

**AWARENESS AND PARTICIPATION OF MINEWORKERS IN WORKERS'  
EDUCATION PROGRAMMES: THE CASE OF NCHANGA MINE IN  
CHINGOLA DISTRICT**

**BY**

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## **DEDICATION**

This study is dedicated to my mother, Ms Bertha Auxillia Phiri whose support towards the attainment of this Masters degree was unwavering. Mother may God bless all your tomorrows, you were always there for me spiritually, financially and emotionally.


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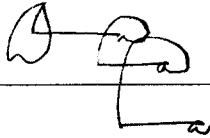
### AUTHOR'S DECLARATION

I, Sylvia Kambole Phiri do declare that this dissertation represents my own work and that it has neither in any part nor in whole been presented as substance for award of any degree at this or any other university. Where other people's work has been drawn upon, acknowledgement has been made.

Signature of Author



Signature of Supervisor



Date

20. 04. 09.

## APPROVAL

The University of Zambia approves the dissertation of Sylvia Kambole Phiri as fulfilling part of the requirements for the award of the Degree of Master of Education in Adult Education.

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## **ACRONYMS**

AAC	Anglo American Corporation
ABET	Adult Basic Education and Training
AIDS	Acquired Immune Deficiency Syndrome
EJB	Economic Justice Bulletin
GCE	General Certificate of Education
GDP	Gross Domestic Product
ILO	International Labour Organisation
IMF	International Monetary Fund
KCM	Konkola Copper Mine
RST	Rhodesia Selection Trust
SPSS	Statistical Package of Social Science
UN	United Nations

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We are all but human with many limitations. We need each other and we cannot do without others. Above all we can do nothing without the help of God in all our well-meant endeavours. I am greatly indebted to Him who has done all things well even God the father of Our Lord Jesus Christ through whose enablement, providence and grace I was able to undertake this study. “This was done by the lord; what a wonderful sight it is!” (Mark12:11).

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## **ABSTRACT**

Workers in every workplace are the most significant component, therefore they need to be kept psychologically satisfied through workers' education. Consequently if any nation has to turn the dreams of development into reality, the workers should embrace workers' education. Workers' education gives workers life long skills which enhances workers' effectiveness at a particular job and a skill to use when one is out of employment.

This study sought to investigate the awareness and participation of mineworkers in workers' education programmes at Nchanga mine in Chingola on the Copperbelt. It addressed itself to two major questions. These were;

ascertain to what extent the workers were aware about the workers' education programme; and

determine the extent to which the workers participate in workers' education programmes at Nchanga mine.

A case study design was used to assist the researcher gain more insight into the awareness and participation of mineworkers in the workers' education programmes. The study used both qualitative and quantitative methods to collect data from respondents. The population consisted of all the workers at Nchanga mine in Chingola district on the Copperbelt province. The management employees and the Mineworkers Union executive members included in the study were selected using the purposive sampling procedure. The non- management workers included in the study were selected using the simple random sampling procedure. Using this sampling procedure 80 non-management workers were selected. A total of 5 management workers at Nchanga mine and 5 mineworkers' union leaders were purposively selected because they were rich information sources. The total sample population in the study was 90.

Data was collected from respondents using questionnaire and semi-structured interview. Qualitative and quantitative methods were used in analyzing the data. Percentages and

pie charts were obtained using the statistical package for social sciences (SPSS). Non-structured questions were analysed through categorization of themes.

The findings of the study were that the mineworkers were not knowledgeable or they did not have full realization about the term workers' education. It was also established that all the mineworkers had only attended few days courses under the workers' education programme in form of induction training. This meant that these workers could not be considered for promotion or have a pay rise. Further, the study established that some of the mineworkers did not meet the prerequisite to do either degree or diploma programmes due to their low education standard.

The study recommended that: in view of the International Labour Organisation's universal declaration of human rights which outlines that everyone has the right to education, mineworkers included. The International Labour Organisation should draw up training manuals for the mining industry in order to guide the management on the provision of workers' education for their employees. The training manuals should outline the need for mineworkers to be exposed to both up dating and upgrading education respectively.

The management should introduce General Certificate of Education (GCE) at the mine to assist workers that have work over load to upgrade their 'O' level. The ILO declaration also states that education leads to the full development of human personality and to the strengthening of respect for human rights and fundamental freedoms. Therefore, it was vital for mineworkers that did not have full 'O' level certificates to upgrade their education at 'O' level in order to open them to new horizons in terms of opportunities and career development.

In view of the government policy of creating jobs for the local people, it is incumbent upon the government to extend this policy to the mining industry by ensuring that the senior and supervisory positions in the mine are not only for expatriate staff.

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## **CHAPTER ONE**

### **1.0 INTRODUCTION**

This chapter gives a synopsis of the background to the present study. In addition, an attempt is made to explain concepts that are used in the study for the purpose of making them clear to the reader.

#### **1.1 Background of the problem**

Zambia's economic development since the 1920s has been heavily dependent on the copper mining industry. Some sources like Mulungushi (1998) write that Kansanshi was the first mine to start operating on commercial scale in 1908. However, Fraser and Lungu (2006) explain that the first commercial mine in Zambia was opened at Roan Antelope (now Luanshya) in 1928. Therefore, between the two mines in mention one of them was the first to open on a commercial scale. In the ensuing years more copper mines were established, one of them is Nchanga mine in Chingola, which was opened in 1924. At present, Nchanga mine is the largest operating copper mine in the country. Other mines that were opened around this time were Nampundwe mine in 1914, Mufulira in 1928, Chibuluma in 1939. Copper mining in Zambia is responsible for over 60 percent of the country's foreign exchange earnings (Fraser and Lungu, 2006). Some 15 percent of Zambia's total human resources are employed in the copper industry and it contributes over 10 percent to gross domestic product (GDP) (Fraser and Lungu, 2006).

Long before and after 1964, Anglo American Corporation (AAC) and Rhodesia Selection Trust (RST), which are both foreign companies, ran the several copper mines in the country. This meant that foreign companies controlled all the rights of ownership of minerals. During this era, the mines also had a workers' education training policy for its employees (Fraser and Lungu, 2006). The policy stipulated that few courses were to be offered. In most cases, not many workers accessed these programmes and the courses were mainly based on updating of skills. In 1969, the Zambian government announced the nationalization of the mines. The Zambian Constitution was amended through a

referendum in line with the new nationalization rights. Therefore, all rights of ownership of minerals as well as exclusive prospecting and mineral licenses were taken over by the state. The state also acquired 60.3 percent of shares in all existing mines in the country, while 27.2 percent went to AAC, 7 percent to RST and 5.5 percent was given to the Zambian public. In 1982, the two nationalized companies were merged to form the Zambia Consolidated Copper Mines (ZCCM), which took over the running of the copper industry. Consequently, the state had 60.3 percent control shares in the merger and ZCCM operated 10 integrated mines, three smelters, two refineries and a tailing leach plant. ZCCM also maintained the workers' education training policy in the mines and increased the number of courses offered and workers trained. The workers were orientated on the in-service training or workers' education programmes during induction. The workers' education programmes were done either internally or externally (Songiso, 2007). The internal training meant up dating of competency skills of a worker regarding his/her particular job. The external training was mainly upgrading education that led to the attainment of a professional qualification from tertiary institutions.

To cater for the internal workers' education programmes in ZCCM, workers' education centers were opened at each division on the Copperbelt. The courses offered at the centres included mining procedure, management skills, mechanical electrical, refrigeration, smelting and boiler making. ZCCM also employed school leavers who later upgraded their qualifications. Workers that attained diploma or degree qualifications were placed in senior or technical roles in the mining industry and this meant an increase in salary. However, after a few years of nationalization, between 1997 and 2000 ZCCM was privatized, which led to the collapse of the workers' education training policy in the copper mining industry. The operations and developments at ZCCM slowed when the price of copper collapsed after the first oil crisis in 1974. This situation forced the Zambian government to borrow money from the International Monetary Fund (IMF) and the World Bank in order to maintain social provision. In 1979, another oil crisis led to the rise of interest rates in the country and Zambia was unable to repay its debt. This pushed the country into a severe debt crisis (Lungu, 2001). For 20 years, the Zambian economy collapsed at an internationally unprecedented rate as copper prices continued to fall

relative to the price of imports. Throughout the economic crisis, ZCCM suffered from little investment in machinery and prospecting ventures. ZCCM production reduced from a high annual output of 750,000 tonnes in 1973 to 257, 000 tonnes in 2000 (EJB, 2003).

As a way of providing a solution to the economic crisis in Zambia and for the country to pay back the debt, the IMF and World Bank prescribed the Structural Adjustment Programme (SAP). One of the objectives of SAP is the privatization of public companies and services. In this light ZCCM was privatized and the consequence of this measure inter alia included to the retirement and laying off of most of the local mine workers with the necessary expertise and experience. Additionally many local mine workers with expertise left the country to seek greener pastures (Lukwesa, 2006).

During the privatization exercise between 1997 and 2000, Anglo American Corporation bought Nchanga mine which meant that AAC had the right to develop and maintain a workers' education programme at Nchanga mine (Chileshe, 2007). However, in 2002, AAC pulled out of Zambia handing the mine back to the state ownership and this action almost brought to a halt production at the country's largest mining asset. Nevertheless, in 2004, the British and Indian owned company, Vendanta, bought Nchanga mine under the company name of Konkola Copper Mine Plc. At the moment of their purchase of Nchanga mine, the new owners brought in expatriate staff to fill most technical positions. The reason they expressed for this was that the country lacked people with the necessary expertise and experience to fill specific positions in the mine (Lukwesa, 2007). On this aspect, the mine was pressured by government to change their stance. Therefore, in 2005, Nchanga mine established a workers' education programme in order to create a pool of skilled local workers to fill technical positions and other professional positions in the mine. However, out of the large number of employees at Nchanga mine only three employees have been sent through the workers education programme to pursue upgrading education. Meanwhile many workers have done updating courses, which do not qualify them for promotion and consequently an increment in their salary. Therefore, this study will examine the awareness and participation of the mineworkers in workers education programmes at Nchanga mine.

## **1.2 Statement of the problem**

Few workers have pursued upgrading education under the workers' education programme since it was established at Nchanga mine. The implication of this is that few workers are eligible for promotion, salary increment and taking up technical and professional positions in the mine. It is, therefore, imperative to examine the miners' awareness and participation in the available workers' education programmes at Nchanga mine.

## **1.3 Purpose of the study**

The study sought to establish the mineworkers' awareness and participation in the workers' education programmes at Nchanga mine.

## **1.4 General objective**

The study's general objective was to investigate the awareness and participation of the mineworkers in the workers' education programmes.

## **1.5 Specific objectives**

1. Find out the awareness of the workers regarding the workers' education programmes at Nchanga Mine.
2. Determine the participation of the workers in the workers' education programmes at Nchanga mine.

## **1.6 Research questions**

1. To what extent were the workers aware about the workers' education programmes at Nchanga mine?
2. To what extent did the workers participate in the workers' education programmes at Nchanga mine?

### **1.7 Significance of the study**

Through this study, tertiary institutions in the country will be made aware of the training needs of the mine. Further, in light of the United Nations' desire for the creation of good working conditions for workers, the International Labour Organisation may find the study useful in coming up with workers' education manuals as guidelines for employers in the provision of workers' education programmes to workers.

Findings of the study may bring out relevant information on the factors that contribute to the low participation of workers in the upgrading of education of the workers' education programme. This information will help the management at Nchanga mine in their planning and implementation of workers' education programmes.

The data collected may also benefit the Mine Workers Union by providing them with useful literature that may enable the union to know how to guide the workers on the need for many workers to participate in the upgrading of education under the workers' education programme.

The study on the awareness and participation of mineworkers in workers' education programmes is important for establishing the status of workers' education programmes in one of Zambia's crucial economic sectors. Worker educators', the Ministry of Labour and Social Services and workers unions in general can benefit greatly from a study of this nature as findings can be used to design more responsive programmes.

### **1.8 Limitations**

Since awareness of an individual is inferred from his/her knowledge and cannot be measured as directly as skills, facts and concepts, the task of assessing mineworkers' awareness and its impact on the participation of mineworkers in workers' education programmes at upgrading was not an easy task. In order to assess the awareness of mineworkers, we relied more on clues from mineworkers' responses in the questionnaires administered on them. Further, both management and the union leaders' responses to

certain questions during the interviews were taken as a measure of mineworkers' awareness of workers' education programmes. This method of assessing awareness could not guarantee an accurate disposition of workers' awareness of mineworkers' education programmes.

The researcher was not allowed to meet the workers and getting the questionnaires to the workers through management proved difficult, as management was not willing for workers to participate in the study. It took the researcher a lot of persuasion, persistence and patience to get the questionnaires through to the workers.

The responses from the management during the interviews did not give a true representation of what was on the ground with regard to awareness and participation of mineworkers in workers' education programmes at upgrading level. The workers and mineworkers' union executive members in most cases held divergent views to those expressed by management on several issues.

### **1.9 Operational definition of terms**

The definition of terms clarifies how some terms are used in this study.

**Awareness:** In this study, awareness means having full realization and knowledge of what something is in terms of its meaning, significance and existence. Awareness also describes the orientation given to the workers on the existing and available workers' education programme.

**Conscientisation:** This is a method of education used to help people to rediscover their lost sense of worth and dignity, a method that would awaken people to the realisation of their potential as creators of culture, people who, unlike animals would give name and meaning to the world.

**Participation:** In this study, participation means taking part in training in a programme of one's choice. It is also used to describe the levels to which mineworkers take part in any form of workers' education programmes.

**Professional Qualification:** Certificate earned through advanced education and special training after a considerable number of years.

**Training needs:** In this study, training needs are part of general needs. With training needs there is a deliberate move to access a worker to skills and knowledge meant for their survival outside work.

**Updating:** This type of education offers non-credit programmes that do not attract professional certification.

**Upgrading:** This type of education offers credit programmes that offer professional certificates.

**Workers' education:** This is a special kind of adult education designed to increase workers' usefulness at work and develop the workers mentally, spiritually and physically. Workers education must be practical and concerned with the day-to-day problems of the workers.

### **1.10 Organisation of the study**

Chapter one gives a synopsis of the background to the topic under study. Further, the significance of the study is explained for purposes of making the reader grasp the relevance of the topic under study.

Chapter two reviews literature related to the awareness and participation of mineworkers in workers' education programmes. It has attempted to analyse some of the existing

literature on the subject of awareness and participation of mineworkers in workers' education programmes from countries in Asia and Africa.

The methods of data collection used in the study are discussed in chapter three. This discussion is divided into seven sections subsumed under the following headings: the research design, study population, sample and sampling, research techniques and instruments, data collection and data analysis.

After which, the findings of the study are presented in chapter four and chapter five discusses the findings of the study. Thereafter the study deals with the summary, conclusion and recommendations in chapter six. This chapter ends with suggestions for further research. The subsequent pages consist of bibliography and appendices.

### **1.11 Summary of chapter**

This chapter focused on the history of workers' education programmes in relation to the awareness and participation of workers in workers' education programmes. The history of workers' education programmes in the copper mining industry was presented from the colonial era up until the privatization of the mines in Zambia. The chapter also discussed the fact that, there were two types of workers' education programmes that an employer can avail to their workers. The two types of workers' education are updating and upgrading education.

The chapter outlined that the workers' education programmes that were offered during colonial rule were mainly based on updating skills of the workers. However, after the nationalization of the copper industry, ZCCM took over the operations of the mine and it availed its workers to both updating courses and up grading education. The workers' education training policy in the copper mining industry collapsed when ZCCM was privatized between 1997 and 2000. During the privatization exercise Anglo American Corporation bought Nchanga mine but later pulled out. After which the British and Indian

owned company Vendanta bought Nchanga mine under the company name of Konkola Copper Mine Plc.

The management at Nchanga mine has an established workers' education programme in order to train workers who should in turn fill technical and professional positions in the mine. The next chapter will review literature in relation to the topic under study.

## **CHAPTER TWO**

### **2.0 LITERATURE REVIEW**

#### **2.1 INTRODUCTION**

This chapter reviews literature related to the topic under study. Awareness and participation of mineworkers in workers' education programmes is crucial. Research has shown that for workers to profit from workers' education programmes at a workplace, it is necessary for the employer to avail workers to in-service education at diploma or degree levels (Dagmar, 2008).

Research findings by some researchers like Marius (1999) have however revealed that more often than not employers only avail mineworkers to education based on updating their skills in relation to their particular jobs. Chungu (2001) observes that employers all over the world and Zambia in particular are interested in high production and not in giving workers education for life, which they can use even after they retire. He further notes that awareness and participation of mineworkers in workers' education programmes is vital. Therefore, this aspect should not be overlooked in the struggle for the mineworkers to get education for life. Even though his observations did not include the effects of updating of skills on the life of a mineworker after retirement, they support the fact that awareness and participation of mineworkers in workers' education programmes is vital in the development of education for life for the workers.

On the other hand, Allman et al (1994) found that there were employers that sent their mineworkers for upgrading education. This therefore shows that awareness and participation of workers in workers' education programmes differ from one institution to the other.

## **2.2 The concept of education and a worker**

To the popular mind, the word education carries a sort of magic. Education is the open sesame to culture, to wealth, to social prestige and to all that the human heart craves. Looked at more broadly, education has the role of training the character of a person so that one becomes next to what they are exposed to. Kloppenberg (2007) shows that education acquaints oneself with his/her ignorance, which is much more than being knowledgeable. Education can only be ordinary when one shows you what is in it. It is like a path, which you ordinarily know, but when one shows you what is along the path, it helps you to be aware of your ignorance. It is when one is educated that they can confess ignorance and make a difference.

Mwanakatwe (1971) reports that Education is a process of learning that efficiently prepares people to live in their environment, and education is a social science study by which one generation transmits the cultural elements considered important to the succeeding generation. By way of adaptation, people develop skills necessary to utilize the resources available in a particular set-up, in order to support their daily economic activity. Education as a learning process introduces people to what is valuable, with its methods and aims, depending on the nature of the society in which it takes place. Education helps people to become creative by using their initiative, which in turn makes people appreciate their communities because they contribute to its sustenance. Freire (1974) also states that education gives literacy; it makes one conscious of their mistakes and leads to development of the human being. Further, through education one goes through the process of corrective building. A study done by Hoch (1988) on the importance of education explains that education is by its nature an endless circle or spiral. Education is an activity that includes science within itself. In its very process it sets more problems to be further studied, which then react into the educative process to change it still further. Thus, this demands more thought and more science in an everlasting sequence.

Economically, education is a form of security assurance against unemployment; education assures people of employment in future. It may not be of immediate benefit but

later. Not to mention the fact that education creates humanity through an interaction with different people and tends to discard some of the negative aspects held earlier. Therefore, through education people tend to harmonize other people's ways of living. As already alluded to, education removes certain barriers; often times it is ignorance that makes people misunderstand others. In other words, education leads to exposure. Education lights a candle of understanding, which implies that it gives people the understanding of things around them especially in the areas involving life around oneself. This view is also espoused by Blatz (1994), although he does not elaborate it further. He points out that:

Education expands our horizons of understanding...education must empower people to become good citizens, education targets human sense, feelings and emotions...education is student centered, the learner should experience change and rebirth...education also helps to eradicate social ills or injustice. Therefore, education becomes a basis for civilization (Pp.81).

Article 26 (2007) of the International Labour Organisation Declaration of Human Rights reveals that everyone has the right to education. It further states that education leads to the full development of human personality and to the strengthening of respect for human rights and fundamental freedoms. Education should promote understanding, tolerance and friendship among all nations, racial or religious groups. The Article also outlines that in different ways and in differing degrees, workers experience obstinate problems of unemployment and underemployment. This is associated with technological transformations and a restructuring of the world economy. It is clear, however, that low levels of education and training limit the options of individual workers, threaten the security of their jobs and seriously impair the quality of their lives.

Stern and Jenks (2007) agree with the ILO on the Article 26 of the Universal Declaration of Human Rights even though they also include that, the specific function of education becomes more complex by the rapid change in the nature and meaning of work. Further, the world has seen a rapid advance through five stages in the evolution of the concept of a worker. In the first stage, work for the majority is essentially manual, requiring strength and dexterity. In the second stage, emphasis is on the maintenance of machines. At this

stage, a more sophisticated dexterity has to be learnt and essential requirements, which include the ability to comprehend instructions, warnings, a habit of regularity and conformity. The third stage shifts emphasis to mental effort, requiring the ability to learn general principles, apply them to individual problems, and to organize, collate, retrieve and communicate information (Stern and Jenks, 2007). At fourth stage, there is a tendency to correspond to the rapid growth of the service sector. This situation demands more less easily definable social skills of communication, persuasion and interpersonal relationships. The fifth and last stage now presents urgent demands, which are even less easily definable. Nevertheless, it seems to place a premium on the capacity to invent processes and conceive alternatives (ILO, 2007). All these stages make their demands often simultaneously and with some degree of conflict on education and training systems.

Hodgkinson (1985) reports that in connection with this accelerating evolution of demands, also the advance in technology tends to eliminate artisanship and sharply reduces the range of differing occupations within many traditional fields. In turn, this process of elimination of familiar skills and creation of new demands has an effect on workers. It requires individuals to change their occupations, and acquire new skills several times in the course of their working lives. New technology permits designers to shape the final product directly and are conferring upon machines a power of self-correction and self-regulation, which removes the need for skilled personnel who can supervise. As a result, many intermediate levels of work that involve a satisfying exercise of creativity, responsibility and technical skill and in which experience and maturity are necessary are disappearing. Moreover, it is clear that at each stage of the evolution the social category of the worker becomes more fragmented and more difficult to define.

### **2.3 The concept of workers' education**

Laidler (1954) explains that workers' education is the education targeted for workers. Laidler also found that the definition of workers' education is explained with regard to the group it addresses, the content and the agencies providing it. The two most notable agencies that provide workers' education are the trade unions and the employers.

Laidler's observation also tallies with those of Kakkar (1973) who states that workers' education is an attempt on the side of organized labour to educate its members under an education system in which workers prescribe the course of instruction, select teachers and furnish the finances. Peterson (1951) also defines workers' education as a special kind of adult education designed to give workers a better understanding of their rights and responsibilities. When workers are ignorant, there is fear, suspicion, tension, underdevelopment and industrial unrest. Thus, workers' education should bring about lasting peace and industrial rest.

According to Cohn (1966), workers' education should help workers interpret world upheavals as historical phenomenon. Workers' education should help one understand where they are coming from and where they are going. Further, workers' education is an education meant to increase the usefulness of the worker at the place of work. However, other scholars like Morgan (1989) argue that, workers' education is an educational programme that is practical and concerned with the daily needs of the worker at work and outside their work place. Workers education avails workers with the training they need to perform an effective role in the economic and social life of their societies. Workers must have a hand in the education and workers' education should be need driven. Morgan further elaborates that workers' education is about looking after the welfare of workers and their families.

In the definitions discussed above, it is clear that workers' education benefits the system and looks at the worker as a tool. Nevertheless, the other stance is that workers' education ought to look at the individual development of the worker. Individual development of a worker is realized when workers improve their lives socially, economically and spiritually. This type of workers' education has a concept of conscientization. In review of workers' education programmes carried out in India, Ishumi (1974) found that the aim of the workers' education programmes in the mining industry in India is teaching the workers about intelligent participation in management and skills related to their specific jobs. Workers also learn to be better citizens by them performing their duties in society. The workers' education programmes in India aim at

increasing the association between workers and management. Further, the education for workers encourages workers to freely express their opinions and understand their roles in the working industry. Most of the mineworkers in India largely come from the rural areas where the masses are mostly illiterate and backward. Lack of education and ignorance always constitutes a serious impediment in the effective participation of individuals in the mines. Hence, the design of workers' education programmes in India affords opportunities to workers, for acquiring an objective knowledge of social and economic issues. This process of education enables workers to be conscientised, well equipped, and effectively fulfill their functions in a responsible manner in the social and economic life of the modern economy. The government, trade unions, employers and educational institutions are involved in the provision of workers' education in the mines in India.

Kakkar (1973) recognizes that in all the countries there is a direct relationship between one who instructs and the worker, but in the mining industry in India the workers' education programmes pass through three stages. The first is the training of the education officers who after successful completion of training are posted to different centres in the mines. The second stage is that of training the worker-teachers by the education officers at the respective centres and the worker-teachers in the third stage conduct classes for the workers at the unit after which the workers revert to their departments.

## **2.4 Workers' education and the International Labour Organisation**

Bienefeld (1975) reveals that social justice and higher living standards for the world's working people is paramount, therefore, the United Nations (UN) looks after the workers' affairs through the International Labour Organisation (ILO). With the membership of International Labour Organisation standing at 160 and Zambia being a member country, one of the obligations of the Organisation is the attainment of conditions in which workers' education programmes for workers shall be possible. This must constitute the central aim of national and international policy for member states to adhere. Therefore, the International Labour Organisation and its member states have an obligation to ensure that workers access trade union workers' education programmes through national and

international training facilities for workers. Member states should also ensure that there is quality education and sufficient facilities for recreation and culture for the workers. In general terms the International Labour Organisation Journal (2008:17) suggests that:

Workers' education should be vocational training which is technical in nature. Workers should be given vocational education which would allow them get equal opportunities in accessing positions in the field of work...workers' education programmes should have vocational training aspects... because the qualities needed to perform complex and evolving tasks require not only a knowledge of highly specialized techniques but also the capacity to reason and adapt... which vocational education seems able to develop....Workers' education is management training which is also technical in nature. It has the purpose of increasing efficiency and productivity of workers. Administrative and managerial personnel should also access training through the workers' education programme for them to appreciate and recognize the existence of labour as a critical aspect of production.

The International Labour Organisation's observations also tally with those of Vaughan (1991), whose thoughts on workers' education being vocational training took into consideration the factor of workers' easy entry into productive employment after acquiring this kind of education. Vaughan further observes that workers' education of this nature also ensures one to be self-employed, this corresponds to personal aptitudes, aspirations, and it facilitates occupational mobility. Workers' education, which is vocational in nature, promotes and develops creativity, dynamism and initiative with a view to maintain or increase work effectiveness. Moreover, it also protects persons against unemployment or other losses of income or earning capacity deriving from lack of demand for their skills as well as against underemployment. This underlines the point that workers' education should offer recurrent education and training. Workers' education of a vocational nature protects persons against excessive physical or mental strain in employment. The International Labour Organisation Journal (2008) records a study that was carried out in one mining company in Canada aimed at assessing the workers' participation in workers' education programmes. In this mining company, seven out of 10 workers felt stress resulting from lack of a sense of control over their work situation. This feeling was attributed to the fact that most workers had not attended any

workers' education programmes to improve either their skills or qualifications. Other than making workers stress free, workers' education aligned to vocational training does help workers to achieve social, cultural, economic advancement and a continued adjustment to change, with the participation of all concerned in reshaping the work requirements.

The International Labour Organisation Journal (2008) also illustrates that workers' education is concerned solely with social matters. Workers' education tries to bring about equality of opportunities that handicaps the working classes in societies and it tries to awaken among these classes a comprehensive understanding of themselves. In order to realize this, therefore, workers' education programmes should also feature courses with topics such as labour, history, economics and issues in contemporary society. Kirchberger (1983) supports this view by explaining that workers' education programmes ought to address themselves to the need for training for management and supervisory functions. Kirchberger suggests that management workers are to have training in higher-level management skills, often involving computer assistance and a strong emphasis on communication and interpersonal encounters. Management workers ought to be trained for them to have knowledge and understanding of the economic and social aspects of decision-making, in order to cultivate in them the attitude and ability suitable for leading and motivating others and for developing sound industrial relations. The training of management workers further helps to develop in them initiative and a positive attitude towards change and a capacity to appreciate the effect of change on other people. It even assists management workers to develop awareness on the importance of education, vocational guidance and vocational training for the workers in their organisations. In addition, trained management workers, can be aware of the conditions of workers in their occupational life, they can be concerned for their welfare and have knowledge of labour laws and social security schemes. These aspects imply that workers' education for management workers should impart in them knowledge of and sensitivity to traditional cultures, international norms, and general principles of effective human interaction. In other words, workers' education for management workers should have a broadly based cultural education.

## **2.5 Purpose of workers' education**

Workers' education helps to bring about change to workers and the workforce and not stability. Workers in every establishment are the most significant component, thus they need to be kept psychologically satisfied through training which brings a sense of responsibility, ownership and sense of belonging on their part. When workers are not psychologically satisfied, there are normally conflicts and frustrations at work place. Further, when workers are not satisfied it brings about corruption and a non-caring attitude towards work. Thus, workers' education brings about change which is beneficial to a country and ultimately to the individual worker. Plato as cited in Kakkar (1973:17) remarks that:

If any underdeveloped nation has to turn...the dreams of economic planning into reality, the workers of that country should be one of the most significant components of the community and should at least be psychologically satisfied. Psychological satisfaction can bring a sense of co-operation between the worker and the employer instead of a sense of conflict and frustration. Nevertheless, a worker can only be psychologically satisfied if he/she is well educated.

## **2.6 Aims of workers' education**

Raico and Ralph (1974) intimate that workers' education widens the cultural dynamism of a worker. Each worker is supposed to have an opportunity to understand his or her culture. Workers education is about awareness and this form of education prepares workers for a new social order. Workers' education also aims at making the workers realise their purpose in life. Workers' education helps the development of regular members at any place of work and this type of education prepares workers for leadership. Above all, when workers are educated, there is collective development and planning in any organisation. Education of workers helps to bring about sustainability, in that workers would not destroy what already exists even in times of disputes with the management. Further, when there is an expansion in any programme in any establishment the workers should be educated about it because they are partners in production.

Workers' education assists workers to think broadly, be committed and improve their status. Workers' education is a prerequisite to workers satisfaction in any working place. Workers' education opens up the minds of beneficiaries and assists them to understand issues that concern them. It also enables workers to know their responsibilities to family and the community. Moreover, workers' education equips workers with the necessary knowledge to enable them to take part in the various activities in their organizations. For instance, when individual workers update their qualifications this brings about improvement in their skills and knowledge. Knight (1969) observes that workers become active when they are educated and they begin to understand and appreciate their roles in an organization. They are not passive, but productively active, understand their work and it is easy to deal and work with an educated worker. Gramsci (1971:38) agrees with Knight as he explains that:

In many cases, workers' education is supposed to instill a sense of discipline in the workers' minds...workers' education provides skills education to those workers already in employment and workers' education also helps workers become efficient and effective... workers' education is intended to train individual workers who have become redundant due to new technological changes.

Other studies have established that workers' education strengthens formal education and national education at large (Lynton and Williams, 1982). One can hasten to add that workers' education also helps workers to develop their consciousness as citizens. It equally helps workers to improve their standard of living, by developing their skills and professional competency. In broad terms, workers' education widens the cultural outlook of each worker that undergoes training in one way or the other. In agreement with this, the ILO Journal (2008) reveals that workers' education aims at increasing productivity in various organisations. Updating the skills of the workers leads them to become good producers. In this context, therefore, workers' education helps workers to match with appropriate technology in whatever form.

Kidd (1973) recognizes that;

“Workers’ education uses technical means and methods and it is solely concerned with social matters. Workers’ education tries to wipe out the inequality of opportunities which handicaps the working classes in society and tries to awaken among these classes that active comprehension which is a necessary condition for any positive move towards the social reforms to which they aspire. Finally workers’ education develops the ability of the worker in all those aspects of social activity which have become so complex in modern society. The aims of workers’ education have remained basically the same as espoused by ILO....On the other hand; the aims have progressively developed to cover the new aspects of a continually expanding body of labour law.”

The nature of workers’ education programmes has become more diversified under the influence of factors such as the newly found independence of nearly all countries formerly under colonial rule and the growing conviction that it is necessary to ensure the participation of the working classes in national development (Kidd). One of the main obstacles to developing workers’ education among the working classes was the long working day. To spend ten to 11 hours a day in a factory or an office frequently meant being away from home for 12 to 13 hours a day. It is plausible that the physical tiredness of the workers, who frequently reached the point of exhaustion, explains the indifference that the workers may exhibit towards workers’ education programmes in some cases. Consequently, from this point of view, the adoption by the first International Labour Conference in Washington in 1919 of a Convention, “limiting the hours of work...to eight in the day and 48 in the week” in industrial undertakings could from the onset be appreciated as the fundamental contribution to the creation of the conditions essential for the spiritual development of the working class (Kidd, 1973).

Chileshe (2007) reports that during colonialism, the workers’ education programmes provided to the mineworkers by their white employers was mainly in the form of language teaching and skills training. In terms of skills training, the workers learnt skills only necessary for them to operate specific tasks on their job. The Zambian workers learnt how to read, write and speak the language known as *cilapalapa* or (*cikabanga*).

This language originated from South Africa, it was a mixture of Bemba, Swahili and Afrikaans. All the workers in the copper mines learnt to speak this language for purposes of communicating to the whites while on duty.

There are different aspects in different countries, which contribute to the diversity of workers' education. The different national cultures and traditions, different levels of general education, different historical developments of mining companies attribute to different workers' education in various countries. Further, the other aspects include different local resources of trained men and women, materials, money and the great variations in assistance obtainable from different agencies. All these give way to the diversity of workers' education. Kallen (2007) explains that in the mineral industry in South Africa, there is particular emphasis on Adult Basic Education and Training (ABET) which is an internal training programme that offers adult literacy courses to the majority of the illiterate mineworkers in South Africa. These courses provide workers with an education and training base for further learning and career path advancement. In order to contribute to the removal of all discriminatory barriers within the industry, particularly those of a racial nature, literacy courses are available to the workers. Further, management courses are provided through the ABET to help supervisors develop good interpersonal skills, motivation of their workers. Above all, courses in psychology help to prepare all the workers in the mineral industry to participate more actively in the process of change within the workplace and community. The AEBT is funded by the Mining Qualification Authority, which centrally coordinates the training of workers in the mineral industry (Herxter 2008). Through the ABET, mining companies have made efforts to redress past discrimination and to ensure that individuals with potential have the opportunity to reach higher levels of responsibility in the industry. The mining companies aim to have more efficient, productive and better-paid human resources through education and training. The mines in South Africa offer workers' education programmes that focus on upgrading the education standards of its human resource.

## **2.7 Marxist perspective of Workers' Education in Socialist and Capitalist Societies**

Better industrial concerns are desired today, but their fate hinges on the persons who organize and manage those concerns. Similarly, the efficiency of machines depends on those who operate them (Kakkar, 1973). This shows that the education of workers has remarkable social significance in any country and the effectiveness of the workers' education programme is highly dependent on the agency offering it. Better still, the effectiveness of workers' education programmes mainly relies on the ideology being used in implementing the programmes by a particular organisation.

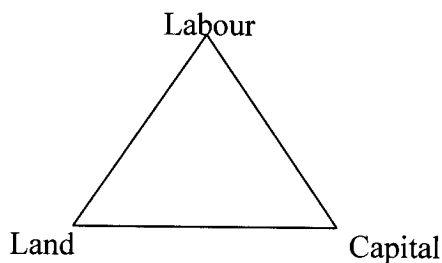
Peterson (1951) explains that there are two ways in which to understand workers' education. There is the eastern block which consists of countries such as Tanzania and the western block with countries like Canada; the eastern block presents the classical Marxist theory on workers' education. While the western block subscribes to the capitalist theory of workers' education. For the Marxists, workers' education should have elements of upgrading education and workers mobilization. Through this process, the working class should be educated on issues that they want and concern them (Marius, 1999). The Marxist theory of workers' education also explains that workers' education is supposed to be broad and inclusive by including science, literature and art. Workers should be creative and be allowed to contribute to the welfare of society (Marx and Engles, 1970). Art is about creativity, natural science, industry formation and literature is information or mirror of society. Further, the Marxists explain that workers' education programmes ought to equip workers with life long skills, and it should help workers to acquire a skill that they can use in other sectors of society. Above all, workers should make independent decisions over every aspect of human life.

In supporting this view, Gramsci (1971), a Marxist thinker alludes to the fact that a worker should be knowledgeable all round. An educated worker is a good follower. The focus of the Marxist is that workers' education is on the holistic individual, a human being with soul and body together. The Marxists argue that there is need to look at the social, economic, spiritual, moral and educational sectors that add up to the totality of a person and the cross cutting issues like Acquired Immune Deficiency Syndrome (AIDS)

for each worker. Further, Gramsci (1971) also outlines that, “workers’ education is an educational programme that tends to the creation of a new civilization, of new attitudes of life and thought...of new feeling; it does so by promoting among the class of manual and intellectual workers, the spirit of enquiry” (p.88).

Therefore, workers’ education in the Marxist point of view, should be broader than just the curriculum; participants should come out creative and have the ability to deal with aspects of life effectively. In clarifying what constitutes workers’ education, the Marxists explain that, the Capitalist system has created a new working class called proletariats (Korsch 1999). The Marxists argue that the proletariats are the engine of production and they have high turnover because they are many and easy to replace. The Marxists believe that human beings are endowed with power of creativity to change their environment and circumstances. Human beings should have dialectical relationships, they should move from being objects to where they are receivers or subjects in a position where they can perform. The proletariats can change themselves from being objects to subjects. They have the capacity to think except their capacity has been brutalized and they have been incapacitated and upgrading education is viewed as the remedy to their incapacitation from capitalism. Whatever surplus the proletariat produces capitalists appropriate it without the proletariats benefiting. Marx and Engles (1970) contend that there should be a relationship between the thinking of the proletariats and material possession. When this happens, the proletariats would come out of their poverty. Morgan (1989) holds this view as well by revealing that the class conflict of liberating an individual from his/her enslavement is the most important thing. Social and economic conditions can be changed and turned into mass riches through workers’ education. Therefore, in the Marxist principle, it is believed that the proletariats need to change their attitude so that they begin to be pro-active towards production.

Marxists argue that, in the capitalist societies, workers' education is explained in a triangle of labour, land and capital.



In this triangle, the worker provides the labour whereas the owner of the industry provides capital. Land is a natural endowment where labour is used. To this end, therefore, a labourer only comes in to activate land and capital to produce for the owner of the industry. In other words, Lenin (1970) elaborates that the capitalists own the means of production and the place (land) where production takes place. The land may include water, minerals and other natural resources. The quality of labour varies according to the type of industry that one works in. The capitalists will spend money on labour with anticipated profits. They may send a worker for a two-day workshop on intensive production so that he/she can increase the profit margin in the industry. Workers' education in the west simply entails educating workers by updating their skills so that they improve productivity in the industry. In this context, unions are supposed to offer education that makes a worker a human being while management looks at a worker as a tool. For instance, the mines spend more money on occupational health safety because any accident in the mines would mean low productivity and a cost on the side of the mine. However, most mines rarely sponsor their workers to study at diploma or degree levels.

Consequently, the capitalists provide workers' education, which is academic in nature to assist workers match with the demands of industry. The employers manipulate workers and alienate them from industry like foreign entities. Their employer also removes workers from the decision making process, a factor which exposes them to exploitation. In the capitalist system, the management system is vertical and a top down

communication mechanism is used. According to Korsch (1999), the capitalists are vindictive and anything tempering with their productivity is gotten rid of. In this system, the workers are only discussed when productivity is affected. This may be in instances of when there is need of training workers for new machines and mostly the earnings of the proletariat are directly for consumption only. It is for this reason that workers started forming unions to protect their rights at the hands of the employer. The capitalists look at workers just as workers, meaning that they cannot contribute any idea but to carryout instructions without any delay or any suggestion (Lenin, 1970). Unlike the Marxists, the capitalists consider workers only as current producers and the system does not prepare the workers for life after work.

## **2.8 Conscientization and Awareness**

Freire (1972) shares the views of the Marxist theory, which focuses on the mobilization of the marginalized and oppressed classes in society. More often than not in any society, the marginalized and oppressed classes are the poor and workers. According to Freire, workers' education can be planned to result in self-affirmation or oppression on the part of the workers. To understand Freire, it is necessary to locate his work within the Marxist's idea of the superstructure. The superstructure consists of institutions that are at times used to maintain, promote and defend the oppressive social relations. These institutions include the media, education and religion. In terms of the superstructure, education is a key site. Although there is always the space for resistance, the general aim of education is to preserve inequality and the economic and social division of labour. Division of labour requires a division of knowledge. Often scholars like Freire have raised questions like why the working class fails in education. The real question perhaps is why education fails so many who are working class (Allan, et.al., 1994).

Freire's thoughts on knowledge in terms of the way it is commoditised and the way it is divorced from the wider social relations is elaborated on more in the Marxist dialectical understanding of consciousness. In the capitalist societies, knowledge is a commodity just like any other. We relate to it as something to have, to accumulate, rather than as

something to use, test, question and produce. When we examine the origins of knowledge, we understand that it is socially produced and related to what Marx (1956) refers to as base or superstructure. It is here that we gain an understanding of reality in its totality, which requires us to conceptualise the world dialectically. The implication of this is that when people lack a critical understanding of their reality, they cannot truly know that reality (Freire 1972).

Freire explains that through conscientization the human agency is resorted, agency is the unity of subjectivity (why we are free) and objectivity (why we are not). When conscientization is conceptualized as such, it provides us with the necessary tools in the transformation of our worlds. Freire (1972) writes that conscientization also means to make aware or awaken the critical consciousness; workers can have control over their own destiny and freedom to choose between the up dating education that ends in conformity and upgrading education that gives skills, which a worker can use outside employment. Therefore, workers can be said to be aware when they reach a level where they have a critical analysis of their environment and deepen their self-perceptions. Consequently, workers are aware when they build confidence in their own creativity and capacities for action. Both Freire and the Marxist thinkers (see Gramsci 1971 and Korsch 1999) maintain that when workers are aware they should not engage in workers' education which merely attains them basic technical skills, but one which imparts values, develops mentalities and leads to social and political consequences. Mani (1994:28) reports that:

The philosophical assumption is that workers as conscious beings are capable of reflecting on, and critical intervention in reality... therefore, awareness must increasingly challenge the workers, move them to authentic and critical reflection, thereby increasing the scope of their perception and evoking new challenges and spontaneous action upon reality....This whole process is described by Freire as one of humanisation the pursuit of full humanity, which Freire identifies as man's historical vocation....

Further, Freire maintains that when workers are conscientised they demand to go beyond the possession of a few up dating skills. Workers begin to question the status quo and they achieve a deepening attitude of awareness of the social, political and economic contradictions and commit themselves to make change. This social process can take place among the workers as they unite in common reflection and act upon their world. This occurs not through the intellectual effort alone but through praxis, which is the unity of reflection and action. This should lead workers to ask questions about the system such as why, when, who, where and how.

Further, the Marxists argue that workers are the engine of production. However they have high turnover because they are many and easy to replace. The Marxists believe that human beings are endowed with power of creativity to change their environment and circumstances (Korsch 1999). Freire agrees with Korsch (1999) and adds that workers can only change their circumstances when they are aware, to be aware means to be conscientised. However, conscientization is not just getting aware of the reality, getting aware means the passage from immersion in reality to a distancing from that reality. Conscientization goes beyond the level of getting aware, it is about critical analysis and unveiling of the reality, to constitute itself in transforming action of this reality. In other words, conscientization does not stop at an awakening of perception but proceeds to action (Marx and Engles, 1970). It should be pointed out here that workers could only take up the challenge and participate in the workers' education programmes at upgrading level when they are aware of the benefits and implications of pursuing either up dating education or upgrading education. The upgrading education is of significant value to workers, this is the type of education programme which can move workers from the level of objects to subjects and from oppression to liberation. Upgrading education can earn workers professional certification that should go with the benefits of a promotion and higher pay and a worker can use this qualification in any other sector of society (Korsch 1999).

## **2.9 Summary of literature**

It appears from available research findings (see Allan et al, 1994) that it is possible to have workers' education that benefits both the workers and the employer. While on the other hand workers education can be designed only to benefit the employer. Literature (see Dagmar, 2008 and Allan et al, 1994) seems to emphasise that awareness and participation of mineworkers in workers' education programmes is crucial. The awareness and participation of mineworkers in workers' education programmes depends largely on the ideology and education policy that governs a particular institution.

Research (see Peterson, 1951) shows that workers' education assumes two dimensions referring to updating and upgrading education. The Marxists (see Peterson 1951) explain that workers' education must equip workers with life long skills that workers can utilize in other sectors of society. On the other hand, in the Capitalist system workers' education entails educating workers by updating their skills so that they improve on productivity in the industry. Unlike the Marxists, the capitalists consider workers only as current producers and the system does not prepare the workers for life after work (Lenin 1970).

Regarding what has been mentioned above the study suggests that the ideal model of workers' education to be offered by any employer should be one, which combines both the Marxist and the Capitalist elements of workers' education as much as possible. Nevertheless, there seems to be scanty information, more so from the Zambian perspective, on the awareness and participation of mineworkers in the workers' education programmes at Nchanga mine. No known study has been done in this area up to this point, hence the need for this study to fill this missing link. The next chapter discusses the procedures for data collection and the process of data analysis used in this study.

## **CHAPTER THREE**

### **3.0 METHODOLOGY**

#### **3.1 INTRODUCTION**

This chapter explains the target population of the study, research instruments used, procedures for data collection and the process of data analysis.

#### **3.2 Research design**

In this study, a case study design was used to help the researcher gain more insight into the awareness and participation of mineworkers in the workers' education programmes. The case study was used in this research for purposes of obtaining in depth information and subjective feelings from the respondents. The theory that will be established from this study will be a grounded theory. The case study was conducted in a naturalistic setting and descriptions of events and activities in relation to workers' education at Nchanga mine were captured. In this context, the naturalistic setting implies letting things happen, as they do everyday without artificial intervention. In other words, a naturalistic setting is a situation where there are live happenings and the researcher captures the things as they occur naturally.

Bless and Achola (1988) explain that a research design has two meanings. A research design may be perceived as a programme to guide the researcher in collecting, analyzing and interpreting observed facts. The second meaning of a research design can be explained as a specification of the most adequate operations to be performed in order to test specific hypothesis under given conditions. The case study approach is useful in describing and analyzing a situation, event, process or a small unit of people (Heyes, et al., 1986).

### **3.3 Pilot Study**

During the first week of April 2008, the researcher submitted the letter of introduction to the training officer at Konkola Copper Mine Plc (KCM) and to the president of the Mineworkers Union of Zambia, seeking permission to carry out a study at Nchanga mine and at the union offices. The letter introduced the researcher and outlined the purpose of the visit. On the same day the letter was delivered the researcher was granted permission to conduct research at the Mine workers Union of Zambia. Permission was granted to carry out research at KCM after a week when the letter was delivered.

During the third week of April, a pilot study was carried out at Nchanga mine and at the mine workers union. Nchanga mine was chosen because it has a workers' education programme and it employs a large number of workers about 3,000. Therefore, the mine conveniently supplied diverse views from the workers at one site. The mineworkers union was chosen because they have a large membership cohort, majority of which are employees at Nchanga, hence the union is a rich information source because it works closely with the mineworkers and their employer.

Five workers from the Services Department, five from the Metallurgy Department and five induction managers as well as five union executive members were sampled in order to determine the effectiveness of the research instruments. The purpose of the study was explained and instructions were given. Further, subjects were assured of confidentiality of their answers and that their participation in the study would not in any way affect their jobs and as such, they were at liberty to express themselves as freely as possible. The procedures employed in the pilot study were used in the main study as well.

Major instruments used in this study were a self-administered questionnaire designed for workers, interview schedule for the management workers at Nchanga mine as well as the union executive leaders. Observations on the research instruments were as follows: the questionnaire was quite elaborate. However, some questions in the questionnaire and interview schedules seemed to have been misunderstood by some respondents as such the researcher rephrased them in order to make them clearer.

### **3.4 The main study**

The main study was carried out from the first week of May 2008 up to the end of May 2008. The procedures used in the pilot study were also employed to collect data in the main study. Upon completion of data collection, the researcher carried out the process of data cleaning and thereafter proceeded to analyse and compile it.

### **3.5 Study population**

In this study; the population consisted of all the workers at Nchanga mine in Chingola district on the Copperbelt province. The workers were selected as the study population because the study was aimed at investigating awareness and participation of mineworkers in workers' education programmes. Mine workers' union executive members were included in the study for cross validation purposes.

Peil et al. (1982) define population as all cases or individuals that fit in a certain specification. Borg and Gall (1979) observe that a target population or universe refers to all the members of a hypothetical set of people, event or objectives to which we wish to generalize the results of our research.

### **3.6 Sample and Sampling**

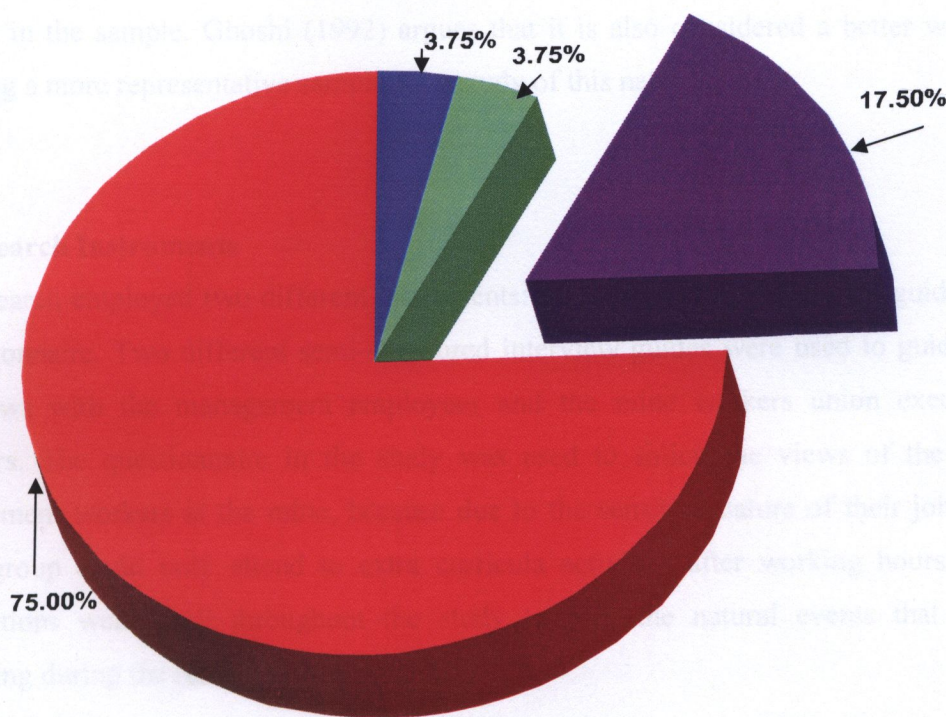
The sample population in this study came from the management employees, the non-management workers in the various departments at Nchanga mine and the Mineworkers Union executive members. The management employees and the Mineworkers Union executive members included in the study were selected using the purposive sampling procedure.

The non- management workers included in the study were selected using the simple random sampling procedure. Using this sampling procedure, the names of the non-management workers in four departments were written down on pieces of paper. After which, a draw was conducted in each department from which 20 names were picked in

each department to form a sample of 80 non-management workers. The total sample population in the study was 90. 5 management workers at Nchanga mine and 5 mineworkers' union leaders were purposively selected because they were rich information sources.

60 mineworkers corresponding to 75% of the sample population had worked at Nchanga mine between three and four years. 3 workers representing 3.75% of the sample had served between one month and nine months. Another category had 3 workers making 3.75% of the cohorts in the research sample that had worked at the mine between five and six years. 14 workers equivalent to 17.5% represented the category of workers that had served between one year and two years. Figure 1 below illustrates the categories.

**Figure 1: Cohorts in the research sample**



Peil et al.,(1982) explain that a sample population is a set of elements, which are ideally representative of the population. Sampling is a process of selecting units from a population of interest so that by studying the sample we may fairly generalize our results back to the population from which they were chosen. When sampling, it is important to explain the population to which the findings will be generalized. Therefore, first know the population. Before sampling, you have to define your population, to start with ensure that your population has similar characteristics then only then can you apply sampling theory. Purposive sampling targets sources that are rich in information concerning a particular study that one is conducting (Borg and Gall, 1979). In other words, purposive sampling entails picking the elements that a researcher feels have information that he/she needs to constitute a sample. Thus, management employees and the mine workers union executive members were purposively selected by the researcher because of the rich information they possessed concerning the topic under study. According to Herbert (1990), Simple random sampling means that every element has an equal chance of being selected in the sample. Ghoshi (1992) argues that it is also considered a better way of obtaining a more representative sample for a study of this nature.

### **3.7 Research Instruments**

The research employed two different instruments: a semi-structured interview guide and a questionnaire. Two different semi-structured interview guides were used to guide the interviews with the management employees and the mine workers union executive members. The questionnaire in the study was used to solicit the views of the non-management workers at the mine, because due to the sensitive nature of their job, this target group could only attend to extra curricula activities after working hours. The observations were used throughout the study to pick the natural events that were happening during the research.

Marshall (1989) explains that a questionnaire is a written document of questions on a particular study seeking response. A questionnaire involves writing answers by the

researched on the document. Essentially, the questionnaire is impersonal and interaction is between the respondent and the document itself even when the researcher is present. A questionnaire can be mailed to the researched. On the other hand, a semi- structured interview guide is a document with logically arranged questions, which the researcher uses to conduct the interview. The researcher can probe but the structure of questions has to be followed (Nielunias, 1981).

### **3.8 The questionnaire**

There were two sections in the non-management workers' questionnaire, section A and B. Section A gathered general information about subjects in the sample such as the department in which they were working, length of service. The checklist response mode was provided for respondents to use when answering questions in this section of the questionnaire (Appendix A). Section B sought to establish consensus of workers' understanding of the term workers' education with the view to establish the firmly held description of this term by the targeted mineworkers. This approach helped the researcher to be focused on what she intended to investigate. In this section of the questionnaire, questions elicited mineworkers' participation in workers' education programmes. It also sought to explore what the mineworkers' thought were the benefits of pursuing workers' education at either up dating or up grading level.

This section also tried to determine reasons for the low participation of workers in up grading their qualifications. It further included an investigation in the criteria used to select workers to participate in any form of workers' education programme. In order to determine these variables, the Likert scale was used and the respondents were expected to pick out any of the following responses; Strongly Agree, Agree, Disagree, Strongly disagree and Not sure. The answers to this question were used to measure the respondents' awareness in general (Yuker, Block and Young, 1996). A Likert scale measures the extent to which a person agrees or disagrees (<http://www.uni.edu/its/us>). A Likert scale is a scale in which respondents indicate their level of agreement with

statements that express a favourable or unfavourable attitude toward a concept (<http://www.glencoe>).

### **3.9 The semi-structured interview guides**

Two different semi-structured interview guides were administered to management workers and the mineworkers' union executive members. The semi-structured interview guide administered to management workers had two sections. Section A sought to gather some personal details about the workers such as the position one held and the period one had served at the mine. Section B solicited information on the awareness and participation of mineworkers in workers' education programmes. It equally sought to explore the types of workers' education programmes that are available to the mineworkers. It even investigated the numbers of mineworkers that had attended up dating programmes. It further examined the views of management on why there was low participation of workers in up grading programmes (Appendix B).

The semi-structured interview guide administered to mineworkers' union executive members also had two sections. Section A sought to gather some personal data about the union leaders such as the position one held and the period one had served at that position in the union. Section B solicited information on what workers' education programmes the union felt should be offered to the mineworkers. In addition it explored views on how to increase the participation of workers in up grading programmes. It also sought union members' perception on the types of workers' education programmes available to workers at the mine. It further examined the unions' view on the criteria used to select workers for any form of workers' education programme (Appendix C).

### **3.10 Data Collection procedures**

The study used both qualitative and quantitative methods and stressed the importance of context and the participant frame of reference. Qualitative methods of research focus on the subjective reality, ideas and feelings of both the researcher and the researched

obtained during interviews and discussions. The study was not only interested in determining the awareness and participation of mineworkers in workers' education programmes, but also the factors responsible for the low participation of mineworkers in up grading programmes. Workers were given two weeks to respond to questions raised in the questionnaires.

Management workers were interviewed individually in their respective offices. Each interview averaged about one hour. Interviews moved from broad, general questions to carefully targeted questions that sought specific information on the management's perception regarding the awareness and participation of mineworkers in workers' education programmes.

The mineworkers' union leaders were also interviewed individually in their offices. Each interview averaged about 45 minutes. Interviews moved from broad, general questions to carefully targeted questions that sought specific information from the members on the low participation of workers in up grading education and its effects. All the interviews were tape-recorded and the interviewer noted down discussants' responses as a backup measure in the event that the tape got lost.

The quantitative research methods entail the collection of descriptive statistical information which largely uses questionnaires (Isaac and Michael, 1971). Merriam and Simpson (1995) explain that data collection refers to the process of finding information on the research study.

### **3.11 Data Analysis**

In this study, the data was analyzed both qualitatively and quantitatively. Descriptive statistics such as numerical summaries in the form of percentages were used. The views of subjects were presented in the form of pie charts on a wide range of variables used in investigating awareness and participation of mineworkers in workers' education

programmes at Nchanga mine in Chingola district. Structured questions were analysed using the statistical package for social sciences (SPSS).

Non- structured questions were analysed through categorization and coding of themes that responded to the objectives of the study. According to Mathison (1988) categorization means organizing your data according to questions, related responses for each question should be discussed under one section. This also involves grouping responses according to the subgroups of the sample so that the researcher can compare and contrast. Niclunias (1981) defines data analysis as a critical examination of collected data for drawing meaningful inferences with known facts.

### **3.12 Validity and Reliability**

The reliability of the workers' awareness and participation in workers' education programmes was ascertained by averaging the responses of different workers within each department. To ensure internal validity of this study, the researcher collected data using multiple sources, that is, through questionnaires and semi- structured interview guides. Further to ensure external validity, literature review was used in shaping the questions to the respondents.

Validity of the research study is the degree to which an empirical measure or several measures of a concept accurately represent the concept (Bless and Achola, 1988). To ensure validity of the research the study applied both the internal validity and external validity information. According to Leedy and Ormrod (2001), the internal validity of a research study is the extent to which its design and the data it yields allow the researcher to draw accurate conclusions. Using multiple sources of data to confirm the emerging findings is one strategy to ensure internal validity (Mathison, 1988). Leedy and Ormrod (2001) define external validity of a research study as the extent to which its results apply to a situation beyond the study itself. Further, Leedy and Ormrod explain that the reliability of a measurement instrument is the extent to which it yields consistent results.

### **3.13 Summary of the Chapter**

The study on the awareness and participation of workers in workers' education programmes used both qualitative and quantitative methods during data collection and data analysis. Questionnaires and interview guides were used to collect data from the respondents that included mineworkers, management and the mineworkers' union executive committee members. The study population consisted of all the workers at Nchanga mine in Chingola district on the Copperbelt province. The mineworkers' union executive committee members were included in the study sample because they were a rich information source regarding the awareness and participation of mineworkers in workers' education programmes. The researcher collected data using multiple sources, that is, through questionnaires and semi- structured interview guides. Using multiple sources of data to confirm the emerging findings is one strategy to ensure internal validity (Mathison, 1988). Consequently, literature was used in formulating questions for the respondents as a form of external validity measure.

The chapter which follows will describe the findings of the study. It will give the information that was gathered in the field in an organized manner in order to provide meaning.

**4.3 Findings from non-management workers’ questionnaires**

The study assessed the awareness and participation of mineworkers in workers’ education programmes.

The above views from the respondents clearly indicate that majority of the mineworkers

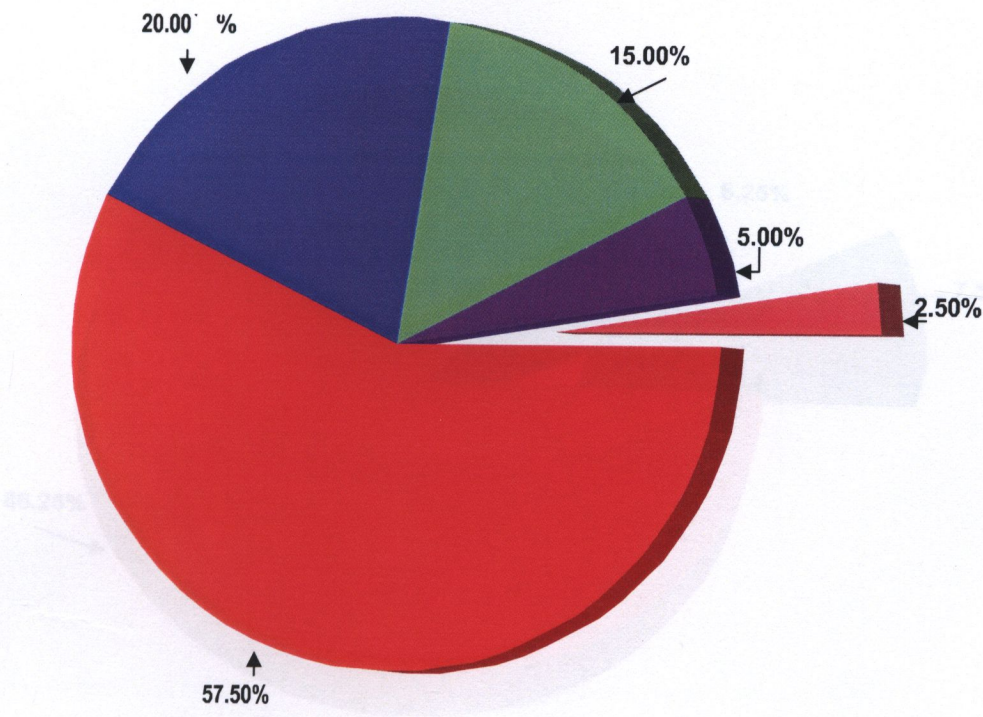
**4.4 Perception of mineworkers on the term workers’ education.**

Workers were asked to state what was meant by the term workers’ education. It was envisaged that their responses would provide a clue about their awareness on the workers’ education programme. The responses are shown in the figure 1 below:

Below are the findings:

**Figure 1: Perception of workers on the term workers' education**

Figure 2: Types of workers' education that workers know



It was noted that 46 respondents (57.5 %) cited that workers’ education was any form of education that the workers pursued. 16 mineworkers (20%) indicated that workers’ education was education provided by the employer and 12 of the workers (15%) expressed that workers’ education was education provided by the trade union. 4 respondents (5%) did not know what the term workers’ education meant and 2

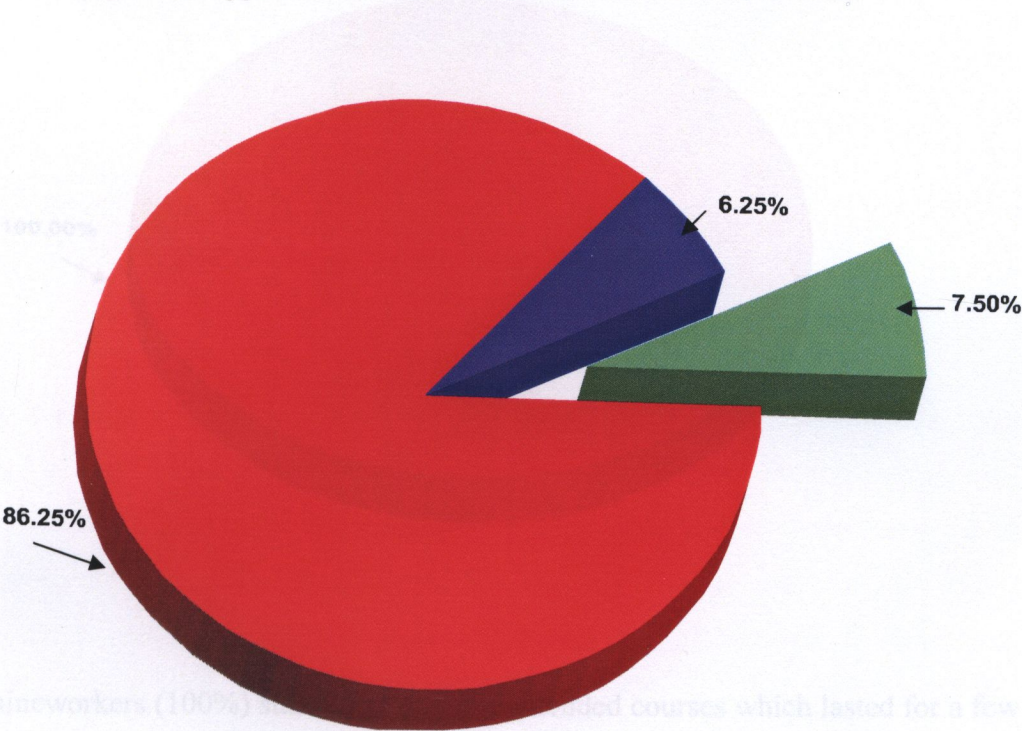
mineworkers 2.5% explained that workers' education was education provided by either the employer or the trade union.

The above views from the respondents clearly indicate that majority of the mineworkers were not knowledgeable about the term workers' education.

4.5 Types of workers' education that workers knew

The study investigated the types of workers' education that the mineworkers knew. Below are the findings:

Figure 2: Types of workers' education that workers knew



69 respondents (86.25%) knew about up dating of skills as the only form of workers' education. The second highest number was 6 (7.5%) who said that there were two types of workers' education namely up grading and up dating of skills. 5 respondents representing 6.25% indicated that they did not know the types of workers' education.

It seems from the findings that majority of the mineworkers were only aware of the up dating education as a form of workers' education and not upgrading education.

**4.6 Types of workers' education programmes attended**

Mineworkers were asked to indicate the kind of workers' education programme that they had attended before. Their responses are in Figure 2 below:

**Figure 3: Types of workers' education programmes attended**

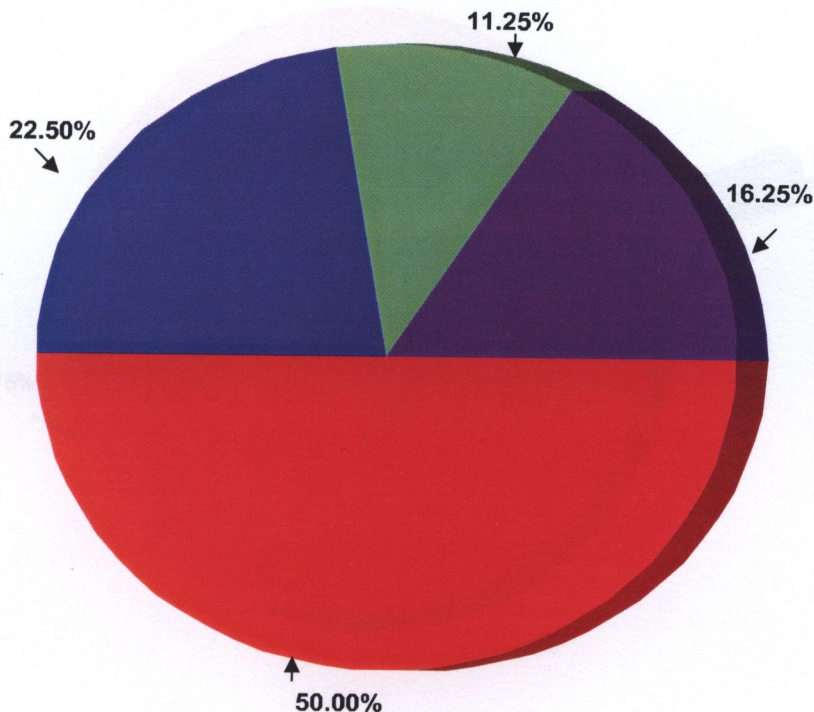


80 mineworkers (100%) stated that they had attended courses which lasted for a few days only. The picture which emerged from this finding was that none of the respondents had attended diploma or degree programmes under the workers' education programme.

**4.7 Causes of low participation in up grading education by the mineworkers**

Mineworkers were asked to state what they felt were the causes for their low participation in up grading education. Figure 4 brings us their responses.

**Figure 4: Causes of low participation in upgrading education by mineworkers**



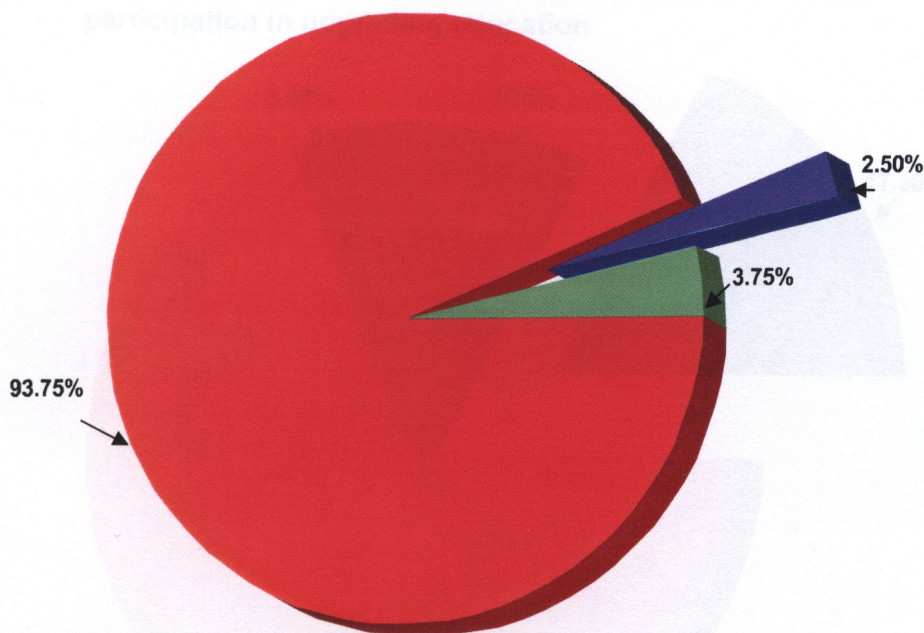
40 respondents (50%), said that the low participation of workers in the upgrading education was because of the rigid selection criteria used by the management. 18 respondents (22.5%) indicated that they were unable to get study leave from their employer. 13 (16.25%) mineworkers pointed out that it was difficult to acquire sponsorship and 9 (11.25%) expressed that they had no interest in furthering their education.

The results have shown that, the major cause for their low participation was the rigid selection criteria used by the management.

#### 4.8 How to increase the participation of mineworkers in the upgrading education

Mineworkers were asked to indicate what they felt should be done to increase their participation in the upgrading education. Figure 5 shows their responses.

**Figure 5: To increase the participation of mineworkers in upgrading education**



75 of the respondents (93.75%) stated that the selection criteria should be changed in order to increase the participation of the mineworkers in the upgrading education. 2 respondents (2.5%) felt that they should be offered scholarships for their participation to improve in the upgrading education. 3 mineworkers (3.75%) said that when the mineworkers are allowed to pursue programmes of their choice their participation in upgrading education would enhanced.

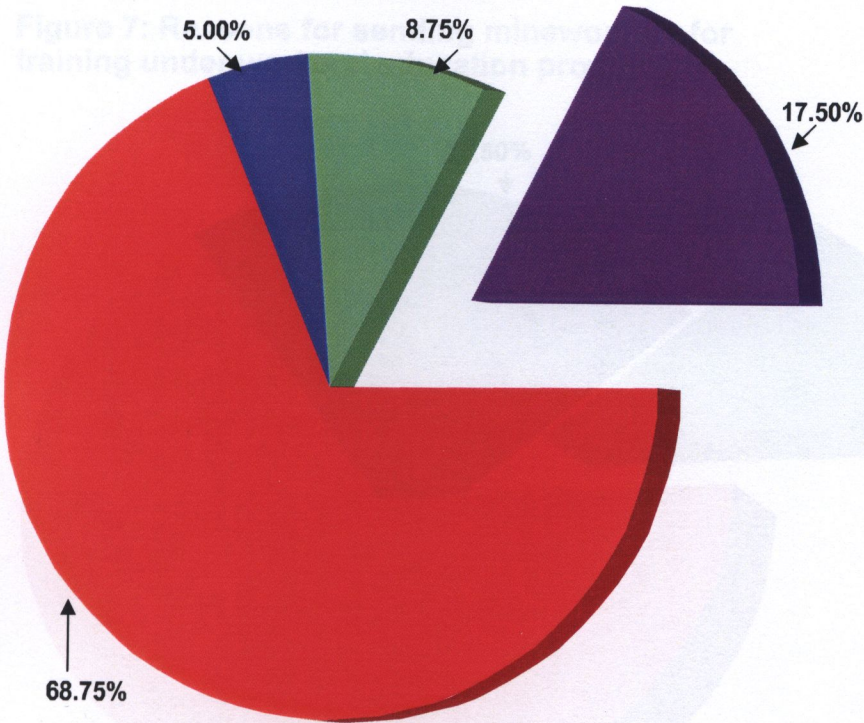
The study established that if the management changed the selection criteria used to select mineworkers for further studies, then workers' participation would increase.

#### **4.9 Effects of the mineworkers' low participation in the upgrading education**

An assessment was made on the effects of the low participation of mineworkers in upgrading education. The study sought to find out whether or not the workers were aware

of the implication of their failure to acquire professional qualifications. The following were the findings.

**Figure 6: Effects of mineworkers' low participation in upgrading education**



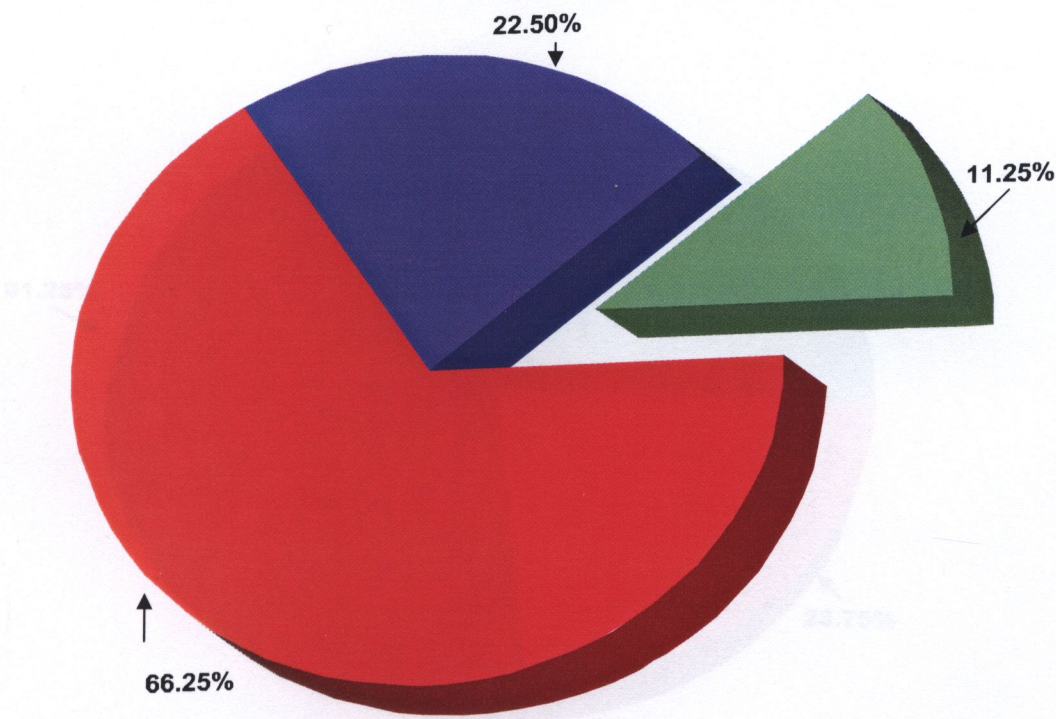
55 mineworkers (68.75 %) said that their low participation in upgrading education had no effect on their lives or jobs. 4 respondents (5%) felt that with the low participation of workers in upgrading education many workers would not acquire life long skills. 7 respondents constituting 8.75% did not know whether or not there were any effects on them due to their low participation in upgrading education. 14 respondents (17.5%), mentioned that the low participation by the mineworkers in upgrading education lead to many of them not acquiring professional qualifications.

From the above findings, it seems that the mineworkers felt that their low participation in upgrading education had no effect on their lives and jobs.

4.10 Reasons for sending mineworkers for training under workers' education programme

The study sought to establish the reasons why the mineworkers were sent for training under the workers' education programme. Figure 7 shows the responses:

Figure 7: Reasons for sending mineworkers for training under workers' education programme

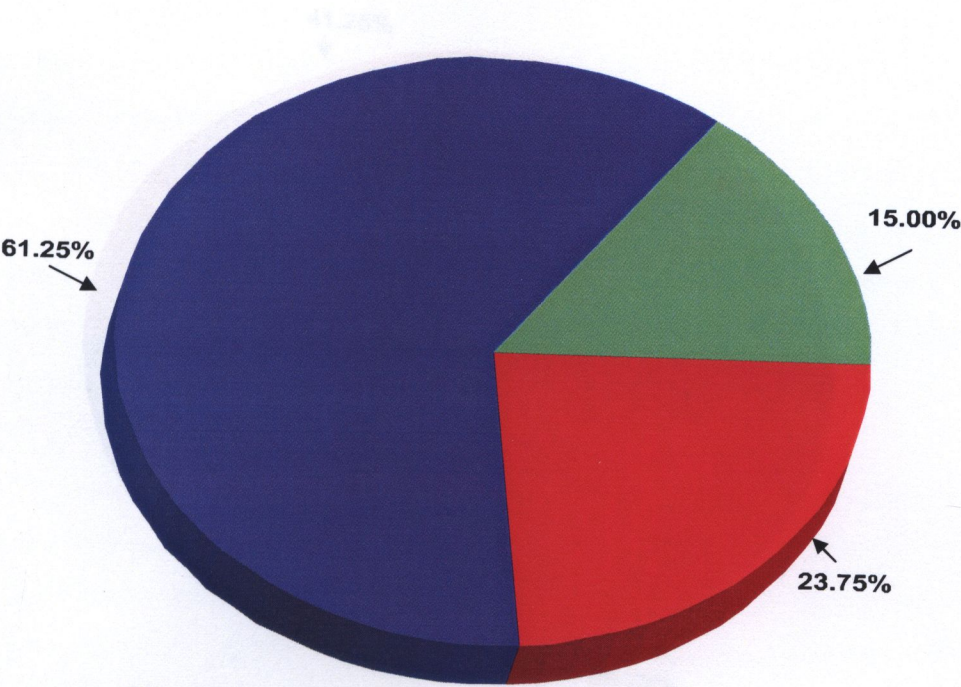


53 of the respondents (66.25%) stated that they were sent for training when the mine assessed the need for training. 18 of the mineworkers corresponding to 22.5% did not know when they were allowed to undertake training. Meanwhile, 9 respondents (11.25%) said that they were permitted to undertake training when they felt the need to train. From the views of the respondents, it was clear that the mineworkers were sent for upgrading training when the mine assessed the need for training.

**4.11 Availability of scholarships for mineworkers to pursue upgrading education**

The study assessed whether or not the employer did avail its employees scholarships to undertake upgrading education. Below are the views as expressed by the respondents:

**Figure 8: Availability of scholarships for mineworkers to pursue upgrading education**



19 mineworkers (23.75%) mentioned that they did not know whether the employer did grant scholarships for them to take u grading education and 49 respondents adding up to 61.25% said that the employer did not avail scholarships to the mineworkers. In contrast, 12 of the respondents (15%) thought that the employer did grant scholarships to workers to undertake upgrading education.

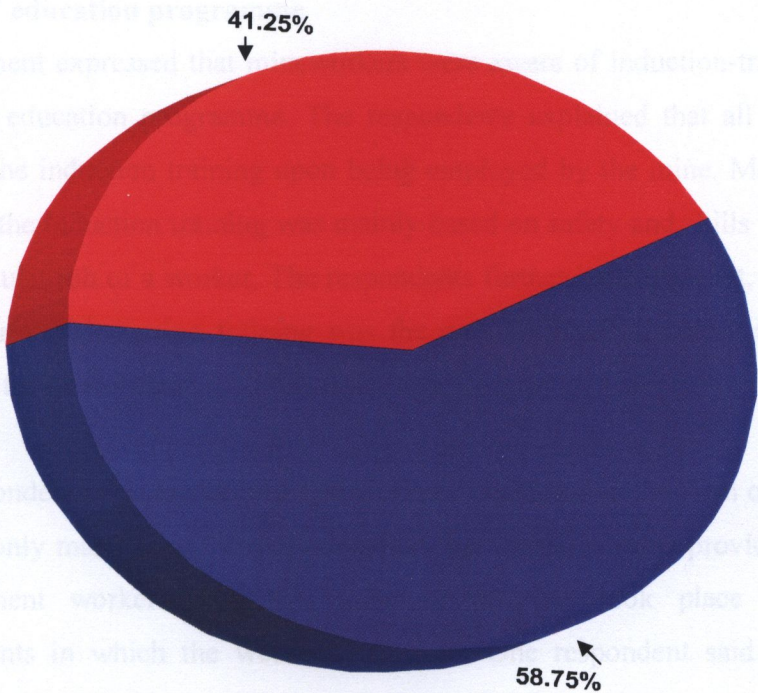
The survey gave into the findings was that the mineworkers had not applied for

The study established that the mineworkers felt that the employer did not grant scholarships to enable them to take upgrading education.

4.12 Application for scholarship to pursue upgrading education

An investigation was done to determine whether or not employees had at any time applied for scholarships to pursue upgrading education. The following were the findings:

Figure 9: Application for scholarship to pursue upgrading education



33 respondents equivalent to 41.25% stated that they had applied for scholarships from the employer to pursue upgrading education. However, 47 respondents (58.75%) indicated that they had not applied for scholarship to undertake upgrading education at tertiary institutions.

The picture gotten from the findings was that the mineworkers had not applied for scholarships to enable them undertake upgrading education at tertiary institutions.

#### **4.13 Findings from interviews with management workers**

Management workers were interviewed individually on the awareness and participation of mineworkers in workers' education programmes. Below are the results:

#### **4.14 Management's perception regarding the awareness levels of workers on workers' education programme**

Management expressed that mineworkers were aware of induction-training as a form of workers' education programme. The respondents explained that all mineworkers went through the induction training upon being employed by the mine. Management workers said that the induction training was mainly based on safety and skills training concerning the particular job of a worker. The respondents further indicated that, workers' education in the form of induction training was the only form of education that Nchanga mine provided for its workers.

The respondents also maintained that workers' education in the form of induction training was the only mandatory form of education that Nchanga mine provided for its workers. Management workers said that induction training took place in the respective departments in which the workers belonged. One respondent said that the induction training was tailored in accordance with the needs of the mining company.

Another respondent explained that induction training was work related; when a worker goes on leave he/she was subjected to a refresher course upon returning on duty.

The above views from respondents show that the mineworkers were aware about workers' education programmes in the form of induction, which mainly constitute safety and skills training at the work place.

#### **4.15 Types of workers' education programmes available to the mineworkers**

The respondents stated that updating education was provided to the mineworkers by management. One respondent indicated that:

Updating education was vital to the mine because it equipped workers with skills relevant to their job and induction training was one form of updating education. Updating education provided mineworkers with skills that enabled them to be effective on their job. All mineworkers were required by the management to undergo induction training for them to qualify to work in the mine.

The management workers pointed out that the mine also run a scholarship programme for the mineworkers. However, a few selected workers were sent for upgrading education when the management assessed the need for such training. The workers were mainly sponsored to do training in programmes that the management chose for them in order to satisfy the needs and demands of the mining industry. The few workers that had attended degree programmes under the workers' education programme were promoted to supervisory positions at the mine.

Further, the respondents shared that management usually preferred to engage expatriate personnel that already had particular skills that the mining industry required instead of spending resources on training local personnel. Management also avoided the situation of spending more time on training local personnel at the expense of production, because if management sent mineworkers for long-term programmes there would be a gap in the production system.

One respondent said that:

In copper mining, every human resource counted and each worker was supposed to be in their respective stations everyday in order to realise a complete circuit of production; from the time the rocks were blasted to the finishing point of having a sheet of copper ready to be sold. Therefore, despite the fact that the mine run a scholarship programme it

was not the priority of management to offer scholarships to mineworkers to undertake upgrading education.

From the views of the respondents in the foregoing paragraphs, it was evident that the management offered mineworkers opportunities to pursue both up dating and upgrading education except sending workers for up grading education was not the priority of the employer.

#### **4.16 Reasons for the low participation levels of the mineworkers in the upgrading education**

The respondents indicated that workers were selected to undertake upgrading education through performance appraisals. Through this procedure the performance of the individual worker was assessed and so were the needs of the mining company. One management worker explained that more often than not the management only sent workers to pursue upgrading education when there is need to have workers acquire core skills that the mine needs at a particular time.

One respondent reported that:

Nchanga mine was privatized, which meant that the mine could only provide skills necessary for the workers to perform their jobs. Therefore, the mineworkers should take care of their education because management's priority was to realise their core business, which was mining and not education for the workers.

Further management workers explained that often times they encouraged short-term training programmes for the mineworkers so that production is not affected due to the long absence of a worker when one is attending a long training programme.

#### **4.19 Awareness of the mineworkers on workers' education programme**

The results revealed that all the respondents indicated that most employees at supervisory level at the mine were fully aware of the workers' education programme. One respondent explained that:

Majority of the ordinary mineworkers below the supervisory level were not aware about the scholarship programme and the in-service programme that the mine offered. Management at the mine did not avail its employees with the relevant information regarding the training programme offered at the mine. Workers were equally not educated on the chances they had to advance their education. Instead, the management only made available to mineworkers information on the induction programme which was up dating education offered by the mine.

Mine workers union executive members intimated that the management of the mine had indicated that their core business was mining and not the provision of education for the mineworkers.

Respondents felt that be laws must be passed meant to protect the rights of mineworkers in terms of them accessing scholarships from the employers for them to able to pursue upgrading education. Workers could be able to raise their standard of living when they advance their education as this comes with promotion and pay rise.

The views of the respondents presented above show that the mineworkers at the mine were not fully aware about the workers' education programmes offered at the mine.

#### **4.20 The causes of low participation of mineworkers in upgrading education**

The mine workers executive members said that upgrading education was restricted to selected mineworkers when the management felt the need to train personnel. One respondent mentioned that:



Most mineworkers did not meet the prerequisite to do either degree or diploma programmes due to their low education standard. In addition, employees had little or no time to pursue studies due to work overload. The other factor that contributed to the low participation of mineworkers in upgrading education was the rigid selection criteria used by management when selecting workers.

The views from the respondent indicated that three factors caused the low participation of the mineworkers in upgrading education. One factor was the low education standard of the mineworkers.

#### **4.21 How workers can increase their participation in upgrading education**

All the respondents explained that mineworkers needed to be encouraged to upgrade their education standard to 'O' level. This would enable them to have the required qualifications to gain entry in tertiary institutions for them to pursue either diploma or degree programmes. One respondent said that:

To help increase the participation of mineworkers in upgrading programmes, the management should base their selection on employee's current education standard.

Another respondent explained that:

The introduction of General Certificate of Education (GCE) at the mine would assist workers to upgrade their 'O' level qualification. In turn, this would provide workers with the opportunity to participate in higher education.

The picture we got from this finding was that for purposes of having increased participation in upgrading education by the mineworkers it was necessary for most workers to upgrade their education standard to 'O' level.

#### **4.22 The effects of mineworkers' low participation in upgrading education**

The respondents felt that the effects of mineworkers' low participation in upgrading education resulted in them being paid low wages and not being considered for promotion.

Union members cited that the other effect resulting from mineworkers' low participation in upgrading education was the fact that the mine had employed expatriates in most supervisory and technical positions because there were few local mineworkers with necessary qualifications to occupy high and strategic positions at the mine. Further, respondents said that the low participation of mineworkers in upgrading education meant that majority of the workers were not empowered with qualifications and skills necessary for them to apply in other industries.

The results have shown that all the respondents in the study believed that the effect of mineworkers' low participation in upgrading education was that majority of the local workers would be earning low salaries and not be considered for promotion.

#### **4.23 Summary of the findings**

This chapter presented findings of the study leading to the understanding of the awareness and participation of mineworkers in workers' education programmes at Nchanga mine. This is evidenced by the fact that mineworkers were not fully aware of the workers' education programmes that were offered by the management.

Consequently, from the foregoing chapter, it has been learnt that the mineworkers' low participation levels in workers' education programmes is attributed to their low education standards and the rigid selection criteria that management employs when selecting workers for upgrading education.

The low participation by mineworkers in upgrading education has negatively impacted on the career development of the workers. This in turn would perpetuate the social and economic marginalization of the workers. Workers with low education standard are subjected to low wages, low jobs and are not considered for promotion in the mine.

Therefore, mineworkers need to be conscientized on the necessity for them to pursue upgrading education and the consequences that follow when one does not acquire professional certification. This would assist workers to understand the oppressive system and act to change the situation in their favour. The next chapter will discuss the findings in relation to the awareness and participation of mineworkers in workers' education programmes.

## **CHAPTER FIVE**

### **5.0 DISCUSSION OF FINDINGS**

#### **5.1 INTRODUCTION**

It needs reminding that the main purpose of the study was to investigate the awareness and participation of mineworkers in workers' education programmes. One specific objective was to find out the awareness of the mineworkers regarding the workers' education programmes. The other objective sought to determine the participation of the mineworkers in workers' education programmes. This chapter discusses the findings of the study based on the objectives mentioned and it outlines whether or not the objectives were answered.

The chapter is divided into two parts. The first part discusses views of non- management workers, management and mine workers union executive members on the awareness of workers regarding workers' education programmes. The second part looks at the responses of non- management workers, management and mine workers union executive members concerning participation of workers in workers' education programmes.

#### **5.2 Responses from non-management workers, management and mine workers union executive members on the awareness of workers regarding the workers' education programmes.**

It should be remembered that one objective of the study was to find out the awareness of mineworkers regarding workers' education programmes. The research question sought to find out the extent to which mineworkers were aware about workers' education programmes at Nchanga mine. In the study, awareness meant mineworkers having full realization and knowledge of workers' education programmes in terms of the meaning of the concept, its significance and existence. Awareness was also used to describe the type of orientation given to mineworkers on the existing and available workers' education programmes. Both the objective and the research question concerning awareness were

answered with varying views as discussed in this chapter. The findings from mineworkers revealed that they were not knowledgeable or they did not have full realization about the term workers' education (see Figure 1). The mineworkers were of the view that workers' education was any form of education that they pursued. They further lamented that workers' education was any form of education that workers pursued without supporting agencies such as the employer or trade unions. Mineworkers were generally agreed that each time a worker engaged in training at their own time and expense that was referred to as workers' education.

Mineworkers were not knowledgeable about upgrading education as a form of workers' education. They mentioned up dating education as the only form of workers' education that they knew. Mineworkers were only oriented on updating education by their employer. These findings clearly pointed to the fact that mineworkers were not conscientized on upgrading education. Freire (1972) writes that conscientization means to make aware or awaken the critical consciousness. When workers are made aware of the two different types of workers' education namely up dating and upgrading education, they would have control over their own destiny and freedom to choose between the updating education that ends in conformity and upgrading education that gives skills, which a worker can use after employment.

Consequently, findings from management revealed that mineworkers were aware about workers' education programmes which were in form of internal induction training. Induction training was a compulsory workers' education programme for new employees at the mine. This type of workers' education programme mainly consisted of safety and skills training related to the particular job of a worker. The induction training was tailored in tandem with the needs of the mining company and when a worker went on leave, he/she was subjected to a refresher course upon their returning on duty. These findings tally with the responses of non-management workers who expressed that management only exposed them to updating training. According to Korsch (1999) and Lenin (1970), the Capitalist inclined workers' education programmes offered education that looks at a worker as a tool and not as a human being. In this system, the workers' education for

mineworkers is only discussed when productivity is affected. This may be in instances of when there is need of training workers for new machines and mostly the earnings of the workers are directly for consumption only. Furthermore, the mines spend more money on occupational health and safety because any accident in the mines would mean low productivity and a cost on the side of the mine. In a Capitalist set up, most employers rarely sponsor their workers to study at diploma or degree level.

Mine workers union executive members said that the mineworkers were not fully aware about the workers' education programmes offered at the mine. The mine workers union executive members stated that most employees at supervisory level were fully aware of the workers' education programmes available at the mine. However, the majority of the ordinary mineworkers below the supervisory level were not aware about the scholarship programme and the in-service programme that the mine offered. Management at the mine did not avail its employees with relevant information regarding upgrading education and the chances that workers had to advance their education. Instead, management only exposed mineworkers to the induction programme, which was updating education. Mani (1994) explains that workers can strive to change this status quo if they build their confidence in their own creativity and capabilities for action. Therefore, in this whole process, information and dialogue between non-management workers and management and among the non-management workers themselves is critical.

### **5.3 The participation of mineworkers in workers' education programmes; responses from non-management workers, management and mine workers union executive members.**

The other objective of the study was to establish the level of participation of mineworkers in workers' education programmes. The research question sought to determine the extent to which mineworkers participated in workers' education programmes at Nchanga mine. From the findings the objective and research question of participation were answered. The objective of participation was answered by the revelation that none of the mineworkers had attended diploma or degree programmes under the workers' education

programme. Participation in the study meant, mineworkers taking part in training in programmes of their choice and workers being granted scholarships and study leave to pursue upgrading education. All the mineworkers had only attended few days courses under the workers' education programme in form of induction training. This meant that these workers could not be considered for promotion or merit a pay rise. The reason being that the short courses to which they were exposed only gave workers limited skills in a particular job and not a professional qualification or professional knowledge per se. Lenin (1970) explain that the capitalists will spend money on labour with anticipated profits. They may send a worker for a two-day workshop on intensive production so that he/she can increase the profit margin in the industry. Workers' education by the capitalists entails educating workers by up dating their skills, a factor which has a bearing on productivity in the industry. However, Kakkar (1973) observes that workers' education should help to bring about change to the workforce and not stability. Workers in every establishment are the most significant component, thus they need to be kept psychologically satisfied through training which brings a sense of responsibility, ownership and belonging on their part. When workers are not psychologically satisfied, there are normally conflicts and frustrations at a work place.

Raico and Ralph (1974) write that workers education should have a component of awareness and this form of education prepares workers for a new social order. Workers' education also ought to aim at making the workers realise their purpose in life. Workers' education should help the development of regular members at any place of work and this type of education prepares workers for leadership. Above all, when workers are educated through upgrading education, there is collective development and planning in any organisation. Education of workers helps to bring about sustainability, in that workers would not destroy what already exists even in times of disputes with management. Further, when there is an expansion of programme in any establishment, workers should be educated about it because they are partners in production. Therefore, workers' education must be aimed at assisting workers to think broadly, be committed and improve their status. Workers' education is a prerequisite to workers satisfaction in any working

place. Thus, workers' education should be used to open up the minds of beneficiaries and assist them to understand issues that concern them.

The results from the study also show that participation of mineworkers in upgrading education was low because the employer did not grant them scholarships to pursue upgrading education at tertiary institutions. The mine workers executive members pointed out that often, management only sent workers to pursue upgrading education when there was need to have workers acquire core skills that the mine needed at a particular time. Management explained that to achieve this they conducted appraisal panels every six months during which training needs were assessed together with the workers' performances. The training needs were assessed based on the demands of the mining industry and not the needs of the mineworkers. Moreover, management explained that they usually preferred to engage expatriate personnel that already had the particular skills that the mining industry required instead of spending a lot of resources on training the local personnel. The management also avoided the situation of spending more time on training local personnel at the expense of production because if they sent mineworkers for long training programmes there would be gaps in the production system. This would mean low production and low profits for the mine. However, Morgan (1989) argues that workers must have a hand in their education and workers' education should be need driven. In other words, workers' education should be based on the needs of the workers. Morgan further elaborates that workers' education is about looking after the welfare of workers and their families.

The mine workers union executive members explained that in some instances mineworkers were hindered from taking part in upgrading education due to their low education standards. Some of them did not meet the prerequisite to undertake either degree or diploma programmes due to their low education standard. The other reason attributed to the limited participation of mineworkers in upgrading education was that some of them had little or no time to pursue studies due to work overload. The mine workers union executive members suggested that mineworkers ought to be encouraged to upgrade their education standard at 'O' level. This would enable workers to have the

required qualifications to gain entry in tertiary institutions for them to pursue either diploma or degree programmes. The union members further suggested that the introduction of General Certificate of Education (GCE) at the mine would assist workers to upgrade their 'O' level qualification and have opportunities to participate in higher education. From these results, it was clear that education is paramount to the development of mineworkers at both individual and national levels.

Freire (1974) states that education as a learning process introduces people to what is valuable, with its methods and aims, depending on the nature of the society in which it takes place. Education helps people to become creative and use their initiative which in turn makes people appreciate their communities because they contribute to its sustenance. Freire also cites that education gives literacy; it makes one conscious of their mistakes and leads to development of the human being. Further, through education one goes through the process of corrective building. Hoch (1988) explains that education is by its nature an endless circle or spiral and this activity includes science. Moreover, the educational process sets more problems to be further studied. Thus, this demands more thought and more science in an everlasting sequence.

The International Labour Organisation (ILO) has made a universal declaration of human rights and Article 26 (2007) of the declaration outlines that everyone has the right to education. This declaration implies that workers and mineworkers in particular have the right to education at whatever level that they qualify to study. The declaration also states that education leads to the full development of human personality and to strengthening of respect for human rights and fundamental freedoms. Therefore, it was vital for mineworkers that did not have full 'O' level certificates to upgrade their education at 'O' level as this would open them to new horizons in terms of opportunities and career development. The International Labour Organisation Journal (2008) writes that when offering workers' education programmes agencies should try to bring about equality of opportunities that handicapped the working classes in societies. Further, workers' education programmes must be offered in such a manner that they try to awaken among the oppressed classes a comprehensive understanding of themselves. In order to realize

this, therefore, workers' education programmes should also feature courses with topics such as labour, history, economics and issues in contemporary society.

The responses given by the union members showed that majority of the mine owners had employed expatriates in most supervisory and technical positions because they claimed that there were few local mineworkers with necessary qualifications to occupy high and strategic positions at the mine. In response to this, findings from mineworkers showed that they were not bothered by the fact that expatriates had taken up most of the high and strategic positions at the mine. This mind frame exposed by the workers was a clear indication that they had not reached a stage of critical consciousness. Workers have the capacity to think except their capacity has been brutalized by their employer and they have been incapacitated. It was further evident that management did not give mine workers adequate information in terms of how they can develop their careers and improve their education.

Rogers (1971) explains that through conscientization human beings can acquire the necessary tools to transform their worlds. Therefore, mineworkers can only be considered to be aware when they reach a level where they have a critical analysis of their environment, and deepen their self-perceptions. Mineworkers need to have full information concerning how they can change their status to better their lives. When mineworkers are conscientised they can demand to go beyond the possession of a few updating skills. In other words, conscientization does not stop at awakening of perception but proceeds to action (Marx and Engles, 1970). The mineworkers would begin to question their status quo by achieving a deep attitude of awareness of the social, political and economic contradictions and commit themselves to make change. For instance, the workers would raise questions about their low wages, how they can have a pay rise or be promoted to high positions. When workers begin to question these issues then they can be said to have acquired a full realization and knowledge of the concept workers' education in terms of its meaning, significance and existence. At this stage workers would consciously and decisively take part in workers' education programmes to benefit themselves and their employer.

#### **5.4 Summary of the discussion**

This chapter discussed the findings on the topic awareness and participation of mineworkers in workers' education programmes. The study had two objectives, one objective sought to find out the awareness of mineworkers in workers' education programmes. The other objective sought to establish participation of mineworkers in workers' education programmes. The findings from the non-management workers, management workers and mine workers union executive members were analysed in relation to the objectives. The two objectives and research questions of the study were answered through the revelations of the findings.

The findings from the study population revealed that mineworkers did not have full realization or knowledge about the term workers' education. Further, the mineworkers were not fully aware about the scholarship programme at the mine and upgrading education as a form of workers' education. From the study, it was discovered that management only educated the mineworkers on the induction-training programme, which placed emphasis on updating education. Management did not avail its employees relevant information regarding the upgrading education. However, Marx and Engles (1970) maintain that mineworkers need to be conscientized about their situation and conscientization on the part of the workers should not stop at an awakening of perception but must proceeds to action. Therefore, workers must begin to question the status quo and achieve a deepening attitude of awareness of the social, political and economic contradictions and commit themselves to make change. When conscientization is conceptualized as such, it can provide workers with the necessary tools to transforming their worlds. Thus, workers can only be said to be aware when they reach a level where they act in order to change and improve their situation in terms of upgrading their education.

Through the study, it was established that very few mineworkers had attended diploma or degree programmes under the workers' education programme because it was not management's priority to send workers for up grading education. The other reason was that most workers did not meet the prerequisite to do either degree or diploma

programmes due to their low education standard. Another hindrance that caused mineworkers not to pursue upgrading education was the little or no time to pursue studies due to work overload. Due to the mineworkers' low participation in upgrading education, majority of them would always be paid low wages and would not be considered for promotion. It also meant that majority of the workers were not empowered with qualifications and skills that they would apply in other industries and in life after employment. In addition, the mine had employed expatriates in most supervisory and technical positions because there were few local mineworkers with necessary qualifications to occupy high and strategic positions at the mine.

The next chapter will discuss the conclusion and recommendations of the study based on the findings and discussions on the question of awareness and participation of mineworkers in workers' education programmes.

## **CHAPTER SIX**

### **6.0 CONCLUSION AND RECOMMENDATIONS**

#### **6.1 INTRODUCTION**

This chapter presents the conclusion and recommendations of the study based on the findings and discussions on the question of awareness and participation of mineworkers in workers' education programmes at Nchanga mine in Chingola District.

#### **6.2 Conclusion**

The objective and research question that sought to determine the extent to which the mineworkers were aware about the workers' education were answered. The general picture from the study was that the mineworkers were not knowledgeable about the term workers' education; they felt that workers' education was any form of education that a worker pursued. Mineworkers were only aware of updating education as a form of workers' education and not upgrading education. The majority of the ordinary mineworkers below the supervisory level were not aware about the scholarship programme and the in-service programme that the mine offered. The reason was that management only exposed the mineworkers to up dating education that corresponded to the needs and demands of the mining industry.

The other objective and research question that sought to assess the participation of the mineworkers in the workers' education programmes were also answered. The study revealed that none of the mineworkers had attended diploma or degree programmes under the workers' education programme. The mineworkers lamented that the major cause for their low participation was due to the rigid selection criterion used by the management. The management used the appraisal panels to assess the training needs and the performance of the workers. Through this process, the workers were rarely granted study leave or scholarship to pursue upgrading education. Further, from the study it was clear that management only offered scholarships when they assessed the need for training. The findings also showed that most mineworkers had low education standard therefore, they

did not meet the prerequisite to pursue either degree or diploma programmes. Moreover the employees had little or no time to pursue studies due to work overload. Besides the management indicated that it was not their priority to respond to the training needs of the workers who wanted to pursue upgrading education. However some scholars (see Morgan, 1989 and Gramusci, 1971) argue that for workers' education programmes to be meaningful to both the mineworkers and the management, they ought to be responsive to the needs of the workers and of the mining industry as well. The study suggests that for workers' education programmes to be useful and beneficial to both the employer and the employee they should combine both the Marxist and the Capitalist elements of workers' education.

The mineworkers pointed out that their participation in upgrading education would increase if the management offered them study leave and changed its selection criteria by permitting workers to undertake programmes of their choice. Additionally, the union executive members said that for purposes of having mineworkers' increased participation in upgrading education, it was necessary for most workers to upgrade their education standard at 'O' level.

Workers' education programmes at Nchanga mine are related to production and not the career development of the mineworkers. The workers get few days of skills training in order to increase production and profit margins for the mine. The workers' education model used at Nchanga mine was mainly a Capitalist model. This model emphasizes on workers as being current producers only and does not prepare the workers for life after work. Further, this type of workers' education also deprives workers of any promotion and having a pay rise in their current job. With the mineworkers' low participation level in upgrading education the mine had employed expatriates in most supervisory and technical positions because there were few local mineworkers at the mine with necessary qualifications to occupy high and strategic positions at the mine.

Freire (1972) explains that there is need to conscientise the mineworkers in order to change the status quo. When workers' perceptions are awakened, they would begin to

question their role in the mine. Consequently, this should lead them to realize their capacities and potentialities, which must result in them, demanding to go beyond the possession of a few up dating skills. The mineworkers are an important element in the production line at the mine, though the management does not treat them as such. Therefore, the mineworkers should reach a realization where they appreciate and understand their important role for them to get the best out of the system in terms of upgrading their education and taking up most technical and supervisory positions.

### **6.3 Recommendations**

#### **6.4 Policy recommendations**

In light of the findings of the study the following recommendations are made:

Education provision should be guided by guidelines. The International Labour Organisation (ILO) has made a universal declaration of human rights and Article 26 (2007) of the declaration outlines that everyone has the right to education, mineworkers included. ILO should draw up training manuals for the mining industry in order to guide the management on the provision of workers' education for their employees. The training manuals should outline the need for mineworkers to be exposed to both updating and upgrading education respectively.

The management should introduce General Certificate of Education (GCE) at the mine to assist workers that have work over load to upgrade their 'O' level. The ILO declaration also states that education leads to the full development of human personality and to the strengthening of respect for human rights and fundamental freedoms. Therefore, it was vital for mineworkers that did not have full 'O' level certificates to upgrade their education at 'O' level in order to open them to new horizons in terms of opportunities and career development.

In view of the government policy of creating jobs for the local people, it is incumbent upon the government to extend this policy to the mining industry by ensuring that the senior and supervisory positions in the mine are not only for expatriate staff.

The government should institute policies that must protect mineworkers not to lose their jobs when they go for further studies in the event that they sponsor themselves.

Tertiary institutions should corroborate with the mining industry by assessing the training needs of the mine so that the higher learning institutions can develop and offer programmes that respond to the training needs of the mine. This would help learning institutions to train the human resource that may have the necessary know how and expertise that the mines require.

### **6.5 Recommendations for further study**

The present study recommends that in future, a study should be carried out to determine how to increase awareness levels of the mineworkers regarding upgrading education and its relevance.

A study to determine the placement and performance of mineworkers that have acquired diploma or degree programmes through the workers' education programme at Nchanga mine. A study should be conducted to assess the training of the mineworkers in the copper mining industry.

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## APPENDICES

### Appendix I

#### Questionnaire for Non-Management Workers

Dear Respondent,

The researcher of this study is a postgraduate student pursuing a Masters programme in Adult Education (Med) at the University of Zambia, in the School of Education.

I humbly request you to participate in the research by ticking your answer in the space provided in the following questionnaire as carefully and as honestly as possible. The information written on this questionnaire will be treated with the highest confidentiality and it will be used for academic purposes only. Please **do not write your names on the questionnaire**.

---

1. Which department do you work in?  
a) Mining ( ) (b) Metallurgy ( ) (c) Engineering ( ) (d) Services ( )
  
2. How long have you been working for Nchanga mine?  
a) Less than 1 Month ( ) (b) 1- 6 Months ( ) (c) 7 Months- 1 Year ( )  
(d) 2 Years- 4 Years ( ) (e) 5 Years and above ( )
  
3. What do you understand by the term Workers' Education programme?  
(a) Any form of education that workers pursue ( )  
(b) Education provided by the employer ( )  
(c) Education provided by the Trade Union ( ) (d) I do not know ( )  
(e) Education provided either the employer or the Trade Union ( )

4. Kindly indicate the type(s) of Workers' Education you know.
- (a) Upgrading of skills ( ) (b) I do not know of any ( )
- (c) Updating of skills ( ) (d) Education on workers' rights ( )
5. What kind of Workers' Education programme has the mine permitted you to attend/pursue?
- (a) Few days course ( ) (b) None ( ) (c) Diploma programme ( )
- (d) Degree programme ( )
6. In your opinion why is there low participation of workers in the Workers' Education programme at the mine.
- (a) The criteria used for selection is rigid ( ) (b) I do not know ( )
- (c) Courses offered are not beneficial to the workers ( )
- (d) Workers lack interest in education ( )
- (e) Workers have no time to attend lessons ( )
7. In your opinion does the mine benefit when you as a worker gets trained through the Workers' Education Programme?
- (a) Yes ( ) (b) No ( )
8. What in your view can be done to increase the participation of the workers in the Workers' Education Programmes?
- (a) Allow workers to pursue programmes of their choice ( )
- (b) Change the criteria used to select workers for training ( )
- (c) Improve on the types of courses offered by the mine ( )

9. Where are the Workers' Education courses offered?
- (a) Within the mine premises ( ) (b) At the mine training centre ( )  
(c) Both at the mine and at the training centre ( )
10. When are you as employees allowed/sent to do training under the workers' education programme?
- (a) When there is change in technology/machinery ( )  
(b) Whenever a worker feels the need to study ( )  
(c) When the mine assesses the need for training ( )
11. What type of Workers' Education programmes are you allowed to pursue as an employee of the mine?
- (a) Short courses only ( ) (b) Diploma courses ( ) (c) Degree courses ( )  
(d) Both short and long courses ( ) (e) None of the mentioned ( )
12. Workers are selected to undertake training in any form of workers' education through performance appraisals.
- (a) Strongly agree ( ) (b) Agree ( )  
(c) Strongly disagree ( ) (d) Disagree ( ) (e) Not sure
13. Is it possible for you as an employee to get sponsorship from your employer to pursue further studies at any learning institution?
- (a) Yes ( ) (b) No ( ) (c) I do not know ( )
14. In your opinion, how does the mine benefit when you as a worker get training updating training.
- (a) Increased production ( ) (b) I do not know ( )  
(c) Low costs incurred in conducting the training ( )

15. Would you please tick the titles of Workers' Education programmes offered by the mine.
- (a) Human Resource ( ) (b) Mining ( ) (c) Electrical ( ) (d) Mechanics
- (e) Mining procedure ( ) (f) Blasting ( ) (g) Pump fitting ( )
- (h) Refrigeration ( )
16. Have you applied for scholarship to pursue upgrading education?
- (a) Yes ( )
- (b) No ( )
17. What are the effects of mineworkers' low participation in upgrading education?
- (a) The low participation by workers in upgrading education has no effect the workers.
- (b) Low participation in upgrading education by workers leads to many of them not acquiring life long skills.
- (c) I do not know
- (d) Low participation by workers in upgrading education leads to many of them not acquiring professional qualifications.

**Thank you for your participation.**

**Appendix II**

**Semi-Structured Interview Guide for Management Workers**

Dear Respondent,

The researcher of this study is a postgraduate student pursuing a Masters programme in Adult Education (Med) at the University of Zambia, in the School of Education.

I humbly request you to participate in the research by answering the questions in the interview. The information that will be discussed and recorded in this interview will be treated with the highest confidentiality and it will be used for academic purposes only.

---

1. What is your position at Nchanga mine?

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2. How long have you worked at Nchanga mine?

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3. What do the workers at Nchanga mine know about the Workers' Education programme?

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4. How did the workers know about the Workers' Education programmes?

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5. Where does Nchanga mine conduct the Workers' Education programmes?

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6. What is the total number of workers at Nchanga mine?

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7. Out of this number how many can you confirm have acquired training through the Workers' Education programme?

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8. What reason/s would you attribute to the low numbers of workers being trained through the Workers' Education programmes?

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9. What in your opinion can be done to improve the participation of the workers in the Workers' Education programmes?

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10. What criteria do you use to select workers for training?

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11. What types of Workers Education programmes are available for workers at Nchanga mine?

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12. When are workers sent for Workers Education programmes?

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13. How many workers have you as the employer sponsored to study in tertiary learning institutions?

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14. How many workers have applied to go for further studies under the Workers Education programme?

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15. In what positions have you placed those workers that have acquired training through the Workers' Education programmes?

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16. What upgrading courses are available for the workers?

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17. What updating courses are available for the workers?

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**Thank you for your participation.**

**Appendix III**

**Semi-Structured Interview Guide for Mines Workers Union Executive Members.**

Dear Respondent,

The researcher of this study is a postgraduate student pursuing a Masters programme in Adult Education (Med) at the University of Zambia, in the School of Education.

I humbly request you to participate in the research by answering the questions in the interview. The information that will be discussed and recorded in this interview will be treated with the highest confidentiality and it will be used for academic purposes only.

---

- 1. What is your position in the Mine Workers Union of Zambia?  

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- 2. How long have you served in the Mine Workers' Union of Zambia?  

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- 3. As a union what is your knowledge about the Workers' Education programmes at Nchanga?  

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- 4. What do you think are the awareness levels of the workers at Nchanga mine on the Workers' Education programme?  

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- 5. What types of Workers' Education programmes are available to the workers at Nchanga mine?  

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6. What in your opinion is the cause of the low participation of workers in degree and diploma courses?

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7. What in your view can be done to increase the participation of the workers in the Workers' Education programmes at Nchanga mine?

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8. What criteria should be used to select workers for training in the Workers' Education programmes?

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9. What Workers' Education programmes do you think should be offered at Nchanga mine?

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10. What are the upgrading courses available for the workers?

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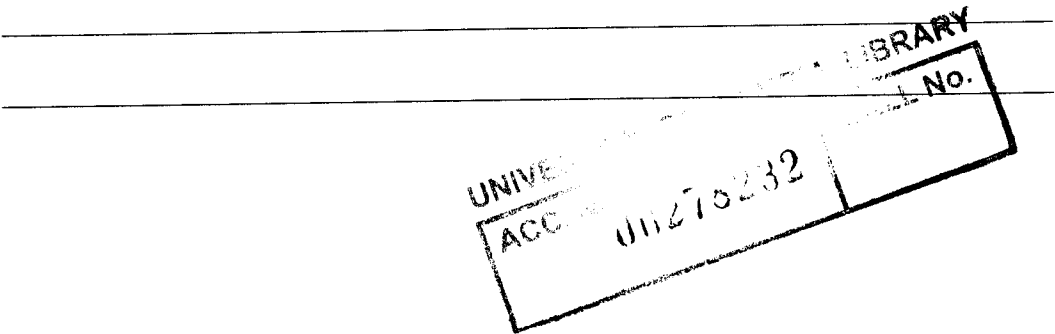
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11. What are the updating courses available for the workers?

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12. What are the effects of the mineworkers' low participation in upgrading education?



**Thank you for your participation**

Appendix IV

RESEARCH TIME TABLE

ACTIVITY	MAY 2007	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC
Identification of the problem	Xxx Xxx	xxx xxx						
Formulation of research topic			xxx xxx	xxx xxx				
Literature review					xxx xxx	xxx xxx	xxx xxx	
Development of research instruments								xxx xxx

ACTIVITY	APRIL 2008	MAY	JUNE	JULY	AUG	SEP	OCT	NOV	DEC
Plot study	Xxx xxx								
Main study Data collection		Xxx xxx							
Data cleaning			xxx xxx						
Data presentation				xxx xxx	xxx xxx				
Data analysis						xxx xxx	xxx xxx		
Compilation of draft report								xxx xxx	
Final									xxx xxx

## Appendix V

### RESEARCH BEDGET

Stationery	Number	Unit price	Amount
		K	K
Pens	5	2,500.00	12,500.00
Rims of paper	5	25,000.00	125,000.00
Note books	2	5,000.00	10,000.00
Typing services	90 pages	3,500.00	315,000.00
Photocopying			-
Cassette tape recorder	1		
Blank audio tapes	3		
Binding	4	60,000.00	240,000.00
<b>Sub total</b>			<b>702,500.00</b>
<b>Travel and Accommodation</b>			
Transport from Lusaka to Chingola and back	2 way trip	80,000.00	160,000.00
Transport within Chingola			100,000.00
Accommodation	4 weeks	90,000.00	360,000.00
Food	3 meals*7days*4 weeks	15,000.00	1,260,000.00
<b>Sub total:</b>			<b>1,880,000.00</b>
<b>Contingency</b>			
<b>Total</b>			<b>2,582,500.00</b>