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FACULTY OF COMMERCE

DEPARTMENT OF BUSINESS MANAGEMENT

EVALUATION OF THE EFFECTIVENESS OF TRAINING AND DEVELOPMENT STRATEGIES IN THE MINING SECTOR: A CASE OF ZIMPLATS

BY

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A DISSERTATION SUBMITTED IN PARTIAL FULFILMENT OF THE REQUIREMENTS OF BACHELOR OF COMMERCE BUSINESS MANAGEMENT HONOURS DEGREE

APPROVAL FORM

The undersigned certify that they have supervised R111612N's dissertation entitled: Evaluation on the effectiveness of training and development strategies in the mine sector- A case of Zimplats in partial fulfilment of the requirements of Bachelor of Commerce Business Management Honours Degree at Midlands State University.

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ABSTRACT

The company is trying to minimise accidents (to achieve zero harm tolerance) at the same time increasing the productivity. The study investigated the effectiveness of training and development programs by the company. The main aim was to establish how the training and development strategies are being implemented and how the training programs are run, establish whether they are being highly effective or not.Explanatory research method was adopted questionnaires and interviews were used to collect primary data, financial statements, books and other online documents were used as secondary data. The total response rate for the whole study was 84%. Tables were used to present and analyse data, responses were coded descriptive statistics with valid percentage were obtained and a chi-square test was run.The major findings in this study were that the training and development strategies were not being highly effective for the company to be able to reach the full production ans zero harm tolerance. Respondents felt that the training programs were not being effectively conducted since majority of them could not highly benefit from the same.The key recommendations in this study are that the company should communicate well the training objectives to the trainees, improve the introduction of training generally improve the design and implementation of their training programs and employers be supportive of training. The study was a cross-sectional study.

CHAPTER ONE

1.0 INTRODUCTION

The research seeks to examine the training and development strategies; the training procedures, training methods, training evaluation and how these can be effectively and efficiently useful. The chapter contains the background of the study, the statement of problem, research objectives and questions. It also covers the assumptions, significance of the study delimitations, limitations and summary.

1.1 BACK GROUND OF THE STUDY

The mining sector as one of the most vibrant sectors in Zimbabwe is also one of the sectors that possess many dangers. Much care needs to be taken when working in such environments as mines. There are quite a number of mines in Zimbabwe that are contributing to the success of the economy, reducing poverty and unemployment, training is a basic need to them, however this study will mainly focus on Zimplats operations.

Zimplats (Zimbabwe Platinum Mines) is a world class mining company which owns and operates the Sellous Metallurgical Complex (SMC), Ngezi Concentrator and four Underground Mines. At Zimplats both mining and processing divisions there is intensive use of complicated and mechanised equipment for instance, mobile trackless machines; use of corrosive chemicals Copper Sulphate(Cuso4), heavy metals used in laboratories such as lead. There is much interaction with unconducive environment during smelting due to high temperatures and molten metals is very high so for one to fit in properly he or she requires effective training.

Training and development is not only taken as a measure of reducing accidents but it is also part of Zimplats Core Values: "**WERESPECT**, **WECARE** and **WE DELIVER**". It has shown care to its employees by sending them to training institutes such as the Zimbabwe School of Mines. Training and development has proved to be an effective way of managing risk at Zimplats especially at processing divisions where failure to achieve metallurgical efficiency can result in great loses.

Zimplats undertakes on-the job training, couching and demonstrations by workmates both in the processing and mining divisions so as to enhance performance and production. In-addition it also undertakes supervisory skills, principles of management (Planning, Leading, Organising, Controlling), team building which is aimed to motivate team players. Usually the supervisors are ignorant in recognising the training needs in other employees because they do not know how to asses them although planned job observation and performance appraisal is done many people are being injured and some even dying.

The aspect of Safety, Training and Development has contributed greatly as shown by the low trends of injuries occurring as a result of lack of knowledge to work with mechanised equipment.

TABLE 1.1 Showing results for 2009-2011 periods

YEAR (period)	2009	2010	2011
Labour efficiency	901	1317	1166
Fatal injury frequency rate	0.000	0.000	0.000
Lost-time frequency injury rate	0.45	0.69	0.75
Total injury frequency rate	5.49	3.61	3.39
Lost days rate	29	20	28

Key: Frequency rates (per million man-hours worked)

   Labour efficiency (tonnes milled per year employee costed)

There was also a significant decrease in the production levels (labour efficiency) from **1317** in 2010 to **1166** and this led to introduction of other control measures to try to minimise the injury frequency rates and increase the production levels. With the introduction of new techniques in 2012 there was also a further decrease in production levels to **1128** therefore there was also introduction of strata control course which provides an in-depth understanding to employees on rock mechanisation to avoid lost time injuries and fatality in the mining division. This led to increase in production levels.

Regrettably, performance on safety was less exemplary with the lost-time injury frequency rate worsening from **0.21** in 2012 to **0.70**, as a result of which Zimplats surrendered its claim to have the Group's best safety record. The all injury frequency rate was virtually unchanged at **2.20** (per million shifts worked). Encouragingly, Zimplats achieved 10 million fatality-free shifts, equating to five years without a fatal injury.Skills development received priority, an amount of US$2.6 million being spent on training. Some 379 employees underwent a total of 2 661 days of leadership development while apprenticeships and learnerships benefited 53 employees. Some 99% of employees are literate.

TABLE 1.2 Showing Results for 2012-2013 period

YEAR	2012	2013
Labour efficiency	1128	1159
Fatal injury frequency rate	0.000	0.000
Lost-time frequency injury rate	0.21	0.70
Total injury frequency rate	2.22	2.20
Lost days rate	11	28

Key: Frequency rates (per million man-hours worked)

Labour efficiency (tonnes milled per year employee costed)

Zimplats is guided by the **Mine Management Safety Regulations Chapter 1.37 (1990)**, it stipulates duties which the mine managers need to carry out as far as inspections and reporting of accidents in the mine are concerned. It provide regulations in which the managers should protect the employees, levels of operations, how to handle certain chemicals and use certain machines. Failure to meet with the obligations they face consequences such as paying damage charges and Zimplats should try as much as possible to minimise their dangers so as to minimise incurring costs and loses.

1.2 PROBLEM STATEMENT

In as much as Zimpalts is striving to achieve **zero harm** with a view to thrust safety ownership and responsibility through all levels down to the shop-floor, they failed to

maintain zero as zero injury financial years alternate with injuries. Therefore the researcher seeks to establish alternative or additional strategies that can be adopted to boost productivity in relation to training and development of both employees and managers.

1.3 RESEARCH OBJECTIVES

1.3.1 To identify and evaluate the effectiveness of current training and development techniques.

1.3.2 To establish weaknesses and strengths of existing training techniques.

1.3.3 To establish the additional training techniques that can be used.

1.4 RESEARCH QUESTIONS

1.3.4 To what extend has training been effective to the company's growth?

1.3.5 What are the potential strengths and weaknesses of the current techniques?

1.3.6 Which are the alternate or additional strategies can be used by the organisation?

1.5 HYPOTHESIS

The researcher will have an empirical test (hypothesis) on:

H_0: current training and development strategies have no effect on performance of the company.

H_1: current training and development strategies have an effect on performance of the company.

1.6 SIGNIFICANCY OF THE STUDY

1.6.1 Theoretical

The research will add value to the body of knowledge in the mining industry by inquiring into the alternative training techniques so that the researchers and scholars will find it very useful. This research study will increase the quality of literature and analysis of information sources that it holds, so that relevant references on related subject matters can be easily accessed whenever required, and set a clear platform for further research.

1.6.2 Practical

The aim of the research is to identify loopholes in the current training and development strategies. This research will aid to realise the importance of training to both the employees and the organisation. This research also will aim to assist the company with the recommendations on the most appropriate strategies to train the workers and educate them and also findings might assist for further research.

1.6.3 To the Researcher

It will prove the researcher's ability to apply the theoretical knowledge acquired over the duration of studies in a more practical and industrial manner, also experience or enhance decision making and problem solving. This also helps there researcher to carry out a research on her own with the experience gained from the supervisor's assistance.

1.7 ASSUMPTIONS

1.7.1   The company involved will be at play through-out the study;

1.7.2   The researcher will not become subjectively immersed in the subject matter;

1.7.3 The researcher will receive genuine information from the respondents.

1.8 DELIMITATIONS

1.8.1 Theoretical

The research will analyse the effectiveness of training and development strategies in the mining sector focusing on Zimplats and how it is used to enhance performance of the same..

1.8.2 Physical

This research study shall only be limited or focused to Zimplats in MhondoroNgezi. The research will also be limited to the Human Resource Department activities.

1.8.3 Time

The study will cover the period 2009 to 2013 where the company has not yet reached full productivity and employees continuous to be injured at work (lost days).

1.9 **LIMITATIONS**

The company understudy is a private company, the researcher was limited to sensitive information (some information could not be disclosed) and the researcher anticipated bias on the part of the respondents. In some cases the researcher sensed that the respondents were reluctant to give their full and real views in fear of losing their jobs. Management were also somehow reluctant in responding for fear of being quoted, fear that their responses can be used against them. The researcher experienced time constraints since the company understudy is a very large company.

1.10 Organisation of the report

The report is divided into five chapters. Chapter one looks at introductory issues, chapter two is about review of related literature, chapter three outlines the method of conducting the research, chapter four presents the analysis and discussion of the findings (data presentation) and chapter five provides the conclusions and recommendations.

CHAPTER TWO

LITERATURE REVIEW

2.0 INTRODUCTION

The chapter involves searching and identifying information on a topic and helps the researcher to attack a problem for research. It is there to show how other researchers undertook a similar research, their strengths and weaknesses if any and also helps identify any gap in the area of study. It offers a comprehensive look at the development and effectiveness of training and development as they may apply in the mining industry in Zimbabwe. Needs assessment for training and development programs, successful methods for training and development for employers and employees, benefits and evaluation of the training and development techniques are to be explored.

2.1 Training and Development

Training is a systematic way of developing the knowledge, attitudes and skills required by employees to perform adequately on a given task or job as defined by Milhem et al (2014). Every individual requires acquiring knowledge, the skill, the understanding, the information, in order to function effectively and efficiently at the work place. Dessler, G. (2011) supports that staff training and development is a work activity that can make a very important contribution to the overall effectiveness and profitability of an organisation. It is of no use for a company to acquire most expensive and advanced technology without man-power the systems will not be in a position to attain productivity. Thus, it is essential that companies value their employees for it to effectively function and train them to learn how to perform their jobs at a satisfactory level.

Development deals with predicted needs of the individual and personal development of the employee performing the job, therefore, it is person oriented. Furthermore,Vemic, J. (2007) frames the challenge of organisational learning as to change without changing. A company can learn how to do and make something different without becoming a new different company. He also argues that learning begins with self-doubt that current methods are not as

perfect or as effective as they might be and continues with conviction as risks are taken to introduce new methods.

2.2 Purpose of Training

Effective and efficient human resources are desired by every company for a better and improved performance. Aguinis, and Kraiger, (2009) found that most of the companies tend to focus much on training new employees only but there must be an on-going training program for both new and old employees in an organisation so as to cope with the changing environment and increase the efficiency of all its employees.

The reasons for an emphasis on growth and development of employees include:

- ✓ To prevent industrial accidents by creating safety consciousness among workers;
- ✓ Helps increase the skills and knowledge of employees;
- ✓ Reduces supervision costs because trained employees require less supervision;
- ✓ Training should help employees to easily adapt to the changes, decisions made in the business;
- ✓ Creates a readily available and adequate replacement in the event that someone moves up or leave the organisation or a stand in will be available if someone falls sick;
- ✓ A trained employee is enabled by training to achieve the required level of performance, hence increasing the productivity.

In order for the organisation to realise the above benefits of training, the organisation must adopt the right training interventions. Training methods/interventions can be put into two groups, that is, on the job and off the job.

2.3.0 Training and Development Methods

Janakiram (2007: 102) defines training method as "a systematic procedure or techniques by which a skill is developed in a person, employee of an organisation'. In simple terms it is a way of developing an employee's skills. There are many training and development methods that have contributed to the success of many organisations and had a great impact on individuals. Techniques that can be selected when communicating new information or skills

to trainees depends on the massage to be sent, target population (Vemic, J. 2007). As noted earlier training can take place on the job or off the job.

2.3.1 On-the-job training

On the job training is that programme which takes place as the individual is doing the work for which training is being given. It is when an employee is placed in an actual work situation and an experienced employee or a skilled supervisor will show or demonstrate the job and the tricks (Dessler, 2011 and Ivancevich, J. 2004). On the job training uses the regular existing workplace tools, machines, documents, equipment, knowledge and skills necessary for an employee to learn to effectively perform his or her job.

Development of an employee's or manager's ability can take place on the job through apprenticeships, coaching, understudy assignments, committee assignments, job rotation. This can occur elsewhere within the working place using training rooms, training work stations or training equipment and it is most frequently supplied by another employee who can completely perform the job that she or he is teaching. Gobbler, et al (2006) and Hemanth (2010) maintain that on-the-job training method is relatively cheap, real work situation is experienced unlike the artificial situation of training from a classroom. It also motivates the employee knowing that the training received will determine his or her success on the job. In the mining sector it is of much importance to undertake such a method because people must be at the real situation so that they will easily accept and understand the training. The difficult mining concepts can be easily understood if the trainees are practising or experimenting on-the-job.

In his argument, Hemanth (2010) pointed out that on-the-job training possesses its own weaknesses if the experienced employee or trainer lack expertise to teach or train the learner, if it is not organised (no orderly manner of training or doing things) and safety hazards, damaged materials or products, poor customer management, stress on employees can be created if the program is poorly conducted. Hence it is very important that the company conduct the program effectively so as to yield good results and not to waste company's resources and time.

According to Henarndez (2012) adult learners retain more of what they do (60%) than anything else [that is; what they read and hear (20%), what they see (50%) and what they say (50%)]. This information supports the fact that on the job training contributes more to the effectiveness of training than any other form of training. In the mining sector it is of much

importance to undertake such a method because people must be at the real situation so that they will easily accept and understand the training. The difficult mining concepts can be easily understood if the trainees are practising or experimenting on-the-job. By so doing they will realise profits, reach full production and also reduce work accidents and lost time injuries.

2.3.1.1 Apprenticeship

This is a specially tailored training program in which the employee is trained under the supervision and guidance of a highly skilled co-worker to become a skilled worker usually through a combination of formal learning and long-term learning (Bakan, n.d and Dessler, 2011). Oregon Apprenticeship and Training Division (n.d) identifies an apprenticeship as an occupational skill training that combines on-the-job experience and classroom instruction. Apprenticeship is viewed as a way of training people for careers that demand wide range of knowledge, skills and independent judgement. Oregon Apprenticeship and Training division (n.d) relating to apprenticeship points out that classroom learning on-the-job training helps workers to understand better the risks associated with their jobs and help them avoid job-related injuries hence saving employers' money and time.

From the view above the researcher alluded that the apprenticeship program will be vital only if the trainee is willing to learn and put more effort and the environment is permissive. Apprenticeship allows an individual master the right job skills, procedures and processes of the job at hand and this is obtained because it is done for a longer period, hence increasing worker safety. In addition an apprenticeship program allows an individual to have job security and also an opportunity to become a leader or a supervisor (Oregon Apprenticeship and Training Division (n.d). Ivancevich (2004) submitted that in as much as the program is relatively less costly and simple, the cost can be very high if it is not properly handled. Poor handling of the program will result in unsatisfied customers, poorly trained workers, damaged equipment, and increased work accidents, among others. Ivancevich, (2004) further suggested that careful selection of the trainee, trainer and training techniques will prevent the problems above.

The researcher can therefore conclude that apprenticeship must be carefully managed. The mining company in question should value this program much because apprentices bring long-term benefits and the company can take a long time without undergoing training. There is need for the company to consider this program and prioritise because the nature of the job is

too complex and requires a lot of training. They will be able to select a supervisor from among the employees and will not require too much or any training since the person has already familiarised through apprenticeship. Undertaking apprenticeship will benefit all the trainees especially those who are slow learners and also reduces the complexity of the job.

2.3.1.2 Coaching

A pre-arranged agreement between a manager and the employees to demonstrate skills and give the employee guidance, reassurance and feedback while the employee practices the new skill is called coaching according to Community Foundations of Canada (nd). Wood, J. D (2008) highlighted that the purpose of coaching is not to increase managers' performance but for life development, leadership and self-awareness. Life development is about balancing personal and professional roles more effectively. Manages can guide another manager or an employee through criticism, direction, advice or suggestions in an attempt to aid the growth of an employee. According to Milhem et al (2014) one of the most productive and effective modern method of training and development is linking mentoring with objectives and project activities or tasks.

This technique allows the trainee to freely ask questions on areas of poor understanding and they can get a clear, honest respond (HR.com Limited, 2001). It involves participation hence increases employee motivation and once an employee is motivated he or she is prone to perform effectively, hence increased efficiency and productivity. Therefore if the mining company above undertakes this technique their employees' efficiency will be increased. Life development will benefit both managers and employees because they will be in a better position to balance personal life and professionalism hence this will not affect their performance. It is very much applicable since the jobs complexity does not require one who can easily be affected by situations because it will result in many work accidents.

2.3.1.3 Strata control course

A strata is a layer of sedimentary rocks. A strata control course is one of an underground hard rock skills program mostly designed for underground workers. ACARP University of Wollongong (n.d) defines strata control as a risk management tool which ensures the proper control of the mining environment to minimise the risk of local instability and also ensures that appropriate mining support actions are employed to overcome an unpredictable changes to the prevailing geotechnical environment. After assessment if there are continuous accident records it indicates that there is need for improved understanding and competence among

underground production and service personnel with regard to strata control, associated risks in platinum and gold mines (Mine Health and Safety council, n.d).

Every underground personnel are mostly vulnerable to risk of fall of ground therefore; strata control is conducted to ensure the safety and efficiency of mining operations. It is also conducted for the development of mining personnel skill levels and pro-active reduction in levels of rock related risk in mining operations. Mine Health and Safety Council and South African Qualifications Authority submitted that strata control extends to ensure that workers adhere to mining layout and support standards, as well as the maintenance of quality control in type selection and support installation. The weakness with this technique is that it is difficult for those who are illiterate to undertake the training course because it is complex. It is one of the most recognised training qualification and very important to underground miners because the future of the ground is very much uncertain. If the course is introduced at the mining company under study employees will be equipped with necessary knowledge, skills and ability to move between the different mining operations. This training will be used as a measure to reduce underground accidents to the focal organisation and it will keep good safety records hence luring more investors and skilled employees.

2.3.1.4 Demonstrations

This is a technique where the instructor or trainer performs a task or job showing the trainee how it is supposed to be done the trainee is given the opportunity to perform the same task under the trainer's supervision. Janakiram (2007) describes it as a role-play method in which a problem situation is lively demonstrated to the trainees and active participation is encouraged. Role-play may use a simulation (a fake situation created) in the event that a real situation is absent. Ivancenvich (2004) points out that the comparison of role playing and case method suggests that there are differences between them though role playing is a cross between an attitude development and case method. In Dessler, G. (2011)'s view job instruction training lists each job's, key points and provides employees with step by step training.

From the above view there seem to be three different techniques but the researchers view see the techniques trying to achieve the same objective therefore they can be categorised as one. They try to model the behaviour of an employee giving him or her clear view of how different job situations can be treated. Thus, the trainer's purpose of supervising is to measure the performance of the trainee and see if he or she has grasped the concepts. The trainer will

make corrections where necessary and also judge the level of understanding. Participation and involvement of employees during training increases their levels of understanding therefore the organisation in question must engage in the method. Their field of operations requires high levels of understanding the nature and requirements of the job which promotes worker safety, improve individual performance.

2.3.1.5 Induction training

This is training given to a new employee in the company whereby the line managers arranges the induction program upon commencement of employment by a new employee (www.businessdictionary.com). Vogt (2014) views induction process as an initiation process a new employee undergoes when starting work and includes getting acquainted with the layout of the office and learns about office processes, attending introductory training seminars and sexual harassment courses, get an outline of company rules and procedures, among others. Dessler (2011) stated that line managers discuss what training and development programs are required and when they can take place.

The training needs for each new employee are identified by comparing the level of qualification, competencies and experience against qualifications, competencies and experience outlined in the job description and required in the division. Vogt (2014) further states that induction process is an important tool for the effectiveness of an organisation. Poor induction can result in unclear foundations and expectations between a new employee and the organisation and the expectations include corporate values, ethics, and expectations of the job description. Dessler (2011) emphasis that even a company carefully selects employees with high potential they still need orientation (induction training) so that they will provided with the information they need to know.

In the above view it proves that every employee needs to go through induction training when entering the company or even changing department. If an employee fails to understand and grasp the job concepts from the start it means that he or she is bound to affect the overall organisational performance by poorly performing. The mining company understudy must not assume that since an employee was previously employed at another mine else he or she is capable of performing without any training. They should introduce the employee to the new environment properly because the nature and operations of the business or job differs according to each organisation. This will reduce the high risk of an employees' false start that is starting, operating on the wrong side with little or no understanding.

2.3.1.6 Chemical hazard awareness (training)

Chemical hazard awareness gives an individual the knowledge to make better risk assessment of the work he or she does and enables one to make the right choices about safe handling procedures, protective equipment and correct action to take when there is a spillage (NCEC, 2014). Every employee wishes to and is expected to work in a safe working environment even when working with dangerous equipment or hazardous chemicals safety precautions must be taken. Employers must assess the working environment of their employees to make sure that they conduct the business in a safe manner (BOC Industrial Gases UK). In the mining industry in the processing department there employees who work day-to-day handling different chemicals in the laboratories and they have to be equally trained the chemical handling techniques.

Transporting, handling and using of chemicals is governed by the legislations to ensure that the process is carried out safely and the people undertaking the work are required to train on the nature of hazards posed by the chemicals (NCEC, 2014). In Zimbabwe, the mining sector is governed by the Mines and Minerals Act, Chapter 21.05 and its regulations: The Mining (Management and Safety) Regulations S.I 109 of 1990 and The Mining (Health and Sanitation) Regulations S.I 185 0f 1995. It is an emphasis that anyone handling or using hazardous goods should be properly trained to be aware of the potential risks involved, how they can recognise them and try to avoid or manage them (24-7 Response UK).

This technique must be seriously considered by Zimplats mining because it is a measure to reduce fatal and lost time injuries (help them achieve zero harm) hence reducing costs associated with those injuries. They can also fall under off the job training because it can also be learnt in classrooms.

2.3.2 Off the job training

This is the training or knowledge given to the employees while they will not be performing the actual work or not in the present work environment. In Hemanth (2010)'s view off-the-job training is a job activity that is not done every day. This can be inform of lectures, case studies, role playing, simulation, discussions, programmed instruction among others to learn different skills and to gain knowledge for different things (Liraz, M. nd). Training must not only focus on practicality because people need to be trained to effectively communicate and work with others.

This is mostly applicable in very large organisations conducting big training programs and when employees have to improve their problem solving skills (Ivancevich, 2004). It is not very much effective as on the job training because results of researchers shows that usually trainees retain only 20% of what they read and hear. This proves the weakness of the technique since it only improves the knowledge of the employee which is not enough on its own. It can only be effective at Zimplats if they use it as a way of emphasising what employees have attained during on the job training. Life experiences, sexual harassment procedures and other policies can be taught during off the job training hence contributing to the behaviour of an individual. In addition, it will reduce cost of training each employee separately or a small group of employees since it is a very large organisation.

2.3.2.1 Lectures or Classroom training

This type of training is conducted in an organised and formal manner with specific topics at a time. Classroom training is regarded as one of the simplest method if all the lectures are well managed and the attitudes, theories or important concepts are effectively taught. Researchers Hamanth (2010) and Voyagers (2012) establishes that the method can be revised and developed quickly. In addition Mars (2014) postulates that the instructor is the one who makes the learning to be interesting and also can be conducted efficiently for large groups providing the same information to everyone at the same time. The fact that a large number can be taught at once and is not outsourced makes the method cost-effective; Hamanth (2010) and Mars (2014) are in support of this view.

HR.com Limited (2001) disagree with the fact that it is considered one of the effective methods because there is no close interaction of the trainer and the trainee hence creating boredom and demotivation to the trainee. Once the trainee is not motivated to learn then the learning outcome will not be effective. HR.com Limited (2001) goes on to say that research proves that people do not retain everything they learn in a classroom but only 20% things taught is retained. Zimplats can only adopt this technique if they are able to structure the lectures in a better way that allows the question and answer session allowing the learners or trainees to be participative. They can apply it only when it is critically necessary, when the situation requires such or when emphasising on safety, performance and commitment.

2.3.2.3 Supervisory skills

Leaders have to create a healthy, high performance culture therefore supervisors need skills for them to be able to sustain productivity. An experienced supervisor with effective skills

will be able to even conduct on the job training to the lower level employees and they will be able to guide and influence them to perform effectively. Supervisory skills can be learnt through lectures or case study which is off the job learning and is very crucial for the employees' performance and the organisation's success. Elisa (2011) suggested seven skills that can be possessed by a supervisor namely; listening, availability, mission focus/ priority setting, transparency, delegation (responsibility, authority, and accountability), realism, and taking responsibility and giving credit to effectively supervise.

Supervisors, team leaders are the people that learn basics of management because they are expected to perform management duties. Quinn (2010) opined that supervisors and team leaders have to **plan** what they want to accomplish for them to achieve set goals; **organise** the employees and the duties they have to perform, determining the number of personnel needed to perform a certain task; **lead** by motivating, training, guiding, coaching, assessing and supervising employees; **monitor** the activities, resources and also to make sure that the objectives are met, production increases. A team leader at Zimplats can effectively lead if he or she knows his or her duties and know how to apply the skills. They must also be taught to be able to communicate with the employees and be in a position to handle different work situations or quarrels effectively.

2.3.2.4 Team building

Team building is when groups with same objectives and goals are actively created and maintained to function effectively; a definition by Bernatek (2011). In simple terms a team is a combination of two or more people forming a group to perform a certain task. Highly effective teams can only be built if individuals are willing to work together because it is difficult for individuals to work as a group. It is vital to give the employees an off-the-job training in form of a lecture. They should know the reasons for teamwork, its benefits so that they will also promote team building among themselves.

Teamwork is very much important in the workplace especially in the mining sector where hazardous chemicals are used and where there is a greater underground risk. In the mining company understudy it is very essential that the employees must be in a position to work well as a team and manage the team effectively because team work improves productivity, reduce work accidents. This will help them accomplish their motto "I work safely for my team"

2.4.0 General Benefits of Training and Development

When effectively managed and if all the programs manage to meet the specific identified needs employee training and development benefits will out way the training costs. Chapman (2007) pointed out that what is good for the people is also good for the organisation and employees' development is good for organisational performance, quality, effective management, control and increased profits. This will benefit the employee as an individual, as a team and also the organisation. Aguinis and Kraiger (2009) submitted that effective training should result in positive changes such as improved job performance. Training can generate benefits for both the organisation and the individual.

2.4.1 Benefits to the Individual

2.4.1.1 Work Safety

When working with heavy equipment, hazardous chemicals and repetitive activities safety training is very critical and practical advice for avoiding assaults can be useful.Employees' commitment to safety and safe working practices are usually followed when there is effective supervision, training and when they demand it. Ekot (2010) stresses that skills and knowledge development is vital to the health of organisations and it helps the employees to acquire skills, knowledge and a better understanding on how to work safely at different workplaces. Not only the underground workers have to be extra careful but also those who work in the processing department have to be extra careful because they work with hazardous chemicals frequently.

Burke, et al (2006) observed that the more the training given to employees the more they acquire knowledge and skills. They conducted a quasi-experimental study which proves that greater knowledge acquisition results in reduction of work accidents, injuries and illness. Increase in work accidents and number of injuries tarnishes the company's imaging thus scaring away investors. There company must try and address such problems through training. This implies that the mining company in question will maintain the good image and attract more investors. Also they will be able to retain their skilled employees and not lose them due to fatal injuries or lost-time injuries.

2.4.1.2 Employee confidence

With training employees are kept current on new job-related information, builds confidence, keep and develop key performers, enabling team development and contributing to team moral. They will be updated on new advanced skills with a view to align them with business goals and objectives. Agnuinis, and Kraiger, (2009) releases variables that relate to organisational performance directly include tactic skills, self-management skills, adaptive expertise, cross cultural among others all gained from training. There are also variables that relate to performance indirectly which includes communication, empowerment, and task coordination in teams among others. The researcher can allude that Zimplats will have more confident employees contributing to the organisation and aligning with the organisational objectives if they manage to train them effectively.

2.4.1.3 Increased capacity to adapt to new technologies

Once the employees have gained adequate skills and knowledge they will be able to quickly adapt to new equipment and also new methods. This will place both the organisation and the employees in a better position to perform effectively and efficiently whenever new equipment or technology is acquired and technical skills are required. Aguinis and Kraiger (2009), and Oregon Apprenticeship and Training division (n.d) opined that training provides the employer with more employees who can easily adapt to technology. Zimplats mining being a company that uses complicated auto-mated machines will have employees who can easily adapt to the advanced technology and hence increasing the company's productivity and efficiency.

2.4.1.4 Increased motivation

Training might also increase the motivation, work morale of employees since they would have gained new improved knowledge and skills. Learning more new things usually motivates employees because they know that their skills will be contributing to the organisation's success and are valued. Likewise, Voyager (2012) concluded that training will increase job satisfaction and commitment at work. High job satisfaction and commitment reduces employee turnover. Employee participation and involvement through training has a great impact on the employee because it boosts their motivation since everyone want to be involved or considered as someone at work. An intrinsically high motivated employee will prove to be an important resource at the company in question due to the increase in productivity and commitment to work. They want employees that are committed to their work because they believe that it will result in reduced work accidents.

2.4.2 Benefits to the organisation

2.4.2.1 Increased efficiency in process

The company will gain financially resulting from increased operating efficiency. Process or operating efficiency will lead to reduction in cost due to reduced loses, extra handling with care and also employees will be able to perform their jobs effectively with reduced errors since they would have gained adequate skills, knowledge and developed on their learning (Ekot, 2010; McClelland, 2002; McNamara, n.d). It will also increase productivity positively thereby benefits will out-way the costs associated with training and development.

Increased efficiency gained from training also lead to total quality management resulting from basic training about quality concepts, guidelines and standards for quality. Zimplats is more concerning about total quality management therefore from this benefit they will need not to have close supervision and their employees will be attaining high quality performance without wastage of resources.

2.4.2.2 Organisational performance

Zimplats Sustainable Report (2013) managers believes that for their business to prosper they have to recapture the minds of their employees by providing an environment that priorities safe production and offers attractive career advancement and development opportunities and this came through effective training to all employees. Monster (2014) argues that productivity usually increases when a company implements training courses across the workforce, from the shop-floor to executive level and in any discipline. The aim of all the profit making organisations is to see their investments bringing more income rather than incurring losses or having many expenses.

2.4.2.3 Increased innovation

The more learning obtained by people the more innovative they become, learning will open or sharpen the minds for the employees and will obtain the capability of thinking outside the box bringing in new ideas, strength to strategies (McNamara, nd and Ekot 2010). Companies with business problems are given an unbiased or fresh professional exploration or evaluation.

2.5 Designing a Training Program

2.5.1 Training Needs Assessment

Needs analysis is the process of determining the organisation's training needs and seeks to answer the question of whether the organisation's needs, objectives and problems can be addressed or met by training (Aurthur, et al. 2003). Needs assessment is the process of gathering data on what training needs employees have so that training can be developed to improve the effectiveness of employees and thereby help the organisation to meet its business objectives. McClelland, S. D. (2002) highlighted this as the initial stage in meeting the training challenges and ensuring that training exercises are focused and appropriate. Bobinski (2014) also supported that need analysis is the first stage of every instructional effort to clearly identify the gap between what is there and what is wanted.

The main product of assessment is the specification of the training objectives that in turn identifies or specifies the tasks and skills to be trained. Bobinski (2014) and Community Foundations of Canada (nd) agree that the gap can be identified by assessing what workers currently know against what they need to know; what they currently do against what they need to do and what they currently believe against what they need to believe.

In view of the above, the researcher can conclude that a properly conducted training needs assessment will result in the identification of real training needs and non-training needs. This is from the perspective that performance is not only hindered by poor or inadequate skills or training. The completion of this assessment and the results generated will provide data that could be used as the basis for grant requests and proposals (McClelland, 2002). It greatly impacts by recognising bona-fide training issues and also to meet training and educational needs. Needs assessment answers the effectiveness of current training procedures and identifies anticipated future training needs. Hence the managers responsible for such an action at the mining company understudy must carefully asses the needs and must know how to assess and what they must achieve from the assessment for training to be effective.

2.5.2 Organisational analysis

This is viewed and applied as the first stage in the needs assessment process. Janakiram, (2007) believes that it is better to first examine the strategies of the organisation, its business environment, resources and command for better determination of a training need. Organisational analysis covers a wide range of performance ratings. Grobler, P. et al, (2006) provided that it goes deeper into examining the work accidents, injuries, labour turnover,

productivity quality, absenteeism at work, labour operations costs, employment equity problems and sexual harassment charges among others. Therefore the analysis of the organisation is there to examine if the organisation is effectively achieving its goals or there is no success then determination of deficiencies.

Furthermore Aurthur, et al. (2003), pointed out that needs analysis answers questions such as: where the training need in the organisation is and which organisational goals can be attained through training? Hence if the organisation's performance is at risk due to the perceived discoveries like increased work accidents, injuries, productivity quality and others then the organisation should consider undertaking a training program. For an effective organisational analysis there must be records and reports for all the events or activities at the company, work accidents so that the managers or trainers will easily identify where the need is.

Janakiram (2007) suggested that there are strategic initiatives which influence training which are: down-sizing, restructuring, team working, empowerment. In addition he opined that company resources can also influence the company's training needs if there are new and advanced equipment (technological advancement). The mining company understudy must match training with its organisational performance, strategic objectives and decisions. Thus the area of focus or the identified area with a training need must be clear to the mangers or trainers for an effective training program and resources to be put in place.

2.5.3 Task/ operational analysis

It is categorised as the second stage in training needs assessment. A review of the job description and job specification is carried out to identify the skills level, job knowledge and attitude one is expected to perform (Grobler, et al 2006 and Janakiram, 2007). In Aurthur, et al (2003)'s view the task analysis is supposed to highlight what the trainee must learn to perform the job effectively and what will the training cover. If managers fail to account for all the important factors considered when reviewing task analysis the results obtained will be biased and an ineffective training program crafted.

Invancevich (2004), ascertain that an outline of job/task analysis consists of job description, job specification, tasks, position and job family which help to thoroughly analyse the job requirements. Operational/task analysis should examine each job's knowledge and skills requirements and compare the requirements to employees' actual skills and knowledge (Cekada, 2011). Training needs will then be indicated by any gaps. Therefore this means that

the person who conducts this analysis must be carefully consider every important aspect in relation to the job

The mining organisation in question should use the company's supervisors or a conductor in that department since they know and see how the job is performed. The trainer or supervisor have to use sources such as standard operating procedures, performance standards, job descriptions, job safety analysis, reviewing literature and best practises to collect operational analysis data. From the above analysis it is clear that a proper task analysis must result in clear specification of the things or skills that an employee must learn in order to effectively perform.

2.5.4 Individual/ person analysis

An individual employee's work or performance is assessed, measured versus the objectives and standards of his or her job (performance appraisal). The employee will be assessed if he or she is actually performing to the standards as outlined in his or her job description. Janakiram (2007) mentions that individual analysis helps the organisation not to send all its employees for training but to focus only on few identified by the analysis while saving time and money for the company. The gap between the skills, knowledge and attitude currently posed by the employee is compared with the expected behaviour (skills, knowledge and attitude) towards the job and any gaps displays a training need. Moreover it is a clear determination of who currently needs the training and development, for what reasons and the skills required (Grobler, et al. 2006).

Community Foundation of Canada (2014) is in support with the fact that employee training and development must be matched with the job descriptions, organisational context, collective agreements and employment contract, among others and it is important to note the learning process when selecting a training method. Those companies that relates to training as a waste of money and not an investment is because they do not carry a proper needs analysis or they don't carry it out at all. Chaudhary (2012) has a view that the audience must be analysed so that the training program will suit their experience, specific level of qualification, attitudes, motivators and skills. In the mining sector employees are exposed to different dangers or environment depending with the nature of the work. Training needs assessment must help them identify the gap the skills that the employees have and the skills they require to have an effective job performance and effectively operate under such environments. Since

job performance is a function of skills, knowledge and work motivation assessment must help the company to identify performance problems that are not training needs.

2.5.5 Establish the objectives of Training And Development program

The main objectives of staff training and development are to improve the qualities of the trainee, formulation of objectives of different needs and ways of achieving it. The training objective is very important because it determines the design and contents of the training programs. Though training is believed to be costly to the company, the objective is to increase personnel efficiency, professional growth and smooth and more effective organisation's operations according to Cook (2009).

Human resources managers are responsible for deciding what type of training employees need, when they need it and what form of training program they should undertake after conducting performance appraisal. Furthermore, objectives gives a basis of effective communication whereby the trainee and the trainer have to communicate so that they achieve the same goal and also it helps select the most suitable instructional strategy.

Organisational learning depends upon the evaluation of structures, processes and shared mental models that cut across the subcultures of the organisation and removes error and biases in organisational knowledge creation and dissemination process. Training objectives should be clear so that both the trainee and the trainer will be able to understand the expected behaviour after the training course is conducted. It should be measurable, state actions to be performed by the leaner (Dessler, 2011), conditions under which the course will be conducted, the resources available, restrictions and also the criteria of success (standards, quality, time limit to be met). Objectives should be stated in action words so that they will be understandable by every trainee.

This is the phase which determines how the trainer will present material, accommodate interaction, allow for practice, test for efficiency and remediate if necessary (Bbonski, 2014). The above will help create a safe learning or training environment and present materials in ways that reach leaners. According to Anderson, C (2006) good training and development is supposed to change behaviour positively through encouraging continuous improvement and good training programs. Therefore lack of managers' understanding of benefits of and need for thoroughly training employees at all levels can lead to poor training hence poor organisational performance.

Failure by Zimplats training managers to set clear training objectives for the employees creates misunderstandings. The willingness and ability to learn comes from clear understanding of what the training is all about and why and how is it conducted. The training programs are too complicated for the employees so they are supposed to be explained and understandable to avoid confusion to the trainee. In-addition their budget allocation to the training programs must be stated, realistic and able to cover all the training costs.

2.5.6 Design and implementation

The most effective delivery training method for a certain situation must be determined. Materials should be create in alignment with the objectives and determine whether to use an outsider consultant or in house trainer (Cekada, 2011).Employees must be provided with adequate training material, safe training environment, an instructor who is an expert and given full support so that they will corporate. Forrest and Peterson (2006) stated that for training and development to be effective the programs must consider that employees are adult learners so they need to know why they are learning. Employees will learn better if they can see how learning will help them perform tasks or deal with problems that they confront in their work places (Aik and Tway 2006).

According to Bobniski (2014) poor training results from an inadequate outline of what an employee is expected to perform. Inadequate or no training materials, no learning objectives, inadequate training manuals will not help training to achieve set goals. Anderson, C (2006) opined that good training and development thought to change behaviour positively through encouraging continuous improvement and good training programs. He added that it is better to teach or train the employees a few vital concepts and not the trivial many so that it will be simple, relevant and factual. Lack of managers' understanding of benefits of and need for thoroughly training employees at all levels can lead to poor training hence poor organisational performance. Those trainers at Zimplats should properly design and implement their training programs so that they will not waste company resources. They also have to make sure that the budgeted cost and materials will be adequate to carry out the whole training process. A safe training environment must be created to avoid injuries when training on-the-job since their working environment is hazardous.

2.5.7 Training Evaluation Criteria

Training evaluation criteria is a primary decision that need be made when evaluating effectiveness of training (Aurthuretal, 2003). The process of evaluating training is an attempt

to obtain information on the effects of a training programme. It asses the value of training, comparing the training objectives against the results obtained to see if the training has achieved its purpose. Bobniski (2014) asserts that evaluation is very vital for the determination of the effectiveness of training. He further said that it should be an on-going process in-order to achieve best results and if there are any shortcomings they should be addressed hence making improvements to future training efforts. The objectives of training determine the most appropriate criteria for assessing the effectiveness of training.

There are six general approaches to educational evaluation namely; goal-based evaluation, goal-free evaluation, responsive evaluation, systems evaluation, professional review and quasi-legal. The commonly used evaluation training approaches are the systems-based and goal-based. Scholars stated the main explanations for disaster of evaluations as: evaluation faults of some kind, lack of objectivity, insufficient planning, incorrect interpretation and unfortunate use of results. One of the most popular models whose focus is on measuring the four elements of outcomes that should emerge from a highly effective training program is the Kirkpatrick evaluation model.

Four levels of evaluation: Kirkpatrick evaluation model (1959)

2.5.7.1 Reaction criteria

Reaction criteria measures the trainees' effective and attitudinal response to the training program using self-report measures. Dessler (2011) suggested that the employees should be assessed or asked whether they like or find the program beneficial. A negative reaction from employees results in poor learning.

2.5.7.2 Learning criteria

Learning criteria measures the learning outcomes of training by using pen and paper and performance test and not measure job performance. To determine whether the trainees have learned the skills, principles and facts taught they must be tested.

2.5.7.3 Behavioural criteria

Behaviourial criteria measures actual on-the-job performance and can be used to identify the effects of training on actual work performance, this uses supervisor ratings or objective indicators of performance. The change in behaviour towards work can be obtained through interviews, questionnaires, observations and tests.

2.5.7.4 Results criteria

Results criteria is frequently operationalized by using utility analysis estimates, it is measured by productivity and company profits. Increase in productivity or quality might be due to new equipment or better design tools. If training program produces measurable results then it has achieved its strategic goals but if not then it has not achieved anything.

The problem with training evaluation is that employers focus mainly on reaction and learning criteria which will result in bias evaluation. The mining company understudy must assess all the four levels in-order to obtain good results and for the evaluation to be effective. The evaluators must be trained on the techniques of evaluation, to use appropriate data gathering instrument and to focus on important details. The Kirkpatrick evaluation model best suits the nature and budgets of the business undertaken by the mining company.

2.6 SUMMARY

This chapter reviewed literature on training and development strategies, process applied by Zimplats, other Mining companies in Zimbabwe and in other countries. The review gave the researcher a clear understanding on the method to be used to gather data in the next chapter. The researcher then presented methodology in the next chapter.

CHAPTER THREE

METHODOLOGY

3.1 Introduction

This is a system of methods followed in a particular discipline. Research methodology is about the argument for suitability of the research approach, design, methods and techniques adopted (Jankowicz, D. 2011). The understanding of the research and the choice of research methods and techniques to answer the research questions will be laid out. In simplicity it is the entire process of the research study.

3.2 Research Philosophy

The development and nature knowledge is termed as research philosophy. How a researcher choses the research philosophy depends with the assumptions in which one views the world. According to Saunders, et.al (2009) the development of knowledge may be answering a specific problem in a particular entity and not only development of new theory. The philosophies available are realism, positivism, interpretivism and pragmatism; the researcher used the interpretivism philosophy.

3.2.1 Interpretivism

This philosophy is based on the understanding of differences between humans in our role as social actors (Saunders, et.al 2009). It advances that subjective thoughts and ideas are valid and allows the multiple perspectives of reality by seeing the world through the eyes of the people understudy (Greener, 2008). It does not compromise the rich insights into the complex world but researches among people and not objects (machines, computers or trucks). This perspective is believed to be mainly used in business and management research areas as marketing, organisational behaviour and human resources management.

3.2.1.1 Justification

The research is about a complex business situation and this particular research philosophy is believed to be highly appropriate in the business context and human resources management field.

3.3 Research Design

The main function of the research design is to explain how one will find answers to the research questions Kumar, (2011). It is a general plan of how the researcher will go about answering the research questions. From various types of research design (explanatory, descriptive and exploratory) the researcher adopted the explanatory research design.

3.3.1 Explanatory research design

The design establishes relationships between variables. Explanatory research is being used for collecting data to evaluate the training and development strategies employed by Zimplats mining company. In this case it has been used to determine if the training and development strategies are being effective in the mining organisation and able to meet the gazetted requirements. It also attempted to determine the extent in which the training procedures can produce good results.

3.3.1.1 Justification

The researcher adopted this research design because it allows her to use a large sample for the company understudy is a large organisation. Qualitative and quantitative data can be collected hence the researcher can gain a broader sense on the topic.

3.4 Sampling Procedure

Sampling means the selection of items or suitable sample at random for study from a population.

3.4.1 Population

A comprehensive of all the elements that share some collective set of characteristics and that contain the universe for the purpose of the research problem is a population (Saunders, et.al 2009 and Kothari, 2004). The research's target population were both mining division and process division employees (management and non-management).The total population is 2000 employees (1958 non-managers and 42 managers).

3.4.2 Sample size

At least there were seven representatives from each group to maintain a small sample.

Table 3.1 showing sample size

Population element	Total population	Sample	Sample percentage
Management	42	15	0.75%
General employees	1658	260	13%
Supervisors	300	47	2.35%
Total	2000	322	16.1%

3.1.1.1 Justification

The company understudy has a very large population hence the researcher tries to encompass all those elements who has direct influence on production. Only a small sample was drawn for the purpose of cross-sectional study. The whole population were not selected since it is costly and time consuming. Therefore the sample was chosen on the basing on the Law of large numbers (a bigger sample size is more likely to signify the population and a low sampling error is more likely to be achieved).

3.4.3 Sampling Techniques

Non-probability sampling techniques were used for the sample which involved personal judgement by the researcher. Good estimates of the population characteristics can be obtained from non-probability sampling. Quota sampling and judgemental sampling were used for the reasons below.

3.4.3.1 Quota Sampling

The sample chosen by the researcher was a representative of the variables of various quotas similar to that in the population. The technique was used for the case of dividing the population into specific groups (Saunders, et.al 2009). The composition of the population in the mining company was identified. The population was grouped into management, supervisors and shop-floor employees.

3.4.3.1.1 Justification

It was the best technique used since data was collected from a larger population. The technique permitted the sample to be grouped into smaller groups (various quotas) for easy management. This technique was most suitable in terms of time and money constrains.

3.4.3.2 Judgemental Sampling

It can also be called purposive sampling. The sample elements were chosen on the assumption that they can serve the research purpose. Purposive sampling was used to select individuals to ask the research questions. The researcher used personal judgement basing on a number of parameters: accessibility of the company information by the element, probability of obtaining information from the chosen elements, location of the company.

3.4.3.2.1 Justification

The sampling allowed in-depth analysis and importance of the case to be established. Relative costs and control over sample elements was very reasonable. It worked well in conjunction with quota sampling. However, the technique works well for a small sample which was not the case with the study carried out which had a large sample.

3.5.0 Sources of data

To draw a valuable, meaningful and comprehensive conclusion the researcher used both primary and secondary data sources.

3.5.1 Primary Sources

Primary data as considered as the first hand information was fresh from the field of investigation. The primary sources included personal interviews and self-administered questionnaires to managers and non-managers of the mining company understudy.

3.5.1.1 Justification

The data collected was direct, useful, recent and up-to-date constructing the research to be objective in relative to the insights of the employees towards training and development. Raw data directly obtained from the various representatives involved was most probably reliable. This was because first-hand information is most likely to be true and less bias since the researcher can easily judge what is on the ground. Nevertheless, primary sources requires a lot of time to distribute questionnaires, get responses and also to conduct the interviews. A lot of resources are required thus making it time consuming and costly.

3.5.2 Secondary Sources

The secondary data sources were used to identify and define the problem and also formulation of research questions and objectives. The sources used were: internal company records (Implats sustainable reports), internet, published reports, journals, books and publications by research institutions, research workers and universities.

3.5.2.1 Justification

Secondary data is readily available to the researcher, no need to go into the field and collect raw data, thus, making it less time consuming and less costly. A conclusion was drawn from the various available conclusions by other researchers and an approach to the problem was developed. It helped the researcher to formulate an appropriate research design, answer some questions and interpret in-depth the primary data. There was little control on the collection, analysis and interpretation of secondary data.

3.5.3 Data Collection Techniques

Data was collected using a number of techniques among which included interviews (semi-structured and unstructured interviews) and questionnaires (structured and unstructured)

3.5.3.1 Interviews

Kumar, (2011) argues that interviewing is one of the commonly used methods of data collection in any person-to-person interaction and it can be flexible. Any interview can carry open-ended questions where there researcher will then summarise or record and closed ended questions that guide and restricts the respondent on how to answer. Semi-structured interviews were administered where the researcher had a set of list of questions and themes to be covered varying from interview to interview. The company's trainers (supervisors) and general employees were the main target respondents of the interviews. The target of interviews was a quarter of the representatives of each group.

3.5.3.1 Administration

Appointments by the respondents were made and face-to-face interviews conducted in less than 15 minutes. To those who were not readily available and with the availability of contact numbers telephone interviews were piloted.

3.5.3.1.2 Justification

The technique was used for the purpose of explanatory research and allowed the researcher to omit some of the questions not relevant to a specific respondent. Also additional questions were required or asked to explore (explain further) certain research questions. By conducting face-to-face interviews with the respondents the researcher was able to obtain instant feedback. Reliability and validity lies in the fact that there was little misconception since the interviewee and interviewer were able to ask for clarification of the questions and answers. The interview was also able to obtain information from the direct body language posed by the respondents.

3.5.3.2 Questionnaires

A questionnaire is identified as a plan for collecting data in a formalised manner from the respondents. Greener, (2008) postulates that a questionnaire must contain a list of questions directed to certain or targeted audience but must not be too personal. A questionnaire was used as a corresponding technique to personal interviews. A questionnaire consisting of structured and unstructured questions: open-ended questions, forced-choice questions were used. The questions were structured, designed in the manner that the respondents will easily understand what the researcher wants to aid on the validity of the instrument. Most of the questions were answered and this showed that the respondents managed to decode the questions in a way intended by the researcher.

3.5.3.2.1 Administration

Three quarters of the questionnaires were self-administered by hand (delivery and collection questionnaires) and others were sent via email (internet-mediated questionnaires). Those who were not readily available the secretaries would hand over the questionnaires.

3.5.3.2.2 Justification

Questionnaires provided enough room for the respondents to answer to questions when they have enough time and without the interruptions of researcher. They were free to answer on their own and giving their opinions openly. This reduces bias as compared to when the researcher is available. The use of both open ended and closed ended questions strengthens the research instrument and standardisation of answers facilitated with the interpretation of the responses. Interviews were used to compute the questionnaires. Due to the fact that shop-

floor employees were always at their work places except for only a few the researcher managed to administer questionnaires to relatively a large sample.

3.6.0 Data Presentation And Analysis

The data or findings were presented and analysed using qualitative and quantitative techniques. The data collected from interviews and questionnaires was presented using tables and statistical tests.

3.6.1 Data Presentation Techniques

3.6.1.1 Tables

Tabulation is arrangement of data in rows and columns basing on their common characteristics and likenesses. This was done by the researcher for visual appearance of the data, easy to understand and also for comparability. The coded and edited data was easy to put in tables which present a greater platform for categorising data. It is easy to make a descriptive analysis or make an explanation of the information tabulated than on graphs. Tables were decided on basing on its precise and suitability fitness in the data, hence, differences in data requires different types of tabulation.

3.6.2 Data Analysis Techniques

The researcher used a number of techniques among which included deductive and inductive approaches. Different paradigms (inductive and deductive approaches) can be used in conjunction to address a question (Wheeldon, 2010:88 cited in Harwell, n.d University Of Minnesota).

3.6.2.1 Inductive Analysis

Data collected can be easily summarised and simplified through data reduction with focus on other portions of the data. The collected data was summarised using interview summaries, data categorisation (using codes were necessary) and a narration finally constructed. The qualitative data was quantified and the data analysed. The researcher adopted descriptive analysis which allows comparison and explanation of results. Tables were also used to help produce a meaningful data analysis.

3.6.2.1.1Justification

The approach was used for suggestion of subsequent and appropriate action to be taken after realising some loopholes in the training strategies (procedures). This emerged from the circumstances and events of the setup were the research was undertaken. It allowed flexibility and use of deductive approach.

3.6.2.2 Deductive Analysis

The analysis allowed the researcher to console secondary and primary data. Deductive analysis best represents the relationship between theory and field research. This supplements analysis of qualitative data which will aid in the presentation of the data.

3.6.2.2.1   Justification

Best explains casual relationships between variables and involves a testable hypothesis. It has the support of other researchers (secondary data). Chi-square was therefore used by the researcher.

3.6.2.3 Chi-Square

The chi-square helped the researcher to find the likeliness and association of two variables (the training and development methods and company performance).

3.6.2.3.1   Justification

It enabled the researcher to find the likeliness of two categorical variables forming a contingency table. Chi-square allowed observed values in the table to be compared with what the expectations might be if two distributions were independent.

3.7.0 Validity and Reliability

3.7.1 Validity

Validity refers to the appropriateness of each step in finding out what the researcher set out to. It is more associated with measurement procedures, the ability of an instrument to measure what it is set to measure. The validity of the data lies in the fact that those who are directly linked to or affected by training were targeted. The current employees provide valid data. Pilot testing conducted to check on validity of data.

The data collected has been categorised according to their similarities basing on some criterion. Rank order scaling technique was used in compliment with paired comparison data for sorting the data with similarities. To complement the validity of the instruments used the researcher applied both paired comparison scaling techniques and non-comparative training techniques which allows a variety. This helps reduce bias information since errors from another technique will be covered by another.

3.7.2 Reliability

Reliability indicates accuracy, stability and predictability of research instrument. This leads to reliability in the information obtained or gathered, the higher the reliability of a research instrument the higher the reliability of the data. The equivalency, stability and consistency of results proved the reliability of the data collected.

3.7   Chapter Summary

The chapter outlined the research methodology used in realising the effectiveness of training and development strategies in the mining sector (Zimplats in particular). The methods were justified were they were used and their validity and reliability established. The researcher then went on to present and analyse data in the next chapter.

CHAPTER FOUR

DATA PRESENTATION AND ANALYSIS

4.0 Introduction

The chapter focuses on presenting and analysing primary data collected through questionnaires and interviews. The information is presented using tables. The secondary data reviewed in chapter two was used to supplement the research findings.

4.1 Response Rate (Questionnaire and Interview)

Table 4.1.1 shows the number of questionnaires that were distributed by the researcher and the number of questionnaires that were completed and returned. Table 4.1.2 shows respondents (management) that were targeted for interviews and the actual respondents to the interview. The response rates are summarised below:

Table 4.1.1 Questionnaire Response Rate

Respondents	Questionnaires distributed	Questionnaires completed	% Response
General employees	260	220	72
Supervisors/team leaders	47	38	12
Total	307	258	84

Source: Survey 2014

Of the 307 distributed questionnaires 258 were completed resulting in a percentage return of 85% which is a high response rate. Cook et.al (2000) obtained 55.6% returns on administered questionnaires but still went on to publish their paper and given that the response rate was much lower than the current research's response rate the researcher felt that the returns were

more acceptable and so went on present returns to interviews whose results are presented below;

Table 4.1.2 Interviewee Response Rate

Respondents	Targeted respondents	Actual respondents	% response
Management	15	12	80

Source: Survey 2014

As can be seen from the table, of the15 targeted managers only 12 were interviewed resulting in 80% response rate. The overall response rate from both questionnaires and interviews then amounted to 84%. According to Nulty, D. (2008) a response rate of 70% is acceptable making the results of this research valid given the response rate of 84%. The researcher then went on to present the data obtained and analyse the results as shown in the following tables and explanations starting with views on effectiveness of training and the results are presented below;

Table 4.2 showing views of effectiveness of methods of training.

Training method	Less effective		Effective		Very effective		Highly effective	
	frequency	%	Frequency	%	frequency	%	frequency	%
Induction	13	5	60	21	174	67	11	4
Apprenticeship	-	-	-	-	-	-	-	-
Strata control	3	1	6	2	15	5	6	2
Coaching	57	22	110	43	82	32	9	3
Demonstrations	32	12	91	35	119	46	16	6
Lectures	138	53	70	27	40	16	10	4
Chemical awareness	9	3	73	27	31	11	9	3
Supervisory skills	4	1	8	3	25	9	3	1

Source: Survey 2014

As can be seen from the table 95% of the respondents viewed the induction training method as effective (highly effective 4%, very effective 64% and effective 27%) and only 5% of the respondents viewed it as less effective. Emphasis by Dessler (2011) was that even if a

company carefully selects employees with high potential they still need orientation (induction training) so that there will be clear foundations and expectations between an employee and the organisation.

From the returns the respondents who viewed Coaching as effective are indicated by 43% and those who viewed demonstrations as very effective are indicated by 46%. Most of the respondents are of the view that lectures were less effective to their jobs as indicated by 53% (less effective) and a total of 47% indicated as effective (effective 27%, very effective 16% and highly effective only 4%). The results are supported by Henarndez (2012) who opined that adult learners retain more of what they do (60%) than anything else. Therefore on the job training produce better results when effectively implemented or conducted. Strata control 5% very effective, supervisory skills 9% very effective and chemical hazard awareness 11% very effective is undertaken by a few selected individuals. From the responses it shows that those who undergoes strata control will not undergo chemical hazard awareness and supervisory skills is only undertaken by supervisors/team leaders. Those with the highest rates on effectiveness are undertaken by all the respondents.

Only 23% of the total respondents are of the view that all the methods are highly effective. Data shows that no one has undergone apprenticeship and this contradicts with the company records which states that apprenticeships and learnerships benefited 53 employees. This can be attributed to the fact that respondents in this category did not undergo such. Management viewed the training methods as effective because of its applicability to the required job and also the reduced accidents after training. Most respondents indicated that both on the job and off the job are undertaken but on the job training is being very effective because efficiency improved and also employee's marketability. Others indicated that off the job is not being as effective as expected as indicated by poor responds by employees after training and this might be due to poor trainers.

From the views of both employees and management it can be deduced that on the job training has a great impact in the mining sector than off the job training and it is also the most preferred and relevant method by both managers and employees.

H$_0$: company performance, training effectiveness does not depend on training methods used.

H$_1$: company performance, training effectiveness is depended on training methods used.

Step 1: illustration of observed frequencies.

Table 4.2.1 showing observed frequencies.

	Views on Effectiveness of Current Methods			
Training Methods	**Less Effective**	**Effective**	**Very Effective**	**Total**
Induction	13	60	185	258
Apprenticeship	-	-	-	-
Strata control	3	6	21	30
Coaching	57	110	91	258
Demonstrations	32	91	135	258
Lectures	138	70	50	258
Chemical awareness	9	73	40	122
Supervisory skills	4	8	28	40
Total	256	418	550	1224

Step 2: Calculation of expected frequency; E= (Row total × Column total) ÷ Grand total

Table 4.2.2 showing expected frequencies.

	Views on effectiveness of current methods			
Training Methods	**Less Effective**	**Effective**	**Very Effective**	**Total**
Induction	53.96	88.11	115.93	258
Apprenticeship	-	-	-	-
Strata control	6.27	10.24	13.48	30
Coaching	53.96	88.11	115.93	258
Demonstrations	53.96	88.11	115.93	258
Lectures	53.96	88.11	115.93	258
Chemical awareness	25.52	41.66	54.82	122
Supervisory skills	8.37	13.66	17.97	40
Total	256	418	550	1224

Step 3: Calculation of X²cal

$$X^2cal = \sum [(O_i - E_i)^2 \div E_i]$$

Where O_i is observed frequency in the ith cell of the table

E_i is expected frequency in the ith cell of the table

Table 4.2.3 showing chi-square calculated.

Category	O	E_i	$O-E_i$	$(O-E)_i^2$	$(O-E)_i^2 \div E_i$
1	13	53.96	-40.96	1677.72	31.09
2	3	6.27	-3.27	10.69	1.70
3	57	53.96	3.04	11.56	0.21
4	32	53.96	-21.96	482.24	8.94
5	138	53.96	84.04	7062.72	130.89
6	9	25.52	-16.52	272.91	10.69
7	4	8.37	-4.37	19.09	2.28
1	60	88.11	-28.11	790.17	8.97
2	6	10.24	-4.24	17.98	1.75
3	110	88.11	21.89	479.17	5.44
4	91	88.11	2.89	8.35	0.094
5	70	88.11	-18.11	327.97	3.72
6	73	41.66	31.34	982.19	23.576
7	8	13.66	-5.66	32.03	2.3448
1	185	115.93	69.07	4770.66	41.151
2	21	13.48	7.52	56.55	4.195
3	91	115.93	-24.93	621.5	5.3609
4	135	115.93	19.07	363.66	3.1368
5	50	115.93	-65.93	4346.76	37.4946
6	40	54.82	-14.82	219.63	4.00638
7	28	17.97	10.03	100.60	5.598
				X^2cal	332.6371

Step 4: Establishment of the degrees of freedom

Degrees of freedom (df) = (rows-1)(columns-1)

$$df \rightarrow (7-1)(3-1) = 12$$

From the tables $X^2(0.05)(12) = 21.03$

At 5% significance level and 12 degrees of freedom X^2cal 332.671 is greater than the X^2 statics which is 21.03. With these results the researcher rejects the null hypothesis and concludes that the method of training used determines its effectiveness (significant relationship between training method and effectiveness towards the job). This is also evidenced by the significant decrease in injuries and increase in productivity (Zimplats financial and safety reports 2009-2011). It also follows a decrease in productivity, increase in lost time injuries and reported sick notes (sick off) and also increased lost days (2013 Sustainable reports). Employees feel that training was not highly effective due to poor introduction. A research by Swaminathan, J. and Gowri Shankar, U (2011) shows that perceived effectiveness of training and development can only be high if the employee's satisfaction level is comparatively high. The researcher then went to investigate if the view of employees on introduction of training, facilities and equipment used results in its effectiveness and the results are presented below;

Table 4.3 Illustrates views of introduction of the training.

Response	Frequency	%
Excellent	11	4
Very good	78	30
Fairly good	165	64
Poor	4	2
Total	258	100

Source: Survey 2014

As shown in the table above 4% of the respondents viewed the introduction of the training program as excellent, 30% viewed it as very good. Most respondents are of the view that the introduction of training was fairly good as indicated by 64% and only 2% of the respondents are of the view that it was poor. The above response gives a picture of how the training

objectives were communicated to trainees (respondents). The training objectives should state actions to be performed by the leaner (Dessler, 2011), conditions under which the course will be conducted, the resources available, restrictions and also the criteria of success (standards, quality, time limit to be met). Thus if the entire above are well put in place the trainees would rate the introduction of training program as excellent and the program will also be enhanced. The sustainable report 2013 argues that they have introduced the training in the best interest of all employees and this is supported by a high response rate on good, fair introduction. Respondents were asked about their views on the facilities and equipment used during the training program by the company and the results are presented below;

Table 4.4 showing views about facilities and equipment.

Response	Frequency	%
Excellent	14	5
Fairly Good	178	69
Poor	66	26
Very Poor	-	-
Total	258	100

Source: Survey 2014

In table 4.4 data shows that most of the respondents viewed facilities and equipment used during training as fairly with an indication of 69% and 5% viewed it as excellent. It is also observable that 26% viewed it as poor. None has viewed it as very poor. Management believes that they have state of art equipment since they hire on date services to enhance the training programs and the equipment and facilities are reliable. Materials should be in alignment with the objectives and determine whether to use an outsider consultant or in house trainer (Cekada, 2011).Employees must be provided with adequate training material, safe training environment, an instructor who is an expert and given full support so that they will corporate. The results shows that the company's training facilities and equipment are relevant and useful for training. Also management agreed that the facilities were good because during the training program there were no reports about accidents or any bad reports pertaining to the conduct of the training.

H₀: there is no significant relationship between introduction of training and the facilities and equipment used.

H₁: there is a relationship between introduction of training and the facilities and equipment used.

Step 1: illustration of observed frequencies.

Table 4.4.1 showing observed frequencies.

Views	Introduction Of Training	Facilities And Equipment	Total
Excellent	11	14	25
Fairly Good	243	178	421
Poor	4	66	70
Total	258	258	516

Step 2: calculation of expected frequency.

E_i= (row total × column total)∕grand total

Table 4.4.2 showing expected frequencies.

Views	Introduction Of Training	Facilities And Equipment	Total
Excellent	12.5	12.5	25
Fairly Good	210.5	210.5	421
Poor	35	35	70
Total	258	258	516

Step 3: calculation of X^2cal

X^2cal = $\sum [(O_i - E_i)∕E_i]$

Where O_i is observed frequency in the ith cell of the table

E_i is expected frequency in the ith cell of the table

Table 4.4.3 showing chi-square calculated.

Category	O_i	E_i	O_i-E_i	$(O-E)_i^2$	$[(O-E)i^2\diagup E]$
excellent	11	12.5	-1.5	2.25	0.18
fairly good	243	210.5	32.5	1056.25	5.0178
poor	4	35	-31	961	27.457
excellent	14	12.5	1.5	2.25	0.18
fairly good	178	210.5	-32.5	1056.25	5.0178
poor	66	35	31	961	27.457
				X^2cal	65.3096

Step 4: Establishing the Degrees of Freedom (df)

df→ (rows-1)(columns-1)

$\rightarrow$ (3-1) × (2-1) = 2

From the distribution table X^2 (0.05)(2) = 5.99

At 5% significance level and 2 degrees of freedom the X^2cal 65.3096 is greater than X^2statistics 5.99 and therefore null hypothesis is rejected showing that the introduction of training and the training facilities and equipment have a significant relationship. This shows that for introduction of training to be considered as good the training equipment and facilities must as well be good. Respondents (management) were of the view that the facilities and equipment used are reliable since they have state of art equipment, they hire on date services to enhance the training programs. And also the training programs were safely completed this ensures that the training facilities and equipment were good.

Table 4.5 responses on the selection of training participants.

Response	Frequency	%
Show Of Individual Interest	75	29
Supervisor's Recommendation	181	70
Performance Evaluation	2	1
Total	258	100

Source: Survey 2014

Represented by table 4.5 are 29% of the respondents who responded that trainees are selected by showing interest towards going under training. 70% are of the view that the supervisors

are the ones that select training participants which represents the majority of the respondents, only 1% of the respondents felt that training participants were selected as a result of performance evaluation. Findings from the management's responses shows that selection of trainees depends on the supervisor's request and also by show of individual interest especially for off the job training (sent to school of mines). By show of individual interest was termed to be effective since the employee is already self-motivated to do so. Respondents indicated that those who undergo training as a result of request from supervisor usually do not fully participate in the training.

The respondents were then asked on whether they agreed that training and development programs improved team work and the results are shown in the table below;

Table 4.6 Views on improvement of team work as a result of training.

Response	Frequency	%
Strongly agree	21	8
Agree	195	75.5
Disagree	40	15.5
Strongly disagree	2	1
Total	258	100

Source: Survey 2014

As shown by the above table 75.5% of the respondents agreed that training improved team work, 8% strongly agreed. 21% of the respondents disagree with the fact that training improved teamwork. Sustainable development report argues that teamwork has somehow been achieved by the employees since they now see a positive response in their abilities to work together as one. Management's responses most of them saw a rise in the overall company performance and also the ability to work as a team for employees increased. The management's aim is to make sure that all employees are able to work as a team. The respondents were then further asked to indicate the benefits they gained after training and the level of each benefit and the following results were obtained;

Table 4.7 showing views of the benefits of training.

Benefit	Highly increased		moderately increased		no increase		can't say	
	frequency	%	frequency	%	frequency	%	frequency	%
Motivation	31	12	169	65.5	4	1.5	54	21
Worker Safety	42	16	216	84	-	-	-	-
Employee Confidence	41	16	211	82	4	1.5	2	0.5
Capacity to Adapt to New Technology	18	7	217	84	2	1	21	8
My Work Skills	61	24	180	70	8	3	9	3

Source: Survey 2014

Results on table 4.7 shows that most of the respondents' view on benefits of training has moderately increased as indicated by motivation 65.5%, worker safety 84% being the highest, employee confidence or self-esteem 82%, capacity to adapt to technology 84% and work skills at 70%. In Bobniski (2014)'s view poor training results from an inadequate outline of what an employee is expected to perform and in this case the outline cannot be said that it was poor or excellent but was just fair because employees were able to achieve some of the expectations on average. Therefore the data shows that the outline of the expectations of the trainee were not excellent because only a few respondents indicated motivation 12%, worker safety 16%, employee confidence 16%, capacity to adapt to new technology 7% and work skills 24% as highly increased and the majority saw a moderate increase in the benefits of training following that majority of the respondents were moderately satisfied with the introduction of training.

Reduced lost time injuries was stated by management but some argued that recently (2013 financial year) there was a significant increase in the injuries and reported sick notes which is not a good indication. Performance on safety was less exemplary with the lost-time injury frequency rate worsening from **0.21** in 2012 to **0.70 in 2013**, as a result of which Zimplats surrendered its claim to have the Group's best safety record. With the company productivity increasing they assumed that it was a result of high employee motivation and boosted confidence. Trends from the Integrated Report 2013 shows a significant decrease in the production levels (labour efficiency) from **1317** in 2010 to **1166** in 2011, a further decrease to 1128 in 2012 which contradicts with increase in productivity. And there was a slight increase

in productivity to 1159 in 2013 this then supports the management's view of increase in company productivity. The overall increase in company performance was ranked as average and yet they want it to be very high so that training benefits will really outweigh costs associated with such. In light of the above, the researcher then sought to establish the relationship between training benefits and training strategies and the results are presented below;

H$_0$: training benefits are independent from training strategies implemented.

H$_1$: training benefits are depended on training strategies implemented.

Step1: illustration of observed frequencies.

Table 4.7.1 showing observed frequencies.

	views of benefits of training		
Training Benefit	**Increased**	**No Increase**	**Total**
Motivation	200	58	258
Worker Safety	258	-	258
Employee Confidence	252	6	258
Capacity to Adapt to New Technology	235	23	258
My Work Skills	241	17	258
Total	1186	104	1290

Step 2: Calculation of expected frequency

E_i=[(row total × column total)⁄grand total

Table 4.7.2 showing expected frequencies.

Training Benefit	views of benefits of training		
	Increased	No Increase	Total
Motivation	237.2	20.8	258
Worker Safety	237.2	20.8	258
Employee Confidence	237.2	20.8	258
Capacity to Adapt to New Technology	237.2	20.8	258
My Work Skills	237.2	20.8	258
Total	1186	104	1290

Step 3: Calculation of X^2cal

X^2cal $= \sum [(O_i - E_i) / E_i]$

Where O_i is observed frequency in the ith cell of the table

E_i is expected frequency in the ith cell of the table

Table 4.7.3 showing chi-square calculated.

Category	O_i	E_i	O_i-E_i	$(O-E)_i^2$	$[(O-E)i^2 / E]$
1	200	237.2	-37.2	1383.84	5.83
2	258	237.2	20.8	432.64	1.82
3	252	237.2	14.8	219.04	0.92
4	235	237.2	-2.2	4.84	0.024
5	241	237.2	3.8	14.44	0.061
1	58	20.8	37.2	1383.84	66.53
2	0	20.8	-20.8	432.64	20.8
3	6	20.8	-14.8	219.04	10.53
4	23	20.8	2.2	4.84	0.23
5	17	20.8	-3.8	14.44	0.69
				X^2cal	107.435

Step 4: Establishing the Degrees of Freedom (df)

df→ (rows-1)(columns-1)

→ (5-1)(2-1) = 4

From the distribution table X^2 (0.05)(4) = 9.49

At 5% significance level and 4 degrees of freedom X^2cal 107.435 is much greater than X^2 statistical. It therefore follows that null hypothesis is rejected and training benefits is depended on training strategies implemented. There is a relationship between training methods used and benefits gained. This is also indicated by the increase of commitment to work by employees, increase in overall productivity and also a significant reduced number reported work accidents. There were also issues of safety whereby lost injuries increased and productivity slightly decreased also during the period of 2012-2013 (Zimplats sustainable report 2013). Training is considered as one of the potential motivators and its main purpose is to improve and acquire attitudes, skills, knowledge towards given task (Nassazi, 2013).

Respondents were asked if the company has conducted any evaluation and feedback after the training program.

Table 4.8 showing views of evaluation and feedback of the training program.

Response	Frequency	%
YES	158	61
NO	100	39
TOTAL	258	100

Source: Survey 2014

From data obtained most of the respondents agreed that there was evaluation and feedback after the training program as indicated by 61% and 39% of the respondents are of the view that there was no evaluation and feedback on training. Evaluation is very vital for the determination of the effectiveness of training as asserted by Bobniski (2014). Therefore in-order to achieve good results it should be an on-going process done by the company. There is also an element of needs analysis on the evaluation and feedback because the feedback will

be given after assessing what have been achieved by training and also identify areas that needs further improvement therefore if the company successfully do that it must be shown by a 100% response on views about evaluation and feedback which is not the case here.

The data shows that the evaluation and feedback aspect is not being successfully implemented since there are still others who are not being evaluated or even getting the results of the evaluation. And it contradicts with the company records, management who believes that feedback is being given to all employees and this means that they are not having clear communication with their staff on evaluation and feedback of training. From the results it can be deduced that employees do not understand whether evaluation and feedback is conducted and they have inadequate information about the training evaluation and feedback.

Generally all managers responded that employees are given liberty to run a section or shift after sent for training, the employee then undergo a pass-out session where questions are asked under a panel pertaining the new responsibility of the job. If the score is above expected mark the employee is then fully appointed to new responsibility and has passed the training course. Most of the respondents commended that both employees and company benefited from training because there was positive change in behaviours and also company performance. This alone confirms that training evaluation is done but does not show if there is any or enough feedback to employees.

4.9 Chapter summary

Research data was collected by way of questionnaires and interviews and was presented and analysed in the form of tables. Some of the findings from both questionnaires and interviews were addressing the same issues. Other few questions were clearly clarified, supported or contradicted through interviews and by company documents. The researcher therefore went on summarise the findings from this chapter, give conclusion and make recommendations in the next chapter.

CHAPTER FIVE

RESEARCH SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.0 Introduction

The chapter's aim is to establish whether the findings answered the current study's research questions and objectives. It consists of summarised findings and recommendations made based on the findings of the whole study. It is the researcher's hope that the recommendations will assist the company understudy in improving their training and development strategies as well as providing guideline for other researchers for further researchers.

5.1 Summary of findings

The study attempted to identify the training strategies employed by the focal organisation and assess their effectiveness. After identifying the strategies, generally it has been noted that the strategies used, the way they are introduced and also the resources used has a positive impact on overall company performance. Some methods were perceived as more effective than others by the respondents.

5.1.1 The overall response rate from both interviews and questionnaires was high at 84%.

5.1.2 Evidence from the study reveals that the current training methods, those that are on the job, are being effective than those that are off the job as indicated by are high response on effective but are not being highly effective as expected by management.

5.1.3 Supported by the hypothesis test it proves that company performance, training effectiveness depends on the training strategy implemented by which X^2cal 332.637 is greater than X^2statistics 21.03.

5.1.4 The study established that the introduction of training was not excellent as indicated by 64% on fairly good (just good).

5.1.5 It was also clear that the facilities and equipment used was not excellent to the trainees because of 69% of the respondents that indicated it as just good (fairly good) and not excellent.

5.1.6   The study discovered that the training equipment and facilities used affects the introduction of training as the hypothesis test shows that there is a significance relationship between the introduction of training and the training and facilities and equipment used during training. X^2cal 65.3096 was greater than X^2statistics 5.99.

5.1.7   Generally it was clear that training strategies averagely improved team work with an indication of 75.5%.

5.1.8   Selection of trainees was mainly by recommendation from the supervisor with 70%, a few is by show of individual interest with 29% and only 1% through performance appraisal. The results show that majority that are recommended by supervisors to go for training poorly participate or perform during training because they lack self-motivation to do the training than those who were selected by show of individual interest.

5.1.9   It was also clear that most of the respondents averagely benefited from the training given to them but it was not enough for everyone and the training could have yield better results if it was fairly conducted as shown by 65% response rate on motivation, 82% on employee confidence, 84% capacity to adapt to new technology, 82% worker safety, 70% work skills but all these was rated as moderately increased rather than highly increased.

5.1.10 The study established that views on benefits of training are dependable upon the training given to an individual. Hypothesis test proves the positive relationship in which X^2cal 107.435 was greater than X^2statistics.

5.1.11 The study also established that evaluation and feedback was not being fairly done because 61% indicated that evaluation was done but they most of them were not given feedback. And 39% respondent that evaluation and feedback was not done because there was no significant respond on the training conducted to the trainees.

5.2 Conclusions

5.2.1 Main Conclusions

The researcher concludes that the training strategies implemented by the Zimplats mining company are not being highly effective as a result of the fair and not excellent facilities and equipment used and also the introduction of training. Another result is that of poor evaluation

> **Comment [m2]:** Remove.

and feedback done by the company whereby employees do not recognise whether they are being evaluated or not and also there is no respond on performance after training.

5.2.2   Sub conclusions

5.2.2.1 Zimplats mining company is currently using induction training, strata control, chemical hazard awareness, lectures, coaching, demonstrations and supervisory skills as strategies for training of employees and these are not effective as the company still experiences the problems which these strategies are meant to prevent.

5.2.2.2 Established weaknesses in the current training strategies are caused by poor introduction of training, equipment and facilities used and also unclear training objectives to the trainees and this as a result of poor communication or sometimes even the lack of it.

5.2.2.3 Evaluation of training and feedback by the company to the trainees is also poorly done resulting in missed opportunities for improvement of the training programme.

5.2.2.4 The mining company can adopt apprenticeship as another strategy and improve on their areas of weakness.

5.3   Recommendations

5.3.1 The researcher recommends that the company should adopt various training strategies that can improve their performance and also change and improve the way training is done.

5.3.2   Apprenticeship/Learnerships

It is vital for the mining company to fully adopt apprenticeship because they will have to train their own employees from the start and mould them the way they want. Concerning apprenticeship, Dessler,G. (2011) seconds that employees should be provided with career training by their employers so that they become valuable members and assets of the company. By adopting or conducting apprenticeship Zimplats' trainees will be able to meet industry standards for a given occupation.

5.3.3   Strata control course

From the research findings it was discovered that strata control course is only done by the supervisors (seniors or team leaders), the researcher therefore recommends that it must be

done by every employee that goes underground since they are all exposed to the dangers of heavy rocks. This follows that after assessment if there are continuous accidents records it indicates that there is need for improved understanding and competence among underground production and service personnel with regard to strata control, associated risks in platinum and gold mines (Mine Health and Safety council, n.d).This will therefore reduce the rate of accidents and lost time injuries.

5.3.4 Selection of Trainees

Proper performance appraisal must be conducted for the whole organisation to ensure that all the training strategies be effective. This will also motivate the employee to undergo the training since he or she will be given a clear reason for training rather just being recommended by the supervisor to go under training. Needs analysis determines the organisation's training needs and seeks to answer the question of whether the organisation's needs, objectives and problems can be addressed or met by training (Aurthur, et al. 2003). Therefor needs analysis will help the company to identify training needs and non-training needs if properly conducted.

5.3.5 Introduction of Training

Facilities and equipment must be excellent to promote excellent introduction of training to the trainees. Location of training rooms must be free from noise and dangers because the research findings proves that the facilities are located at noisy places hindering effective training and even creating barriers to communication.

5.3.6 Training Objectives

From the research findings and conclusions the researcher recommends that the company must clearly communicate the training objectives to all trainees. They must make the training intentions well known to everyone involved in the training program to obtain a positive response from training and also for the training benefits to highly increase rather than just moderately increasing. Training objectives should be measurable, state actions to be performed by the leaner, conditions under which the course will be conducted, the resources available, restrictions and also the criteria of success (standards, quality, time limit to be met) (Dessler, 2011). Therefore Zimplats should state objectives in action words so that they will be understandable by every trainee.

5.3.7 Training Evaluation And Feedback

The researcher recommends that the company must do the full evaluation and feedback. Bobniski (2014) asserts that evaluation is very vital for the determination of the effectiveness of training and it should be an on-going process in-order to achieve best results and if there are any shortcomings they should be addressed hence making improvements to future training efforts. Kirkpatric model of evaluation is the best moel that can be used by Zimplats. Therefore they should evaluate all the criterias (reaction criteria, beahiour criteria, learning criteria and results criteria) in order to obtain a full picture on what the training has been able cover and what it does not manage to cover. They should provide feedback of the results to employees so that if there any improvements they will fully participate.

5.4 Recommendations for further studies

Not only training can be an answer to reduced production, increased lost time and fatal injuries but other factors can be explored that influences the company performance. Grobler, et al 2006 and Janakiram, 2007 that needs assessment determines training and non-training needs. This means that not all problems can be solved through training. And so a research can be done on other contributors of increased lost time injuries and decline in productivity (poor overall company performance).

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ZimplatsSustainable Report 2013

QUESTIONNAIRE

I am a student at Midlands State University doing a Bachelor of Commerce in Business Management Honours Degree. I am carrying out a research on **The Effectiveness Training and Development Techniques In The Mining Sector: A Case Of Zimplats**in partial fulfilment of the stated degree program. I am kindly asking you to assist me by completing the following questionnaire. Do not write your name. Note that your responses will be strictly confidential and only used for academic purposes.

Thank you in advance for agreeing to participate it will take less than 10 minutes to complete.

Tick in the applicable box and fill in the required information in the spaces provided.

Section One

1. Please indicate your current level or position at work

Supervisor/ team leader ☐   General employee ☐

2. How long have you been working at this company?

0-5 (years) ☐   6-10 (years) ☐   11-15 (years) ☐   above 15 years ☐

Section two

3. You are required to indicate the type of training that you have participated in at your work place and the question asks for your opinion on its practicality towards your work. The level of effectiveness will range from 1(Ineffective) to 5 (Effective).

Training Methods or techniques	Ineffective		Effective		
	1	2	3	4	5
Induction training					
Strata control course					
Apprenticeships					
Coaching					
Demonstrations					
Lectures or Class room training					
Chemical hazard awareness					
Supervisory skills					

4 For those courses that you indicated as Ineffective explain why that is so………………………………………………………………………………………..

…………………………………………………………………………………………

5 For those courses that you indicated as Effective explain why you think that way ………………………...

………………………………………………………………………………………...

6 How were the participants selected?   By show of individual interest ☐
Recommendation from supervisor ☐   As a result of performance evaluation ☐

7 How often does the company run such training programs?   Every quarter ☐
Half yearly ☐   Annually ☐   Whenever there is need ☐

8 How was the introduction of training program by the company?

Excellent ☐   Very good ☐   fairly good ☐   Poor ☐

9 How do you feel about the training program?

Very interested ☐   Somewhat Interested ☐   Not Interested ☐

10 The Training and development program improved the team work.

Strongly agree ☐   Agree ☐   Disagree ☐   Strongly Disagree ☐

11 From a list of the benefits gained from training and development program(s) below indicate where you stand. Tick in the appropriate box on the level of each benefit.

Benefit or variable	Highly increased	Moderately increased	No increase	Can't say
Motivation or work morale				
Worker safety				
Employee confidence or self esteem				

Capacity to adapt to new technology				
My work skills				

12 Was there any evaluation and feedback of the training program?

YES ☐   NO ☐

13 If the answer to question 12 above is yes, comment on the results of that evaluation
………………………………………………………………………………………………
……………………………………………………………………………………………….

14 If the answer to question 12 is no, what changes would you recommend to make the
program   more   meaningful   (please   identify   and   explain)
………………………………………………………………………………………………
………………………………………………………………………………………………

15 How were the facilities and equipment that were used during the training program?

Excellent ☐   Fairly Good ☐   Poor ☐   Very Poor ☐

16 Why do you think the facilities and equipment is the way you view them in question 15
above?   (Please   explain)
……………………………………………………………………………………………….
……………………………………………………………………………………………….

SCHEDULED INTERVIEW FOR MANAGERS

I am a student at Midlands State University doing a Bachelor of Commerce in Business Management Honours Degree. I am carrying out a research on **The Effectiveness Training and Development Techniques In The Mining Sector: A Case Of Zimplats**in partial fulfilment of the stated degree program. I am kindly asking you to assist me by participating in the interview answering the following questions. Do not write your name. Note that your responses will be strictly confidential and only used for academic purposes.

Thank you in advance for agreeing to participate it will take less than 10 minutes to complete.

1. What type of training do you offer to your employees and how effective do you think they are to the company and employees? ....
   ………………………………………………………………………………………
   ………………………………………………………………………………………
   ………………………………………………………………………………………
   ………………………………………………………………………………………

2. How do you select the participants for training and development? …………………………………………………………………………………….

3. To what extent is your selection effective? ……………… …………………………………………………………………………………..

4. In detail, how do you design and implement training program(s)? ....
   ....
   ....
   ....

5. How often do you run such training program(s)? ....

6. How do you assess the effectiveness of training program(s) in overall development of employees and company performance? ....
   ....
   ....

7. If you conduct an evaluation and feedback on the training programs comment on the results. ……………………………………………………………………………
………………………………………………………………………….................
....

8. What are the benefits gained from the training program(s) you implemented to both individuals and the organisation? Indicate the level of each benefit. …………………
………………………………………………………………………………………
………………………………………………………………………………………
………………………………………………………………………………………

9. How do you view the facilities and equipment used during the training program(s)? ...
....

10. What changes would you recommend as a manager to improve the effectiveness of training program(s)? …………………………………………………………
………………………………………………………………………………………
…………………………………………………………………………………..