaining to climate change, people's views are imperative. Similarly for this study, a good understanding of the youth perception of the MFIA on Katima Mulilo roadside in Garden Compound of Lusaka, Zambia led to an understanding of the youth involvement in the MFIA. Studies reviewed below are specific on youth perception of apprenticeship and perception in general.

2.3.1 Young people's perception of apprenticeship in the United Kingdom

A study by Douglas Decker (2019) on young people's perception of apprenticeship in the United Kingdom entitled "*Apprenticeship what do young people really think?*" is appropriate to review. The study was done among 16 to 18 years old school leavers doing the Association of Chartered and Certified Accountants (ACCA) course. These were presented with a set of 11questions to get their views on apprenticeship. The respondents were in three groups namely.

i) those who had both parents working,
ii) those who had only one parent working and
iii) those who had both parents not working.

The findings of the study were that most of the respondents received information about apprenticeship from schools through the school career advisers. Some participants received information about apprenticeships from parents. The perceptions were that:

a) apprenticeship was a route to successful careers.
b) certain industries tend to be strongly associated with apprenticeship.
c) those who do apprenticeship earn less than those who graduate from universities.

Clearly, (a) and (b) had positive perception while group (c) had negative perception of apprenticeship.

In this study by Decker, the youth were also required to indicate their employer perception of apprenticeship and some of the responses were:

i) Youths felt that employers would prefer to employ graduates and not apprentices. On parental influence most of the youth felt that the parents would prefer it if the youth went to university as opposed to taking an apprenticeship.
ii) On the career options, the youth felt that apprenticeship decreased the options for flexibility for future career paths.
iii) does not give the individual transferability of skills that can develop.

iv) apprenticeship has an image problem among the 16–18-year-olds and their parents and guardians.

v) apprenticeship is still seen as a poor relative when compared to going to university.

All the responses in this section were negative to apprenticeship. Finally, Decker's study concluded that vast majority of students in contemporary high schools focus on the need to pursue higher education rather than the labor-market when formulating their post-secondary plans and therefore, had a negative perception of apprenticeship.

The study by Decker was appropriate to review in several ways. Both the Decker and the present studies involved participants in the youth age group above 15 years old. Conversely, the studies differ in the characteristics of participants, study context and subject matter. The study by Decker used a homogeneous group of post high school ACCA students while the present study involved out-of-school youth and artisans in three categories of POSY, GAP and PMC with varied age and education levels. The methods used in the two studies are also different in that the present study employed interviews and participant observations at the participants' workplace for data collection while the Decker (2019) study made youths to indicate preferences out of a list of statements on apprenticeship. The study by Decker also sought the views of parents, guardians and employers on youth perception of apprenticeship while the present study was limited to OSY and artisan, participants only.

These and other parameters make the two studies different making the present study relevant as it sought new knowledge in youth perception of the MFIA on Katima Mulilo roadside in Garden Compound of Lusaka, Zambia. The variations in the two studies are many and significant; location and informal set up in Lusaka, Zambia and a formal post high school education class in the UK respectively. This reflects a wide knowledge gap for the present study to fill in that the Decker study did not include the MFIA on Katima Mulilo roadside in Garden Compound of Lusaka Zambia. Further, the study by Decker, used education to transmit information on perception by participants while the present study is yet to discover how the participants got their perception of the MFIA on Katima Mulilo roadside in Garden Compound of Lusaka, Zambia. The variation between the two studies, therefore, are in various respects outlined. These put the findings of the

two studies apart making the present study unique with new knowledge about youth perception of the MFIA on Katima Mulilo roadside in Garden Compound of Lusaka, Zambia.

2.3.2 Youth Perceptions, prejudices and possibilities in the United Kingdom

A study on "*Perceptions, prejudices and possibilities: young people narrating apprenticeship experiences,*" was done by Louise Ryan and Magdolna Lorinc (2018) in the United Kingdom. It was a longitudinal study seeking to establish how young people choose alternative routes into training and employment. In the UK, apprenticeships are a key aspect of government strategy in national development. However, Ryan and Lorinc report that there were many challenges still associated with apprenticeships in that country. With an increased number of graduates from universities, having a degree ceases to be a mark of distinction and competitive labor market demand educational qualifications such as unpaid internships (Hasford and Bruce, 2015 in Ryan and Lorinc, 2018). The study by Ryan and Lorinc (2018) found that:

a) going to university has been normalized to the extent that those who did not go to university in their post compulsory education became stigmatized.
b) degrees no longer guaranteed graduate level employment; they continue to enjoy high esteem especially in contrast with other nontraditional routes.

However, the British government targeted 3million new apprenticeships by 2020 and gave them the same treatment as degrees. This was meant to help the government to raise revenue from apprenticeship levy. Hence the importance of apprenticeship to the government in the UK.

The study found that participants had mixed opinions about apprenticeships, with some positive and negative perceptions. The positive comments were about the practical nature of apprenticeships and the opportunities they provided. The negative aspects included the stigmatization of apprenticeships and the low payment for apprentices. Participants explained that they chose apprenticeships because they preferred practical work amidst limited job opportunities for university graduates. Despite the obstacles, participants believed that apprenticeships were a better option compared to the more expensive and risky university pathway. Overall, the study concluded that apprenticeships have both opportunities and barriers for young people.

The study by Ryan and Lorinc (2018) and the present one are not a replication of the other. They differ in participants, location, methods and the undergirding theories which creates the knowledge gap for the present study to fill.

2.3.3 Apprenticeship and professoriate perception in Canada

Kevin Joseph Lee Hayes (2013) studied, "*Investigation of Professional Development of the Apprenticeship and professoriate in two, Ontario colleges, Canada*" for a Doctoral degree at Toronto University, Canada. The study explored the apprenticeship trades instructors in the Ontario CAATs' and ITAL in Toronto, how they perceived and experienced Professional Development during the duration of their course. It also sought to establish how prepared the instructors were to move from trade type work to classroom instruction. The study wanted to identify the challenges participants met in the course.

This was an exploratory case study design and data were obtained from a series of in-depth interviews, which revealed that the apprenticeship instructors were a resolute and motivated group of educators who were committed to providing the highest quality of education to their students. The two institutions selected for this case study included one CAAT and one ITAL which had a comprehensive apprenticeship program. One college was in Toronto and the other college in southern Ontario. Both colleges have comprehensive areas of study other than apprenticeship programs and both colleges have multiple campuses. Eight faculties teaching electrical and mechanical based apprenticeship program were selected for this study, as they represent two distinct areas of trade work, which would draw informants from a variety of different industries and types of work (Hayes 2013). This was a test of passion and professional development upon which the two positive and negative perceptions were based.

The two studies, by Hayes and the present one, are similar in several respects. Both allude to adult learning principles by Knowles, a testimony of dealing with adult learners. Further, the two studies are on apprenticeship. In terms of methodology, the present study used semi- structured interviews, while Hayes' study used a mixed methods approach with surveys and interviews to gather data on the participants' perceptions. This difference in methodology could potentially lead to variations in the findings and the depth of understanding of the participants' perceptions.

However, there are variations in participants, methodology, subject matter and the location of the studies; Zambia on Katima Mulilo roadside in Garden Compound of Lusaka, Zambia and Toronto and Ontario in Canada for the present study and the study by Hayes respectively. This means that the present study has knowledge to contribute to the world about perception of apprenticeship in this new study site in Lusaka, Zambia.

2.3.4 Perception of apprenticeship in Australia

The Behavior Insights Team (BIT) in Australia did a study in 2020 on *"Perceptions of Apprenticeships*". This was done against the backdrop that the country was experiencing a shortage of skills. Despite that the number of young people undertaking apprenticeships and traineeship had dropped significantly over the years. By 2020, the apprenticeship commencements had dropped to 58%. Although this could be attributed to many other reasons, it was expected that there were other behavior reasons to lower the rate of young people selecting apprenticeship training pathways (BIT,2020). The expectation of the government was that many young people would take the apprenticeship and traineeship pathway to enable them set up apprenticeships instead of pursuing the university pathway. The decision by the young people to prefer the university pathway against apprenticeship is shaped by perceptions of apprenticeship which might be influenced by socio-economic status of the community of one's upbringing.

BIT (2020) observed that in line with common aspirations, people from a low socio- economic status background are more likely to complete-trade based apprenticeship than their counterparts from a higher socio-economic status background. BIT also observes that stigma around apprenticeship prevents some young people from evaluating apprenticeship objectively. Nevertheless, apprenticeship and traineeship are the promising options for young Australians as it combines on-the-job-training with formal and national recognized qualifications it also has good employment outcomes for people from all levels of society. Those who attended apprenticeship are likely to end up in jobs relevant to their training than those who attended university. BIT asserts that those with apprenticeship have a powerful sense of occupational identity. There are many factors which influence young people to select a pathway. These include individual and community preferences. Parents are other influencers and usually they are biased towards university education. When the mindset of the influencer changes, the youth will also perceive

apprenticeship pathways differently. Perception based on the influencers tends to be beyond the control of the participant as influencers can change according to exposure.

The study by the BIT is very appropriate to the present study. However, the two are not similar or replications of one another. The study by BIT was done in Australia in an environment of comparing university to apprenticeship traineeship pathways. The present study was done in Lusaka, Zambia, on Katima Mulilo roadside in Garden Compound on youth perception of the MFIA there. This and other factors make the two studies different and give the present study a knowledge gap to fill.

2.3.5 Skills acquisition among students at Leicester University UK

Scott (2005) conducted a study at Leicester University in England *on students' perception of skills acquisition in the undergraduate Bioscience curriculum.* The employment market demanded certain skills which was taught independently. These were integrated in the core courses in Biosciences making it difficult for the end users to notice them. A program was designed to make the same skills prominent by teaching them separately. The skills included Communication, Application of Numbers, Information Technology, Problem Solving, working with others and Improving Own Learning and Performance. Scott reports that unlike many subject areas in higher education, the nature of the Biosciences means that many aspects of these skills have always been implicit, if not an explicit part of the undergraduate program.

The only aspect that does not feature automatically is that of improving learning and performance, which underpins reflective lifelong learning. After these skills were taught separately a study was instituted to survey the students' perception of the skills. Perception studies tend to be useful when the phenomenon under investigation is clearly identified. In the present study MFIA on Katima Mulilo roadside in Garden Compound of Lusaka, Zambia is clearly identified and understood by the respondents. Hence investigations into the participants' perception of the same are justifiable. Similarly, in the study by Scott, the separately taught skills were clearly identified and subjected to investigations. Perception influenced by degree of exposure. When the subjects were taught independently. The degree of exposure was different from when they were integrated in the Bio sciences. The more information one has about a phenomenon the easier it is to know one's perception of the same.

It is also clear that the study by Scott used an experimental design. The targeted skills were taught at two separate times: before the separation (implicit stage) and the separation (explicit stage). The integration and separation of the skills taught was assessed by the teaching that was done to the students. During the integration period, research was done in which participants could not feel the presence of the skills in the Bioscience program. It was, therefore, vital that the study had to be done separating the skills to test the learners' perception of the skills.

The methodology used to elucidate the students' perception of the skills taught was experimental and the study was longitudinal. Students were taught these skills in different cohorts and the outcome was that all the cohorts reported positive perception of the skills during separate teaching. The skills were made prominent in the program and the participants clearly perceived their contribution.

In the present study, the participants have already been exposed to the apprenticeship in the MFIA on Katima Mulilo roadside in Garden Compound of Lusaka and what is sought is their perception of it. The exposure to the MFIA assumed that it was to have been done in many ways which made the participants perceive the existence of the apprenticeship in one way and not the other. The main points about the Scott study are that exposure of the skills by teaching them separately helped to determine the participants' perception. Similarly, it should be clear whether the exposure of the participants to the MFIA on Katima Mulilo roadside in Garden Compound of Lusaka contributes to their perception.

Although both studies investigated the participants' perception, the two are still different in location, methodology, participants and subject matter The present study was done in Lusaka, Zambia while the one by Scot was done in the United Kingdom using different methods and characteristics of participants. Further, the present study was based on the participants' perception of the MFIA on Katima Mulilo roadside in Garden Compound of Lusaka while the study by Scott involved learners' perception of four skills courses taught in two diverse ways; separately and integrated in the bio sciences program at university level. The participants in the present study are out-of-school youth and artisans in a single survey while the study by Scott involved several cohorts of students using experimental and control groups in a longitudinal study to establish the outcome. There is a knowledge gap for the present study to fill in the MFIA among youths with various backgrounds.

2.3.6 'If I can be a helper, one day I'll be a boss'

The ILO commissioned a study in 2015 to examine informal apprenticeship in Zambia. The study by Ryan (2015) entitled "*If I can be a helper, one day I 'll be a boss*," was a case study on informal apprenticeship in Zambia. The findings revealed that at least 90 per cent of the employed population in Zambia has their main activity in the informal sector. It also revealed that with limited capacity in the formal training system, many young people are acquiring skills through working in informal enterprises. Ryan found out that Zambia's vocational training system has been modified over time in recognition of the changing employment; undue emphasis on out-of-date technologies, variance in the quality of training, lack of clarity of the terms of training agreements and competence assessment, shortcomings related to decent work standards and gender biases in some trades.

However, informal apprenticeship still has some merits worth highlighting and supporting. Brewer and Hofmann, 2011 in Ryan (2015) identified informal apprenticeship in the informal sector to offer a universally accessible mode of training, particularly for young people from poorer families. They are an incredibly low or no cost way for a learner to gain skills, and unlike many formal training courses, have no prior education or literacy requirements. They offer a flexible mode of training delivered on-site, usually in the learner's own community. Apprentices also learn skills relevant to local market demand and are introduced to a business culture and networks, building their social capital and making it easier for them to find jobs or start businesses when they graduate. The strengths of informal apprenticeship outweigh its weaknesses.

The study by Ryan (2015) produced five elements identifying informal apprenticeship in Zambia: as:

a) master craftsperson/employer and apprentice conclude an agreement (training contract).
b) the apprentice achieves occupational competence for a trade (training content).
c) training is workplace-based and integrated into the production process (training location).
d) the apprentice is a young person(participant); and
e) the costs of apprenticeship are shared between master craftsperson/employer and apprentice (tuition fees and wages).

The Ryan study also found that the administration of informal apprenticeship in Zambia was like what obtains in East Africa where there are no signed contracts between the MC (Master Craftsman) and the apprentices. Contrary to the case in West Africa where contracts are more stringent and parental involvement is significant. In Zambia and East Africa, the apprenticeship is not necessarily done at the home of the MC. It is done at a neutral open place where the MC and the trainee agree to work together. As a result, the Zambian scenario of informal apprenticeship does not require the apprentices to pay the MC instead the MC pays the apprentices for their involvement in his productive work. The training in Zambia is work-based as the apprentices produce actual goods for sale by the MC.

The study found that the perceptions of the apprentices in the informal apprenticeship were usually beyond the trade they were trained in. This is supported by Hoppers (1981) who also found that the wages paid by the MC were usually lower than what is paid to skilled workers. Ryan (2015) and argues that MCs may hire apprentices out of economic necessity then frame it as a 'virtue' by claiming they are training out of social responsibility. We can conclude that apprenticeship in this respect was perceived as an activity one can do while waiting for a better opportunity and not as a permanent survival skill. The present study should establish how this result is applicable in the MFIA on Katima Mulilo roadside in Garden Compound of Lusaka.

The knowledge gaps the present study will fill is how the youth are involved in the MFIA on Katima Mulilo roadside a in Garden Compound of Lusaka Zambia.

2.4.5 Female attitude towards of skills training in Zambia

A study by Moonga, Mbewe, Mulenga Banda (2021) entitled "*Attitude towards skills training: The case of final year adult education female students at the University of Zambia, Lusaka, Zambia*" surveyed the attitude of female final year students in adult education towards skills training. Attitude and perception are closely related to mean the same thing. Kiel (1995) defines attitude as positive or negative feelings that an individual holds about objects, persons, or ideas. It is used in this study to refer to positive or negative feelings about skills training. Attitude is defined as a person's feelings / emotions about something or object (Merriam dictionary, 2019). One's attitude determines how they behave in the presence or mere mention of a person or object, their ability to grow and learn, to overcome challenges, and create bonds with others. Our attitude is the

product of a lifetime of instilled beliefs, programming, and brainwashing (Moonga et al., 2021). Attitude and perception are used interchangeably in this study.

The final year female adult education students were trained in development strategies and skills in which aspects of youth empowerment are topical. The study surveyed the attitude of educated females in adult education towards skills training. This is from the backdrop of dwindling employment opportunities in the formal sector against the rising youth population. The study also leveraged on the fact that the adult education program had exposed the learners to a variety of youth empowerment strategies in the country including skills training. Further, the program is designed to prepare personnel to promote various developmental programs in the communities to alleviate poverty and other banes especially among the youth. The study had assumed that the female final year adult education students would objectively look at the skills training in the country and beyond as a route to youth emancipation.

The study by Moonga et al (2021) used quantitative while present one was qualitative approaches. The findings of the study revealed that the participants had a negative attitude towards skills training due to stigma and poor employment prospects. They attribute this to its inability to attract good-paying jobs in the formal sector and its being associated with blue collar jobs. The knowledge gap the present study will fill is the role of education in the perception of the MFIA on Katia Mulilo roadside in Garden Compound of Lusaka Zambia. All these studies do not show youth perception of the MFIA on Katima Mulilo roadside in garden Compound of Lusaka Zambia which the present stand will contribute and fill.

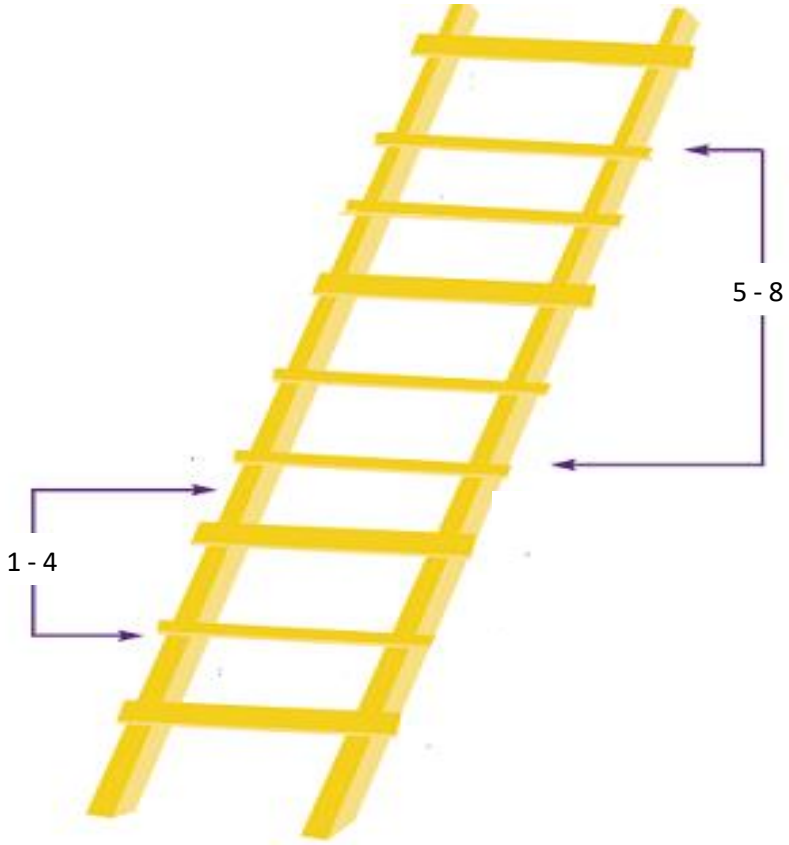
2.5. Youth Participation in apprenticeship

Participation has been used in development studies and education to mean involvement of stakeholders in a community or society program. Participation, therefore, refers widely to contributing and being part of an activity, a process, a human community or an ecosystem. Sometimes, participation refers only to taking part in a decision-making process, and having responsibility, power and a recognized role in influencing local communities or societies (Kiilakoski, 2020). A report on Continuous Professional Development (CPD) training in Lusaka elucidates the notion of participating as when most of the teachers in Lusaka zone indicated that they participated in CPD sessions as this was a requirement by the school management. Those who did not participate in CPD sessions were reproached by their supervisors. They participated in

CPD both as participants and as facilitators (Kabila et al.,2018). Youth participation in the present study can mean to play a role in the MFIA on Katima Mulilo roadside in Garden Compound of Lusaka, Zambia. It is a very inclusive term to mean whatever one does in the operation of the MFIA on Katima Mulilo roadside in Garden Compound of Lusaka Zambia.

Sociologist Roger Hart in a book titled "*Children's Participation: The Theory and Practice of involving Young Citizens in Community Development and Environmental Care*" authored for UNICEF in 1992 identifies eight steps of youth involvement in development that affect them and called it a ladder of youth participation. These steps are analogous to the steps of a carpenter's ladder, with the lowest step representing least participation. See Figure 3.1

***Figure** 2.1* Roger Hart's Ladder of Participation



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Source: Hart, 1992)

The narration of the ladder's eight steps is as follows:

1. Manipulation. Happens where adults use young people to support causes and pretend that young people inspire the causes.

2. Decoration. Happens when young people are used to helping or "bolster" a cause in an indirect way, although adults do not pretend that young people inspires the cause.

3. Tokenism. When young people is given a voice, but in fact have little or no choice about what they do or how they participate. Young people shun participating. Assigned but informed.

4. The youth are given tasks without participating in the initial stages. Young people participate when.

5. Consulted and informed. Here the youth play a role but are not in leadership. Young people participate freely.

6. Adult-initiated, shared decisions with young people. Adults initiate the decisions and are shared with young people. Young people participate well and freely.

7. Young people-initiated and directed. Here the young people are in charge of the activities. They participate freely.

8. Young people-initiated, shared decisions with adults. There is. consultation between adults and young people. Young people feel free. to get involved afterwards and participate.

The first three stages (1-3) on the ladder imply that the youth are not influential and totally depend on adults. In these steps, the input of the youth or children is not as important as in stages 5 to 8. The consequence is that the youth do not willingly accept this situation and therefore do not fully participate in such programs.

Oluniyi, Itohan and Garba (2015) describe participation as the involvement in the process of deciding, sharing in something or the state of being related to a larger whole. Participation gives a voice. Participation is a process during which individuals, groups and organizations become actively involved in a project Wilcox (2003) in (Oluniyi et al.,2015). Participation may refer to a process whereby the youth can engage and influence (Thomas,2007) in (Kiilakoski,2020). It may also refer to an outcome where the young people had a chance to contribute to a process in the learning environment. Child participation renders the children's roles functional by taking their opinions both on the decisions about them and the social issues in the school, immediate vicinity and society starting within the family, paying importance to these opinions or by informing them about different decisions

to be taken in line with their own benefits (Polat and Gezer, 2007) in (Zafer Kus, 2014). Students' classroom participation makes them (students) more motivated, supports their learning, improves their communication and promotes higher order thinking skills. Participating entails taking ownership of a program (Aziz, Quraishi and Kazi ,2018).

The Situated Learning theory is braced up by the notion that learners should be active and not passive participants in the learning process (Wenger and Lave, 1991). In this study participation is used to mean the engagement of the youth in the MFIA on Katima Mulilo roadside in Garden Compound of Lusaka, Zambia. How they participate includes willingness and resilience. These definitions coupled with the Hart ladder should assist to ascertain how the youth take the MFIA on Katima Mulilo roadside in Garden Compound of Lusaka, Zambia as their responsibility.

Youth participation in various activities is premised on their being members of the organization. In this study the youth are members of the MFIA on Katima Mulilo roadside in Garden Compound of Lusaka, Zambia. Going by the Hart's ladder, youth participation could be initiated by the youth themselves or by others with the youth involvement. This should be underscored by their awareness and indeed perception of the phenomenon. When the number of youths involved in an activity is high, it signifies good participation and the opposite is the case when the number of youth participants is low. Other ways of determining, participation include age, sex or gender and education level of participants' location and duration. Whereas number relates to quantum, the other ways of participating lean-to quality and or significance. The studies highlighted below investigated various forms of youth participation in apprenticeship and related activities.

2.5.1 Pupil participation in school, Family and Society

Zafer Kus (2014) did a study to determine the participation status of primary school pupils at school, in the family and in society in Turkey. This was against the background that education was declared a human right and the United Nations General Assembly had adopted the International Convention on the Rights of the Child in 1989. The study involved 6th to 8th year pupils in primary school. The Convention, being more concerned with protection, did not emphasize the responsibilities which go along with rights. Children need to learn that responsibilities come with the rights of citizenship. To learn these responsibilities children, need to engage in collaborative activities with other people including those who are older and more experienced than themselves. It is for this reason that

children's participation in community projects is so important (Hart, 1992) in Zafer Kus (2014). Children need to be involved in meaningful projects with adults. It is unrealistic to expect them suddenly to become responsible, participating adult citizens at the age of 16, 18, or 21 without prior exposure to the skills and responsibilities involved.

The study in Turkey was descriptive with a sample size of 348 pupils in Kırşehir in the 2011-2012 school years. A self-developed data instrument was used to collect data on the three levels of participation: school, family and society. The data was analyzed in percentages and the findings revealed that the students 'participation was highest in the family followed by the school and the lowest was in society. It also follows that children receive more attention in that order of participation. The family at home gives the child more attention than the school and finally the larger community.

The study by Zafer Kus is important for the present study as it shows how children participate in different social organizations such as family, school and society. This resonates with the participation of the youth at various times and in locations in the MFIA on Katima Mulilo roadside in Garden Compound of Lusaka, Zambia that the present study sought to establish. The two studies are similar in that both sought young people's participation in identified contexts. However, the two studies vary in the areas of knowledge and location of activities. The present study wanted to determine youth participation in the MFIA on Katima Mulilo roadside in Garden Compound of Lusaka, Zambia while the study in Turkey focused on children's participation in the three different social institutions of society. This gives the present study a knowledge gap to fill in youth participation in the MFIA on Katima Mulilo roadside in Garden Compound of Lusaka not covered by the study in Turkey.

2.5.2 Factors affecting participation of girls in technical subjects at two schools in Zambia.

Stephen Ziwa (2007) did a study on Factors affecting participation of girls in technical subjects at two schools: Hillcrest and David Kaunda National Technical secondary schools in Zambia. The study was a survey using questionnaires and interviews to collect data. The study sample included senior secondary school female pupils in technical subjects at the two schools, two Head teachers, technical subjects, schoolteachers and Education managers at district and provincial levels in southern and Lusaka provinces.

The findings of the study showed that peer pressure, intimidation of girls by boys, poor attitude by the girls and negative family advice were critical contributing factors to very few girls taking

technical subjects. Other factors included lack of motivation by teachers, lack of study materials and poor study strategies by the girls. The study by Ziwa (2007) is especially useful to the present study as it was done in Zambia and addressed technical subjects where metal fabrication belongs. It is also significant in that it focused on the female pupils learning with their male counterparts just like the present study was not gender specific. The findings of the study should be taken as indicative, awaiting comparison with the outcome of the present study. However, the two studies vary in that the study by Ziwa involved pupils in school while the present one used POSY and GAP and PMC.

Further, the study by Ziwa used participants in a formal education institution while the present one used OSY in an informal setup. Ziwa also involved teachers and education managers at district and provincial levels while the present study used the artisans who function both as trainers and supervisors at work. The study by Ziwa has insinuated results which the present study should compare with after analyzing the data from the youth participation in the MFIA in Katima Mulilo roadside in Garden Compound of Lusaka, Zambia. The present study then has a knowledge gap to fill.

2.5.3 Female participation in Technical Education and Vocational Training Institutions-Kenya.

Ngugi and Muthima (2017) did a study entitled "*Female Participation in Technical, Vocational Education and Training institutions (TVET) Subsector: The Kenyan Experience*". The study investigated female participation in Technical and Vocational Education program in Kenya and factors that contribute to the status quo. It was a desk-top study which recommended that both males and females should be encouraged to pursue studies in TVET courses supported by the school system and parents. The study was instituted after discovering that females had lower participation rate in TVET programs than males. The education system was encouraged to use more gender-responsive approaches so that many females can participate.

The study in Kenya was descriptive while the present study on youth participation in the MFIA on Katima Mulilo roadside in Garden Compound of Lusaka was a case study employing interview and participant observations data collection techniques. Further, the present research was done in Zambia involving three categories of participants: POSY, GAP and PMC. The study in Kenya involved a homogeneous population of female students at tertiary level of education while the present study was inclusive, male and female participants of varied age and education qualifications.

The variation in context, participants, methodology and subject makes the present study different but necessary and relevant. It, therefore, has a knowledge gap to fill in youth participation in the MFIA on Katima Mulilo roadside in Garden Compound of Lusaka, Zambia not covered by the study done in Kenya on Female students' participation in Technical and Vocational Education institutions.

2.5.4 Female students' participation in TEVT in a county in Kenya

Andiema and Manasi (2021) studied "*Female students' participation in TVET in western Pokot County Kenya*." The study examined the participation of female students in TVET in Pokot County of Kenya. This arose from the background that many Global bodies, that is, UN, UNESCO, and FAWE are in the forefront to address barriers to women accessing education in general including TVET. These advocate for equality in accessing quality education (Ngugi and Muthima, 2017) in (Andiema and Manasi, 2021).The UN through sustainability development agenda urges all nations to ensure that social, economic, educational and political barriers are removed for women to access gender equality through sustainable development goal number 4.3 which seeks to ensure equal access for all men and women to affordable and quality technical and tertiary education by 2030 (UN, 2015) in (Andiema and Manasi, 2021).

Like many other countries in SSA, Kenya would want to attain the UN SDG by 2030 but the UNESCO, 2016 analysis still shows that girls are still denied access to education across many countries especially in the TVET sector. It is biased with few women provided the opportunity to peruse various courses which before were masculine (Andiema and Manasi, 2021).

The study in Pokot was a case study of one centre like the present one. However, the two focused on various locations; one focused on a county (equivalent to a district in Zambia) in Kenya and the other a Compound in Lusaka, the capital city of Zambia. The Pokot study involved only girls while the present study in Lusaka, Zambia was open to both sexes. They found that enrolments in TVET and gender disparity were still rife in Kenya and other countries. The specific findings of the study in Pokot revealed that: there were few female tutors in TVET. There was bias at various levels of education management for the men.

i) some courses are still perceived as male only i.e. motor mechanics, fabrication.

ii) lack of female models among tutors.

The study in Pokot recommended:

a) provision of financial support to learners and infrastructure development to accommodate more students, especially females.
b) provide scholarships to target female students.
c) increase public awareness to courses available to diffuse stigma against the courses, and
d) use the school system to sensitize learners about the courses.

The study in Pokot is relevant to the present one as it also sought to establish the nature of participants in the TVET courses. The present study also focused on metal fabrication which is related to TVET but in a different environment. The present study, therefore, has a knowledge gap to fill as the Pokot study was done in Kenya and not in Zambia. It was done in a TVET related environment of informal apprenticeship on Katima Mulilo roadside in Garden Compound of Lusaka. The two studies differ in several respects like participants, subject matter, location of the study and methods used in creating a knowledge gap for the present study to fill.

2.5.5 Women participation in Science, Technology Engineering and Mathematics in Nigeria

A study on women participation in education was done by Okarafor and Kakiri Woyengidubamo Okorafor (2015) entitled "*Women participation in Science, Technology, Engineering and Mathematics (STEM) in Nigeria: Challenges and way forward*." This study delved into gender disparity in Science Technology and Mathematics in Nigeria. Though related to the present study, in dealing with an aspect of learning a science related subject; metal fabrication while the Nigerian study focused on female participation in four science subjects of general education. The present study is on youth participation in the MFIA on Katima Mulilo roadside in Garden Compound of Lusaka Zambia which is a vocational skill and outside general education but science oriented.

The findings of the study in Nigeria point to Cultural beliefs and socialization factors as some of the causes of low female participation in science-oriented education. Other factors include poor self-image/attitude, societal expectations and learning environment among others. The findings of this study should be compared with those found in Nigeria and this presents a gap of knowledge for the present study to contribute on the subject. It should also be easy to establish the factors that determine youth participation in the MFIA on Katima Mulilo roadside in Garden Compound of Lusaka in

comparison with the Halt ladder as well**.** The present study therefore has a knowledge gap to fill on youth participation in the area.

2.5.6 Inspiring women to participation in TEVT in Africa

Okorafor, Okorafor, Ike and Obi (2014) did a study in Nigeria entitled. "*Inspiring women participation in TVET for sustainable development in Africa*." The study recognized the ingenuity of the women folk and its absence in development programs in Africa. Although women are in great numbers like men; their involvement in development activities is negligible. TVET is a big enabler to development as it equips graduates with the necessary skills to spur development. However, the women folk are usually left out of the development equation due to their poor participation in TVET programs in Africa. Unfortunately, it is provided with gender inequality in Africa where men are more featured in it. This further hinders women participation in the present economy and continues to disadvantage them. Africa has been denied the full contribution of women in sustainable development in this modern world (Okorafor et al., 2014).

On the contrary, women have contributed to Africa's development even when they are denied education through their hard work and resourcefulness. Okorafor et al. (2014) submits that women's willingness, enthusiasm to actively participate in national building are often conditioned by many factors which are social and educational. The role of TVET in sustainable development through furnishing of skills required to improve productivity, raise income levels and improve access to employment cannot be overemphasized.

It has been proven that in traditional society women are the back bones of development at family and society levels. Given this background in traditional society, women deserve more space in TVET to influence sustainable development. To inspire the women to play their rightful role and contribute after participating in TVET, the study advances the following factors: Increase financial support to TVET colleges.

i) Give female equal chances for admission to TVET course as men.
ii) Create an attractive working environment.
iii) Create partnerships between TVET and industry.
iv) Give incentives to create women models.
v) Subsidize the women.
Vi The school system should sensitize the community, women and girls about TVET programs.

The present study used OSY and artisans while the study in Nigeria focused on unclassified females. There is a knowledge gap the present study can fill in female participation in the MFIA on Katima Mulilo roadside in Garden Compound of Lusaka and the need-to-know women participation at that micro level.

2.5.7 Improving opportunities for youth participation in informal apprenticeship in Cote d Ivoire.

Shahlavi Haiji (2021) researched on, "*Improving opportunities for youth with subsidizing dual apprenticeship in Cote d Ivoire*." This was a World Bank and the International Policy Action (IPA) sponsored project. The study was premised on the fact that in SSA wage jobs are rare and many people, especially the youth, are engaged in low productivity occupations. Many governments attempt to upgrade traditional apprenticeships to help improve youth opportunities for productive employment. The study in Cote d Ivoire evaluated the impact of an apprenticeship program subsidizing formal apprentices placed in firms and offering them theoretical training. The World Bank and the IPA launched a scheme to improve access to temporary employment and skills development opportunities for youth. Low skilled youths aged 18 to 24 years in urban areas of Cote d Ivoire were involved. Subsidized dual apprenticeship centers were set up and evaluated by the World Bank.

The formal apprenticeship training lasted one to five years ascending to occupations. The youth were placed in firms where they received on-the-job training under the supervision of master Craftsmen. They were also eligible to receive 180 hours of complementary hours of theoretical training per year. The common apprenticeship positions included motor mechanics, metal worker, welders and brick layers. The master craftsmen and the youth were visited on a regular basis to monitor the training. At the end participants were evaluated on their practical skills, theoretical knowledge and later awarded certificates. The study was an experimental design with control and experimental groups. The tests were given to both the control and experimental groups and the outcome was assessed.

The results revealed that the subsidized apprenticeship was successful; it expanded youth access to apprenticeship that are found; the number of participants in the traditional apprenticeship increased in anticipation of being elevated to the subsidized apprenticeships which had better conditions and was flexible in terms of employment because of the certificates awarded. The qualification obtained was transferable unlike the usual rigid traditional apprenticeships. Youth skills acquisition increased

as well. Participation in the low apprenticeship programs increased fostering capital investment among the youth. The study shows that support to youth efforts to acquire skills can be enhanced through various initiatives. The enrolment in the traditional apprenticeship increased because it was identified as a prerequisite to a certified apprenticeship leading to more benefits such as acquisition of employability skills and knowledge and productive employment.

The study in Cote'd Ivoire is significant to the present study in that it looked at how to make apprenticeship attractive and acceptable for the youth through adding value to their initial training. The increase in the traditional apprenticeship enrolment was enhanced by the addition of theory and certification leading to a formal sector environment. This opened opportunities for employment in the formal sector. The two studies are not replications as each has an area of concentration not covered by the other. The study in Côte d'Ivoire dealt with several skills, including metal fabrication which is the only one involved in the MFIA on Katima Mulilo roadside in Garden Compound of Lusaka. The knowledge gap the present study will fill is how the youth use the MFIA to leverage to higher studies.

2.5.8 Women participation in Science in Zambia

Kakwesha, Mofya, Zimba, Mwewa and Mulindwa (2019) conducted a study to determine female pupils' participation in watching a program promoting female participation in science in general and physics in particular on Zambia National Broadcasting Corporation (ZNBC) Television. The study entitled "*Building Bridges for Women's participation in Physics in Zambia*," was a television series meant to encourage women and girls to do sciences in general and Physics in particular in education. Though Physics has been taught at university level in Zambia since 1966 there was no female graduate in Physics until 2004 (Kakwesha et al., 2019).

The study was an audience survey to monitor schoolgirls participating in following the program on Television. The aim of the program on television was to inspire women and girls to emulate role models being interviewed. These included females from international organizations; the UN, government officials, non-governmental organizations (NGOs), teachers and students. The interviewers were secondary school girls. The whole purpose was to expose the schoolgirls to successful female as role models. The study sample was 110 girls from eleven schools. The results revealed that there was poor participation by the target audience at 19.1 %. The results showed that many had excuses such as poor timing for the program, limited access to television and lack of

advertising the program. Many of the respondents requested for a re broadcasting of the program with sufficient advertisement.

The study by Kakwesha et al. (2019) is relevant to the present study as it exposes some barriers to participation by the women and girls in the television program series based on a science subject. Though seeking answers to youth participation in the apprenticeship activities on Katima Mulilo roadside in Garden Compound of Lusaka, the present study also needs to establish the factors affecting the youth participation in the apprenticeship activities in the study area. Some of them could be like the ones found by Kakwesha et al. (2019). However, the two studies are not similar in terms of the subject matter, participants, methodology and location, though in Zambia but different. The present study has a knowledge gap to fill in participation of the youth in the MFIA on Katima Mulilo roadside in Garden Compound of Lusaka which is not covered by the other study.

2.5.9 Participation in adult literacy programs in Lusaka

A study by Moono (2021) on "*Low Participation in Adult Literacy Programs in Kalingalinga, Lusaka district, Zambia,*" investigated the causes of low participation in a literacy program in Kalingalinga compound of Lusaka. Moono's study is because the participation rate in the literacy program in Kalingalinga was low and therefore, searched for the triggers to this situation.

Like the present study, Moono's study was a survey; case study specific to Kalingalinga while the present study was also a case study of the MFIA on Katima Mulilo roadside in Garden Compound of Lusaka. The present study involved one skill; metal fabrication like Moono's which focused on literacy programs. The target participants in the Kalingalinga study by Moono were all adult residents of Kalingalinga Compound in Lusaka contrary to the present study which involved only OSY and artisans in the MFIA on Katima Mulilo roadside in Garden Compound of Lusaka. Moono did a quantitative study using a questionnaire to collect data while the present study used cross-sectoral interviews involving OSY and artisans in three categories of POSY, GAP and PMC and participant observations by the researcher. The present study objective on youth participation; a case study of the MFIA on Katima Mulilo roadside in Garden Compound of Lusaka had assumed youth exposure to the MFIA on Katima Mulilo roadside in Garden Compound of Lusaka and only wanted to establish their participation there.

Natukho, Amutabi and Otunga (2005) in Moono (2021) contend that, community-based factors which limit participation in Adult Education programs in Africa include Community appreciation for Adult Education, cultural factors, cultural institutions, and wars and conflicts. The adult community appreciation for education motivates adult learners to seek education. However, if the reverse is the case, then the adult's motivation to education falls low and no matter how many Adult Education programs exist in that country the attendance levels will be incredibly low.

The present study on youth participation in the MFIA on Katima Mulilo roadside in Garden Compound of Lusaka is an adult education issue and the statement by Natukho et al. will serve as a barometer to authenticate it in relation to apprenticeship. Nevertheless, the two studies are at variance in respect of participants, location, subject matter, and methodology which makes the present study relevant as its findings will contribute new knowledge to youth participation in the MFIA on Katima Mulilo roadside in Garden Compound of Lusaka not covered by Moono's study. The knowledge gaps this study will fill is the role of culture and beliefs in the MFIA on Katima Mulilo roadside in Garden compound of Lusaka. The reviewed literature did not include rematched those in the area, The present study finding will fill this gap.

2.6 Youth Training Process in Apprenticeship

The objective of the present study was to establish the youth training process in the MFIA on Katima Mulilo roadside in Garden Compound of Lusaka. Many scholars have hinted at how young people are engaged into apprenticeship and exit the training. Employers use many different approaches to recruit apprentices, such as networks, advertisements and walk-ins by prospective apprentices (Misko and Wibrow, 2020). The theory on situated learning, the bedrock of this study is pivotal to the training process in apprenticeship. Through this objective the Situated learning theory will be verified as it applies to apprenticeship training in the MFIA on Katima Mulilo roadside in Garden Compound of Lusaka.

2.6.1 Apprenticeship and non-apprenticeship training processes

Mohreneiser (2012) did a study entitled "*Recruitment and Apprenticeship Training,*" which describes the recruitment of switching apprenticeship graduates and investigates differences between training and non-training firms. Although the paper does not give the process from enlistment to graduation, Mohreneiser compares how firms absorb apprentice graduates. The findings are that training firms are more likely to hire apprenticeship graduates trained elsewhere than non-training firms, and if they

do, they hire a larger number of them. Such institutions trust and have confidence in what others have imparted to the graduates. They are familiar with the training content and they take it that others do as they do; true allegiance to the biblical principle of do unto others as you would want them to do unto you. The non-training firms, on the other hand, lack this knowledge and therefore do not trust candidates trained by the training firms. As a result, the non-training firms recruit fewer apprenticeship graduates than their training counterparts. The small number accepted by the non-training firms enables the non-training firms to closely monitor the candidates.

This study is relevant to the present one as it shows how apprenticeship depends on the background of the employers or trainer. The present study should note the status of employment or training in the MFIA on Katima Mulilo roadside in Garden Compound of Lusaka. The study by Mohreneiser was done in formal apprenticeship where training firms need a permit for apprenticeship training granted by the chambers of industry and commerce or the chambers of craft. The training curricula prescribed the (minimum) skills that needed to be imparted and the duration for each training occupation. Moreover, apprentices receive a graded skill certificate at the end of the training period.

The observation of the apprenticeship and the final exam are centrally monitored by the respective chambers of craft or industry and commerce. The training process in the study by Mohreneiser is concluded with the certification by the two chambers. This is like the guild system where quality assurance was enforced strictly. The two studies are at variance in that they are focusing on different apprenticeship environments: formal and informal. Other variations are in methods and participants. This gives the present study a knowledge gap to fill.

2.6.2 Informal apprenticeship training process in Lusaka

Ryan (2015) did a study on behalf of the ILO on apprenticeship in Zambia entitled, "*If I can be a helper, one day I be a boss - A case study of informal apprenticeship in Lusak*a" which dealt with the aspects of the training process in informal apprenticeship in Zambia. The study was done as part of the ILO's program on informal apprenticeship in Africa. The study recognizes that informal apprenticeship remains the only hope for Zambia's economic development since the formal sector has become inaccessible to many young people due to a myriad of reasons. Ryan observes that young people remain significantly overrepresented in Zambia's unemployment statistics.

In dealing with the training process, Ryan describes the conditions for engagement by adopting the ILO (2012) definition of informal apprenticeship using written or oral training agreement under which a master craftsperson (MC) provides an apprentice (a young person) with training in all skills relevant to a trade. Ryan explains that the ILO definition of informal apprenticeship as an apprentice gains tacit skills by collaborating with a master craftsperson in a micro or small enterprise in the informal economy. Informal apprenticeships are ascribed to the norms and traditions of a society, which shape the obligations and incentives for MCs to train others, and for apprentices to seek this kind of training. Costs and benefits are shared between the apprentice and master craftsperson (ILO, 2012).

The study by Ryan revealed that training within the informal economy is widely undertaken in the Lusaka region. However, the informal institutional framework for apprenticeships in Lusaka's informal economy is currently less well established, compared to informal apprenticeships in West Africa. Further, studies revealed that written contracts are non-existent, and verbal training agreements were considerably undefined. There was no specific term used for apprentices within the informal economy–young people join businesses as O*thandiza* (helpers (sic) (those who help), but this term may apply both to those in an apprenticeship role, and casual workers brought in for temporary work. The process of engagement and subsequent training for the two should be different. This study also revealed a variety of training arrangements within the informal economy including fluid models of group-based learning, whereby a young person may learn from several experienced craftspeople in a 'cluster' of self-employed operators. The apprentices were not enlisted as trainees as would be in a formal type. *Othandiza* means helpers mostly doing the real production of saleable products. The informal apprenticeship was found to be a major training avenue for many young people including the MC.

The study by Ryan is important to the present one in that it has given insights to the situation on the training process in informal apprenticeship in Zambia. However, the study by Ryan was done at national level while the present study covered only a small part of the city of Lusaka the Katima Mulilo roadside in Garden Compound. The methodology used by Ryan consisted of desk reviews and the use of questionnaires to collect data while the present one used a case study using interviews and participant observation. Ryan's sample included government officials and many other stake holders while the present study focused on the OSY and artisans in metal fabrication.

Ryan acknowledges that the ILO training process includes the steps below:

i) Concluding an agreement between the apprentice and the MC.
ii) Apprentices are trained to acquire employable skills.
iii) Training is workplace-based and integrated into the production process.
iv) The apprentice is a young person.

The costs of apprenticeship are shared between master craftsperson/employer and apprentice. These steps of the training process in the informal apprenticeship were found to be more relaxed than those of West African countries. Ryan cites ILO (2008) that previous studies have found informal apprenticeship in West Africa to be strongly embedded in informal institutional frameworks 'rules of behavior based on socially shared values and norms. These rules mean that those entering informal apprenticeships are aware of the norms and expectations at the onset of the training, including the length of apprenticeship, the payment of entrance fees from apprentice to master, and graduation procedures. The situation in the MFIA creates the knowledge gap this study will fill.

However, MCs sometimes take advantage of this aspect and extend the training period beyond the point at which an apprentice is deemed to be competent. Training periods in Malawian apprenticeship were found to be widely different both between different trades and within the same trade. The report found that the MC decides when training is over. In Malawi, it can be concluded that apprentices acquire their skills based on trust of the MCs as most of them do not sign a written contract.

The findings in the Tanzanian and Malawian studies touched on several other aspects of informal apprenticeship such as age of apprentices, which tended to be higher than that of West Africa on account that informal apprenticeship was not a first-choice career path to most participants. The mode of payments; Ryan cites ILO (2010) that, in Malawi, 65 percent of MCs paid a weekly wage to apprentices with wages increasing as apprentices contribute more to the business, but 33 percent of MCs reported charging fees for training. All these revelations by Ryan support the present study which is focused on the MFIA on Katima Mulilo roadside in Garden Compound of Lusaka, Zambia. This leaves a knowledge gap for the present study to fill.

The characteristics of the MC in the Ryan study shows that they were not affiliated to national vocational associations and cooperatives. This prevented the MCs from tapping the technological developments in the formal sector. Ryan reports that Tanzania also demonstrated a low level of formal

organization among MCs, but a prominent level of informal cooperation. The auto-mechanics trade revealed an important level of cooperation with MCs sharing tools, clients, workers, and the responsibility for the training of apprentices. All these findings show that training in informal apprenticeship is done in numerous ways due to many factors such as skill type, location, and type of master trainer. This is vital for the present study as its findings might add more training processes suitable to the MFIA on Katima Mulilo roadside in Garden Compound of Lusaka, Zambia not covered in the other studies.

2.6.3 Apprenticeship training system among the Igbo of Nigeria

The informal apprenticeship training process among the Igbo people of Nigeria was reported in a study by Obi (2021) entitled," *Igbo Apprenticeship System: A Cradle of Socio-economic Development in Nigeria*." Training in informal apprenticeship among the Igbo people of Nigeria starts with the family and community at large. It is embedded in the adage," Do not give a person a fish but show him/her how to catch one" (Obi, 2021). He considers it explicit that a typical Igbo businessperson allows his brothers, kinsmen, relation or perhaps friends to be poor. Thus, the financial prowess of a typical Igbo business tycoon is seen philanthropically as a gesture towards people around him.

This ignites the need to train others to be like him/her. Obi asserts that when an Igbo man makes money or wealth, he would not be happy in accordance with societal belief that all or at least nobody should be left behind. It is the foundation for apprenticeship among the Igbo people of Nigeria. Apprenticeship simply means the act of learning business, trade, or work under a master for a period of time. He affirms that in Igbo community, an expert or entrepreneur might have two, three or four people under his mentorship who are willing and able to learn and undertake entrepreneurial leadership roles in business.

Obi identifies three stages in the training process involving the master or entrepreneur, the apprentice family or sponsor and the apprentice among the Igbo people of Nigeria. The stages are Ability, Mentorship and Settlement. At ability stage the apprentice expresses interest in apprenticeship; the apprentice would express his keenness and willingness to go into business of a kind. At this stage, the master who wishes to take up the assignment of mentorship would meet with the family or sponsor of the apprentice and explain to them the need for him to tutor their child in his line of business. This

is the preparatory stage. All logistical issues of the duration of apprenticeship and upkeep of the apprentice are sorted out at this stage.

The second stage is mentorship. During this stage, the business mentorship and tutorship is introduced to the apprentice into his line of business. This stage is continual and progressive until the last and final stage. The third and last stage is the settlement stage. This is a joyous time which comes with happiness when the apprentice has been trained, served his master well and learnt all the necessary details he ought to learn within the stipulated years. The apprentice would be financially settled and established as a master who can handle business of his own (ibid). The present study should establish the process of training used in the MFIA on Katima Mulilo roadside in Garden Compound of Lusaka. The findings should reveal a training process in the MFIA on Katima Mulilo roadside in Garden Compound of Lusaka, Zambia.

In the present study, the training context is in Zambia, specifically in Lusaka on Katima Mulilo roadside in Garden Compound. This is different from the study by Obi, which was conducted in Nigeria among the Igbo speaking people. This difference in context could lead to variations in the findings and conclusions of the two studies. The findings of the present study then become new knowledge to fill the gap that has been yawning.

Furthermore, the participants in the present study are heterogeneous, meaning they come from diverse backgrounds and language communities. This contrasts with the study by Obi, where the participants were from a single language community, the Igbo people of Nigeria. The inclusion of participants from different language communities in the present study could provide a broader and more comprehensive understanding of the topic being studied. In the absence of a known study like the present one in the area, the findings should entail new and unique knowledge which will fill the knowledge gap that exists. However, the present study is different from the one by Obi in that it is done in Zambia on Katima Mulilo roadside while the study by Obi was done in Nigeria among the Igbo speaking people. The heterogeneous nature of the participants in the present study is a variation to the study among the Igbo people of Nigeria, from a single language community. The context of training is also different.

2.6.4 Legitimate Peripheral participation apprenticeship learning process.

A study on training process in apprenticeship conducted by Wenger and Lave (1991). This is a seminal study on the Situated Learning (SL) theory which undergirds this study. Wenger and Lave observed a group of tailoring apprentices and noted how the participants were assigned roles during the training. The complexity of the tasks increased as the learners gained experience. This led Wenger and Lave to produce the training process based on Legitimate Peripheral Participation (LPP).

The study by Wenger and Lave was done in Africa but not in Zambia and Garden Compound of Lusaka, Zambia. This makes the present study new in search of knowledge about MFIA on Katima Mulilo roadside in Garden Compound. Their study was guided by the Situated Learning theory just like the present study but the two are done in various locations. It is common in on Katima Mulilo roadside in Garden Compound of Lusaka, Zambia for one person to learn or work at more than one place. Ryan (2015) called such fluid workers. In some cases, the same person would perform different tasks in the places where he/she works. One is understood differently in each location.

Anokye and Afrane (2014) also identified a pattern of training in informal apprenticeship in stages. The training phases are introductory, getting to know the tools and trade related skills. The introductory phase entails being coached on how to perform menial jobs around the workplace. These include taking errands assigned by the trainers and tidying up around the working premises. The second phase in getting to know the tools, equipment and material needed. Frazer (2006) in Anokye and Afrane (2014) describes the third stage as trade related. The learner learns other activities that are related to the trade skill being learnt. This involves learning to manage and repair tools and equipment, business management like sourcing pricing and contracting.

The last literature reviewed on the training process was by Wenger and Lave (1991). The two describe the learning process in informal apprenticeship as developing from simple to complex. They saw several skills groups in West Africa upon which they established the trend. They discovered that there was easy entry into the informal sector where the learner starts with simple activities and goes toward complex ones. They called the process the legitimate periphery participation. These stages make the pillar of the Situated learning theory which undergirds this study. The learner starts by learning simple tasks and progresses to complex ones with additional responsibilities over a period. As one progresses, he/she works to produce real value products for the trainer to sell.

All the literature reviewed in this section agrees with the LPP training pattern expounded by Wenger and Lave in the Situated learning theory. These skills are learnt by observing and imitating the trainer and gradually the apprentice is introduced to complex operations which help the trainer to produce items for sale to live a sustainable livelihood. The learner and the trainer are engaged in practice throughout the course. The present study and the reviewed studies are not similar in that the reviewed studies were done in different places from the present one. The participants and methods used are different as well. The present study is expected to discover a training process the youth follow in the MFIA on Katima Mulilo roadside in Garden Compound of Lusaka, Zambia. The training process used in the MFIA should be compared to the LPP by Wenger and Lave emanating from the SL which undergirds the present study. The training process in the MFIA remains unknown even after reviewing the studies on the subject. This gap will be filed by the present research.

2.7 Challenges Youth encounter in apprenticeship

This is the sixth and last objective of the present study and it sought to identify the challenges youths face in the MFIA on Katima Mulilo roadside in Garden Compound of Lusaka. Left without further explanation, one would assume that all is well for the youth as they participate in the MFIA and make a living out of it. Whereas this cannot completely be ruled out, the problems sought here are those that impede youth awareness, perception, participation and training process in the MFIA on Katima Mulilo roadside in Garden Compound of Lusaka.

The assumption of the study here was that all the other factors investigated on the MFIA are affirmative but the youth are still not totally involved in the MFIA on Katima Mulilo roadside in Garden Compound of Lusaka, Zambia to acquire skills in metal fabrication. Consequently, the youth fail to acquire the skills necessary for empowerment resulting in unemployment, poverty and other vices entrenchment in the community. To the best knowledge of the researcher, many studies have been done on challenges in many fields but none is known on youth challenges with the MFIA on Katima Mulilo roadside in Garden Compound of Lusaka, Zambia.

Challenges usually stem from the dynamics of society as it adapts and adapts to developments and changes. Usually, the existing system comes under pressure to cope with the innovations as they unfold in the environment. For example, to address the needs of the fourth industrial revolution in education, higher learning institutions should continue to integrate innovative methods to enhance

the teaching and learning processes Ilonga et al.,2020). As a result, institutions and operations, including MFIA on Katima Mulilo roadside in Garden Compound of Lusaka, Zambia should be able to track the demands for skills in industry and move rapidly to ensure that students complete their education ready to add real value to the business world. Several studies have been done to elucidate the problems arising from innovations in a system or situation. Below are some studies done on challenges in apprenticeship and related areas. The knowledge gap is to identify the prevalence of such challenges in the NFIA on Katima Mulilo roadside in Garden Compound of Lusaka Zambia.

2.7.1 Challenges with apprenticeship in Ghana, trainees' perspective

Danso and Kwadwo (2021) investigated on factors contributing to the challenges with apprenticeship in Ghana, trainees' perspective. The study assessed the factors contributing to challenges with apprenticeship in Ghana, specifically from the trainees' perspective. A descriptive survey was employed with a stratified random sampling technique used to select 1200 participants for data collection using a questionnaire.

The results revealed ten factors upon which challenges for trainee apprentices in Ghana were based. The ten key or extremely challenging factors include; the quality of the training being controlled by masters, masters provide training schedule, the training involves only practical activities, the training includes entrepreneurial skills, the training includes customer care, the training involves the use of modern technology, the training includes financial management skills, there are policies governing the duration of the training, equipment and tools used are modern, and policies governing the duration of training. Six components were found to be the factors contributing to the challenges, namely, training structure-related factors, contemporary technological-related factors, aid-related factors, recognition-related factors, funding-related factors and perception-related factors; and these factors correlate positively and significantly (Danso and Kwadwo, 2021).

The study by Danso and Kwadwo (2021) provides valuable insights into the factors and challenges faced by apprentices in that country. These findings can serve as reference for the present study, which focuses on the MFIA on Katima Mulilo roadside in Garden Compound of Lusaka, Zambia. Although the two studies share a common subject matter, they differ in terms of location and methodology. The study in Ghana had a broader coverage but a narrower focus on apprenticeship challenges, while the present study has a narrower coverage but a wider focus on various aspects

including elements of awareness, perception, participation, and training process. This knowledge gap in the present study will contribute to a better understanding of the specific context of the MFIA on Katima Mulilo roadside in Garden Compound of Lusaka, Zambia.

2.7.2 Challenges in a community of practice

Kintu and Aheisibwe (2019) did a study in Uganda entitled "*Exploring the effectiveness of Informal apprenticeship in a community of practice: A case study of Katwe, Kampala, Uganda*". The study investigated how the principle of community of practice by Lave and Wenger (1991) is applied at Katwe in Kampala, Uganda. It sought to establish the effectiveness of informal apprenticeship at Katwe. Katwe is a host to the Katwe Small-Scale Industry Association (KASSIDA) to which various informal activities are affiliated. These small-scale businesses are run by artisans, craftsmen and technicians involved in repairing different electronics, automobiles and fabricating and making many types of home appliances.

The artisans improvise and manufacture imitations of original articles. The centre employed more than 300 artisans and metal fabricators in over 800 individual stands or enterprises. The centre has a working relationship with Makerere University which has attracted many other businesses such as food venders, wholesalers of local foods, herbalists and transporters. Other businesses include vendors of second–hand electronics, sellers of scrap goods (Kintu and Aheisibwe,2019).

The Katwe Community of practice can be compared to the Kumasi centre in Ghana. Suame Magazine in Kumasi is considered the largest single cluster informal industrial setting in West Africa. These small-scale enterprises play major roles in the servicing of vehicles and the manufacturing of small engineering tools and equipment, agriculture and industrial products which contribute directly to the economic livelihood of the people of Ghana and other West African states. The population at this informal cluster of engineering workshops has been on the increase. Master craftsmen and apprentices in the middle 1970's stood at 27,000. This number has grown to over 100,000 in the late 1990's.

Suame Magazine Industrial Development Organization (SMIDO) places the figure at 200.000 with 12,000 micro and medium enterprises by mid-2000. It is this growth in human resources and its management which is relevant to the operations in Suame Magazine and other similar clusters across Ghana (Amrago, Dachniewski and Danquah, 2020).

The description of Katwe and Suame Magazine Industrial Development in Kumasi is close to the outward appearance of the MFIA on Katima Mulilo roadside in Garden Compound of Lusaka, Zambia. However, Katwe in Uganda and Suame Magazine in Ghana are cluster organizations which help to regulated and organize the artisans. A lot of apprenticeship activities take place at Katwe and Kumasi and the artisans form the community of practice comprising skilled and competent people capable of carrying out various mechanical tasks that even surpass the work done by graduates from TEVT institutions. UNESCO-UNEVOC (2014) describes the informal sector in Uganda as a strong hold of employment accounting for 58% non-agricultural employment in 2011.

Katwe centre remains especially important in terms of skills and economic development in Uganda (Kalubi, 2019). He affirms that over the years, artisans from this community have repaired equipment and produced artifacts, yet they have not been to any school but learnt the job. He claims that they can do better than those trained from the Vocational Training Institutions (VTIs). These attributed of Suane and Katwe cluster are visible in the MFIA on Katima Mulilo roadside in Garden Compound of Lusaka, Zambia except its organization and productivity are not known. The findings of this study should be able to reveal the true status of the MFIA in Garden Compound of Lusaka, Zambia.

The Katwe study was descriptive and used interviews and observation instruments. The outcome of the Katwe study revealed that informal apprenticeships offer young people a path to employment. The study acknowledges the findings by De Grip (2015) that other merits of informal apprenticeships such as learning by doing are an automatic byproduct of production work. On the other hand, the Kumasi study in Ghana was a survey and it revealed that the participants in the cluster had varied education and were dominantly male. However, females were participating in other less strenuous activities within the cluster.

The studies in Kampala, Kumasi, and Lusaka share several similarities, but they also have some differences. All three studies focus on skilled artisans and craftsmen and the informal apprenticeship practices within their communities. Additionally, Uganda and Zambia have their research centers in their capital cities, while the Ghana study was conducted in a city outside the capital.

However, despite these similarities, the studies are not exact replications of each other. They differ in the underlying theories guiding their research. The study in Katwe, Uganda is based on the social cultural theory by Lev Vygotsky, while the present study in Lusaka is guided by the Situated Learning

theory by Lave and Wenger and the study in Ghana does not mention any specific theoretical underpinning.

Furthermore, the three studies also differ in their approach to data collection. The Katwe study utilizes the descriptive method along with observations, document analysis, and interviews. On the other hand, the present study in Lusaka and the one in Ghana employed the case study design using interviews, and participant observation as their primary data collection instruments.

The Katwe study also found out that several issues affected operations and learning at Katwe community of practice. These include prohibitive cost of material and electricity; not enough time available for training; inadequate working and training space(area); poor remuneration of trainees; lack of insurance policies and difficulty to attract females in most activities as they prefer light tasks. The Kumasi study in Ghana, on the other hand, found many challenges as well including poor physical infrastructure, lack of support by the government and city council. These findings will be compared to the ones ensuing from the present study on Katima Mulilo roadside in Garden Compound of Lusaka, Zambia. Nevertheless, the two studies are not replications as they focus on different elements, use different methods, and are done in various locations.

The purpose of the present study is to identify the challenges associated with the MFIA on Katima Mulilo roadside in Garden Compound of Lusaka, Zambia as well as in the city of Lusaka as a whole. The study aimed to contribute to existing knowledge by employing a qualitative research approach, utilizing interviews and participant observations like the study conducted in Ghana. It is worth noting that the Katwe study was quantitative in nature, involving various stakeholders such as artisans, business owners, administrators, workers, and apprentices. Similarly, the study in Ghana focused on artisans and craftsmen. In contrast, the present study specifically targeted out-of-school youths and artisans.

These differences in target populations and research approaches insinuate the knowledge gap that the present study should fill. By focusing on OSY and artisans, the study intends to shed light on the specific challenges faced by these groups in relation to the MFIA on Katima Mulilo roadside in Garden Compound of Lusaka, Zambia.

2.7.3 Constraints of apprenticeship training in the informal sector in Ghana

Munkaila Alhassan (2016) conducted a study entitled "*The major constraints militating against Apprenticeship training schemes in the informal Sector of Ghana: the case of Tamale metropolis*" which surveyed the mode of training offered to apprentices, whether it was well structured or not. The study looked at challenges confronting apprentices during training in Tamale metropolis. The Tamale Metropolis study target population was stratified into their trade areas of mechanics, welders, electricians and many others. A total of 200 apprentices were sampled using the simple random method.

Alhassan affirms that unfortunately, apprenticeship schemes in Ghana are full of challenges including indefinite training period, absence of reference manuals, lack of funding which normally result in poor completion rates. The objectives of his study reflect the magnitude of the issue of challenges in the informal apprenticeship system in Ghana. These included to; unearth the challenges facing apprentices in the informal sector, examine structures put in place by Master Craftsmen to ensure effective training of apprentices, analyze the duration of the training session, support services for apprentices and find out whether apprentices made use of training/reference materials during training sessions to enhance skills acquisition. The findings from these objectives will be compared to the findings of the present study on the challenges in the MFIA on Katima Mulilo roadside in Garden Compound of Lusaka, Zambia in particular. This makes the present study necessary and unique as new knowledge in that field will be generated.

The study by Alhassan is appropriate to the present study in that it dealt with the same subject of apprenticeship in a city. Tamale is a city in Ghana though not the capital city as Lusaka is in Zambia. This makes the study remarkably close to the present one except that the present study examined more issues than just challenges. The fact that both studies were surveys makes the two similar though the Tamale study carried more trade areas in many places than the present study which dealt with only one trade in one location, metal fabrication in the MFIA on Katima Mulilo roadside in Garden Compound of Lusaka, Zambia respectively.

Apprenticeship is the process of learning new and valuable skills from a seasoned professional; it is viewed as a way of bringing theoretical and practical knowledge together Alhassan (2016). This entails that it is an innovation introduced in a community. Although the community has embraced

this novelty of apprenticeship its problems are not identified by the beneficiaries. In Zambia, the development of the informal sector in general along with it the informal apprenticeship has been accepted as many people as possible including the youth are participating. Training is integrated in the production process and apprentices learn by working alongside the experienced craftsperson (ILO, 2011). However, the problems associated with the same are not yet known hence this objective in the present study focuses on that.

An understanding of problems inherent in an innovation like apprenticeship fosters development in that addressing the innovation fully benefits the community. Alhassan notes that for the proceeds of the informal apprenticeship system to benefit the nation and the individual players, conscious effort must be made by all who hold a stake to address the perennial bottlenecks to the growth and development of the apprenticeship system in the country. Similarly, discovery of the problems of apprenticeship facing the youth in the MFIA on Katima Mulilo roadside in Garden Compound of Lusaka, Zambia would be a gateway to sustainable youth development through acquisition of skills in metal fabrication.

The study by Alhassan in Ghana was a case study design combined with the descriptive approach. This is like the present study though the latter used interviews and participant observation as well. The two nevertheless, are not replications of the other which makes the present study have knowledge to fill the gap in the MFIA.

Some of the problems emanating from the study in Ghana were summarized by Alhassan as the absence of a structured training scheme for apprentices who were undergoing training in the informal sector. Prolonged training durations: some of the apprentices had been with their "masters" for over 5 years and still did not have an idea as to when to be passed out by their "masters". Some were still watching and observing after two years of apprenticeship instead of hands-on-the job. It was quite evident that no training manuals were used for references to grasp the full concepts of certain complex situations. It was obvious that many of these people had no support in terms of who provides for their financial needs. Some of them eventually abandoned the training midway, and some developed careless attitudes to the training activities. It is also worth noting that due to extraordinarily long durations some of the apprentices became fathers while on the training, hence saddling them with extra burden in their condition. These problems are not quite different from the ones identified at the Suame magazine in Kumasi, Ghana.

The present study was qualitative while the study in Ghana was quantitative type. The present study was an intrinsic case study while the one in Ghana was a cross-sectoral study. Further, the study populations are different in the two studies. The present study used OSY and artisans while the one in Ghana used the communities. These findings in the G**h**anaian study are critical to the present study. The difference in population, number of skills and context used make the present study relevant as it has a knowledge gap to fill.

2.7.4 Challenges of apprenticeship development in Nigeria

A study entitled "*Challenges of Apprenticeship Development and Youths Unemployment in Nigeria*" was done by Fajobi, Olatujoye, Amusa and Adedoy in 2017 in Nigeria. This study sought to understand the importance of apprenticeship training to the development of Nigeria, factors responsible for decline in apprenticeship development and career implication for youth engaging in apprenticeship. This arose from the background that apprenticeship was a solution to youth unemployment. Apprenticeship is a common trend in the world in which youth and adolescent are empowered in the country, the world changing realities of globalization, competitiveness and knowledge-based economy, strongly underscore the importance of training and skills acquisition among workers.

Many countries in the world benefitted from apprenticeship, especially from the youth training which mitigated the unemployment of the youth. Specifically, apprenticeship as a veritable vehicle which is one of the major functional prerequisites for employment generation and poverty reduction at low investment cost as well as improving the well-being of the individuals has not been adequately harnessed in tackling the unemployment curse among youths in Nigeria. Such skill acquisition training within the confines of apprenticeship would afford youths a means to be relevant along the line of a particular profession, such as fashion designing, furniture making and other related endeavors.

In the Fajobi et al. (2017) study, apprenticeship was the innovation that had been introduced and the study sought to establish problems that surround it. According to Ariyo (2001) in Fajobi et al. (2017), the informal economy is regarded as the powerhouse of developing economies of the world. Its importance is since it accounts for more than 80% of agricultural employment and 95% of new jobs in these countries, including a vast number of unemployed youths and young people that enter the labor market annually. As a form of education and training, informal apprenticeship contributes

significantly to youth employment and empowerment, thereby reducing youth restiveness, while ensuring productivity and better employment opportunities.

The outcome on the way apprenticeship was managed in Nigeria was shown in the study on the relevance of apprenticeship training to Nigeria. The findings also showed that skill acquisitions were introduced to the apprentices after three months to the workplace and it took the apprentices 2-3 years to grasp the basic knowledge of skill acquisition. Some of the challenges in the Fajobi et al. study were low incentives as the major reason for declining interest in apprenticeship development in Nigeria, but other reasons like non-implementation of self-employment policy by Government and interest in daily earning jobs and laziness also contributed to the decline in apprenticeship. It also showed that personal consideration about apprenticeship training was being determined by the economic situation in Nigeria. In tandem with the frequency summation, it was revealed from the interviews that daily incentives which most youth got from *okada* riding and social value that is attached to apprenticeship in the society were some of the reasons for the decline interest in apprenticeship development in Nigeria. This is in line with the findings of Anyadike et al. (2012) in Fajobi et al. (2017) that gone are the days when an expert auto-mechanic would have about three to five apprentices under his tutelage. He stated further that while many youths would sign up to learn a trade, a vast majority of them quit apprenticeship and opted for motorcycle taxi business to start making money while some who remain to learn the trade do not stay long enough to acquire the necessary skills.

The Fajoba et al. study and the present study are both relevant to the sphere of informal apprenticeship, as they both explore the challenges faced by apprentices and managers. This is important for the present study, as it also involves male and female respondents and can benefit from understanding the gender divide in apprenticeship experiences.

While the Fajoba et al. study provides valuable recommendations for addressing apprenticeship challenges, the present study is still necessary because it focuses on the MFIA on Katima Mulilo roadside in Garden Compound of Lusaka, Zambia which was not covered in the Nigerian study. This unique location will make the study contribute new knowledge to the field of informal apprenticeship in Lusaka, specifically in Garden Compound.

Furthermore, the two studies differ in terms of participants, location, methodology, and subject matter. This means that the present study will provide insights and findings that are specific to the

context of the MFIA in Garden Compound, which were not captured in the Nigerian study. Therefore, the present study will offer valuable information that can complement and expand upon the existing research on informal apprenticeship.

2.7.5 Challenges of subsistence farmers in conservation farming

A study by Moonga and Moonga (2018) entitled "*Challenges subsistence farmers of Chikupi in Kafue face in conservation farming*" was done to understand how the farmers in the area cope with the use of conservation farming methods to mitigate effects of climate change. It was a case study where farmers and agricultural officers responded to a questionnaire. The effects of climate change include severe droughts and flush floods in some cases. There were adverse conditions which inhibited good crop production, especially among subsistence farmers. The innovation of conservation agriculture has been used in many areas in Zambia, including Chikupi in Kafue district to mitigate the effects of climate change.

The study surveyed how the subsistence farmers of Chikupi managed the innovation of conservation agriculture and identified their problems there. Data was collected using a questionnaire and interviews with the farmers and Agricultural Extension Officers in a mixed study approach. The findings of the study revealed that most subsistence farmers of Chikupi had good knowledge of conservation farming disseminated by several organizations including the government. The findings also showed that the farmers had many challenges with conservation farming which include labor intensity of the practice, excessive cost of labor, demand for precision in doing conservation farming, social–economic dynamics and the traditional land tenure system (Moonga and Moonga, 2018).

The Moonga and Moonga study is relevant to the present one in that it sought to establish the problems farmers faced with the new agricultural practice of conservation farming. In the present study the objective on challenges sets out to discern the problems youths have with the MFIA on Katima Mulilo roadside in Garden Compound of Lusaka, Zambia. The mixed study approach used in the Chikupi study is different from the qualitative one, employing interview and participant observations used in the present study. The Chikupi study and the present one do not resemble each other as they vary in locations, methodology, subjects and participants. The study on Chikupi farmers was on conservation farming methods to mitigate climate change effects while the present study dealt with MFIA on Katima Mulilo roadside in Garden Compound of Lusaka to enhance youth

empowerment through the acquisition of metal fabrication skills. The Chikupi study was done in Kafue about fifty-five to sixty kilometers away from the site of the present study in a different district from Lusaka.The Chikupi study further shows that although the farmers had knowledge of the innovation introduced, they still had challenges of execution due to natural, cultural and administrative factors.

Apprenticeship is practiced in diverse contexts of cultural, economic and other social factors. Both studies are local in Zambia but different in subject, location and social cultural contexts. The present study, therefore, remains relevant and unique as it sought to bring new knowledge in the field of informal apprenticeship in the MFIA on Katima Mulilo roadside in Garden Compound of Lusaka, Zambia and not in conservation farming methods as its counterpart in Chikupi. The challenges covered in the reviewed studies do not include those in the MFIA on Katima Mulilo roadside. This is the gap the present study will fill.

2.8 Chapter Summary

This chapter reviewed literature on studies in apprenticeship, a complex concept in its diverse types of formal informal and traditional apprenticeship. The common findings of the reviewed studies show that issues of awareness, perception. Participation training process and challenges in informal apprenticeship are leveraged on the school system and other public media. Exposure has emerged as a companion of the school system and other information disseminators. Fundamentally, the present study has knowledge gaps to fill on youth involvement in the metal fabrication informal apprenticeship on Katima Mulilo roadside in Garden Compound of Lusaka, Zambia. All the studies reviewed highlight education as the best disseminator of information on apprenticeship. in its various forms and activities. Education is objective and carries information far and near.

2.9 Knowledge Gap

The literature review has shown that there is no known research specifically focusing on youth involvement in the MFIA on Katima Mulilo roadside in Garden Compound of Lusaka, Zambia. However, existing literature acknowledges the significance of this topic at global level, heralding the need to fill this knowledge gap on the MFIA on Katima Mulilo roadside in Garden Compound of Lusaka Zambia. Therefore, the significance of the present study lies in its potential to contribute new knowledge and understanding of the MFIA in Garden Compound and Lusaka Zambia.

It is evident that the reviewed studies are different from the present one in location, research methods, theoretical frameworks, participants, and subject matter. The knowledge gaps the present study will fill include youth involvement in the MFIA, youth awareness of the MFIA, youth perception of the MFIA youth participation in the MFIA youth training process in the MFIA and youth challenges in the MFIA on Katima Mulilo roadside in Garden Compound of Lusaka Zambia. The revealed studies did not cover these areas of study.

Further the revealed studies used different methods from the current study. As a result, the novelty of the current study, is that it brings new insights in MFIA on Katima Mulilo roadside in Garden Compound of Lusaka, Zambia using different methods and participants, situations and theories. The uniqueness of this study lies in its target population and the subject matter which are usually on the hind part of national policies. The knowledge drawn from the study will bring the location of the study to the fore and attract the attention of various groups contributing to youth empowerment, not only in Garden Compound of Lusaka Zambia but the entire globe. By filling these knowledge gaps, the study has the potential to provide the academia with valuable information and recommendations that can be applied to similar contexts globally. Meanwhile the information missing in metal fabrication on Katima Mulilo roadside in Garden Compound of Lusaka, Zambia will be filled by the findings of the present study.

CHAPTER THREE
STUDY METHODOLOGY

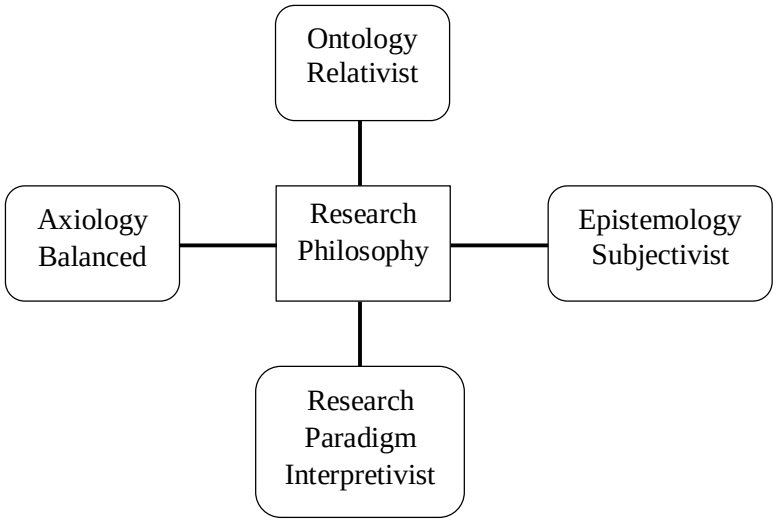
3.1 Overview

This chapter deals with the methodology used in the research. The study is an intrinsic case study employing a qualitative approach, as it seeks to understand the subjective experiences and perceptions of the youth in Garden Compound of Lusaka, Zambia. The study investigated youth involvement in the MFIA on Katima Mulilo roadside in Garden Compound of Lusaka Zambia. Youth awareness, perceptions, participation, training process and challenges were the specific elements of inquiry for comprehensive understanding of youth involvement there. The chapter explains the philosophy underpinning of the study, design, study approach, study site, target population, sample size, sampling procedure, research instruments, data collection methods and procedures, data analysis, ethical issues, and the trustworthiness of the study.

3.2 The Philosophical Paradigm

The current study was underpinned by the interpretivist paradigm. According to Kivunja and Kuyini, (2017), the assumptions of the interpretive paradigm are relativist ontology, subjectivist epistemology, naturalist methodology, and balanced axiology.

Figure: 3.1: Main aspects of the research philosophy



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3.2.1 Ontological Position

Ontology, as defined by Crott (2003, cited in Almed, 2008), is the study of being or the nature of reality and how reality is viewed. It interrogates the nature of existence and the structure of reality which differs according to perceptions. Almed further affirms that the ontology of the social world of meaning is varied. The world is inhabited by human beings who have their own thoughts, interpretations and meanings. The current study is situated in the relativist (or constructivist) ontological position. According to Chalmers, Manley and Wasserman (2005), this ontology assumes that there is no single reality, and, therefore, the researcher believes that the situation under study has multiple realities, and that those realities can be explored and meaning made of them or reconstructed through human interactions between the researcher and the subjects of the research, and among the research participants. In other words, the researcher recognizes that reality is not a singular, objective entity, but rather a complex and multifaceted concept that can be interpreted differently by different individuals and in different contexts. This understanding has important implications for qualitative research, such as the current one, as it acknowledges that there are multiple perspectives and interpretations of knowledge, and that different researchers embrace different realities, as do the individuals being studied and the readers of a qualitative study (Creswell,2013). Just as the definition of apprenticeship can vary depending on the emphasis and typology, this study understands that knowledge is understood differently depending on the location of practice and the circumstances surrounding it. This means that knowledge is not a fixed and universal concept, but rather a fluid and context-dependent one. The study leans of relativistic ontology undergirded by the interpretative nature of knowledge, according to human idiosyncrasies on the subject matter and contextual variations.

3.2.2 Epistemological Position

Epistemology focuses on the means that people use to acquire, construct and understand knowledge and how humans can differentiate between truth and falsehood. The current study was informed by the subjectivist (also known as interpretivist or constructivist) epistemology. Punch (2005) posits, using subjective epistemology, researchers make meaning of their data about reality through their own thinking and cognitive processing of data informed by their interactions with participants. Under subjectivism, there is the understanding that the researcher will construct

knowledge socially because of his or her subjective experiences of real life within the natural settings investigated. Hence, subjectivist epistemology undergirds the fact that meaning or knowledge is not there to be discovered but individually or socially constructed (Kivunja and Kuyini, 2017).

Subjectivist epistemology emphasizes the active role of individuals in constructing their own knowledge and understanding of the world. Therefore, as explained by Creswell (2013), a researcher needs to get as close as possible to the participants in the study to assemble evidence based on their individual views. With this understanding, the researcher in this study employed participant observation to get close to participants to elicit their views on the MFIA on Katima Mulilo roadside in Garden Compound. The data collected, being qualitative in nature, practically reflected what people knew about the MFIA through their actions and interactions. Conversations with them, through interviews, revealed their awareness, perceptions, participation, and the challenges experienced with the MFIA, which were important to this study. Such knowledge is subjective as the participants are made aware or gain knowledge of something and develop a negative or positive perception of it differently. Their views could have been influenced by their beliefs, values, experiences, and/or cultural background.

3.2.3 Methodological Assumptions

Research methodology has been defined as a structured and scientific approach used to collect, analyze, and interpret data to answer research questions or test hypotheses (Sreekumar, 2023). The methodological choice should result from the researcher's philosophical underpinnings and the investigated phenomenon. This is true because the researcher's philosophical perspective will influence how they view the world and how they think information can be gathered. Therefore, differences in philosophy can have a significant impact on the research methodology. In assuming a naturalistic methodology, the current study gathered data through semi-structured interviews, with the researcher acting as a participant observer. Data was generated while the participants were doing their daily chores at their workplaces. The researcher was aware that these methods do not generate absolute data but the data is subject to various interpretations depending on the context and other factors.

Premised on the constructivist (interpretivist) paradigm, the approach of the study was qualitative because it was premised on the constructivist paradigm. The data gathered was non-numerical and was only applicable to nominal data. The data was analyzed by identifying emerging themes from the contributions of the participants using the common occurring answers (Section 3.9).

3.2.4 Axiological Assumptions

Researchers can provide remarkable research by balancing and assessing their study's results without bias. Therefore, in the current study, the researcher ensured a balanced axiology. Such an axiology assumes that the outcome of the research reflects the values of the researcher, trying to present a balanced report of the findings and taking care of ethical issues. This was made possible by the researcher understanding self-values and considering them as portion of the research process. A balanced axiology was crucial for providing reliable research results.

3.3 Research Design

The present study employed a case study design which was chosen as it allows for an in-depth examination of a specific phenomenon within its real-life context. The study focused on the youth population in Garden Compound in Lusaka Zambia known for its high number of out-of-school youth who are often in search of opportunities to improve their livelihoods. A case study research design entails a description of a unit in context and holistically (Msabila and Nalaila, 2013). It is the study of the unique or instance (Prince, 2000 in Almed,2008). The MFIA on Katima Mulilo roadside in Garden Compound of Lusaka, Zambia and how the youth participate in it is the particular instance focused on this study. The case study method is a technique where an individual factor, whether it be an institution or just an episode in the life of an individual or group, is analyzed in its relationship to any other in the group (Kothari, 2012). This study should clearly show how the youth are involved through the identified elements of awareness, perception, participation, training process and challenges in the MFIA.

Cohen (2000) in Almed,2008) affirms that case studies provide unique examples or a particular instance. This befits a qualitative method as it includes reporting multiple perspectives, identifying the many factors involved in a situation, and sketching the larger picture that emerges and

interviews and participant observations are employed to strengthen it (Creswell, 2013). Creswell further, explains that case study research is a qualitative approach in which the investigator real-life, contemporary bounded system (a case) or multiple bounded systems (cases) over time, through detailed, in-depth data collection involving multiple sources of information. He agrees with and cites Yin (2009) that case study research involves the study of a case within a real-life, contemporary context or setting. Youth involvement in the MFIA on Katima Mulilo roadside in Garden Compound of Lusaka, the core of this study, is a real-life situation that should be clearly understood through the specs of the inquiry elements inherent in that real life context.

A case study design is an exhaustive study of a phenomena or object associated with studying one case in detail using whatever methods appropriate to develop a full understanding of that case as much as possible. It has identifiable boundaries at an early stage of the research (Silverman, 2010). In the present study, Katima Mulilo roadside in Garden Compound of Lusaka, Zambia is clearly delineated as the study site where apprenticeship in metal fabrication, the subject matter, takes place. Silverman identifies three types of case studies: intrinsic case study, where no attempt is made to generalize beyond the single case; instrumental case study, where a case is examined to promote insights into an issue or to revise a generalization, and collective case study where a number of case studies are involved.

The present study is an intrinsic case study design as it focuses on the case itself because it presents an unusual or unique situation (Creswell (2013). The present case study covers Garden Compound of Lusaka on Katima Mulilo roadside only with no intentions to generalize the findings. This is a specific geographical area within the city of Lusaka which makes the design and study a within-site type. Creswell further describes a case study as one of the approaches to qualitative inquiry together with narrative research, phenomenology, grounded theory, ethnography qualitative researchers use to describe such framework terms like constructivist, interpretivist, feminist, postmodernist, and so forth (p.42).

This study was undertaken to get insights into the apprenticeship taking place on Katima Mulilo roadside in Garden Compound of Lusaka, Zambia to understand youth involvement in the metal fabrication informal apprenticeship skill training taking place there. Several places including roads within the city of Lusaka might have metal fabrication works but the study focused only on this

MFIA on Katima Mulilo roadside in Garden Compound of Lusaka Zambia. Since the findings of the study cannot be generalized to other sites outside the study area, it qualifies to be an intrinsic case study (Silverman,2010).

Several scholars have conducted case studies on youth perception of apprenticeship pathways in different contexts. Ziwa (2007) studied the participation of girls in science and technical subjects at two national technical secondary schools in Zambia. Zangata et al. (2017) did a case study on university of Zambia medical students' awareness of the role of the physiotherapists in diagnosing of health problems at the University Teaching Hospital (UTH) in Zambia. Decker (2019) did a case study among ACCA students on parental and employer perception of apprenticeship in England. Moonga et al. (2021) examined a case study of the attitude of female final year Adult Education students at the University of Zambia towards skills training education. All these case studies focused on specific information in given locations for the purpose of in-depth understanding of the phenomenon without attempting to generalize the findings. Wenger and Lave (1991) did a study leading to their Situated Learning (SL) theory among specific participants in West Africa. The outcome became the basis for the Situated Learning theory, upon which this study is anchored. The present study, therefore, joins the many case studies that have been done on awareness, perception, participation, training process and challenges in general but is focusing on the MFIA on Katima Mulilo roadside in Garden Compound of Lusaka in particular.

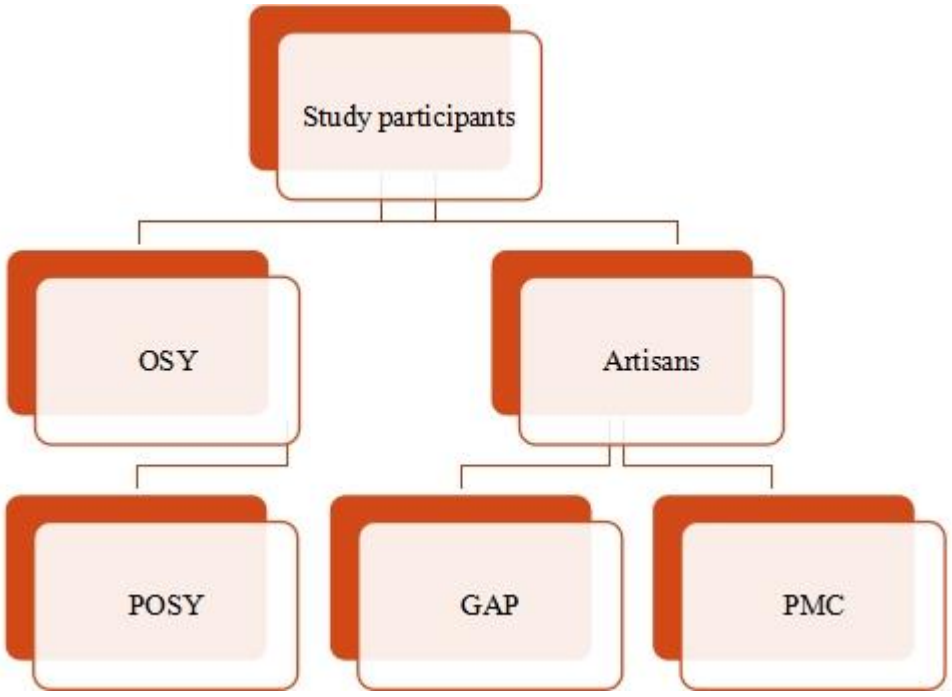
3.3.1 Target Population

A study population is a complete set of elements (persons or objects) that possess some common characteristics (Msabila and Nalaila, 2013). In this respect, the population of the present study comprised all the OSY and metal fabrication artisans in Garden Compound of Lusaka Zambia. According to the CSO (2012), 45,741 youths aged between 15 and 34 live in Garden Compound in Lusaka. This falls within the definition of a youth in Zambia to mean those aged between 15 and 35 by the Zambian National Youth Policy of 2015 (GRZ, 2016).

The present study has two groups of participants; out-of-school youth and artisans in metal fabrication; the providers/trainers and the journey men. These are well defined groups of individuals with a high degree of homogeneity (Msabila and Nalaila,2013). They meet the criteria by Polite and Hungler (2008) that a study population is a collection of cases that conform to the

designated criteria the study is drawn from. The criteria for the three categories of participants in the present study include out of school youths, Journey men and Provider or trainers in the MFIA on Katima Mulilo roadside in Garden Compound of Lusaka, Zambia. The total membership of a defined class of people, objects, or event (O'Leary, 2010). Figure 11 below shows the categories of participants in the study.

***Figure** 3.2:* Categories of participants in the study



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3.3.2 Sample Size

The study involved a total of thirty participants comprising 10 members from each of the three categories of participants namely, OSY, POSY and artisans divided into GAP and PMC. These groups are of acceptable sizes and qualify for qualitative research which in general, sample sizes should not be too large that it is difficult to extract thick, rich data. At the same time, the sample should not be too small that it is difficult to achieve data saturation theoretical saturation

(Onwuegbuzie and Leech,2007). Considering the activities on Katima Mulilo roadside, a representation of 10 members per category of participants was deemed adequate in view of the research instrument, the interview; employed and the nature of the study; exploratory. The four categories of participants were necessary to cover the major players in the MFIA on Katima Mulilo roadside in Garden Compound of Lusaka, Zambia.

Ten participants per category was considered an adequate number to reach the saturation point of each representative set of participants. This is consistent with Sarfo et al. (2021) that data saturation could be determined by the available number of participants in a target population and not necessarily the amount of information. In the present study, the number of PMC is most likely smaller than that of apprentices so 10 was taken as a good data saturation point. Sarfo et al. (2021) counsel that as low as six interviews may provide saturation in a population of 6 women with a particular lived experience. Thus, data saturation is not about the number per se but the depth of data. Essentially, data saturation is about the quality of data and not the quantity, although some rules of thumb for qualitative sample sizes suggest best practices for specific designs. In this respect, 10 participants for each group is deemed adequate for the present study.

The distribution and sample size of the study are shown in Table 4.1 below.

***Table** 3.1:* Categories and distribution of participants in the study.

Category of participants	**Number of Participants**	**Sampling technique used**
Participating out-of-school youths (POSY)	10	Random purposive and convenient
Graduate apprentices (GAP)	10	Random purposive and snowball
Providers, master trainers/craftsmen (PMC)	10	Random purposive and convenient
Grand total	**30**	

3.3.3 Sampling design and procedure

The participants were sampled differently in each category and stage. A random purposive sampling was chosen as it allowed for easy access to participants who were readily available and willing to participate while playing their natural roles. This method also ensured that participants were observed and interviewed in their natural work environments, providing a more authentic and realistic understanding of their experiences and perspectives. However, the random purposive sampling does not allow for generalization of finding (Nyimbili,2024). Convenient sampling was used to all the categories as the participants were found in their natural milieus. Only the GAP was sampled using the snowball technique as their locations were not known except through their friends and other acquaintances.

3.3.4 Sampling of Participants

All categories of participants POSY, GAP and PMC were initially sampled in two ways: purposive and convenient. This approach allowed for data from individuals who meet specific criteria and were likely to provide insights into the research questions. Purposive sampling was based on the belief that researchers' knowledge about the population can be used to hand-pick sample members. Convenient sampling, on the other hand, involves selecting participants based on their easy availability and accessibility to the researchers. This method is often used when time and resources are limited, and data needs to be gathered quickly and conveniently. While convenient sampling may not provide as representative a sample as purposive sampling, it can still offer valuable insights, especially in exploratory or preliminary studies.

The study was exploratory, hence the adoption of random purposive sampling. Purposive sampling is used when members who are judged to be typical of the population (i.e. meet the eligibility criteria) of participants in the study are needed. Further, Snowball sampling was used for the GAP participants who could not be easily accessible. Snowball sampling is a non-probability sampling technique where existing study participants recruit additional participants from their social network. It is often used when the target population is difficult to reach or when there is limited information about the population.

In the context of the GAP participants who were not easily accessible, snowball sampling was employed to expand the sample size and include individuals who may not have been initially identified or reached through other sampling methods. For example, the initial participants in the GAP were contacted through convenience sampling or purposive sampling, snowball sampling was used to reach those whose whereabouts was not easy to tell. They had just completed the training and were scattered in search of what to do after acquiring the meal fabrication skill. The process involved asking the initial participants to refer other potential participants to the study. These referred individuals were approached and recruited, and they, in turn, pointed to more participants, forming a chain or "snowball" effect. This method allowed for the inclusion of participants who may have similar characteristics or experiences as the initial participants, thus enhancing the diversity and representation of the sample. The inclusion and exclusion criteria was that one must be found working or identified to be a member of a work station. The workstations was required to have youths on apprenticeship.

Once the data was collected through purposive and convenient sampling, the next step was to analyze and process the information. Creswell (2013) suggests using coding as a method for organizing and making sense of data. Coding involves identifying patterns, themes, and categories within the data and assigning labels to them. This process helps in organizing the data and extracting meaningful information. The data from the participant observations was recorded and assigned to categories and themes.

3.3.5 Data generation Instruments and Methods

The data of the study was collected using two instruments; a semi-structured interview schedule and a participant observation guide (See appendix3 a, b and c) The semi structured interview schedule has two sections. Section A has pre-determined responses on the participants' bio data while section B had open ended questions with notes for emphasis and probing. The open-ended questions gave the participant the opportunity to explain the issues raised as much as possible. This is an effective method for providing reliable and comparable data with other or different participants even from different interviewers (Cohen, Marion and Morrison,2018). It is flexible and allows the researcher to explore the subject in dep. It allows for probing making the participants to share their views.

Meanwhile the participant observation guide is any notes or set of questions that the researcher list of items the researcher will concentrate on to observe or talk to the participants about during the data collection. It allows the researcher to immerse himself in the everyday lives of the participants. The researcher becomes a participant in the community noting details about the community behavior, interaction and cultural practices. The researcher observes the community for a reasonable time. The researcher participates in the activities of the participants sharing their experiences in a natural setting. The researcher can get a rich and contextualizes understand of the people or phenomena (see appendices 3 and 4). The two instruments were found suitable for the flexibility in a natural environment, They do not disturb the daily arrangement of work while data is collected. The natural interactions of the participants contribute to the data generation of the study.

3.3.6 Data collection procedure

These are the steps the researcher followed to gather raw data from the participants. Research instruments were prepared with the accompanying administrative ones for permission and recording. With the help of two assistants the researcher entered Garden Compound from the Eastern end and approached the participants at their workplaces. The assistants helped to distribute forms for bio data. They also collected the completed ones while the researcher operated the recording gadget and interviewed the participants. Probing was done where participants raised issues that need clarification in audibility and meaning. This took two days and later data cleaning was done ensuring all was audible. This was transcribed texts. Later data analysis was done.

3.3.7 Data Analysis

The data collected was analyzed using the thematic analysis (TA) framework (appendix 2). This was done in accordance with the six steps process by Braun and Clarke (2006, 2014 and 2018 in Michell and Varpio, 2020). Through the TA, several themes emerged and were ranked according to frequency of occurring. The six steps of thematic analysis (TA) include familiarizing with the data by getting to understand the data well. In this study the data was recorded, transcribed and read over several times for comprehension and analysis.

The second step was coding. This key step points to data organization and recognition at specific levels. At this stage, each inquiry point was analyzed and themes emerged in the form of factors that support or hinder its high occurrence. For example, kinship emerged as a theme under awareness, perception and participation. This is because it was identified by participants as a barrier to awareness, restricted perception only to kinfolks and a barrier to participation as well. It is the most basic segment, or element of the raw data or information that can be assessed in a meaningful way.

The third step involved examination of the coded and collated data extracts to look for potential themes of broader significance. After examining the responses, they were arranged according to the questions in the instrument. The key terms in the verbatim were identified and attached to an emerging theme. Similar responses were put under the identified sub theme. These were counted to determine the most frequently occurring and then ranked. The fourth step was to review the themes. This is a double check-stage where each theme evidently has sufficient support. At this stage, themes can be added, combined, divided, or even discarded. Michell and Varpio (2020) cite Braun and Clarke (2006) that the first level of analysis is complete when the researcher is confident that the revised thematic map adequately covers all the coded data to be included in the final analysis. The fifth step was defining and naming the themes. This entails selecting data extracts to be presented in the final report that illustrate key features of themes and to create narratives surrounding them that provide context to explain their importance to the broader story each theme tells (Braun and Clarke 2012) in Michell and Varpio,2020). Finally, the last and sixth step is to write the report. These steps were closely adhered to in the present study and the outcome are the themes that emerged. More links to the thematic areas were established as the data was further understood better. Braun and Clarke (2006) in Michell and Varpio (2020) call this process of qualitative data handling Thematic Analysis (TA). It is a method for analyzing qualitative data that entails searching across a data set to identify, analyze and report repeated patterns.

Thematic analysis involves systematically organizing and interpreting data to identify patterns, themes, and meanings within the data. It is a flexible method that can be applied to several types of data, including qualitative interviews, focus groups, surveys, and documents. In the process of thematic analysis, researchers engage in a process of coding, where they identify and label meaningful units of data. These codes are then grouped together to form themes, which represent

patterns or concepts that emerge from the data. The interpretation of these themes involves making sense of the underlying meanings and implications.

One of the strengths of thematic analysis is its flexibility. It can be used in various research paradigms or frameworks, such as phenomenology, grounded theory, or critical theory. It is also adaptable to different study questions, research designs, and sample sizes. This flexibility makes it a widely used and accessible method for researchers in various disciplines. Thematic analysis can be used as a standalone analytic method, providing rich and detailed descriptions of the data. It can also serve as a foundational method, providing a starting point for further analysis using other methods, such as quantitative analysis or discourse analysis.

Since the research design is a case study, the data analysis followed the case study interpretation pattern of detailed description of the case (Creswell,2013) and of the MFIA on Katima Mulilo roadside in Garden Compound of Lusaka, Zambia. The data analyzed provided answers to the inquiry areas of the study generated from the study questions. These are compared with findings in cited studies and the study theoretical framework of Situated Learning by Wenger and Lave (1991). This should bring out the youth involvement in the MFIA in Katima Mulilo roadside in Garden Compound of Lusaka, Zambia. These were arrived at by categorical aggregation analysis where the researcher sought a collection of instances from the data and the direct interpretation where researcher looks at a single instance and draws meaning from it without looking for multiple instances. Hoping that issue-relevant meanings would emerge (Creswell, 2013.

3.4 Study Site

This study was done in Lusaka on Katima Mulilo roadside in Garden Compound. Garden Compound is in Ngwerere Ward of Mandevu constituency in Lusaka district. It lies to the north of Lusaka city Central Business District (CBD), near the Lusaka Water Supply and Sanitation Company's sewerage stabilization ponds.

Garden Compound was originally an unplanned area which became recognized as a compound in 1999. The name 'Garden' originated from a farmland that belonged to Mrs. Emma Antonio, a Portuguese farmer, where vegetables and fruits were grown (Yasini,2007). Today, the compound is one of the largest settlements in Zambia's capital, Lusaka with between 40,000 and 60,000

inhabitants. The area is densely populated and has limited sanitation facilities. The residents here are extremely poor (Sililo, 2006) and are engaged in several activities to sustain themselves.

Garden Compound started as a workers' compound consisting of three areas, namely Garden, Muntonio and Mutengo (Big Tree). These areas were farmlands for Mrs. Antonio and another woman simply referred to as Mrs. Jeffrey. The name Garden became prominent when the government bus company; United Bus Company of Zambia (UBZ) started a route to this area and named the route Garden (Yasini ,2007)) The main road linking Garden Compound to the City of Lusaka then was Katima Mulilo (T3) which starts from the Great East Road (T4) roundabout between East Park and Arcades Shopping Malls and joins the Great North Road in Chaisa Compound area near Mt. Meru Filling station. This road is of bituminous standard and has become the centre of self-help activities in metal fabrication. Initially, Katima Mulilo was meant to divert north-bound heavy traffic from the Great East Road and Lusaka's CBD. Katima Mulilo roadside in Garden Compound is the focal point of the present study.

According to Yasini, most residents of Garden Compound are involved in informal activities: women are mainly involved in selling vegetables and groceries in markets and along the streets, or work as maids, washing clothes for money. Women may also work as shop keepers or prostitutes. Men, on the other hand, are involved in carpentry, bricklaying, plumbing, water vending, selling groceries, block making, renting out houses and welding. It is the welding activity involving OSY embedded in metal fabrication that attracted the researcher and is the centre of this study.

There are several artisans in Garden Compound doing metal fabrication on the roadside of Katima Mulilo. The area was selected for this study owing to the magnitude and history of the metal fabrication works there. This was the pioneer site for MFIA in Lusaka following the retrenchment of workers from public parastatal companies during privatization in the 1990s (Hansen, 2010). It is highly probable that the privatization of Lusaka Engineering Company (LENCO) and Monarch, two companies which engaged in metal fabrication in the light industrial area of the city, saw the development of the metal fabrication activities in Garden Compound owing to its proximity to the light industrial area of the city of Lusaka. The artisans and craftsmen retrenched from the two engineering firms engage the youth in the compound in on-the-job training some of whom learnt

the skills and knowledge from the master craftsmen and became self-reliant and opened their own stands along Katima Mulilo Road. The research baseline study showed that the practice has now grown to unprecedented levels where building materials like door and window frames, and many other steel products, are manufactured and supplied to customers within and outside Lusaka (in some cases even outside the country). However, not many youths are engaged compared to the number gushed out of the education system. It is this engagement of the youth in the hands-on production of goods and training that attracted investigation on youth involvement with MFIA in the current study.

Garden Compound was preferred for the study because it is where MFIA started in Lusaka. Further it has the biggest number of artisans doing metal fabrication in Lusaka and Lusaka. Most other places might not have provided the number of participants needed due to several limitations.

3.5 Ethical Issues

Ethical issues were considered throughout the study. Ethical considerations include protecting the rights and privacy of all research participants (Gravetter and Forzano, 2009) and maintaining confidentiality (Remler and Van Ryzin, 2011). Although the subject does not seem to be ethically contentious and sensitive, consideration of the same was made. In Zambia, many people are not comfortable to be associated with apprenticeship and street trading (*tuntemba*); the two are stigmatized. It could not be taken for granted that the understanding and perception of apprenticeship was positive in an environment where most people are white collar job oriented. The researcher was issued an Ethics clearance certificate number HRSREC. 2020.APRIL.003 (Appendix1). Many people, especially the youth in Zambia, might not have been exposed to apprenticeship training as such they might look down upon those involved in it. In this regard, the participants were met at their workplaces in the manner they meet their clients. They were advised to continue with their work as interviews were held with one of their members. In this way, the researcher was like, any other customer passing round seeking merchandise. The common community of practice jargon to address each other and exchange stories was adopted to make the respondents be at home. The researcher moved carefully not to alarm participants not close to the working place visited.

The researcher took precautions to ensure that all necessary permissions were obtained from relevant authorities both within and outside the university. This was done to prevent any issues of mistaken identity and to ensure cooperation from the respondents. The timing of the research coincided with the national general elections and the COVID-19 pandemic, making it even more crucial to obtain permission at all stages.

However, when it came to the MFIA on Katima Mulilo roadside, the researcher found that there was no leadership system from whom permission could be obtained. To proceed with the research, individual artisans and youths were approached. Fortunately, they were willing to participate, but they were not willing to sign or approve any documents for fear of unforeseeable consequences.

The location of the business also created conflicts with the law, as street vending is not allowed in Zambia. To address this concern, the participants were assured that their involvement in the study would not be seen as defying civic efforts to eliminate illegal businesses from the streets. They were guaranteed confidentiality and anonymity in the reporting of the research, emphasizing that the study was purely academic in nature.

Finally, and most importantly, each of the participants was required to give consent to their willingness to participate in the study as confidentiality and non-disclosure of names was guaranteed. However, all the respondents declined to commit themselves to signing documents as they feared business or political slipups. Nevertheless, participants were given the option to decline or withdraw from the interviews as they wished. The purpose of the study was explained in the preamble to every interview session.

3.6 Trustworthiness

Trustworthiness requires the researcher to establish credibility, transferability, confirmability and dependability of the findings of the study. According to Guba (1985) transferability is the confidence that can be placed in the truth of the research findings. Transferability refers to the extent to which the findings of a study can be applied or generalized to other settings or populations; establish whether research findings represent plausible information drawn from the participants and correctly interpreted. In this case, the study was conducted in a specific location, Katima Mulilo roadside in Garden Compound of Lusaka, Zambia. The researcher provided clear

information about the location and even produced a google map to authenticate it. This helps to establish the transferability of the findings, as other researchers or stakeholders can visit the site and replicate the study if necessary. The fact that the location is known to the community further enhances the transferability of the findings, as it suggests that similar conditions or experiences may be found in other similar settings.

Confirmability refers to the objectivity and neutrality of the research findings. In this study, the researcher clearly identified the participants and their location, providing a transparent account of the research process. By using a specific location and providing evidence of its existence, the researcher demonstrates the confirmability of the findings. This means that the findings are not biased or influenced by the researcher's personal beliefs or opinions.

Dependability refers to the consistency and stability of the research findings over time. In this study, the researcher provided clear information about the location and conducted the study in accordance with the requirements of qualitative research. By using a specific location that is known to the community, the researcher establishes the dependability of the findings. This suggests that the findings are dependable and can be replicated or verified by other researchers.

The study met the criteria for data worthiness in qualitative research by ensuring credibility, transferability, confirmability, and dependability. The use of a specific location known to the community, along with evidence such as a google map, helps to establish the trustworthiness of the findings.

Reliability is an essential standard of the qualitative research exactness (Mocănașu,2020). The present study employed open ended interview which can be repeated with participant observations by getting to the site and interview participants and make observations. The interview schedule, observation guide and details of the report back meeting are given in the appendix. For dependability, the research instrument was only confirmed after the pilot study. This means that the instrument was evaluated and improved upon. Silverman (2013) recommends that good research goes back to the subjects with tentative results and refines them in the light of the subjects.

3.7 Chapter summary

This chapter dealt with methodology of the study from the philosophical paradigm to ethical issues. The study was anchored on the interpretivist philosophy which recognizes that knowledge can be interpreted in different ways according to context. This is a relativist approach to knowledge as it is subjective depending on circumstances. The philosophical underpinnings of the study are the ontological and epistemological directions. These see knowledge in the lens of interpretivist approach. This philosophy and its attendant elements were suitable for this study because the data was not absolute knowledge. The data is situational and can be interpreted differently.

The chapter also dealt with research instruments namely, semi structured interview and participant observation. These deal with non-absolute data which is subjective due to various circumstances. The participants were in three categories and found at their workplace for the authenticity. Data was recorded, transcribed and analyzed using Thematic analysis which helped to bring out emerging sub themes. These were recorded and later analysed to determine their effects on the study findings.

CHAPTER FOUR
FINDINGS OF THE STUDY

4.1 Overview

This chapter presents the findings of the study on an exploration of youth involvement in the metal fabrication informal apprenticeship on Katima Mulilo roadside in Garden Compound of Lusaka, Zambia. The main question of the study was how the youth are apprenticed in the MFIA on Katima Mulilo roadside in Garden Compound of Lusaka. Zambia. with specific reference to awareness, perception, participation, training process and challenges in the MFIA. The data was generated through the interviews and participant observations done at the participants' workplaces on Katima Mulilo. Roadside in Garden Compound of Lusaka Zambia. The two tools were preferred because of their flexibility in probing and extending observations on issues raised or observed by the participants. The findings are presented according to the study objectives. The main question is supported by contributions of the objectives as shown in figure 5.1 below. The presentation will start with the results of the demographic characteristics of the participants.

4.2 Demographic characteristics of participants

Thirty participants comprising ten from each category; POSY, GAP and PMC took part in the study as trainees/employees, graduate apprentices (journeymen) workers in the informal sector or entrepreneurs in metal fabrication in the MFIA. In qualitative research, data refers to non-numerical information gathered from the interviews and participant observation exercises. The data reflects the issues that the participants experience and brought up or were gathered about them during the study.

The data for this section was gathered by the researcher using the interview from different localities of the MFIA in Garden Compound in the area between the Junction at Zambeef and the railway line near Emmasdale and Chaisa Compounds along Katima Mulilo road in Garden Compound of Lusaka Zambia. The part painted brown on the google map delineates the study area.

The data was interpreted and sub themes of the study emerged. For example, participants did not mention kinship as a sub theme but it was arrived at by interpreting the contributions made by the participants about the study and the specific objectives. Interpreting the results is consistent with

the philosophical paradigm of interpretivist the study adopted For example, the information raised by the participants on the youth awareness of the MFIA was interpreted and analyzed for sub themes. Through the interpretations to arrive at sub themes of the participants contribution the study fits into the philosophical paradigm. The interpretation of participant contributions is dependent on the contexts and other circumstances which makes the ontological and epistemological underpinnings of the study suitable. The researcher recorded the data below for the purpose of associating their contributions to their specific attributes.

Table 4.1 Demographic characteristics summary of participants in the MFIA in Garden Compound Lusaka Zambia.

Variable	**Values**	**POSY**	**GAP**	**PMC**
Age	15-20	02	00	00
	21-25	04	02	01
	26-30	02	05	02
	31-35	02	02	00
	36-40	00	01	02
	41- 45	00	00	04
	46-50	00	00	02
	Above 50	00	00	00
Total		**10**	**10**	**10**
Gender	Male	10	10	10
	Female	00	00	00
Total		**10**	**10**	**10**
Formal Education level				
	Non	0	0	1
	Primary	4	1	2
	Junior sec	2	3	2
	Senior Sec	4	5	5
	Tertiary	0	1	0
Total		**10**	**10**	**10**
Period of working in the MFIA	1 month-5year	4	3	6
	6- 10 years	1	4	2
	Above 10 years	5	3	2
Total		**10**	**10**	**10**

The findings of the study show that the age range for POSY was from 15 to 35, GAP 21 to 40 and PMC 21 to 45. A pattern shows that the age of the participants increased from the POSY to the PMC categories. This makes POSY the youngest category of participants followed by the GAP and the PMC the oldest. However, all the categories of participants had members in the official youth age in Zambia of 15 to 35 years (GRZ,2016) making the majority participants youth. Only the GAP and the PMC had members in the age ranges above 35 years. The age range of all the participants in the study was 17 to 45 with a median of 31years. All the participants were youths except seven who were above the 35years old upper limit of a youth in Zambia. In this regard the study had youthful participants. All the participants were male. This a shows gender disparity in favor of males.

The education status of the participants ranged from those without formal to tertiary education. Most participants had secondary school level education combining junior and senior (Grade 8 to 12). Only PMC and GAP had one without formal and one with tertiary level of education, respectively. POSY had the highest number of participants with primary education level while GAP and PMC had many members with secondary level education. Most participants were youths with low education level up to primary school level. A pattern has been noticed where the education level of the participants is dominantly above primary and extending to tertiary level education. Only one GAP had tertiary level education. The GAP and the POSY have a better education level than the PMC. This trend reflects the age of the participants insinuating that young participants are dropping out of school and MFIA has become an option for them.

The participants' period of involvement in the MFIA ranged from below one year to over ten years. The POSY category had one member with less than one-year period of involvement in MFIA. Three GAP members had over ten years of involvement in the MFIA while PMC had two. Most participants had been involved in the MFIA for periods ranging from six to over ten years. The average number of years of involvement in the MFIA is 10 years. A pattern has emerged where POSY spends more time in the MFIA than others. This reflects the education level of POSY which on average is inferior to that of the two older participants.

4.3 Study Findings

The findings from the interviews and the participant observations are presented together as they were integrated even in the manner of they were generated. The data for the main study is given

in appendices 2 and 2b. The youth views on issues raised in the interviews were and observations are summarized according to the questions answered. The questions are presented in the order they appear in the interview guide.

4.3.1 How is the youth awareness of the MFIA on Katima Mulilo roadside in Garden Compound of Lusaka Zambia.

The findings of the study revealed that not many youths were aware of the MFIA on Katima Mulilo roadside in Garden Compound of Lusaka Zambia. The findings show a pattern where most of the participants were exposed to the MFIA in three ways; by their relatives and friends, personal or individual inquiry and location of the MFIA on Katima Mulilo roadside in Garden Compound of Lusaka Zambia. These are the three ineffective methods of information dissemination as they depend on one-on-one communication. One POSY stated, *...Father brought me in this place (POSY 1.2020).* Two participants from two categories each stated…*Through personal inquiry (GPA10,2020). I came to know on my own almost three years ago (POSY10,2020).* A PMC participant stated, … *I recruit through personal inquiry by workers. They see us working along the road so they come to ask* (PMC 8, 2020). The inputs from participants from distinct categories were similar.

A situation where information circulates among relatives and friends only is known as kinship. It is a form of non-linear communication which depends on face-to-face exchange of knowledge. The awareness of the MFIA among the youth is through the kinship relationship. This mode of information dissemination is subjective and limited to members of the network. It leaves out those not affiliated by relationship or friendship. Like the personal or individual inquiry mode of information dissemination, location cannot be relied upon because the individual might not share his knowledge with other people.

There is no public institution like a school credited for the youth awareness of the MFIA on Katima Mulilo roadside in Garden Compound of Lusaka Zambia. The common channel of information flow through relatives and friends is kinship where information is shared on a personal basis. The kinship mode of information dissemination was dominantly used with very few using personal or individual inquiry and location.

Participants used a combination of channels. One participant stated, … *Through a friend. I was looking for a job (POSY 3, 2020).* Another POSY stated, … *A friend introduced me. It was my friend's father's workshop (POSY9, 2020).* This reveals the extent of using kinship as a method of information dissemination. It includes the extended family members, friends to participants and those of their relatives.

The study findings show that the youth also became aware of the MFIA due to its location; on the roadside of Katima Mulilo, a busy road within their locality. One PMC affirmed that some participants got attracted to join the MFIA after seeing the activities going on in the MFIA on Katima Mulilo roadside in Garden compound of Lusaka Zambia. The location of the MFIA on the roadside of Katima Mulilo, a busy road, played a significant role in raising awareness among the youth. The presence of the MFIA in their locality lured the youth and sparked their curiosity. Subsequently, not many youths were made aware of the MFIA on Katima Mulilo roadside in Garden Compound of Lusaka.

Some young people expressed their interest in joining the MFIA after witnessing the activities taking place there. This shows that the location of the MFIA led to the youth's awareness and created the desire to join the organization. This is like what one PMC stated, … *I recruit through personal inquiry by workers. They see us working along the road so they come to ask* (PMC 8, 2020). Another small number of participants became aware of the MFIA on Katima Mulilo roadside by combining personal inquiry with the location of the activities. One PMC stated that he recruits the youth by… *Personal inquiry by workers. There are so many people who come looking for work. We recruit those that are serious with work* (PMC7,2020).

A trend was noted where participants who were exposed to the MFIA were mostly male relatives and friends while fathers, brothers, father's friends, guardians and friends were the common agents in the creation of awareness to the few youths in the MFIA on Katima Mulilo roadside in Garden compound of Lusaka. The females are not informed or taken round hence they are not made aware of the MFIA on Katima Mulilo roadside.

The common reason or purpose for looking for the MFIA leading to their awareness was the desire to acquire metal fabrication skills which enabled the youth to get employment or become entrepreneurs. It also empowers the youth with a livelihood. One POSY state, … *I came with interest to know the job. I never paid any fees (POSY 1.2020).* One GAP participant stated, …

Through personal inquiry introduced by a friend (GPA3, 2020). A PMC resounded, … *Parents and guardians /recommend them. I only tell neighbors that I want men to help with work then I get more than I need* (PMC 10, 2020). Participants influenced by relatives and friends were significant in the youth awareness of the MFIA on Katima Mulilo in Garden compound of Lusaka, Zambia.

The MFIA located on Katima Mulilo road in Garden compound of Lusaka, Zambia is a public place exposed visitors and residents who pass by the area. This is one-way some participants became aware of the MFIA on Katima Mulilo in Garden Compound of Lusaka, Zambia. PMC 8(2020) acknowledges this fact. However, the most current way in which the participants got to know about the MFIA on Katima Mulilo roadside in Garden compound of Lusaka is kinship. Overtly, the youth awareness of the MFIA was kindled by the kinship, personal or individual inquiry and the location of the MFIA in an open and accessible place.

However, these modes of information dissemination have their limitations. Their closed nature means that information was held within a limited network of family members and friends, those around the MFIA and another small number of acquaintances. This restricted the outreach of the MFIA information to a small group of youths linked to kinship or has courage to adventure into searching around or within the vicinity of the MFIA on Katima Mulilo roadside in Garden Compound of Lusaka. Additionally, the size of the kinship network also plays a role in limiting the youth awareness of the MFIA. The smaller the kinship circuit, the less individuals would have access to the information. This further reduces the spread of information about the MFIA on Katima Mulilo in Garden Compound of Lusaka Zambia among the youth in the area.

The findings indicated that few youths were aware of the MFIA in Garden Compound of Lusaka was limited. The kinship mode of information dissemination, although effective within its closed network, had a limited capacity to reach a wider audience of youths in the area. The other side of it is that the majority youth in Garden compound of Lusaka lacked information about the MFIA hence they were not aware of it.

4.3.1.1 Kinship in MFIA on Katima Mulilo roadside in Garden Compound of Lusaka, Zambia.

A sub theme of kinship; the fact of being related in a family (Hornby, 2007) emerged from the data generated through interviews in the study. A pattern emerged that friends and relatives played a significant role in youth awareness of the MFIA on Katima Mulilo roadside in Garden compound of Lusaka Zambia. Participants indicated having known about the MFIA on Katima Mulilo roadside in Garden compound through a relative or friend. One POSY stated, … *A friend introduced me. It was my friend's father's workshop* (POSY9, 2020*).* This shows how rooted kinship practice is in this community. The trainers also acknowledged the impact of kinship when one PMC stated, *... I recruit using personal inquiry by trainees/workers and through their parents* (PMC6, 2020). This attests to the influence of kinship on youth awareness of the MFIA on Katima Mulilo roadside in Garden compound of Lusaka Zambia. Participants acknowledged kinship as the leading mode of information dissemination in the MFIA.

4.3.2 What is the youth Perception of the MFIA on Katima Mulilo roadside in Garden Compound of Lusaka?

The findings of the study show that the youth have a positive perception of MFIA on Katima Mulilo roadside in Garden compound of Lusaka Zambia. This means that the youth liked or were in favor of the MFIA on Katima Mulilo roadside in Garden Compound of Lusaka, Zambia. Earlier, the MFIA was identified as an apprenticeship where youths learn skills enabling them to acquire metal fabrication skills which enable them to find employment in the informal sector or become entrepreneurs.

The positive perception of the MFIA the youth have was overwhelming among the three categories of participants. One POSY stated, … *Good –gives one an income to buy essential goods, (POSY3, 2020).* One GAP indicated;… *we make a lot of money through metal fabrication (GPA 7, 2020)* and a PMC echoed,… *Good. It is relevant because those that were here sometime back have their own machines and are working. They have also employed others (PMC7, 2020).* The former trainees serve as models to new apprentices; most probably those who live nearby the MFIA or triggered by the location of the MFIA. Equally, those in kinship network would know former apprentices who also served as models since they are friends and relatives.

Most participants showed their positive perception of the MFIA on Katima Mulilo roadside in Garden Compound of Lusaka by their willingness to recommend the MFIA to people within the kinsfolk because of its intrinsic value. One participant stated, … *Good. Would recommend it to a friend because it is a source of income (GAP 1, 2020).* A pattern has developed where friends and relatives working in unison are inclined to recommend kinfolks to the MFIA. Their kinfolks already have knowledge of the MFIA through their predecessors and are influenced to have positive perception of the MFIA on Katima Mulilo roadside in Garden Compound of Lusaka Zambia.

The study findings reveal that the youth have positive perception of the MFIA because of the exposure they had on Katima Mulilo roadside and have known its value. This is shown by one POSY who describes the MFIA as, … *extremely good, it provides self-employment. One can easily put food on the table and afterwards support the family members* (POSY1,2020). A GAP in agreement with the POSY counterpart echoed, … *we make a lot of money through metal fabrication* (GPA 7, 2020). The trainers also averred with the trainees and the journey men and attached importance and relevance to the MFIA and one stated, … *The training is very important because it enables one to have a skill and survive instead of doing nothing,* (PMC9, 2020. Subsequently, several sub themes emerged from the youth perception question such as youth empowerment through skills acquisition, leading to employment and entrepreneurship.

4.3.2.1 Youth Empowerment

This is one of the emerging sub themes of youth perception of the MFIA on Katima Mulilo roadside in Garden Compound of Lusaka Zambia. It arose from the transcribed text of the views of the participants and observations through the discussions and other information sharing activities. The findings show that the MFIA on Katima Mulilo roadside in Garden Compound of Lusaka Zambia empowers young people in several ways. It supports the youth in their efforts to improve their livelihoods individually and collectively. The participants were unanimous that the MFIA on Katima Mulilo roadside in Garden Compound of Lusaka Zambia empowers them with the metal fabrication skill which enables them to be employed in the informal sector or become entrepreneurs. The youth are engaged in metal fabrication skills training or working in the MFIA on Katima Mulilo roadside of Garden compound of Lusaka Zambia. Some participants have employed others in the MFIA on Katima Mulilo roadside in Garden Compound of Lusaka Zambia

as PMC 7(2020) stated, … *Good. It is relevant because those that were here sometime back have their own machines and are working. They have also employed others*. These are the skills the youth are using in the MFIA on Katima Mulilo roadside in Garden compound of Lusaka Zambia to generate incomes for themselves and live sustainably.

One participant stated, … *I would recommend it to my brother because it empowers us, would recommend a friend to join because we make a lot of money through metal fabrication. We educate our children through metal fabrication (GPA6, 2020).* This shows that the benefits the youth get from the MFIA extend to their families at large. Further, he has indicated more benefits from the MFIA than just employment and entrepreneurship, …we *educate our children.*

The findings also reveal that youths acquire the metal fabrication skill from the MFIA on Katima Mulilo roadside in Garden compound of Lusaka Zambia and they use these skills within the locality. A pattern is noticed where most participants were trained in the MFIA on Katima Mulilo roadside in Garden compound of Lusaka Zambia and are employed in the informal sector or operate as entrepreneurs there. No reference is made to the benefits that accrue to the larger community or country in taxes or other statutory requirements. The benefits are mostly for the individual and the family which qualifies the activities to be informal. One GAP stated, … *I trained at the roadside informal workshops in Garden* (GAP 1,2020). This was echoed by a PMC who said, … *I trained here near the bank along this road from a friend* (PMC9, 2020). This implies that the demand for metal fabricators in the MFIA on Katima Mulilo roadside is high and absorbs those who train there. It can also mean that only a small number of the youth are trained in metal fabrication and are easily employed by the informal sector there or they become entrepreneurs with possibility of employing others .

A pattern is noted where most participants were trained on Katima Mulilo roadside and only very few, specifically one, trained outside but came to work in the MFIA. Only one participant mentioned having trained in metal fabrication elsewhere and came to work in Garden compound of Lusaka Zambia. Instead, people with other skills from outside come to train in metal fabrication in the MFIA on Katima Mulilo roadside in Garden compound of Lusaka Zambia and work there in the informal sector or became entrepreneurs.

The findings showed that some participants had other skills before they trained in the MFIA on Katima Mulilo roadside in Garden compound of Lusaka Zambia. These participants indicated that

the training in the MFIA on Katima Mulilo benefitted both pre-skilled (preservice) and those with other skills (in-service) youths. A pattern is noted where many artisans trained in metal fabrication in the MFIA on Katima Mulilo roadside in Garden Compound of Lusaka Zambia prior to being employed or starting an enterprise there.

A trend emerged where the MFIA is the 'holy waters' of Garden Compound which when touched or drunk, the partaker gets a job in the informal sector or becomes an entrepreneur. It is the hub of training in metal fabrication for artisans working in the informal sector on Katima Mulilo roadside in Garden Compound of Lusaka Zambia. The pre-skilled and those who had trained elsewhere in other skills come to Katima Mulilo roadside to train specifically in metal fabrication. This pattern is clear as most participants who trained in the MFIA are working there. The training in metal fabrication on Katima Mulilo roadside in Garden Compound of Lusaka Zambia empowers the youth for sustainable living.

A pattern also emerges that the metal fabrication skill acquired on Katima Mulilo roadside was a pre- requisite to youth empowerment in Garden Compound of Lusaka Zambia. The findings reveal specialization in the MFIA on Katima Mulilo roadside in Garden compound of Lusaka, Zambia as a training centre in metal fabrication. Other metal fabrication training institutions elsewhere; including formal ones seem to be inferior to the MFIA on Katima Mulilo roadside in Garden Compound of Lusaka Zambia. Youths who had trained from formal institutions come to MFIA on Katima Mulilo roadside in Garden Compound of Lusaka Zambia to train in metal fabrication prior to employment in the informal sector or starting their own enterprise. One PMC stated, … *Zithandizen. Skills centre in Garden and the other Kabwe trades did electrical engineering. In metal fabrication I trained in Garden along Katima Mulilo road* (PMC2,2020). Another PMC submitted, … *At SOS children's village but in metal fabrication I trained in Garden along Katima Mulilo road* (PMC3,2020). A trend has developed where metal fabrication is available only in the MFIA in Garden Compound of Lusaka, Zambia. To the effect that youths with other skills from elsewhere come to train in metal fabrication from the 'specialized metal fabrication institute' of MFIA on Katima Mulilo roadside in Garden Compound of Lusaka Zambia.

A trend has also emerged where the MFIA on Katima Mulilo roadside in Garden Compound of Lusaka Zambia has become a metal fabrication training and practicing centre. A pattern appeared that metal fabricators trained elsewhere come to work in Garden Compound of Lusaka, Zambia.

This shows that Garden compound of Lusaka Zambia is self-sufficient in metal fabrication skill acquisition, employment in informal sector and entrepreneurship.

The findings further showed that participants; at least one, had trained in metal fabrication elsewhere and was working in the MFIA on Katima Mulilo roadside in Garden Compound of Lusaka Zambia. This reveals a trend where MFIA functions both as a training centre and an employment hub for the youth in metal fabrication. A pattern has emerged where metal fabrication has become the main impetus for skills acquisition among the youth in Garden Compound of Lusaka Zambia. This completes the empowerment process for youths trained in metal fabrication but could not use the skill for self-sustenance in other places except in Garden Compound of Lusaka Zambia. This implies that there are more employment opportunities in metal fabrication in Garden Compound of Lusaka Zambia than elsewhere.

The findings also revealed that there was a person not trained in metal fabrication but involved in metal fabrication training and employment by hiring artisans to train the youth in the MFIA on Katima Mulilo roadside in Garden compound of Lusaka Zambia. This shows the importance of metal fabrication in skills development and acquisition among the youth in the area. A private individual attracted to invest in metal fabrication as a business exhibits the viability of informal apprenticeship as a business. This shows the possibility of involving individuals and organizations with resources to support youth empowerment in the value chain of metal fabrication. It also suggests an investment model in metal fabrication of using conveniently available cheap labor, the huge youth population in Garden Compound for prosperity. The involvement of non-practitioners of metal fabrication in the MFIA on Katima Mulilo roadside in Garden Compound of Lusaka Zambia can equally be an indicator of the positive perception of the MFIA other people have and their willingness to invest in youth empowerment ventures.

4.3.2.2 Kinship in perception

The sub theme of kinship emerged from the data generated through interviews in the study. Statements made by participants were interpreted to mean kinship. The study inquired on youth perception of the MFIA on Katima Mulilo roadside in Garden compound of Lusaka Zambia. The findings revealed that the youths had a positive perception of the MFIA on Katima Mulilo roadside

in Garden Compound of Lusaka Zambia. The contributions from the participants mentioned family members and or friends as people they would recommend joining the MFIA for obvious economic reasons. Such an attachment to the family and colleagues is kinship oriented. The economic benefits of the MFIA include, among others, employment in the informal sector and entrepreneurship.

The modes of information dissemination used in the kinship network to the exclude majority of the youths in Garden Compound of Lusaka Zambia. As a result, only the youths in the kinship network perceived the MFIA positively because they had experienced its value of empowerment and other benefits through their relatives and friends. They have a premonition of the value of the MFIA and therefore perceive it positively.

The positive perception of the MFIA on Katima Mulilo in Garden Compound of Lusaka Zambia shows that kinship and its networks play a crucial role in passing information about the MFIA mostly to its kinfolks. The sub theme of kinship climaxes the importance of socialization and networks in disseminating information and creating awareness among the youth. It suggests that family members and friends act as channels of information dissemination, leading to a large number of young people within the kinfolk becoming aware of the MFIA. One GAP stated,… *I would recommend it to my brother because it empowers us. I would recommend a friend to join because we make a lot of money through metal fabrication. We educate our children through metal fabrication*, (GPA6, 2020).

The findings show a trend that the participants' knowledge of the MFIA is circulating within the kinship (Family and friends). The kinship mode of information dissemination sufficed and they perceive MFIA through the kinship lens. They got the knowledge about the MFIA and joined their kinfolks keeping the message and perception within the network to the exclusion of majority youths not in the network. The rest of the youth remain ignorant about the MFIA due to lack of information about it.

A pattern appeared where all the participants could recommend the MFIA only to relatives and friends which limits youth involvement in the MFIA to the kinfolks. This makes the perception of the MFIA endemic to kinship network while the majority of those outside remain ignorant due to lack of information.

The contributions from the participants do not show the involvement of the school system in information dissemination about the MFIA on Katima Mulilo roadside in Garden Compound of Lusaka Zambia. No participant mentioned a school related source such as former classmates or career guidance or lesson. This shows that information about the MFIA is an internal matter to the kinship who already have contacts within the MFIA and have knowledge of its value through relatives and friends. This makes the overwhelming positive perception of the MFIA among participants in the kinship network. This shows the strength of the kinship sub theme in the youth perception of the MFIA on Katima Mulilo roadside in Garden Compound of Lusaka Zambia. The element of perception is engulfed in the kinship and prevents the flow of information to outside the network.

Further, the results of the study show that the kinship sub theme in apprenticeship goes beyond the MFIA in Katima Mulilo roadside in Garden Compound of Lusaka Zambia. One participant indicated having been trained in metal fabrication elsewhere by a friend. He stated,… *I did Job-On-Training in Eastern province at a friend's workshop,* (PMC 5, 2020). This insinuates that metal fabrication training is synonymous with kinship information dissemination regardless of location. Only kinfolks members see the' bloodline' of metal fabrication regardless of location. The results of the study show a strong enculturation of apprenticeship through the kinship concept from one generation to another using mentorship of the youth by the trainers and the journeymen. The youth in kinship network value relationships and keep information within the kinship circles. One participant stated,… *It is good I can recommend it to my brother. This brought about assistance* (GPA4, 2020).

4.4 How is youth Participation in the MFIA on Katima Mulilo roadside in Garden Compound of Lusaka, Zambia?

To participate is to take part in (Hornby 2007). The study question sought how the youth engaged in the MFIA on Katima Mulilo roadside in Garden Compound of Lusaka Zambia? Earlier, it was clarified that to be involved is to participate. This question is applicable to the main study question and the third objective. Youth involvement is manifest through participating which is manifested in many ways through parameters such as number (Quantity), age, gender, education levels (quality) and location where participants meet and the roles they play. The larger part of the findings on youth involvement in the MFIA as participant characteristics given earlier. This is

because participation is synonymous to involvement. The objective is concerned with participation as a subset of the overall youth involvement in the MFIA on Katima Mulilo roadside in Garden Compound of Lusaka Zambia.

The findings of the study showed that there were not many youths participating in the MFIA on Katima Mulilo roadside in Garden Compound of Lusaka Zambia. Most participants indicated an average of four youths per workplace engaged as employees or trainees. Some were fluid workers who served more than one expert and others were part-timers who only got engaged when there was more work for the trainer/employer. One POSY stated, … *Four youth 20-25 years old male only. Grade 5 and 7 dropouts* (POSY3,2020). The employers/trainers agreed with this and one PMC added, … *Yes, employees and trainees three to four males, primary level of education* (PMC9, 2020). A pattern has emerged where the respondents are certain about the number and gender of participants even when they doubt the other parameters such as age and education level.

The findings show that the age range of the youth participants in the MFIA on Katima Mulilo roadside in Garden compound of Lusaka, Zambia is within the official youth age of 15 to 35 years old. The responses from the participants revealed that the number of participating youths is small with varied age range and educational backgrounds; One participant stated, …*Two ,17 and 19 years both male, 19 years grades 8 and 17 grade 11* (POSY 1.2020). Several *y*ouths participated as mobile workers. These were not stationed at one point but went round doing piece works. One participant stated, … *Yes- piece workers are males. various education but more grade 9. These are mobile workers. Those who prove to be good we get their numbers and call them later* (PMC 8,2020).

The education level of participants was also low, ranging from no formal education to post-secondary with the majority being at the secondary school level. The participants indicated that the number of participating youths was small with varied age range, educational backgrounds and male gender only. One participant stated, … *Two ,17 and 19 years both male, 19 years grade 8 and 17 grade 11 (POSY 1.2020*). The employers: PMC supported this revelation and one stated; *Male only, different ages,15,16 and 18 and levels of education 5,7 and 10 school dropouts. Yes, five male employees* (PMC 10,2020). A pattern emerged where the participants work in small groups under a trainer. These groups were usually not bigger than four members per workplace.

4.4.1 Gender disparity in MFIA

The findings showed that only males participate in the MFIA on Katima Mulilo roadside in Garden Compound of Lusaka, Zambia. This brought out the sub theme of gender disparity. One GAP stated, … *Male only, females shun away from such training as it is for males only 19 and 15years different education levels* (GPA 7,2020). The sub theme of gender disparity is evident in the fact that all the participants in the MFIA on Katima Mulilo roadside in Garden Compound of Lusaka, Zambia were male. This implies that there is no female representation or participation in this skill or field.

The input of participants being male highlights a gender imbalance in this specific context. One respondent stated, … *All were males but I do not know their age and education background* (GPA9,2020*).* This raises questions about the reasons behind the under representation of women in this sector or the challenges female face in accessing such opportunities. The observation underscores the need for gender equality and the importance of promoting female participation and representation in various sectors, including places like the MFIA on Katima Mulilo roadside in Garden Compound of Lusaka Zambia. It highlights the ongoing challenge of achieving gender parity in certain fields and the need for efforts to address and rectify this disparity.

The aligning of metal fabrication to male participants cuts across the three categories of participants POSY, GAP and PMC. One respondent stated, … *Males, grade 9 and10 school leavers and drop out respectively (*POSY 3, 2020*).* Three other participants from two categories stated, … *Yes- piece workers are many males. various education but more grade 9. These are mobile workers. Those who prove to be good we get their numbers and call them late* (PMC 8, 2020). Another participant stated, … *All were males but I do not know their age and education background* (GPA9, 2020). Employers also stated, … *Male only, different ages, 15,16 and 18 and levels of education5,7 and 10 school dropouts. Yes, five male employees (*PMC 10, 2020).

4.4.2 Communities of practice

The participants emphasized the role of their supervisors in facilitating interactions within their respective groups. They narrated how their supervisors give them instructions, guidance, and feedback, which enable them to perform their tasks effectively. They also mentioned that reporting back to the supervisor after completing a task helps them receive further guidance and improve

their performance. It was further observed that employees /trainees wait for their trainers to arrive before they start working in the morning. The centrality of the trainer in the MFIA cannot be over emphasized. It was also observed that the employees /trainees ogo round finding customers to the trainer who does the negotiations and accepting the assignment.

Apart from intra-group interactions, the participants also highlight the significance of inter-group interactions. They mentioned that sharing tools among separate groups allows them to collaborate and work together on projects that require different skills and expertise. They also mentioned that negotiations with customers and purchasing raw materials from suppliers require interactions between diverse groups, which helps them to understand customer needs and ensuring the availability of necessary resources.

The participants acknowledged the role of the community of practice in their work and professional development. The interactions within and between groups help them acquire new knowledge, improve their skills, and foster collaboration and innovation. They recognized the value of these interactions and expressed their commitment to actively participate in the community of practice. One POSY stated*, … we relate very well although we argue sometimes but the most important thing is to concentrate on what you are doing (POSY 3,2020*). However, a trend emerged where participants work as individuals and not coordinated in groups or clusters. This revealed the absence of a governance system to galvanize them as a cluster or cooperative. The researcher also noted that there was no leadership hierarchy of power and control as each one worked as an individual. Expressions showing no leadership among the participants were common. Some of them were, …*You can approach anybody you want. There is no boss here. Each one is working independently (PO 1,2020).*

The participants explained why they work on Katima Mulilo roadside. They attach working on the roadside in Katima Mulilo to business. One of the reasons is access to the market. Being located on the roadside allows them to reach a considerable number of customers, as there is a constant flow of people using the road. One respondent stated, … *The roadside is the best because that is where people are found especially motorist customers (P*MC6,2020). Being situated in the Garden Compound of Lusaka, which is a busy area, guarantees a steady stream of customers. Participants did not mention any centralized control of business or general operations of the MFIA on Katima Mulilo roadside in Garden Compound of Lusaka Zambia.

Furthermore, the participants mentioned that the roadside provides them with ample space to display their products or services. This is particularly important for businesses that require a physical presence, such as artisans. The roadside allows them to set up their stalls or displays without the constraints of limited space. One participant stated**, …** *We work here because this is where we have space. Our business here is a bit good because it is a remarkably busy place. Easy access to those that want to buy our products* (PMC 8,2020). A trend emerged where all the participants want to have access to the road frontage thereby creating congestion.

4.5 What training process are the youth following in the MFIA?

The training process in the MFIA includes the work that youths do in the informal sector. The instructional guidance youths are given as they do their work in the MFIA is part of the training process because training and employment are integrated in apprenticeship. The findings of the study show that the youth follow the training process advocated for by Wenger and Lave (1991) in the Situated Learning theory. The thematic analysis of the data showed emerging themes related to this process.

The youth training process in the MFIA on Katima Mulilo roadside in Garden compound of Lusaka Zambia starts with recruitment and conditions of service for trainees. The terms and conditions under which the youth are engaged and the purpose or goal for getting involved was to acquire the metal fabrication skill for employment or self-reliance. The findings show that the youth are recruited into the MFIA as trainees or employees. Those recruited as trainees consider training before work and payment of wages. The trainees, in this respect, are expected to pay tuition fees while those recruited as workers are expected to be paid wages for the work they do.

However, the findings show that the youth in the MFIA are recruited as employees. They do not pay tuition fees, instead they are paid a stipend. This means that the employment part of the MFIA is dominant. All the participants are treated as employees, making it difficult to separate trainees from employees. The common answer most participants gave is, …*Oral contract only. Did not pay tuition fees but were paid wages* (GPA6,2020). One participant stated, *I came with interest to know the job. I never paid any fees* (POSY 1.2020*).* Similarly, one GAP participant stated, … *No contract at all. Did not pay tuition fees but paid wages* (GAP 2,2020). The trainers agree with both scenarios as well and one PMC stated, … *No contract. We just work and pay him when we make*

*money (*PMC9, 2020). This contribution by participants was triangulated among all the categories POSY, GAP and PMC making the finding unanimous.

The findings also revealed that the PMC considers trainees a source of cheap labor. One PMC stated, … *Cheap labor: easy to control, hardworking because they are still energetic. I get more youths when there are many orders/businesses from customers* (PMC7,2020). A pattern has emerged where the youth are taken advantage of by the trainers and employers. This shows that the learners might go to MFIA with the intention of learning the skill but the trainers use employment as a training avenue for cheap labor to enable them produce goods for sale and make profit. One participant stated, … *No contracts. Oral contracts. I only pay them money for work done. They are paid wages. They do not pay any fees instead we give them something* (PMC 4,2020). However, another participant indicated, otherwise, that the training motive was more important than the employment. He stated, … *Desire to empower the youth through skills acquisition. For me it is not about providing labor but to train them so that they can fend for themselves. When there are many orders from customers,'* PMC6,2020). The cheap labor intention is still clear even in a trainer with training as the main motive, such statement like *'when there are many orders'* point to the need for mass production quickly and cheaply.

The training process is done in stages that trainees pass. The findings show a pattern of progression from doing simple to complex tasks. One respondent stated, … *This training involves a lot of work. Two years and done in stages. painting. windows, cutting, grinding and finally welding. We make products like gates and tank stands* (GPA 7,2020*).* However, these stages differ according to contexts. The study findings revealed that there is no standard order and duration of stages followed in work. One GAP participant gave this pattern of training stages, … *Start with painting for three months to welding. One learns cutting and finally measurement* (GPA9,2020). This is at variance with one trainer; PMC who stated, … For *me I started as a helper, I was refused to work the way I wanted. This motivated me to open this stand here. The first item I made was a stool. Then I learnt how to paint and I started to use the grinder but my employer was not happy because I never knew how much to charge for a job. He was the one buying the material. Yes. Yes, because one can cut things without measuring properly. A little theory is given to those that are helping. the theory part also helps us to have clear measurements* (PMC 8,2020). This is given at the workplace and not in the classroom.

The *One year. The first two months painting and finally cutting and welding (GPA4,2020*). This was justified by the trainers as expressed by a PMC participant; *It is not difficult others are adaptive people. First one must learn how to paint before he is given what to cut or join (PMC7,2020*). The common expressions in this section include terms like contract, no contract, paid wages, cheap labor, measurement, painting, grind all common in the employment activities and totally overshadowing the training aspect.

4.5.1 Recruitment

The findings show that the youth were recruited into the MFIA on Katima Mulilo in a variety of ways. Youth were recruited into the MFIA through family connections(kinship), where existing members of the organization would approach their relatives and encourage them to join. This kinship mode of recruitment relied on trust and familiarity, as family members were more likely to be receptive to the idea of joining the organization.

Existing members of the MFIA would approach their friends and acquaintances, explaining the goals and objectives of the organization and inviting them to join. This mode of recruitment relied on personal relationships and the influence of peers in convincing young people to become part of the MFIA. The recruitment used the kinship mode of information dissemination despite varied terms and conditions. Recruitment emerged as a sub theme in the thematic analysis. One respondent stated, …*Yes, five male employees. oral contracts. Two are employed on contract, three are painters who are paid as soon as they do the job given to them. One is my relative so I called him to come and join me here from the village. The other four just came looking for work. They come because they want money to support their families. We have two who are on contract. They have been very good. We renew the contract every three months verbally but if they feel like going because we are not treating them well they go before 'the next contract (PMC7, 2020).*

Trainees were recruited by kinship influence while others used personal inquiry and the close location of the MFIA from the homes. One POSY participant stated, *Father brought me in this place, (POSY 1.2020*). This is consistent with one PMC participant who stated, *They are brought/recommended by parents and guardians. I only tell neighbors that I want some men to help with work then I get more than I need (PMC 10, 2020).* The kinship mode of information dissemination was dominant. This worked well as recruits saw how affluent their friends or relatives had become through working in the MFIA.

4.5.2 Regulatory Authority

This is another sub theme that emerged from the thematic analysis under the training process. The sub theme arose from the interview question which wanted participants to indicate their knowledge of a regulatory body in the MFIA on Katima Mulilo roadside in Garden Compound of Lusaka Zambia. The question sought whether the national regulatory body for TVET was working with them in the MFIA. The findings of the study show that the MFIA on Katima Mulilo roadside in Garden compound of Lusaka has no regulatory authority. The regulatory authority on skills training in Zambia is the Technical Education Vocational Entrepreneurship Training Authority (TEVETA). Participants expressed ignorance of TEVETA and its work. The study established that TEVETA plays no role in the MFIA on Katima Mulilo roadside in Garden Compound of Lusaka. One trainer expressed ignorance and stated, … *I do not know what TEVETA is and I have nothing to do with it (PMC8,2020).*

The findings suggest that TEVETA needs to increase its visibility and engagement with training providers to ensure compliance with standards and regulations. This could involve raising awareness about TEVETA's role and responsibilities among training providers and participants, as well as implementing mechanisms for monitoring and enforcement. One POSY respondent stated, … *We were visited by TEVETA during the Job-on-training activities. Did not do a trade test* (POSY 3, 2020). This is at variance with what the trainers knew. One PMC participant stated, *… Ninamvelapo coma siniziba vilivonse. TEVETA- Aaaaa. TEVETA. Niganizapo (I hear but I know nothing, TEVETA aaa. I am just thinking). No, we can't, taking people to school even us we have no money to go for further training. We just want to grow our business so that one day we can split when we have all the machines,* (PMC7, 2020). The pattern identified is the supremacy of the trainer/employer who is the ultimate in the training process. The participants were generally not aware of the work of TEVETA in the MFIA on Katima Mulilo in Garden Compound of Lusaka Zambia.

4.6 Youth Challenges in the MFIA

The findings revealed that participants meet challenges in the MFIA on Katima Mulilo roadside in Garden Compound of Lusaka, Zambia. Challenges are obstacles one meets in business. The youth indicated that they have challenges training or work in the MFIA on Katima Mulilo roadside

in Garden Compound of Lusaka Zambia. These are manifest in many ways and some of these were brought in their contribution to the interviews or participant observations. The thematic analysis of the contributions from the participants point of view brought up several subthemes. All the participants in the MFIA indicated that they faced problems in the MFIA on Katima Mulilo in Garden Compound of depicting how the trainers /employers relate with youth and the lack of business skills by the trainers.

The participants also meet problems of services and provisions. One stated, … *Too much load shedding. This can easily damage our machines. We need support in our work to improve standards* (POSY 1.2020). This was echoed by one GAP who stated, … *Yes- Load shedding. Working along the road is sometimes risky. Accident may occur like road traffic Accidents. I enjoy doing metal fabrication GPA6,2020*).

The trainers acknowledged challenges encountered by the POSY as well. One PMC participant stated, … *A lot of competition. So, I only have two young people. Sometimes beer drinking. Capital in terms of money is lacking. Machines are lacking so even helping the youths is not easy. Problems are many especially the stealing of tools by youths who come to do Job-On-Training with us. The other problem is load-shedding. We do not work at the pace we ought to do (PMC 2,2020).* A GAP participant revealed problems in business and stated*, … The price of metals has kept on increasing hence making a challenge also safety must be considered if not can be hazardous metal fabrication is good because it makes one earn a living (GAP 1,2020).*

The respondents indicated other problems affecting their work in the MFIA. One PMC participant stated, … *There are some people who are not easy to teach so we look at the work done (PMC 8,2020).* The POSY look ahead after training and stated*, … Problems, I want to register own company but no time. We need land to operate from. There is no land and Load shedding (POSY 3,2020).*

Participants were ready to train the youth but they lacked resources and called upon stake holders(government) for assistance. They also appreciated the training of the youth as a positive action. These participants expressed their appreciation for any efforts made towards the training of the youth. They recognize that training the youth was a positive action that could lead to various positive outcomes, such as reducing unemployment rates, improving social cohesion, and fostering economic growth. One participant stated, … *This business is good all we need is help from*

government especially loans. We are ready to train many youths if they can help us. It is issues of lack of tools and working space is small and load shedding (PMC 4,2020). No challenge was associated with the role the school was playing in their work. This puts the school completely out of their picture in the MFIA.

4.7 Other Challenges

The participant observations triangulated the participants' revelations in the MFIA on Katima Mulilo roadside in Garden Compound of Lusaka, Zambia. The challenges noted include lack of governance system, intermitted supply of power, health, and sanitation. The participant observation findings emanated from the visits the researcher made to the research site. The researcher collaborated with the participants incognito as a customer and sometimes as a friend in the area. The observations were recorded each time the researcher visited the premises. Out of which were noted only very few were highlighted. In terms of governance or administration, the researcher observed a lack of management of the MFIA at the time of entering the area for research as he had no one from which to get permission. There is no overall authority or system in place to oversee the day-to-day operations of the site. One participant stated, … *There is no leader here. We do not have a leader. Each one of us is alone. Just talk to the members as individuals (PO, 1, 2020).* This lack of governance creates issues such as uncoordinated pricing of raw material, unregulated vending, and potential conflicts among the artisans. Unlike the participants in the semi-structured interviews, those in the participant observers were numbered according to statements made.

The study revealed that there was poor supply of electricity at the MHIA on Katima Mulilo roadside in Garden Compound of Lusaka, Zambia. The poor power supply of electricity was attributed to the load shedding exercise that was done to save power by the power supplying company in Zambia; The Zambia Electricity Supply Company (ZESCO). One participant stated, … *Electricity is a big problem here. Load shedding and tapping from people's homes is not sustainable (PO2,2020).* This lack of reliable power supply affected the operations in the MFIA on Katima Mulilo roadside as most equipment used are electricity driven. The participant observation activity concentrated on the governance or administration of the site, power supply and management, Health and safety, Business operation system and economic value of the MFIA. The full list of observed areas in appendix. 4.

4.7.1 Governance of the MFIA

The researcher observations study revealed that the MFIA on Katima Mulilo roadside has no governance or administrative system. The participants in the area were a collection of interested individuals doing their own work independently in one place. One artisan stated, … You *can approach anybody here. There is no chairperson or committee in charge (*PO,3,2020). Without formal organization, the artisans operate independently and do not have a unified voice or operational cluster. They do not have a platform to address common issues or concerns, such as access to resources, training, or marketing of goods. This lack of organization also limits their ability to collaborate, share knowledge, or learn from each other's experiences. It limits business transactions as each works for his family only in a hand to mouth situation which perpetuates poverty.

The landlords from whom power is drawn on the other hand, holds a significant and special position of authority in the operations of these artisans. They control access to the necessary resources, such as electricity or road frontage, which are crucial for the artisans' work. The artisans are dependent on the landlord's goodwill and cooperation to continue their operations. In some cases, the artisans form small informal partnerships with family members or close friends just to survive the difficult environment.

Partnerships are based on shared tools and premises, but each person still works independently. This arrangement might allow the participants to save on costs and share resources, but it does not create a formal organization or structure to galvanize them into a formidable industrial cluster or cooperative. For example, the two brothers were working together temporarily to enable them to make money for independent operations later. Their goal was to accumulate enough tools and space to eventually separate and work individually. One stated, … *Ninamvelapo coma siniziba vilivonse. TEVETA- Aaaaa. TEVETA. Niganizapo (I hear but I know nothing, TEVETA aaa. I am just thinking). No, we can't, take people to school even us we have no money to go for further training. We just want to grow our business so that one day we can split when we have all the machines* (PMC7, 2020). There is no spirit of cooperation in this submission.

4.7.2. Supply of Electricity

The researcher observed like was explained by the participants that there was no independent power supply to the MFIA and the participants relied on the nearby houses for electricity. This posed inconsistence in production and safety hazards. The household supply points were not designed for heavy duty power usage, which could lead to electric hazards such as overheating or short circuits due to overload. Furthermore, the practice of drawing electricity from nearby houses at a fee is illegal and unethical. It does not only put a burden on the households supplying the electricity, but it also contributes to power outages in the area. These power outages disrupt the daily lives of people and cause inconvenience and frustration. One participant stated, *Electricity is a problem here. Sometimes only one section of the road has power and we lose out on business (PO,4 2020)*.

The landlords, on the other hand, benefit financially from this illegal act. By allowing multiple artisans to draw power from their home, landlords generate substantial income. However, this income comes at the expense of the safety and well-being of the community. The artisans do not use commercial welding equipment, instead they make their own which draw excess power. These machines capacities are not synchronized by experts from the power supply company ZESCO or their representatives. There is heavy un illegal use of power especially during peak periods when the artisans have customers. Sometimes poorly insulated cables are drawn across working spaces to service users at the other end of the space.

***Figure** 4.1:* A self- made welding machine.

This is not safe as most participants do not wear personal protective equipment (PPE) during their operations. When one participant asked about PPE stated, … *Just like this 'old man'. We are used (PO 5,2020).*

4.7.3 Working environment.

The study discovered that apprenticeship on Katima Mulilo roadside has poor working environment for the artisans. The spaces are small and are allocated haphazardly in an by the landlords whose main concern is income generation from the illegal electricity connections and not the convenience and safety of the users. Each landlord maximizes the income from electricity connections by taking as many artisans as possible to tap from their domestic power supply. The small spaces between the road and the houses are not enough for many artisans engaged in welding and other metal works. This sometimes leads to two or three groups working in the same space in shifts (turns). Those who secure customers early are mostly likely to work in the space first. This slows down the work of the groups as customers are not always easy to find and causes tension among individual artisans. Such findings could only be picked from the participant observations as the research interview schedule might have not anticipated it. It also leads to dishonesty by some artisans in the conduct of the business.

Figure*4.2* Limited working space on the ground.

Sometimes this leads to the migration of artisans to new sites along Katima Mulilo roadside or even other roadside sites in the city. One participant commented, … *some welders not being faithful as a result customer are now running away from here and going elsewhere to buy the products (PMC 8, 2020).* This can be mitigated by a good governance system.

4.7.4 Safety and Health

The lack of safety and health measures in the MFIA on Katima Mulilo roadside in Garden Compound of Lusaka is worrisome. The area is not suitable for this type of business due to its lack of amenities and designated spaces for such activities. Artisans and their workers/trainees have no toilets to use, sometimes relying on arrangements with landlords to use household facilities. This creates insecurity for the landlords as well as artisans. However, most many are left with no option but to find corners to urinate. This lack of proper sanitation facilities poses health risks to the workers and the public. This is in addition to the risk of working on a busy road. The picture blow shows how participants navigate their way on the busy road of Katim Mulilo.

***Figure** 4.3*: Working on the roadside of Katima Mulilo

One participant stated, … *they should give us land so that we construct our own structures with proper amenities. Cholera is always a threat here in the rainy season (PO 6,2020).* The workplaces are very close to the road with heavy traffic.

Furthermore, the presence of illegal beer outlets in the area exposes the artisans and trainees to alcohol consumption while operating dangerous machinery like grinders. This creates an unsafe working environment and increases the risk of accidents and injuries. The unfavorable atmosphere in this informal apprenticeship setting also discourage female participation. The lack of proper facilities and the presence of illegal beer outlets may contribute to a hostile and unwelcoming environment for females.

4.7.5 Business transactions

This lack of capital and coordination creates numerous challenges for the artisans and their workers. They start the day without capital to purchase raw materials to manufacture items. This means that the customer must provide all the materials, including consumables like welding rods and cutting discs. This reliance on customers for materials leads to delays and inefficiency in production causing loss of customers. Additionally, the artisans only own and bring their own

grinder and welding machine to work. This lack of equipment limits the production range and levels. One participant lamented, … *today we have no customers and we shall have no income for survival (PO,72020).* At times lay by system is used where customers pay slowly until they complete. In this respect, the manufactured goods remain with the artisans and this creates congestion in the small space.

Figure*4.4:* Uncollected products.

Furthermore, the business operates on a hand-to-mouth basis, with no capital injection for continuous operations. This means that the artisans are constantly struggling to make ends meet and may not have the resources to invest in necessary equipment or expand their operations. The absence of a coordinating committee poses challenges of lack of trust or collateral to put against goods produced. This worsened by each artisan works as an individual, without a clear overview of the workload and production schedule. This leads to confusion, delays, and a lack of coordination among the artisans hence the noise associated with the MFIA on Katima Mulilo as artisans call customers to visit their stands.

Moreover, the artisans are responsible for quoting prices for small but critical components in the production chain. This frustrates customers as it takes time to get the goods produced and sometimes their quotations may be exaggerated, resulting in loss of business. The lack of

standardized pricing may also create inconsistencies and confusion among customers who might abandon patronizing the area.

Lastly, the artisans spend a huge portion of their day searching for customers and purchasing materials. This does not only waste valuable time but also adds to costs and logistical challenges to their operations. The lack of a serious steel outlet in the area has hindered the artisans from purchasing steel at competitive prices. Instead, they are forced to rely on suppliers who, most of them were once artisans themselves but have now become intermediaries in the wholesale trading of steel. These suppliers often take advantage of their position, exploiting the artisans by charging higher prices.

This sometimes leads to an accumulation of uncollected products as the customer has not paid for them in full. This exploitative tendency creates a vicious cycle of poverty among the youth. They are unable to invest in their businesses or improve their skills due to the prohibitive cost of materials. As a result, their work pace is affected, and they are unable to receive proper training and support from the MFIA on Katima Mulilo roadside in Garden Compound of Lusaka, Zambia.

4.8 Chapter Summary on the findings

The findings of the study show that many youths in garden Compound of Lusaka Zambia are not aware of the MFIA on Katima Mulilo roadside. Other results reveal that the youth perception of the MFIA is positive followed by not many youths participating in the MFIA on Katima Mulilo roadside in Garden Compound of Lusaka, Zambia. The training pattern starts with recruitment and through stage-by-stage learning until a masterly of the metal fabrication skill superintended by the trainer. The youth face many challenges in the MFIA and they need support in the marketing of the products.

The few youths with awareness of the MFIA on Katima Mulilo in Garden Compound of Lusaka, Zambia did this through the kinship and other subjective modes of information dissemination. These are the same few upon which the positive perception of the MFIA is drawn from. This is confined to the network of kinsfolk which excludes majority youth in Garden Compound of Lusaka Zambia. The few youths who participate in the MFIA participation have gender disparity in favor of males with varied age and education levels. The learning process youths follow in the

MFIA is advocated for by SL theory by Wenger and Lave (1991). Youths are recruited in several ways with different terms and conditions. The learning process of the youths following the MFIA is not uniform even for people on the same bench as they respond to the learner and trainer needs.

Youths face numerous problems emanating from the manner of training and work in the MFIA. Most challenges are employment oriented because the training is integrated in the informal employment of the youth. The common problems include the supply of electricity supply and the effects of loadshedding, customer relations and inadequate working space to name but a few.

The character and behavior of trainees and artisans add to the challenges the youth face in the MFIA on Katima Mulilo roadside in Garden Compound of Lusaka. Of significance is the role of kinship which bottles up everything. In Conclusion, only very few youths are involved youth involved in the MFIA on Katima Mulilo roadside in Garden Compound of Lusaka attributed to the ineffective modes of information dissemination.

The findings of the study are consistent with the philosophical paradigm of the study. Most of the findings depend on the interpretation one gives. They are subjective as they depend on individual idiosyncrasies. This also suits the philosophical underpinning of the ontology and epistemology dispensation which look at knowledge as varied according to situations. The training process respond to the constructivist approach of learning which allows the learner to discover knowledge under the guidance of the trainer. The situated learning theory of Wenger and Lave is appropriate for the study as seen in the immigration of learners into garden Compound of Lusaka Zambi. The study in this respect satisfied the Philosophical and theoretical conditions.

Finally, the study has shown that the youth are apprenticed in many ways in the MFIA on Katima Mulilo roadside in Garden Compound of Lusaka. Each workplace manages the youth in the manner the trainers prefer. A summary of the findings can be summarized.

Not many youths are involved in the MFIA on Katima Mulilo roadside in Garden Compound of Lusaka Zambia. The study also found that not many youths of Garden Compound of Lusaka are aware of the MFIA on Katima Mulilo roadside. However, the study found that most of the youth perceive the MFIA on Katima Mulilo roadside in Garden Compound positively. Although youth participation in the MFIA on Katima Mulilo roadside in Garden Compound of Lusaka Zambia is in different forms and gender disparity for male only.The training process youths follow in the

MFIA on Katima Mulilo roadside in Garden Compound of Lusaka Zambia is similar with the SL theory. Youths in the MFIA on Katima Mulilo roadside in Garden Compound of Lusaka Zambia face numerous challenges in the MFIA. Some of the challenges the youth face in the MFIA include challenges in marketing their produce in the MFIA on Katima Mulilo roadside in Garden Compound of Lusaka Zambia. Finally, it was found that the education system is not used to disseminate information about the MFIA on Katima Mulio roadside in Garden Compound of Lusaka Zambia.

CHAPTER FIVE
DISCUSSION OF FINDINGS

5.1 Overview

There are few youths involved in the MFIA on Katima Mulilo roadside in Garden compound of Lusaka Zambia This chapter discusses these findings of the study: An exploration of youth involvement in the MFIA on Katima Mulilo roadside in Garden Compound of Lusaka, Zambia. The question of how the youths are apprenticed in the MFIA is cardinal to this discussion. The discussion of the findings is guided by the principal research question supported by specific objectives. Data generated using semi-structured interviews and the participant observations was analyzed using the Thematic Analysis (TA) framework.

The findings of the study revealed that not many youths participate in the MFIA due to a range of factors including lack of information. The kinship mode of information dissemination was identified the cause of this situation. Others are individual/personal inquiry and location of the MFIA. Other findings are that youth awareness of the MFIA on Katima Mulilo roadside is little in Garden Compound of Lusaka Zambia. Meanwhile the youth perception of the MFIA is positive. Youth participation in the MFIA is insignificant. The youth follow a training process consistent with the SL theory by Lave and Wenger (1991). Finally, youth face numerous challenges in the MFIA which are like those found in other parts of the globe.

This discussion synthesizes the findings, reviewed literature, the study philosophy and the theoretical framework in order to answer the main study question. The discussion will be guided by research questions.

5.2 Youth awareness of the MFIA on Katima Mulilo roadside in Garden Compound of Lusaka Zambia.

The findings of the study revealed that youth awareness of the MFIA on Katima Mulilo roadside in Garden Compound of Lusaka, Zambia is petite due to the subjective information dissemination modes of kinship, personal inquiry and location. This finding is like the one by CAF-FAC (n.d) where information about the apprenticeship pathways in the post-secondary education of the youth

was controlled by the teachers and career guidance officers who had some aversion of the apprenticeship pathways. Like the use of ineffective modes of information dissemination like kinship, location and personal inquiry, this prevents information from reaching the intended majority audience. However, in the study by PAC-FAC, the situation was reversed by the mindset change of the parents and, teachers and career guidance officers and through the school system the correct information about apprenticeship pathways was able to reach a wider audience. The outcome was very vivid as many youths subscribed to the apprenticeship pathways and succeeded in their pursuit of apprenticeship careers.

The finding in the PAC FAC study highlights the positive role of education in information dissemination in apprenticeship training. The subjectivity in dispensing the information no longer existed and the benefits were massive to the majority. This subjectivity was based on the manner the holder's interpretation and understood apprenticeship. Such knowledge is undergirded by the interpretivist Philosophical paradigm applicable to the MFIA to increase youth awareness. This allows each person to interpret the situation in a variety of ways.

Other studies reviewed (Kashefpakdel and Redhill, n.d, Pardon,2017, Misko et al,2007) acknowledge the role of education in objective information dissemination and while (Tandoh (2015) and Zangata et al. (2019) add exposure through education and advertisement. In all these, education functions in various ways that enable the information to reach far and wide audiences.

The dissemination of MFIA information through education and other objective methods is consistent with the interpretivist philosophical paradigm allowing for diversity of interpretation of a phenomenon. When information is given to a large group of people it will be subjected to numerous interpretations according to context, which is the central theme of the SL theory. Such knowledge is not fixed or absolute and is consistent with the ontological understanding. The few youths involved in the MFIA on Katima Mulilo roadside can easily be revered by utilizing the education system which covers widely and objectively. The school system should be understood in the context of Anjusha (2018) that it is not limited to a classroom or a school only. It is a lifelong process where all the experiences, knowledge and wisdom that an individual acquires at different stages of one's life using different means to include formal school and lifelong learning situations. Garden Compound of Lusaka, Zambia has only three government schools which need

to be augmented by other forms like university extension to deliver the MFIA information to the majority.

The fact that no participants learnt about the MFIA through the school system in Zambia has implications for this study. This is contradictory to the Zambia Education Curriculum Framework (ZECF) implementation of 2013 which was launched to promote career pathways at secondary school level of education in Zambia. The study outcome implies that the ZECF had no impact on the learners/participants because they learnt nothing about apprenticeship from it. In the study, no participants indicated having been made aware of the MFIA on Katima Mulilo roadside by the school system. Seven years passed since the launch of the ZECF which would have made participants with secondary education level recognize that MFIA is synonymous to apprenticeship.

The finding of not many youths were aware of the MFIA on Katima Mulilo roadside in Garden Compound of Lusaka gives the impression that the MFIA operates under the traditional apprenticeship which depends on subjective and ineffective information dissemination modes like kinship closely associated the family (Achigo and Chigbo,2014,Adekola, 2013 and Haan 2002).This is consistent with Ryan (2015) that traditional apprenticeship is organized around the family with limited choice of skills. Therefore, the MFIA on Katima Mulilo roadside in Garden Compound of Lusaka Zambia is an informal apprenticeship thriving on traditional means of information dissemination.

The situation in Garden Compound on Katima Mulilo roadside agrees with (Oluranti (2010) that in Nigeria the informal sector has become a major provider of employment especially in developing and transitional economies. Neil and Shaparon (2009) attribute this to globalization and observe that with increasing globalization some adaptations of the traditional system, met by some adaptation to the industrialized system, are increasingly being sought. Lamming (2016) acknowledges that potentially in Zambia, this makes informal apprenticeship the most available option to people, especially the youth, who have found themselves in the informal sector where apprenticeship has become the main avenue for employment and self-reliance. Given that the three types of apprenticeship are not exclusive, the scenario in the MFIA on Katima Mulilo roadside reflects the use of traditional apprenticeship in an informal environment. The metal fabrication activities in the MFIA take place outside the home but using traditional methods of information dissemination. Whereas the MFIA on Katima Mulilo roadside in Garden Compound of Lusaka

Zambia takes place outside the home, elements of the traditional apprenticeship through the kinship mode are still pronounced in this informal environment.

The traditional apprenticeship model is characterized by the transfer of knowledge and skills from an expert to an apprentice through direct observation and firsthand experience. This mode of information flow is restricted to the family and close associates, creating a closed network of information exchange. While this system may be effective within these limits, it is ineffective with a wider audience as it excludes those who are not in the kinfolk. The youth in such a community do not benefit from such traditional apprenticeship networks and are left unaware of the MFIA due to lack of information. This lack of awareness hinders their benefiting from the opportunities and resources provided by the MFIA. This can be redressed by adopting the use of objective modes of information flow like education.

5.3 Youth perception of the MFIA on Katima Mulilo roadside in Garden Compound of Lusaka Zambia

The findings of the study on youth perception of the MFIA on Katima Mulilo roadside in Garden Compound of Lusaka Zambia revealed that the youth have a positive perception the MFIA on Katima Mulilo roadside in Garden Compound of Lusaka Zambia. This is attributed to the value youths attach to the MFIA there. The MFIA on Katima Mulilo roadside in Garden Compound of Lusaka Zambia empowers the youth with skills that enable them to find employment in the informal sector or become entrepreneurs.

All the participants indicated that they acquired metal fabrication skill from the MFIA hence their positive perception of the MFIA. This is at variance with Decker (2019) who found a mixture of positive and negative perception of apprenticeship among ACCA students in the United Kingdom. The parents and employers had positive and negative perception of the apprenticeship pathways in post-secondary education respectively. The ACCA students were already out of contention as they had already chosen the elitist academic pathway of accounting studies. They were not as desperate to find a pathway as those in Garden Compound who were doing the trades for survival. The parents looked at the opportunities apprenticeship gives while employers based their perception on the economic status of a worker with a trade. The youth in Garden Compound of Lusaka Zambia used the lens of getting a direct opportunity to survive. This is consistent with the

Moonga et al. (2021) findings among final year university female students at the University of Zambia who looked at skills training through the lens of opportunities. They used employment and stigma of blue-collar jobs to have a negative attitude of skills training. This is consistent with the interpretivist philosophy which allows for different interpretation of a phenomenon according to situations and circumstances.

Information about apprenticeship in the study by Decker was coming from the school system and parents. The findings revealed that parents had a positive perception of the apprenticeship pathway while employers had a wholesome negative perception. Most parents preferred the university pathway in the school career development of the youth to have good jobs and incomes but did not mind if one had an opportunity to do a trade. Those who favored the apprenticeship pathway, liked its being practical. The opportunity line for liking or disliking apprenticeship was acknowledged by other scholars (Ryan and Lorinc (2018), BIT (2020), Pardon (2017), Hayes (2013) and Scot (2003).

Participants in the present study anchored their positive perception of the MFIA on the skills they would acquire and the economic gains attached. This is comparable to the Ryan and Lorenc participants who also considered their economic gains. Unlike the Decker students who had not reached the labor market, the latter two in this study the Ryan and Lorenc and the present studies, had a common denominator of labor market needs. This implies that apprenticeship gets better attention in the face of labor needs when the youth want empowerment for survival. Scholars have indicated that the formal labor market in Zambia and other countries has shrunk to levels that about 90% of the employment opportunities are in the informal sector (Ryan and Lorinc,2018). This has attracted the youth in need of survival hence the positive perception of the MFIA on Katima Mulilo roadside in Garden Compound of Lusaka Zambia.

The youth who dropped out of school in Garden compound of Lusaka, Zambia became vulnerable and apprenticeship availed them the opportunity to acquire productive skills for employment in the informal sector. The youth in Garden compound left school due to several reasons (Kelly (1991) and Kwalombota and Masaiti (2019) and became vulnerable to poverty and other vices. On the contrary, the participants in Decker's study had not reached a recognized transition level from high school to the labor market. The ACCA youths perceived the apprenticeship pathway negatively as they had not reached employment age and were still focusing on university education

rather than employment. The big number of participants with primary and junior secondary school education in the present study attests to this.

The positive perception of the MFIA on Katima Mulilo by the respondents in the present study is triggered by two factors: empowerment and kinship. This is like what Ryan and Lorinc (2018) found in their study in the UK. The apprenticeship in Garden Compound of Lusaka empowers the youth through skills acquisition enabling them to be employed and become entrepreneurs. The study by Ryan and Lorinc had both positive and negative perception because the youths were able to choose unlike the youth in the Katima Mulilo study who having dropped out of school had no option. This agrees with the philosophical underpinning of ontology and epistemology which deal with knowledge or reality and how it is processed. The youth view knowledge ontologically by being flexible to take training in the MFIA. This reality is not fixed. One has to understand it in different situations and fit in for survival.

Youth perception of apprenticeship in the present study was influenced by the kinship factor. The youth who were well informed about the MFIA on Katima Mulilo roadside in Garden Compound of Lusaka were relatives or friends of those involved in metal fabrication in the MFIA. These had the opportunity to be exposed to the values of apprenticeship, which was not the case for the majority in their locality. Those within the kinship network benefited from the apprenticeship opportunities hence the positive perception of the MFIA. This suggests that the MFIA has a strong presence within the community and has effectively utilized the existing social networks; limited to kinship, individual inquiry, and location to create awareness and attract individuals to the program. The fact that participants are willing to recommend others for training shows that they have had a positive experience and believe in the value of the program.

The reliance on relatives or friends as a source of learning also highlights the importance of informal learning and mentorship in the metal fabrication industry. It shows a lack of formal training opportunities or educational institutions that teach this skill, making it necessary for individuals to rely on personal connections for learning and development. This is consistent with the SL theory in that one values what is within the context or location. The youth perceive MFIA positively because they live in that environment and have come to appreciate MFIA's contribution to livelihoods in the locality. The positive perception of the MFIA is associated with the

interpretation of the knowledge that exist in the locality inline with the philosophical paradigm of the study.

5.4 Youth participation in the MFIA on Katima Mulilo roadside in Garden Compound of Lusaka?

The findings of the study revealed that youth participation in the MFIA on Katima Mulilo roadside in Garden Compound of Lusaka, Zambia is marginal. This highlights the characteristics and dynamics of youth participation in the MFIA program. The average number of participants per working table(quantum), the age range of participants, their education level, gender and the formation of communities of practice all contribute to the overall youth engagement in the program are some of the ways of showing participation.

The study found that the average number of participants per workstation is four. This is consistent with Obi (2021) who found a similar number of participants per cohort in the traditional Igbo apprenticeship. On the contrary, this number is smaller than the participants in other studies (Decker, 2019), Ryan and Lorinc (2017), Hayes (2013 and Scot 2005). This implies that these studies dealt with distinct types of apprenticeship. The ones with large numbers of participants align with formal apprenticeships while informal apprenticeships deal with small numbers. This confirms that the MFIA on Katima Mulilo roadside in Garden Compound is an informal apprenticeship involving participants dropping out of school while formal apprenticeships deal with post high school transitioning to the labor market mostly in developed countries.

Further, the study findings revealed that the age range of the participants 17 to 45 years is youthful in comparison with the age ranges of other studies (Decker,2019, Ryan and Lorinc,2018, Hayes (2013) and BIT,2020). It also falls within both the United Nations and Zambian youth age ranges of 15 to24 and 15 to 35 respectively. In the Halt ladder of youth participation, this would be at stages 5 and 6 where the youth are most cooperative and productive because they are consulted in activities initiated by adults. At this stage the youth participate freely though not in leadership.

The recruitment of the youth involves young people, master trainers and parents. This shows that young people are consulted even when the old people initiate the events. The parents and the youth who initiate such movement understand and accept. There is collaborative approach where both parties contribute to the decision-making process.

The findings of the present study do not show signs of coercion to the youth. This agrees with other studies on the voluntary nature of apprenticeship for the youth (Sonnenberg, 2012, Kande, n.d., Adekola, 2013 and Obi, 2021). Henry and Lloyd (2019) avow that the common feature of apprenticeship is that the system focuses on developing a new generation of practitioners of a trade or profession with on-the-job- training accompanied with study. Nell and Shapiro (2009) affirm that young people are attached to experienced blacksmiths and other experts to learn various skills and knowledge. Zafer Kus (2014) affirms that children need to be involved in meaningful projects with adults. It is unrealistic to expect them suddenly to become responsible, participating adult citizens at the age of 16, 18, or 21 without prior exposure to the skills and responsibilities involved.

Apprenticeship is an avenue through which most young people get their skills. Informal apprenticeship systems that transmit the skills of a trade to a young person in a micro or small enterprise have operated for generations in many African countries (ILO, 2012). The present study, therefore, qualifies to be an apprenticeship as it meets the parameters of dealing with the youths in an informal setting. The education level of the youth in the study ranges from without formal to post- secondary education. This is at variance with the findings in other studies where the participants were mostly homogeneous high school leavers (Decker,2019, Ryan and Lorenc (2018).

The implication of this finding is that apprenticeship has no standard entry requirements as learners can join according to need. This shows that the other studies dealt with apprenticeship at post–secondary school level in formal apprenticeship while the present study examined apprenticeship from an informal perspective. In the United States of America and many other countries, apprenticeship takes place after high school when the participant is twenty years old or older (Lerman and Parker, 2015). This is unlike the youth in the MFIA who drop out from school at various levels at varied ages. This can be attributed to the flexible nature of apprenticeship which does not limit participation to cognitive ability hence admitting participants with different and low education levels (Sonnerneg (2012). It is not according to cognitive ability reflects the practical aspect of learning in accordance with the SL theory by Wenger and Lave (1991) which undergirds the study. It shows the overlapping of the apprenticeship typologies; traditional and informal.

The multiple education levels of participants in the MFIA in the present study also shows the non-formal education nature of apprenticeship. This reflects the inclusiveness and flexible nature of

apprenticeship as a form of non-formal education and supports the fact that many youths leave school at various stages due to a myriad of factors (Kelly, 1991, Maimbolwa and Masaiti, 2019, Ryan, 2015 and Lemann, 2013). This flexibility is a fundamental characteristic of non-formal education where learners of varying age and education levels train together. Good apprenticeship has the capacity to meet the aspirations of young people for relevant and flexible education and training and to develop potential and aspirations that are often neglected in school-based provision.

The findings of the study revealed that all the participants are male. This attests to the common belief that females are averse to science and technology related activities and agrees with the findings of other scholars (UNESCO, 2015, Ziwa.2007, Achigo and Chigbo,2014, Ngugi and Muthima, 2017; Andiema and Manasi, 2021; Kakwesha et al., 2019). UNESCO further explains that young women are often unaware of apprenticeship opportunities and exclude it (them) as a training opportunity (ies). In addition, occupational choice for women is limited, as in many countries apprenticeships are centered around traditional trades and crafts that are unappealing to young women as they consider them as occupations for men or males only. Metal fabrication is not a traditional trade for females to do, however, their total absence cannot be explained.

Ziwa (2007) found that female pupils at two national schools in Zambia were not taking science-oriented subjects. While Kawishi et al. (2019) found that females had little interest in technical and science subjects in Zambia. Gender disparity in technical education in Kenya (Ngugi Muthima, 2017, Andiema and Manasi, 2021and Nigeria, Okarafo,2015, Ike and Obi, 2014; Haij, 2021) respectively. This trend is consistent with most African countries where beliefs and other social economic factors are responsible for not involving women in such activities. In this respect, the fact that metal fabrication is science oriented validates the absence of female participants in the MFIA on Katima Mulilo roadside in Garden Compound of Lusaka Zambia.

The small number of participants (4) per workstation aggregates into a huge group of youths and artisans involved in metal fabrication on Katima Mulilo roadside in Garden Compound of Lusaka Zambia. Individuals in this large group of people interact in ways that support their activities and therefore, qualify to be a community of practice. The findings of the study revealed that the participants interact in ways that are unique to themselves in the discharge of the work. Participants argue and borrow tools from each other as members of the community. However, there is no system that galvanizes them into a cluster of artisans with common interests to develop their trade.

This is contrary to the findings in the reviewed literature (interests; Kintu and Aheisibwe (2019), Danso and Kwadwo (2021) where artisans in informal apprenticeship have formed organizations to promote their trade. The artisans in Uganda work together and contribute to the large economy of the country. This helps to realize the notion of informality where informal entities are organized into organizations that meet formalization. Then they become economic players contributing to the development of the country. These clusters of artisans help to govern the communities better. This aspect is lacking in the present study.

The findings in the present study show that the individuals in MFIA in Garden Compound of Lusaka Zambia have no governance system. This implies that the metal fabricators in this area do not belong to any recognized organization to support them in various ways. This is contrary to the informality crusade that most countries in the world have adopted to broaden the national economic bases. A well governed body of artisans would be registered, pay tax to government and receive statutory services.

Through the community of practice, participants produce goods and services for their livelihood. The Tamale magazine in Ghana is a community of practice where artisans come together to work for their common good (Alhassan ,2016). Other associations include the Egyptian Federation of Building and Construction Contractors (EFBCC) and Türkiye, the Turkish Confederation of Tradesmen and Craftsmen (TCTC) in Egypt and Turkey respectively. These support occupations not covered by the relevant legislation (Smith and Brennan, 2013).

The insignificance of the community of practice and its reliance on traditional apprenticeship and kinship values restrict the activities and involvement of the youth in the MFIA on Katima Mulilo roadside in Garden Compound of Lusaka, Zambia. The community of practice in the MFIA operates in an informal environment, which further hinders youth participation.

5.5 The training process youths follow in the MFIA on Katima Mulilo roadside in Garden Compound of Lusaka Zambia

The study found that the youth follow a systematic training process analogous to the one advocated by the Situated Learning theory by Wenger and Lave (1991). After recruitment and engagement formalities, the youth are introduced to the learning task by the trainers/employers. There is heavy dependence on the trainer/employer who is the ultimate from entry to exit. The participants are

given practical work in the workplace of the team they join in the MFIA. The learners then progressively follow the principles of Legitimate Peripheral Participation, which is a key component of the SL theory of Wenger and Lave by carrying out tasks stage by stage. The LPP requires learners to progress through the stages of learning, starting from doing simpler tasks and gradually moving towards more complex ones, under the guidance of the trainer.

The findings of this study also showed that the training process begins with recruitment, where participants are selected to take part in the program. The SL theory does not specify the duration of the training nor prescribe the activity at each stage of the process as all depends on the trainer. Instead, the training is tailored to the individual needs and ability and assessment of the learner and the trainer, respectively. This is consistent with findings in other studies where the training of the apprentices is in stages (Anokye and Afrane, 2014, Obi,2021, Frazer,2006). However, these stages are not similar in every situation.

The learners engage in constructing their own knowledge and understanding, rather than being passive. This aligns with the constructivist learning approach, which emphasizes the importance of learners actively participating in the learning process and subsequently discover more knowledge on their on. The theory does not provide specific items of learning at each stage because it recognizes that knowledge construction is a dynamic and individual process. Each learner may construct knowledge differently based on their own experiences, perspectives, and prior knowledge.

Instead, the theory acknowledges that knowledge is subjective and can be interpreted in numerous ways. It recognizes that reality is not fixed, but rather varies depending on contextual and semantic factors. This is consistent with the ontological leaning of the study on knowledge variation according to context. It also agrees with the idea of multiple realities, as explained by Creswell (2013) in the context of qualitative research. Researchers conducting qualitative research understand that there are multiple perspectives and interpretations of reality, and they embrace this diversity in their studies.

In the context of training, trainees are encouraged to work independently under the guidance of the trainers. This allows them to actively construct their own understanding and knowledge, rather than relying solely on the trainers to passively transmit information. By actively engaging in the

learning process, trainees are more likely to develop a deeper understanding and retain the knowledge for longer periods of time.

The principle elucidates that learning occurs in stages, but these stages are not uniform and vary depending on the trainer or skill being learned. Anokye and Afrane (2014) identified a pattern of stages in informal apprenticeship, including recruitment, contract signing, and step-by-step guidance from the trainer. Obi (2021) also branded stages as introductory, coached, and workplace phases, which involve tasks assigned by the trainer and maintaining cleanliness in the working area. Frazer (2006) describes the third stage as trade-related, where the trainee can produce final goods and requires skills in marketing. This aligns with the constructionist learning approach and the Situated Learning theory by Wenger and Lave (1991), which emphasize individualized learning based on ability and trainer guidance.

The findings of this study support the theory of Situated Learning (SL) advanced by Wenger and Lave (1991). According to this theory, learning occurs in social and cultural contexts, and is affected by the specific needs and abilities of the learners and the teaching methods employed by the trainers. In the context of apprenticeship training, there are no common activities even for individuals on the same bench and under the same trainer. This is because the situations, locations, needs, and abilities of the participants and trainers differ. Each trainee has unique needs and abilities, which require tailored training activities to meet their individual requirements. This is consistent with the study findings which revealed that the training program in the MFIA is embedded in the employment of the participants. Training and employment are integrated in the MFIA on Katima Mulilo in Garden Compound of Lusaka Zambia. In this respect, the levels at which the trainees differ depending on the job that the trainer has on his table.

Closely observed, the stages of learning also differ depending on the trainee and the trainer. Even within a group of youth under one trainer, everyone engages in different activities based on their specific needs and abilities. This highlights the importance of idiosyncratic endowments of the trainees and the teaching pace adopted by the trainer to facilitate effective learning.

5.6 Challenges youth meet in the MFIA on Katima Mulilo roadside in Garden Compound of Lusaka Zambia

The study findings revealed that the youth face many challenges in the MFIA on Katima Mulilo roadside in Garden Compound of Lusaka, Zambia. These are like those found in the Katwe

community of practice in Uganda and Tamale magazine in Ghana. These challenges include the high cost of materials, poor supply of electricity, limited training time, small working and training spaces. To the contrary, the study findings do not include low remuneration of apprentices, lack of insurance policies, and difficulty attracting female participants. Specifically, the participants in the MFIA in Lusaka face challenges such as unstable electricity supply due to load shedding, business competition, lack of tools and equipment, working along a busy road, inadequate trading space, rising prices of raw materials, lack of customers, negative attitudes towards the MFIA, youth engagement in alcohol consumption, and lack of capital.

It's worth noting that the challenges in the present study are similar to those reported in Uganda. This agrees with Ryan (2015) that the informal apprenticeship practices in Central and East Africa are similar and different from those in the Sahelian countries and West Africa. The challenges youths face in West Africa are different. This shows the magnitude with which apprenticeship is taken in the regions.

The dual nature of apprenticeship shows the type of challenges that the youth face in the MFIA on Katima Mulilo roadside in Garden Compound of Lusaka Zambia. The informal apprenticeship in the MFIA is dominantly work oriented and as a result the challenges youth face there are employment based. This is contrary to what is obtained in West Africa where the training component of apprenticeship is stronger that the employment side. Alhassan (2016) notes that apprenticeship schemes in Ghana had many challenges, such as indefinite training period, absence of reference manuals, lack of funding which normally results in poor completion rates. There is freedom by the trainer to determine the length of training and competence of the trainees. Some of them take unnecessarily lengthy periods.

The mention of funding by Alhassan suggests the involvement of the Government or other organization which is not mentioned in the present study. This is consistent with Danso and Kwadwo (2021) who identify ten factors contributing to the challenges with the apprenticeship among the youth in Ghana namely, quality of training controlled by the expert, use of modern technology, masters provide the training schedule, training involves only practical activities, training include customer care and others. Whereas these were reported as challenges in Ghana, they were not visible in the MFIA on Katima Mulilo roadside in Garden Compound of Lusaka. The use of modern technology, for example, is desired in the MFIA as the artisans try to imitate

modern products that are manufactured using modern technology. The sliding window frame for example, needs rollers to move the window frame in the groove. It is not a challenge but the lack of it.

This corresponds with Anokye and Afranc (2014) in Danso and Kwadwo (2021) that it is difficult to compare different apprentices in the same trade area who were trained by different masters because of their inconsistencies in their teaching and learning methodologies and the unstructured learning environment. This also supports the principle of the SL theory by Wenger and Lave (1991) that knowledge is contextual.

Further, to the training and learning environments, apprentices are engaged on diverse terms according to the manner the apprentices are recruited as employees or trainees. The findings showed that most youths were recruited as employees and not trainees. Most of them indicated that they had no contracts, do not pay tuition fees instead they are paid. Ordinarily, trainees would have a contract and pay tuition. ILO (2019) noted that the training aspect of apprenticeship is engrossed by employment as reason for engaging the youth as a result items like training manuals are not significant an therefore cannot be challenges. ILO also found that there were inadequate resources to support vocational training in the SSA. The challenges in this study and those from other studies show that the West African apprenticeship is different from the one in Zambia, East and Central Africa. The practice of apprenticeship in Central and East Africa is relaxed unlike the stringent one in West Africa (Ryan,2015 and Hanen,2010).

The challenge of insecurity in the job that the youth face in the MFIA is consistent with other scholars (Ismail and Mujuru (2020) and Moonga and Moonga (2018) found in West Africa and Zambia, respectively. These challenges are common in informal apprenticeships in Africa (Ismail and Mujuru (2020), as youths engage in low insecure jobs in the informal sector while Moonga and Moonga (2018) noted the prohibitive cost of labor for most farmers in mitigating the effects of climate change in Chikupi area of Kafue district Zambia. They also confirmed that the practice of recruiting village labor was not sustainable as the people lacked knowledge of the conservation farming practices which demanded precision. Other challenges include social-economic dynamics and the traditional land tenure system. Moono (2021) noted among adult learners in Kalingalinga the challenge of cultural and social beliefs in their participation in literacy programs.

Alhassan (2016 in Danso and Kwadwo (2021) contends that apprenticeship pathways were impeded by various chain of instances such as prolonged training durations; some of the apprentices had been with their "masters" for over 5 years and still had no idea as to when they would be certified to graduate by their "masters". Some were still watching and observing after two years of apprenticeship instead of hands-on-the job. Such undefined training programs create uncertainty that causes participants to feel insecure and resort to negative acts such as stealing tools or start drinking beer as was found in the present study.

In the MFIA on Katima Mulilo roadside in Garden Compound of Lusaka, the findings of the present study revealed that the average duration of apprenticeship is ten years. This is comparable to what Alhassan (2016) reported about West Africa. The youth are not kept busy enough to prevent them from engaging in vices due to lack of resources such as electricity power, scarcity of customers and inadequate tools. This is responsible for the bad behavior the youths display towards the MFIA on Katima Mulilo roadside in Garden Compound of Lusaka, Zambia. Youths come to the MFIA for work or training and when they find these not heavily engaging, they resort to negative behavior and develop bad habits such as drinking alcohol and smoking.

The lack of a reliable power supply at the MFIA site is a significant constraint on its activities as most machines and equipment are electricity driven. Even when there is no load shedding, the MFIA does not have enough power for its operations. The artisans have no independent source of electricity. They draw electricity from the nearby homes, which is not sustainable. Furthermore, the limited availability of electricity at the right voltage hampers the productivity of the artisans. This limits the work the artisans can do on Katima Mulilo roadside and the equipment they can use. It also affects the production cycle which frustrates customers. Some items may require more electricity, working space and machinery, which is not possible with the current power supply, space and cost of material.

The power supplied by landlords is not enough and only for a short period. This leads to frequent power outages and disruptions in production, resulting in delays and low productivity. Unreliable power supply can also damage equipment and machinery, leading to additional costs of repair and replacements. The power from homes is not sufficient to meet the needs of the artisans in the MFIA. As the industrial undertaking grows and expands, the demand for power will also increase.

Depending on the goodwill of landlords for power supply may not be to sustain the growing needs of the MFIA, hindering its development and potential.

Furthermore, relying on the goodwill of landlords for power supply puts the MFIA at a disadvantage in terms of cost and control of the business. Landlords may charge high fees for power supply or impose restrictions on its usage, which can add financial strain to the MFIA. Additionally, the MFIA will have limited control over its power supply, making it difficult to plan and optimize operations. All these affect the effective operations of the MFIA on Katima Mulilo roadside in Garden Compound of Lusaka Zambia.

Artisans draw power from distant places using long cables that are poorly connected and left lying about in the working space posing substantial risk of electrocution (figure 5.1). Other hazards include the small workspaces dotted along Katima Mulilo Road. These are small places along the road where several artisans and their workers squeeze to do their welding. The work is done over the road drainages and sometimes right on the road due to lack of working space as one has to hang about within the radius of the landlords' jurisdiction. It is a very hazardous environment indeed.

The lack of sanitary amenities, specifically toilets, poses a significant challenge for the workers and artisans in the MFIA on Katima Mulilo roadside in Garden Compound of Lusaka. Due to the absence of proper facilities, workers are forced to resort to makeshift solutions such as using bottles or urinating behind buildings. These makeshift facilities are then often disposed of in drainages, further contributing to unsanitary conditions. Some workers even resort to lying down in the drainages and urinating there.

This environment is particularly hostile for female participants, which might explain the absence of female apprentices and artisans in the MFIA in this area. The lack of proper sanitation facilities not only hinders the participation of women but also poses health risks for all workers. It is crucial to address this issue and provide adequate sanitary amenities to ensure a safe and conducive working environment for all participants in the MFIA.

5.7 Chapter Summary

The discussion has shown that not many youths are involved in the MFIA on Katima Mulilo roadside in Garden Compound of Lusaka is triggered by the kind of information dissemination

methods used. The non-use of the school system has made it difficult for most youths in Garden Compound of Lusaka Zambia to access information on MFIA in their locality.

The lack of awareness about the MFIA by many youths in Garden Compound of Lusaka Zambia is due to the lack of public places or systems used to disseminate information. This means that information about the MFIA is circulated within close-knit social networks, limiting its spread and accessibility to a wider audience. The study found that many youths in the area lack information about the MFIA due to the kinship mode of information dissemination, which is selective and subjective. As a result, only those who are directly connected to individuals involved in the MFIA have information about it.

The kinship mode of information dissemination is an inhibition to the widespread awareness of the MFIA among the youth. This implies that the traditional apprenticeship overlaps with the informal stage, where information is primarily shared within close social networks of the family rather than through larger community or formal systems. This contrasts with reviewed studies that found the school system pivotal in disseminating information about apprenticeships or other innovations objectively. Literature showed that information about apprenticeships was carried far and wide through the school system networks and partnerships. This shows that the school system has a more effective and widespread network to disseminate information about apprenticeships and innovations compared to the kinship mode.

The positive perception of the MFIA among the youth is a result of the opportunities of empowerment through skills acquisition leading to employment and entrepreneurship. The apprenticeship program offered by the MFIA allows the youth to acquire practical skills that are relevant for employment in the informal sector and entrepreneurship. This is crucial as the informal sector is a major source of employment for many young people in Zambia. This has verified the SL theory by Lave and Wenger (1991) that the informal sector was accessible for the youth. The informal sector should be supported as (Sonnenberg, 2012) warns that this is the basis for development.

The MFIA encourages entrepreneurship among the youth. Through the MFIA, young people are given the necessary support and resources to start their own businesses. This does not only empower them economically but also gives them a sense of independence and self-reliance. The youth in the MFIA use it to mitigate poverty and other social vices. Many of them come from

disadvantaged backgrounds and view the MFIA as an opportunity to improve their livelihoods and eradicate poverty. They believe that through the skills and resources provided by the MFIA, they can create a better future for themselves and their families.

However, it is important to note that this positive perception might be limited to those who have direct experience or information about the MFIA. Most of the youth without access to the program may have a different perception or may not even be aware of its existence. Therefore, it is necessary to conduct further research to understand the perception of the MFIA among the wider youth population and to ensure that the benefits of the program reach all those who could potentially benefit from it.

The objective was to establish the perception of the youth who are part of the MFIA in Katima Mulilo roadside in Garden Compound of Lusaka Zambia. The youth have a positive perception due to its value. The MFIA provides the youth with apprenticeship opportunities and acquire skills for employment in the informal sector and for entrepreneurship. These youths like the MFIA for their empowerment and fight against poverty and other challenges.

Youth participation in the MFIA is negligible. There are very few youths (average 4) per workplace. However, this is within the standard practice in traditional apprenticeship. The participation of the youth is also identified using other parameters like age, gender, education level and community of practice. These are not standard to allow for flexibility and affordability by the participants.

The age range of participants in the MFIA is like others globally. These are young people working under experienced adults (the trainers). The varied age of participants is typical of non-formal education learners where age is not a selection criterion. This makes apprenticeship flexible and open to all age groups. The gender aspect of youth participation showed that only males participate in the MFIA on Katima Mulilo roadside in Garden Compound. This agrees with the common belief that science-oriented jobs are not for females. The trend is common globally.

The notion of community of practice is common in apprenticeships. Many countries use the community of practice to formalize the informal making it easy to realize the informality campaign to boost national economies globally. The MFIA has no recognizable community of practice due to lack of governance systems that can galvanize the artisans together for a common goal. As the

case is now, the artisans and youths in the MFIA are a group of unorganized people working for themselves. Communities of practice have the power to address common problems including markets for the good of all the members. Kinship has been identified as the main operational system used in the MFIA for information dissemination. This makes the activities limited to traditional apprenticeship practices. The kinship inhibits the growth of the MFIA to informal apprenticeship stage.

The youth training process in the present study are like the ones advocated for in the situated learning theory by Lave and Wenger (1991). The training process includes the recruitment done with the youth consent and arranged in stages according to the trainee and trainer's ability and preference respectively. The learning process responds to the context, or situation, its practical or participatory and legitimate periphery participation. Similar training processes were reported by other studies. This makes the training process for apprenticeship universal as was expounded by Wenger and Lave (1991) even when they are not done uniformly worldwide.

The youth face numerous challenges in the MFIA on Katima Mulilo roadside in Garden Compound of Lusaka. These challenges are similar with what obtains elsewhere except those in the MFIA are mostly employment oriented because training in apprenticeship is done through real work experiences. Needless to state that the challenges vary according to the activities that take place in each area.

5.8 Study engagement with the theory

According to Wenger and Lave (1991), learning is not a detached and abstract process, but rather occurs within a specific context or environment. The Situated Learning Theory emphasizes the importance of engaging learners in authentic, real-life activities. This means that learning should not be limited to the classroom or theoretical concepts but should involve practical application and active participation at the place of work.

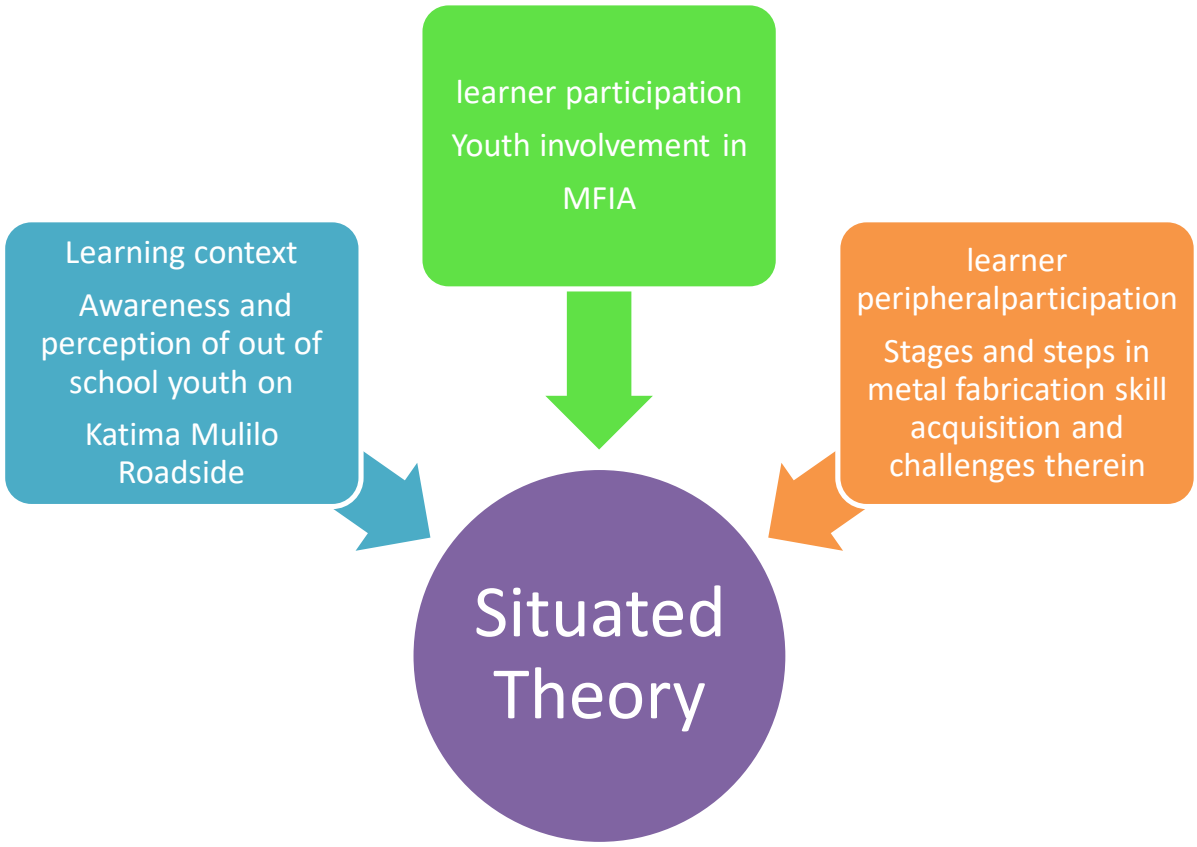
The situated learning theory recognizes the context in which learning takes place. This is fulfilled in the study by the need to understand the state of the learners; their awareness and perception of the MFIA on Katima Mulilo roadside in Garden. That makes the context of learning. Participation is the bedrock of understanding youth participation in the MFIA on Katima Mulilo roadside in

Garden Compound based on the situated learning theory. The theory clearly sets base and all parameters of its application in terms of context and participation are met.

In situated learning, learners actively participate in the learning process. They are not passive recipients of knowledge, but rather active contributors to their own learning. They are given opportunities to explore, experiment, and solve problems to develop their understanding of issues and acquire skills. Furthermore, situated learning emphasizes the idea of learning from the periphery to the center. This means that learners start by engaging in simpler and less complex tasks, gradually building their knowledge and skills as they progress.

Gradual progression allows learners to develop a solid foundation before moving on to more complex tasks. The three pillars of the SL theory are therefore applicable to the present study in the manner elaborated in the diagram below. These attributes are consistent with the findings in the present study. Learners do practical work and are led into learning from simple to complex tasks. This also conforms to the type of knowledge they learn which meets the ontological and epistemological descriptions. All levels of the study fit into the situated learning theory underpinnings. This makes the theory appropriate for this study.

Figure 5.1 Theoretical engagement of the study



In the study, the learning context or situation (LCS) was carefully considered and designed to provide a realistic and authentic learning environment for the participants. The study took place in a real workplace, metal fabrication setting, allowing the learners to directly apply their knowledge and skills to real-life situations. This helped to enhance the relevance and practicality of the learning experience.

Learner participation (LP) was emphasized throughout the study, with the learners actively engaging in the practical learning process. They were not passive recipients of information but rather active participants who were encouraged to ask questions, seek clarification, and contribute their own ideas and perspectives. This active involvement helped to promote a deeper understanding and retention of the learned material. In the study, the learning context or situation (LCS) was carefully considered and designed to provide a realistic and authentic learning

environment for the participants. The study took place in a real workplace setting, where the learners to directly applied their knowledge and skills to real-life situations. This helped to enhance the relevance and practicality of the learning experience.

Learner participation (LP) was emphasized throughout the study, with the learners actively engaging in the learning process. Learners were encouraged to continue working they responded to the interview questions. They were not passive recipients of information but rather active participants who were encouraged to ask questions, seek clarification, and contribute their own ideas and perspectives. This active involvement helped to promote a deeper understanding and retention of the learned material.

Furthermore, learner peripheral participation (LPP) was also evident in the study. The learners started by observing and assisting more experienced individuals in the workplace, gradually moving towards more active and independent participation. This gradual progression allowed the learners to gradually develop their skills and confidence, building on their prior knowledge and experiences. In constructivism, learners are seen as active participants in the creation of knowledge. They are not passive recipients of information, but rather engage in learning activities that allow them to construct their own understanding. This theory emphasizes the importance of social interaction and the role of communities of practice in the learning process.

As members of a community of practice, learners participate in activities that align with the principles and values of the group. They learn from and with others who share similar interests and goals. In this context, there is no standardized training process. Instead, each member of the community does what they need to do based on their individual needs and the guidance provided by trainers or employers. Despite this individualized approach, all members contribute to the final product or outcome.

The present study also highlights the diverse learning situations that participants were exposed to. Each learner was given tasks and assignments based on their specific situation and ability. As a result, the duration of the training period varied for everyone, as they progressed at their own pace. This approach to learning is based on the belief that learners acquire knowledge and skills through active engagement in meaningful tasks and interactions with others. It emphasizes the importance of the learner's ability to construct their own understanding and knowledge through firsthand

experiences and problem-solving. By starting with simple tasks and gradually increasing the complexity, learners can build upon their existing knowledge and skills, allowing them to develop a deeper understanding of the subject matter. This approach also promotes the transfer of learning to real-world situations, as learners can apply their knowledge and skills in practical situations.

The interaction between learners, the context, and the task is crucial in this process. Learners learn from each other through collaboration and discussion, as well as from the context in which the learning takes place. The task itself provides the opportunity for learners to actively engage in the learning process, allowing them to construct their own knowledge and understanding. Unlike traditional approaches to learning that rely heavily on memorization and rote learning, constructionism emphasizes the importance of practical knowledge that is relevant and applicable to real-world situations.

Learners are encouraged to actively participate in the learning process, using their understanding and imitation of the trainer as a guide. Memorized knowledge is difficult to apply in different situations but the type learnt in the MFIA is flexible. The figure 11 and 12 below show the direct input of activities in the situated learning theory. The finding unifies the activities in the MFIA to the theoretical meaning of the situated learning theory by Lave and Wenger on apprenticeship training.

5.8 Research originality, innovativeness, and contribution to new knowledge

The researcher knows no study on the same subject in the area and therefore, it is considered original. It is innovative in that the MFIA, though an old establishment, has no known study on youth involvement. All was routine without casting a close eye on the nature of participants. The study is a novelty contributing knowledge in the field of informal apprenticeship in Garden Compound of Lusaka Zambia and globally. The thesis has opened Garden Compound of Lusaka in Zambia to the scholarly world for analysis and synthesis which will expose it to more knowledge and innovations.

The present study has contributed to the knowledge of informal apprenticeship in Garden Compound of Lusaka Zambia by the original research findings that had remained unknown in the MFIA. This will now become global knowledge about informal apprenticeship in Garden Compound of Lusaka Zambia just like the reviewed studies on the same subject from other places.

The specific focus on the MFIA has brought out youth involvement which can be compared to other areas within and outside the country. One significant contribution of this study is the identification of barriers/ challenges to youth participation in the metal fabrication informal apprenticeship which are unique to the site.

One such obstacle is the lack of business knowledge, especially the aspect of marketing by the participants. The contribution of the study is the design of a training manual framework for participants to use in order to redress the situation (Table 6.1). The study has shown the metal fabrication skill is well covered in the training while supportive skills like marketing are not hence the attendant challenges of customer relations and work site selection. By providing participants with this comprehensive training manual framework, the research will increase the participants' marketing knowledge and skills to overcome the obstacle of limited marketing expertise. This will enable the MFIA to effectively market their products and services, reach their target markets, and contribute to the growth and development of the organization in the area as envisaged by (Adams et al.,2013).

The proposed content of the training manual framework is given below arising from the interaction with the participants during data generation sessions. When these barriers are addressed and overcome, the growth and development of the MFIA in this locality shall be attained and fulfill the informality dream advocated for by Mubita et al (2017).

Table 5.1 **Proposed** Training Manual Framework for Metal Fabrication Apprentices

Proposed Training manual framework for MFIA in Garden Compound of Lusaka, Zambia.

Unit	**Qualification**	**Method**	**Topic**	**Resources**	**Expected outcomes.**	**Goals**	**Target Learners**
1	Noncredit certificate Hands on experience	Lectures and discussions	Introduction to Marketing: • Definition and importance of marketing • Basic marketing concepts and principles • Role of marketing in the success of MFIA	Marketing Literature and PMC	Learner application of marketing skills	Learner mastery of marketing	Apprentices
2	Hands on experience	Lectures and demonstrations	Understanding the Target Market: • Identifying the target market for the MFIA • Conducting market research and analysis • Segmentation, targeting, and delivery of goods and services.	Literature and PMC	Learners' ability to select different elements in Marketing	Learners identify the different elements of marketing	Apprentices

3	Hands on experience	Lectures and discussions	Developing a Marketing Strategy: • Setting marketing objectives and goals • Creating a marketing plan • Choosing the right marketing mix product.	Literature and talks by civic leaders and marketing experts	Application of social and moral principles of marketing	Learner acquisition of appropriate moral and social responsibilities	Apprentices
4	Hands on experience	Lectures and excursions	Branding and Positioning: • Importance of branding for the MFIA • Developing a strong brand identity	Literature and marketing experts	Identification of customer ability and product uniqueness	Develop mapping skills in marketing for sustainable growth and development	Apprentices

			• - Positioning the MFIA in the market				
5	Hands on experience	Lectures and excursions	Marketing Communication: • Effective communication strategies • Advertising and promotion techniques • Public relations and media relations	Literature and site talks	Understand the effective communication in marketing	Learners understand relationship between marketing and various communication. systems	Apprentices
6	Theory and practice	Lectures and hands on	Introduction to. • Business record keeping • Types and functions • Business plan development	Literature and practice	Design appropriate business plans and records	Design and use business records in business development	Apprentices

The other contribution of the study is that the application the Situated Learning theory in apprenticeship studies has been verified in Zambia and beyond. The direct relevance of this knowledge is seen contributing to life in the MFIA on Katima Mulilo in Garden Compound of Lusaka. It has also contributed knowledge of perceiving positively what contributes to one's well-being regardless of the process of acquiring it. The findings confirm the Situated Learning theory as appropriate for apprenticeship training including in the MFIA on Katima Mulilo in Garden Compound of Lusaka, Zambia.

Additionally, the study demonstrates the overlap of traditional apprenticeship with informal apprenticeship in the community. This understanding is crucial for harnessing the potential of both types of apprenticeship for economic development within and beyond Garden Compound of Lusaka, Zambia. It also highlights the importance of kinship in successful growth and development by identifying it as one of the key elements that contribute to the levels of inquiry necessary for growth and development.

Finally, the study verifies the assertion that knowledge is space or location bound. This means that the knowledge gained from this study is specific to the context of Garden Compound in Lusaka, Zambia, and may not be directly applicable to other locations or contexts. It addresses a current phenomenon on the role and inclusion of informality in economic development. The study challenges the education system in Zambia to embrace apprenticeship. The study unlocks the thinking that knowledge and skills can be regulated in strata. It also calls for an extension in the jurisdiction of regulatory bodies in the provision of skills training in Zambia from the highest to the lowest levels. For example, regulatory bodies in health are not limited to specific levels. Their work stretches all the way from the largest manufacturer to the smallest and so should the skills regulatory bodies be.

5.9 Knowledge sharing of the study

The study findings and other information have been shared with the general public through different media and fora as shown below.

A. Paper presentation

The first Education Research International Conference in Zambia (ERAZ) from 3rd to 5th November 2022 at Mika Convention Centre, Lusaka, Zambia.

Moonga, Anolt. L.H. (2022) *Youth awareness of the metal fabrication informal apprenticeship on Katima Mulilo roadside in Garden Compound of Lusaka, Zambia.*

Presented a paper to the 41st WESSA/EEASA 2023 conference18-22 September, Johannesburg South Africa.

Moonga Anolt. L.H. Moonga, M.S. and Chipatu, L. *(2023). Environmental and Economic Dynamics of the Katima Mulilo roadside Metal fabrication Informal Apprenticeships in garden Compound of Lusaka, Zambia.*

B. Article publication

Moonga, Anolt Leonard Himweemba and Akakandelwa, A. (2023). Youth awareness of the Metal Fabrication Informal apprenticeship on Katima Mulilo roadside in Garden Compound of Lusaka, Zambia. *International Journal of Research and Innovation in Social Science (IJRISS)* number II Vol. III 2023.

C. Report back session with participants.

Moonga, Anolt L.H. (2023). *Report back session with participants on Katima Mulilo roadside in Garden Compound of Lusaka.* The participants accepted the findings.

D. Designed a training manual for marketing.

Proposed Training manual framework for MFIA Garden Compound of Lusaka Zambia.

5.10 Practical implication of the study

The present study has some practical implications in informal apprenticeship in Lusaka Zambia. The findings of the study have opened a window of hope on the youth awareness of the MFIA on Katima Mulilo roadside in Garden Compound of Lusaka, Zambia. Many readers of this report such as youths outside the kinship network have come to realize the presence and value of

informal apprenticeship in general and the MFIA in particular. This will make them participate in the MFIA as the study will have increased their awareness of the MFIA.

Through this study, the value of education or schools as information disseminators has been espoused. This will assist schools to participate in the dissemination of information on apprenticeship in Garden Compound of Lusaka Zambia. The outcome will be increased youth awareness of the MFIA and a subsequent increase in youth involvement. The majority of youth who lack information on the MFIA have remained so because the school system has not been involved in the dissemination of information about the MFIA. The obstacles of information flow to the youth in Garden Compound have been identified and can now be overcome by the revelations of this study. The study findings have helped to verify the SL theory universally appropriate for informal apprenticeship training. The quality of findings show that the theory is potent, can be replicated, and confirmed elsewhere in informal apprenticeship training.

It is evident from the findings that youth involvement in the MFIA on Katima Mulilo in Garden Compound can enhance youth involvement and bring positive development in the area. This will support the informality crusade that many countries are pursuing in pursuant of vision 2030.

CHAPTER SIX
CONCLUSIONS AND RECOMMENDATIONS

6.1 Overview

The training process in the MFIA on Katima Mulilo roadside in Garden Compound of Lusaka is consistent with the Wenger and Lave situated learning theory conditions. The MFIA therefore meets the universal training process in apprenticeship. This chapter of the thesis deals with the conclusions and recommendations of the study. The purpose of the study was to investigate youth involvement in the MFIA on Katima Mulilo roadside in Garden Compound of Lusaka Zambia. The objectives included examining youth awareness of the metal fabrication informal apprenticeship on Katima Mulilo roadside in Garden Compound of Lusaka. Zambia, describe youth perception of the metal fabrication informal apprenticeship on Katima Mulilo roadside in Garden Compound of Lusaka, Zambia, illuminating youth participation in the metal fabrication informal apprenticeship on Katima Mulilo roadside in Garden Compound of Lusaka, Zambia, describing the youth training process in the metal fabrication informal apprenticeship on Katima Mulilo roadside in Garden Compound of Lusaka, Zambia; and identifying the challenges youths face in the MFIA Katima Mulilo roadside in Garden Compound of Lusaka Zambia. Zambia In conclusions this study aimed to explore the above objectives.

The study findings reveal that youth involvement in the MFIA on Katima Mulilo roadside in Garden Compound of Lusaka Zambia is minimal. Youth awareness of the MFIA is little, youth perception of the MFIA is positive, that the youth follow the SL theory training process in the MFIA and that the youth face challenges in the MFIA on Katima Mulilo roadside in Garden Compound of Lusaka Zambia. They also show that kinship is the main method used to disseminate information about the MFIA to the total exclusion of the education system. These are presented according to the research objectives and questions. As we reflect on the results of the study, focus should be on the conclusions and recommendations.

6.2 Conclusions

Having examined the study and arrived at the findings above, the following conclusions have been arrived at.

It is clear from the findings that the MFIA has numerous challenges which impede the youth from participating in metal fabrication training and employment. This hinges on the lack of support from the government and stakeholders in the promotion of skills development.

The full list of conclusions on the study is.

i) The kinship mode of information dissemination is responsible for the little awareness, positive perception, and the minimal participation of the youth in the MFIA on Katima Mulilo roadside in Garden Compound of Lusaka Zambia.

ii) The education or school system is not employed as a method of information dissemination in the MFIA on Katima Mulilo roadside in Garden Compound of Lusaka Zambia.

iii) The youth in Garden Compound have a positive view of the MFIA on Katima Mulilo roadside in Garden Compound of Lusaka Zambia and are willing to work in the MFIA informal sector to sustain themselves.

iv) Youths in MFIA follow the SL theory training process; a universally acknowledged process of training in skills.

v) There are few youths participating in the MFIA is negligible, leaving the majority out of the MFIA.

vi) The youth in Garden face challenges with the MFIA which inhibit their involvement in the MFIA.

vii) The regulatory authority, TEVETA has no policy guideline for MFIA in Garden Compound of Lusaka Zambia.

viii) Ther is gender disparity in participating in the MFIA in garden Compound of Lusaka Zambia.

ix) The MFIA in Garden Compound has no governance system to galvanize the MFIA into a formidable economic enterprise.

x) Not many youths are aware of the MFIA on Katima Mulilo roadside in Garden Compound of Lusaka Zambia.

xi) Not many youths are apprenticed in the MFI on Katima Mulilo roadside in Garden Compound of Lusaka Zambia.

6.3 Implications of the study

The study has uncovered the value of the MFIA on Katima Mulilo roadside as an economic and pedagogic giant capable of changing the economic and pedagogic landscape of Garden Compound and Zambia at large. The study has shown that training in the MFIA on Katima Mulilo roadside in Garden Compound of Lusaka Zambia is in conformity with the universal SL theory and implying that it is acceptable by all standards. The MFIA is a potential organization that can provide training in metal fabrication in Garden Compound and beyond. The public should accept products and graduates from the MFIA as genuine of good and acceptable quality. This study has therefore exposed a sleeping economic and pedagogic elephant for the nation to skin and feed on.

6.4 Contributions to the field

The study has contributed knowledge about the MFIA on Katima Mulilo roadside which was not available to the readers. Further, the implications of the structural adjustment program (SAP) in the 1990s have not reflected on the youths in Garden Compound of Lusaka Zambia. This has been done and further information can be sourced from further research. The study has contributed the general knowledge on roadside skills activities as is the case in West Africa

Further research is needed to examine factors that contribute to the youth minimal involvement of the greatest resource, the youth in the MFIA with special reference to the implementation of the 2013 ZECF. Furthermore, the study did not consider the perspectives or attitudes of the pupils towards apprenticeship training. Exploring these factors would provide valuable insights into the potential benefits and challenges of incorporating apprenticeship programs in the school system and widening the national economic base.

The conclusion of the study is that youth involvement in the MFIA on Katima Mulilo roadside in Garden Compound of Lusaka, Zambia is dismal on account of the traditional apprenticeship practices employed.

6.5 Recommendations

After a vigorous exploration of youth involvement in the MFIA on Katima Mulilo roadside in Garden Compound of Lusaka Zambia, the study makes the following recommendations:

a) Practice recommendations

i) Government and stake holders to use the school system in Zambia to disseminate information on informal apprenticeship for the benefit of majority youths.

ii) Government to adopt traditional apprenticeship as pre-requisite for further training including formal type to enhance youth participation in informal apprenticeship.

iii) Government and stake holders to clustered MFIA to enhance operations, resource mobilization and support the informality campaign to broaden the economic base of Garden Compound in Lusaka, Zambia.

iv) Higher institutions of learning to affiliate MFIA for knowledge transfer, support innovation, patent protection and access to appropriate knowledge in apprenticeship training.

v) The CELL department at the University of Zambia to conduct marketing training in the MFIA to enhance business knowledge in Marketing and customer relations using the proposed Training Manual framework for MFIA on Katima Mulilo roadside in Garden compound of Lusaka Zambia.

vi) Government to start and enforce a robust skill Trade testing program in metal Fabrication in the MFIA on Katima Mulilo roadside in Garden Compound of Lusaka Zambia.

v) Government to create funds to support metal fabrication training in the MFIA on Katima Mulilo roadside in Garden Compound of Lusaka Zambia.

vi Government and stakeholders to provide land, tools and equipment to metal fabrication in the MFIA on Katima Mulilo roadside in Garden Compound of Lusaka Zambia

vii Government to launch public awareness of the MFIA to promote metal fabrication skills training in Garden Compound of Lusaka Zambia.

6.6 Policy recommendations

These recommendations point to change of government policy to support the operations of the MFIA on Katima Mulilo roadside in Garden Compound of Lusaka Zambia namely:

1. Government to review the TEVTA act to cover the MFIA to include individual initiatives in metal fabrication.

2. Government to regulate the operations of MFIA to create space and resource and governance system thereof.

7 The Ministry of small and Medium Enterprises to formulate policies to include metal fabrication in the MFIA on Katima Mulilo roadside in Garden Compound of Lusaka Zambia.

6.7 Recommendations for Future studies

This study has opened the subject. Further research is needed to develop the area. The present study has laid a foundation for many more to follow. Further research can be expanded using several types of research designs. Below are some recommended areas that can be researched as a follow-up to the present study.

i) An expanded version of this study to cover Lusaka district. This will help to understand youth issues in Lusaka.

ii) A study to follow up the Zambia Education Curriculum launch of 2013. The fact that no participant mentioned having learnt about the MFIA from the school system raises issues of the effectiveness of the school in propagating innovations.

iii) The economic viability of the MFIA is the case of Katima Mulilo roadside metal fabrication.

By pursuing this future research direction, scholars can continue to contribute knowledge to the understanding of the MFIA and its role in the economy of Garden Compound of Lusaka Zambia.

In conclusion, this study has shed light on the critical role of the MFIA on Katima Mulilo roadside in Garden Compound of Lusaka Zambia. It serves as a training facility as well as providing employment opportunities and entrepreneurship to the youth in metal fabrication in Garden Compound of Lusaka Zambia. These conclusions and recommendation are indicative of the worthiness of the MFIA in a country without policy guidelines. The MFIA is a potential game changer in skills training in Garden Compound in Zambia and the city of Lusaka as a whole. There is potential to turn the MFIA on Katima Mulilo roadside into a formidable metal fabrication training centre for the benefit of young people.

It is the hope of the researcher that this study will inspire more action among scholars to contribute meaningfully to a more vibrant and diverse learning ecosystem.

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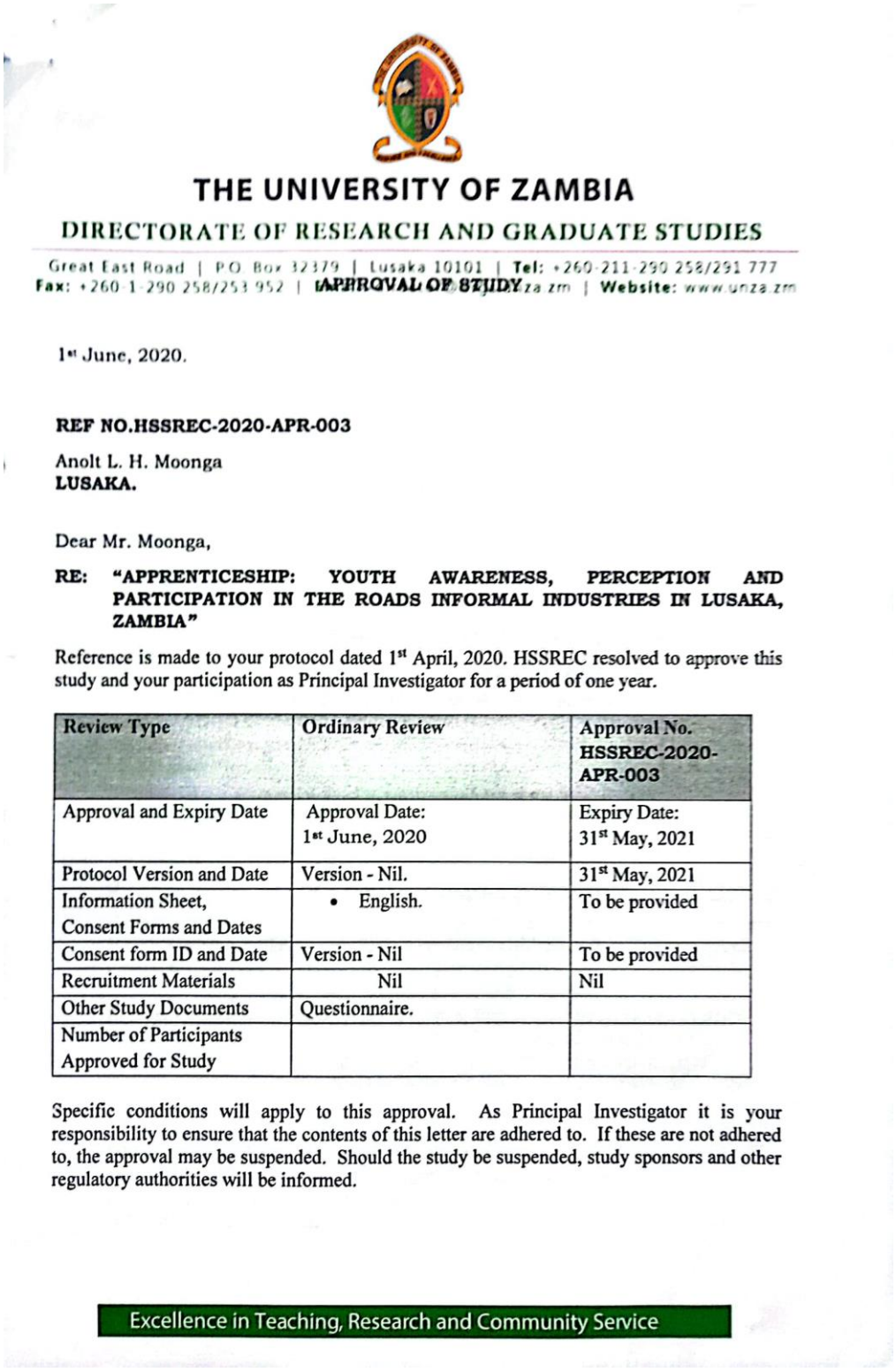
APPENDICES

Appendix 1



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APPROVAL OF STUDY

1st June, 2020.

REF NO.HSSREC-2020-APR-003

Anolt L. H. Moonga
LUSAKA.

Dear Mr. Moonga,

RE: "APPRENTICESHIP: YOUTH AWARENESS, PERCEPTION AND PARTICIPATION IN THE ROADS INFORMAL INDUSTRIES IN LUSAKA, ZAMBIA"

Reference is made to your protocol dated 1st April, 2020. HSSREC resolved to approve this study and your participation as Principal Investigator for a period of one year.

Review Type	Ordinary Review	Approval No. HSSREC-2020-APR-003
Approval and Expiry Date	Approval Date: 1st June, 2020	Expiry Date: 31st May, 2021
Protocol Version and Date	Version - Nil.	31st May, 2021
Information Sheet, Consent Forms and Dates	• English.	To be provided
Consent form ID and Date	Version - Nil	To be provided
Recruitment Materials	Nil	Nil
Other Study Documents	Questionnaire.	
Number of Participants Approved for Study		

Specific conditions will apply to this approval. As Principal Investigator it is your responsibility to ensure that the contents of this letter are adhered to. If these are not adhered to, the approval may be suspended. Should the study be suspended, study sponsors and other regulatory authorities will be informed.

Excellence in Teaching, Research and Community Service

Conditions of Approval

- No participant may be involved in any study procedure prior to the study approval or after the expiration date.
- All unanticipated or Serious Adverse Events (SAEs) must be reported to HSSREC within 5 days.
- All protocol modifications must be approved by HSSRECprior to implementation unless they are intended to reduce risk (but must still be reported for approval). Modifications will include any change of investigator/s or site address.
- All protocol deviations must be reported to HSSRECwithin 5 working days.
- All recruitment materials must be approved by HSSRECprior to being used.
- Principal investigators are responsible for initiating Continuing Review proceedings. HSSRECwill only approve a study for a period of 12 months.
- It is the responsibility of the PI to renew his/her ethics approval through a renewal application to HSSREC.
- Where the PI desires to extend the study after expiry of the study period, documents for study extension must be received by HSSRECat least 30 days before the expiry date. This is for the purpose of facilitating the review process. Documents received within 30 days after expiry will be labelled "late submissions" and will incur a penaltyfee of K500.00. No study shall be renewed whose documents are submitted for renewal 30 days after expiry of the certificate.
- Every 6 (six) months a progress report form supplied by The University of Zambia Humanities and Social Sciences Research Ethics Committee as an IRB must be filled in and submitted to us. There is a penalty of K500.00 for failure to submit the report.
- When closing a project, the PI is responsible for notifying, in writing or using the Research Ethics and Management Online (REMO),both HSSRECand the National Health Research Authority (NHRA) when ethics certification is no longer required for a project.
- In order to close an approved study, a Closing Report must be submitted in writing or through the REMO system. A Closing Report should be filed when data collection has ended and the study team will no longer be using human participants or animals or secondary data or have any direct or indirect contact with the research participants or animals for the study.
- Filing a closing report (rather than just letting your approval lapse) is important as it assists HSSRECin efficiently tracking and reporting on projects. Note that some funding agencies and sponsors require a notice of closure from the IRB which had approved the study and can only be generated after the Closing Report has been filed.

- A reprint of this letter shall be done at a fee.

- All protocol modifications must be approved by HSSREC by way of an application for an amendment prior to implementation unless they are intended to reduce risk (but must still be reported for approval). Modifications will include any change of investigator/s or site address or methodology and methods. Many modifications entail minimal risk adjustments to a protocol and/or consent form and can be made on an Expedited basis (via the IRB Chair). Some examples are: format changes, correcting spelling errors, adding key personnel, minor changes to questionnaires, recruiting and changes, and so forth. Other, more substantive changes, especially those that may alter the risk-benefit ratio, may require Full Board review. In all cases, except where noted above regarding subject safety, any changes to any protocol document or procedure must first be approved by HSSREC before they can be implemented.

Should you have any questions regarding anything indicated in this letter, please do not hesitate to get in touch with us at the above indicated address.

On behalf of HSSREC, we would like to wish you all the success as you carry out your study.

Yours faithfully,

Dr. J. Mwanza

Dip. Clin. Med. Sc., BA.M.Soc., PhD

CHAIRPERSON
THE UNIVERSITY OF ZAMBIA HUMANITIES AND
SOCIAL SCIENCES RESEARCH ETHICS COMMITTEE - IRB

cc: Director, Directorate of Research and Graduate Studies
Assistant Director (Research), Directorate of Research and Graduate Studies
Assistant Registrar (Research), Directorate of Research and Graduate Studies

Appendix 2 Thematic analysis framework

S/n	Code	Concept	category	pattern	Theme	Participant verbatim
1.	Katima Mulilo roadside	Metal Fabrication	All Youths	Youths learn skills	Empowerment B	Roadside informal workshops in Garden (GAP 1,2020). I trained in Garden along Katima Mulilo road (PMC6,2020). I did it here at the next stand (PMC 4,2020
2	Relatives and friends	Metal Fabrication	POSY	Youths learn from relatives and friend	Kinship A	I learnt from a friend (PMC 8,2020). I did Job On Training in Eastern province a friend's workshop (PMC 5,2020).
3	Other Learnin centres	Outside MFI	All	No metal fabrication training	Empowerment B	At SOS children's village but in metal fabrication I trained in Garden along Katima Mulilo road (PMC1,2020). Zithandizen. Skills centre in Garden and the other Kabwe Trades did electrical engineering. In metal fabrication trained in Garden along Katima Mulilo road (PMC2,2020).
4	Youth Engagement	No contracts	All	No fees but paid wages	Recruitment E	I came with interest to know the job. I never paid any fees (POSY 1.2020)
5	Males only	MFIA	All	No females engage	Gender disparit D	Yes. Employees and trainees five males (PMC 5,2020)
6	Male employees	MFIA	All	No females engage	Gender Disparit D	Yes, five male employees. oral contracts. Two are employed on contract,3 are painters who are paid as soon as they do the job given to them. One is my relative so I called him to come and join me here fror the village. The other 4 just came looking for work. They come because they want money to support the family. We have two who are on contract. They have been very good. We renew the contract every three months verbally but if they feel like going because w

						are not treating them well they go before the next contract (PMC7.,2020).
	Employs only those he knows	Metal fabrication	GAP	Helped them to find informal employment	Kinship A	I only employ people that I know and trust. I have two youths. I kno them and I asked them because they are good boys (PMC 2,2020). Helped to find informal employment and engage in self-reliance (GAP 2,2020).
	Benefit of skil acquisition	Metal fabrication	All	Youths benefit fro skills	Empowerment B	Got informal employment (GPA3,2020). Informal employment. I am planning to start my own business self-reliance. I am able to pay rentals buy food and solve family problems (GAP 1,2020). Informal employment. I am planning to start my own business (GPA5,2020). Got financial support for livelihood (GPA8.2020). I Got financial support for livelihood (GPA 7,2020). Informal employment. I am planning of starting my own business self- reliance.
	Skills possessed	Various skills	ALL	Trained in MFIA	Empowerment B	Got from Katima Mulilo roadside informal workshops in garden at this stand. eight years ago through person inquiry (GAP 2,2020). Roadside informal workshops in garden Six years ago by personal inquiry (GPA5,2020). Roadside informal workshops in garden Five years ago by personal inquiry (GPA6,2020). Roadside informal workshops in garden Three years ago by personal inquiry (GPA8.2020). Metal Fabrication. Roadside informal workshops in garden (GPA3,2020).

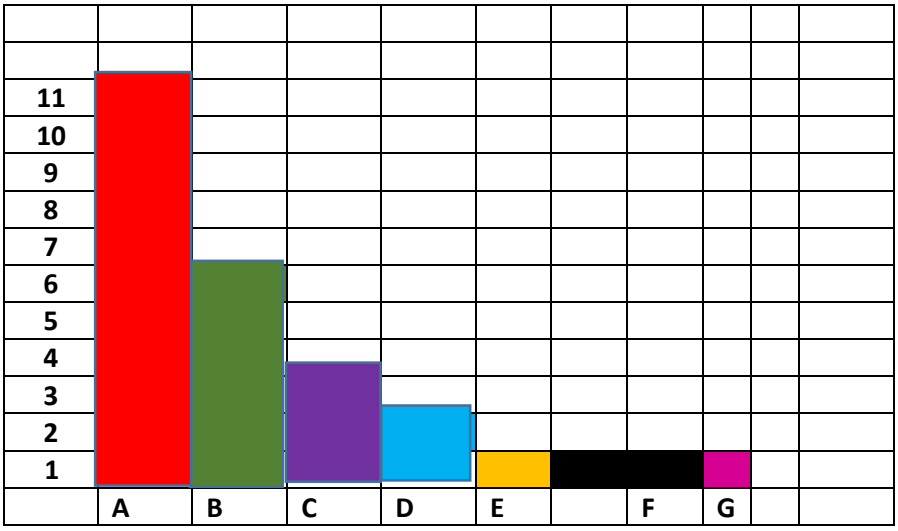
						Roadside informal workshops in garden six years ago. I was trained by a friend (GPA 7,2020). Roadside informal workshops in garden six years ago. I was trained by a friend (GPA4,2020). Roadside informal workshops in garden six year. There are many roadside informal workshops (GPA 10,2020). Yes- At SOS. In metal fabrication trained in Garden along Katima Mulilo road (PMC X,2020). Employed in the informal sector (small unregistered company. Employed in the informal sector (small unregistered company) (GPA6,2020). Employed in the informal sector (small unregistered company) (GPA8.2020). Employed in the informal sector (small unregistered company) (GPA 7,2020).
	Self-reliance	Metal fabrication shop	ALL	Entrepreneurship	Empowerment B	Running own workshop as self- reliance (GAP 2,2020). Running own workshop as self-reliance (GAP 1,2020). Running own workshop as self- reliance(GPA3,2020). Running own workshop as self-reliance(GPA9,2020). Yes, because it keeps them busy just like any other employment (GAP 1,2020).
	MFIA solving problems	Metal fabrication	ALL	Employment and Entrepreneurship	Empowerment B	Yes, it can through skills acquisition which in turn brings about self-reliance (GAP5,2020). Yes. it can through skills acquisition which in turn brings about self-reliance (GAP6,2020).

	Should MFIA training be extended to other youths	MFIA	ALL	Training good for a	Empowerment B	Good training empowers youths (GAP 2,2020) Good training empowers youths (GAP 1,2020). Yes, the youths doing nothing in the compound can acquire a skill through metal fabrication and improve their livelihoods (GAP5,2020).
	Knowledge of MFIA	MFIA	All	Family and friends	Kinship A	Father brought me in this place (POSY 1.2020). Through a friend. I was looking for a job (POSY 3,2020) A friend introduced me. It was my friend's father's workshop (POSY9,2020). Brought/recommended by parents and guardians'. I only tell neighbors that I want some men to help with work then I get more than I need (PMC 10,2020).
	Knowledge of MFIA	MFIA	POSY	Working nearby	Location C	Through Roadside informal workshops in garden. Three years ago (GPA8.2020). Personal inquiry by workers. There are so many people who come looking for work. We recruit those that are serious with work(PMC7,2020).
	Knowledge of MFIA	Metal fabrication	All	Youths see and are shown	Location andKinship C and A	Personal inquiry by trainees/workers and some through their parents PMC6,2020).

	Knowledge of MFIA	Metal Fabrication	All	Youths see work or MFIA	Location C	They see us working along the road so they come to ask (PMC 8,2020).
	Knowledge of MFIA	Metal fabrication	All	Youth informed	Kinship A	brought/recommended by parents and guardians (PMC1,2020)
	Perception of MFIA	Metal fabrication	All	Can recommend friends and relative	Kinship A	Personal inquiry by trainees/workers and brought/recommended by parents and guardians (PMC1,2020)
	Perception	MFIA	All	Need to sensitize others	Empowerment B	we need to sensitize them of the availability of these activities and te them of the value for them to undergo training in various skills related programmes (PMC3,2020) To have a skill in some one's life is very important because the skill in these activities can enable youths to survive because nchito yabvuta maningi.(Employment is very difficult)(PMC 9,2020)
	Working on roadside	MFIA	All	Looking for good market	Marketing F	Here its busy, there is business, inside the compound it's tough (PMC9, 2020).
	Working community	MFIA	All	Participant relationship with others	Community of practice G	There is cooperation and many appreciate our work. Some members c the community wish they could join us (POSY 1.2020). We relate very well although we argue sometimes but the mo important thing is to concentrate on what you are doing (POS 3,2020). We cooperate and help each other-share knowledge (POSY 5,2020).

Sub themes from the thematic analysis according to occurrence frequency.

Appendix 2b Sub themes emerging from Thematic Analysis



Key

A- Kinship B Empowerment C-Location D-Gender disparity

E- Recruitment F- Marketing G- Community of practice

Appendix 3 Data generation Instruments

a) Interview Schedule participating out of school youth.

The University of Zambia

School of Education

Department of Adult Education and Extension studies

Study title: An exploration of youth involvement in the metal fabrication informal apprenticeship on Katima Mulilo roadside in Garden Compound of Lusaka, Zambia.

Dear Respondent,

My name is Anolt Leonard Himweemba Moonga, a PhD student in the School of Education at the University of Zambia. I am doing research by interviewing people like you. My research topic is; **An exploration of youth involvement in the metal fabrication informal apprenticeship on Katima Mulilo roadside in Garden Compound of Lusaka, Zambia.**

Apprenticeship is a useful training method; especially the youth, to help them acquire skills and knowledge for employment or self- reliance. This can help reduce unemployment among the youths in Garden compound and Lusaka in general.

Your answers in this interview will be treated with strict confidence and any quotes made will be anonymous. The information gathered will be used strictly for academic purposes.

Your participation in the interview will be greatly appreciated. I am inviting you to voluntarily participate by responding as honestly as possible to the questions I have.

Thank you.

INSTRUCTIONS

Before we start the interview, I want you to consider the following points:

1. The interview will be in two parts. The first part will involve getting your bio data and the second one will deal with the subject of discussion.
2. Listen carefully and answer the questions as clearly as possible. I will use a voice. recorder to assist me to remember the discussion. This will help me to transcribe the material accurately later.
3. You are free to ask any questions related to the discussion before or after the interview.
4. You are free to stop the interview whenever you wish.

SECTION A: Biographical Information

For this part of the interview, I will ask you to choose the most appropriate. to you.

1. Which is your age range?
   - i) Below 15 { }
   - ii) 16-20 { }
   - iii) 21-25 { }
   - iv) 26-30 { }
   - v) Above 35 { }
2. Where do you live?
   - i) Garden compound { }
   - ii) Other (specify)…….
3. Which one of these do you live with
   - i) Both parents { }
   - ii) Mother only { }
   - iii) Father only { }
   - iv) Guardians { }
4. what is your Gender?
   - a) Female { }
   - b) Male { }
5. What is the highest Level of education you reached?
   - i) Primary { }

ii) Junior Secondary { }
iii) Senior secondary { }
iv) Others (Specify) …….

Thank you. We shall now move to another set of questions about your work here.

SECTION B: Information about the apprenticeship on Katima Mulilo roadside in Garden Compound of Lusaka, Zambia. You can give as much information as you wish to help me understand it better.

6. How long have you been operating at this place?
7. Are you an apprentice/trainee or an employee/worker? (Probe whether informed the status and whether there are theory and practical lessons)
8. How did you find this place? (Probe whether was aware of apprenticeship before and how, through advert or other informants?)
9. Did you come to find a job or a place to train in a skill of your choice?
10. If you are an apprentice, what is the duration of your training here? (probe for contract with your master trainer? Whether paying fees for training or being paid for working and how much? Engagement procedure and training process?
11. Have you been told anything about TEVETA and its work?
13. How many of you are enrolled/work at this place of training/work? (Probe on age, Gender divide and education level).
14. How do you see this type of training? (Use the scale from very good to very bad) and why?
15. How do you hope to use the knowledge and skill you acquire from this place? (probe for employment in the formal sector, informal sector, start own business and employ others?)
16. Briefly explain how the training is done. (probe on the step-by-step involvement of the trainee in line with the legitimate peripheral approach by Jave and Wenger). (Find out how long each stage takes and how to progress from there).
17. What challenges do you have with the training/work you do here? (Probe for possible solutions).
18. If you have any other information you would like to share with me on the work you do at this place, feel free to do so now.

Thank you for your time and Contributions.

Appendix 3b Interview Schedule Graduate Apprentices

The University of Zambia
School of Education
Department of Adult Education and Extension studies

Study title: An exploration of youth involvement in the metal fabrication informal apprenticeship on Katima Mulilo roadside in Garden Compound of Lusaka, Zambia.

Dear Respondent,

My name is Anolt Leonard Himweemba Moonga, a PhD student in the School of Education at the University of Zambia. I am doing research by interviewing people like you. My research topic is; "**An exploration of youth involvement in the metal fabrication informal apprenticeship on Katima Mulilo roadside in Garden Compound of Lusaka, Zambia"**.

Apprenticeship is a useful method of training people; especially the youth, to help them acquire skills and knowledge employment or self-reliance. This can help reduce unemployment among the youths in Garden compound in particular and Lusaka in general.

Your answers in this interview will be treated with strict confidence and any quotes made will be anonymous. The information gathered will be used strictly for academic purposes.

Your participation in the interview will be greatly appreciated. I am inviting you to voluntarily participate by responding as honestly as possible to the questions I have.

Thank you.

INSTRUCTIONS

Before we start the interview, I want you to consider the following points:

1.The interview will be in two parts. The first part will involve getting your bio data and the second one will deal with the subject of discussion.

2. Listen carefully and answer the questions as clearly as possible. I will use a voice. recorder to assist me to remember the discussion. This will help me to transcribe the material accurately later.

3. You are free to ask any questions related to the discussion before or after the interview.

4. You are free to stop the interview whenever you wish.

INSTRUCTIONS

For this part of the interview, I will ask you to choose the most appropriate answer to you

SECTION A: Biographical Information

1. Which is your age range?
   - i) 20-25 { }
   - ii) 26-35 { }
   - iii) 36-45 { }
   - iv) 46-55 { }
   - v) 55 and above { }
2. Where do you live?
   - i) Garden compound { }
   - ii) Other (specify)…….
3. Gender?
   - a) Female { }
   - b) Male { }
4. What is the highest level of education you attained?
   - i) Primary { }
   - ii) Junior Secondary { }
   - iii) Senior secondary { }
   - iv) Tertiary { }
   - v)

SECTION B: **EXPERIENCE WITH APPRENTICESHIP**

Information about informal apprenticeship on Katima Mulilo roadside in Garden Compound of Lusaka, Zambia. You can give as much information as you can to help me understand it better.

5. What trade do you have? (Probe for where trained, duration and number of apprentices in a cohort).
6. How did you come to know about the MFIA (probe awareness of the facility).
7. How do you find this work? (Probe for perception- good or bad and reasons)
8. How was the training/work done? (Probe for process from engagement to graduation and the stage-by-stage work)
9. How were you enrolled for training? (Probe for conditions and contracts.
10. Were you recruited as a trainee or as a worker? (Were you paying training fees or you were paid wages the trainer?)
11. Where are you using the skill learnt now (formal employment, informal employment, own business employing others).
12. What challenges do you have with this type of training?
13. What do you know about TEVETA? (Probe about quality control and certification)
16. What challenges do you have with the training/work metal fabrication on Katima Mulilo Roadside in Garden Compound of Lusaka, Zambia?
17. If you have any additional information about this subject, feel free to tell me.

Thank you for participating in the interview.

This is the end of the interview.

Appendix 3c Interview Schedule Provider/Master Trainer/Craftsmen

The University of Zambia

School of Education
Department of Adult Education and Extension studies

Study title: An exploration of youth involvement in the metal fabrication informal apprenticeship on Katima Mulilo roadside in Garden Compound of Lusaka, Zambia.

Dear Respondent,

My name is Anolt Leonard, Himweemba Moonga, a PhD student in the School of Education at the University of Zambia. I am doing research by interviewing people like you. My research topic is, **An exploration of youth involvement in the metal fabrication informal apprenticeship on Katima Mulilo roadside in Garden Compound of Lusaka, Zambia.**

Apprenticeship is a useful method of training people; especially the youth, to help them acquire skills and knowledge employment or self-reliance. This can help reduce unemployment among the youths in Garden compound and Lusaka.

Your answers in this interview will be treated with strict confidence and any quotes made will be anonymous. The information gathered will be used strictly for academic purposes.

Your participation in the interview will be greatly appreciated. I am inviting you to voluntarily participate by responding to the questions I have as honestly as possible.

INSTRUCTIONS

Before we start the interview, I want you to consider the following points:

1. The interview will be in two parts. The first part will involve getting your bio data and the second one will deal with the subject of discussion.
2. Listen carefully and answer the questions as clearly as possible.
3. I will use a voice recorder to assist me to remember the discussion. This is necessary for me to accurately transcribe what you say.
4. You are free to ask any question related to the interview before and after the Interview.
5. You are free to stop the interview whenever you wish.

SECTION A: Biographical Information

1, which is your age range?

vi) 20-25 { }
vii) 26-35 { }
viii) 36-45 { }
ix) 46-55 { }
x) 55 and above { }

2. Gender?

c) Female { }
d) Male { }

3. What is the highest level of education you attained?

i) Primary { }
ii) Junior Secondary { }
iii) Senior secondary { }
iv) Tertiary { }

4. How long have you been running your roadside industry in Metal fabrication?

I 1-5 years { }
ii) 6-10 years { }
iii) Above 10 years { }

SECTION: B Provision of apprenticeship to youths

7. Do you provide apprenticeship training to youths in your industry?
8. Kindly indicate how many trainees you have now? (Break them down in male and female)
9. How do you recruit the trainees in your trade? (Probe for how they are made aware of the apprenticeship and other conditions, i.e. fees and graduation).
10. Do you sign contracts with your apprentices? (Find out whether parents or other guardians sign for them)
11. Kindly take me through the process of training the apprentices when they join from the start to the end. (Probe for legitimate peripheral approach, whether there are theory and practical lessons, any class work?)
12. Do the apprentices pay fees during training? (Probe for amount and duration of training).
13. What is your relationship with TEVETA (Probe for support during training, trade testing and placement or start up tools and equipment for graduates)
14. Do you have any graduates from your centre who have been employed in the formal sector? (Probe for organizations and their involvement with TEVETA).
15. What challenges do you meet when training the apprentices in your trade? (Probe for possible solutions).
16. You're free to share any relevant information concerning the apprenticeship you give to the youths on Katima Mulilo roadside in Garden compound.

Thank you for responding to my question.

This is the end of the interview.

Appendix 4 The Participant observation Protocal

The study observation list includes the following areas on Katima Mulilo roadside in Garden Compound of Lusaka, Zambia.

1. Governance
2. Environment
3. Safety and health
4. Marketing
5. Power supply
6. Community of practice

The researcher worked incognito to capture salient moments and situations in the MFIA. The researcher interacted with the community in several ways on different occasions to have a comprehensive understanding of the information and situation on Katima Mulilo roadside in Garden Compound of Lusaka Zambia.