UNIVERSITY OF CAPE COAST

EFFECTS OF TRAINING AND DEVELOPMENT ON THE

PERFORMANCE OF STAFF IN THE FIRE AND RESCUE SERVICE

DEPARTMENT, CENTRAL REGION

BY

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DECLARATION

Candidate's Declaration

I hereby declare that this dissertation is the result of my own original work and that no part of it has been presented for another degree in this university or elsewhere.

Signature:……………………………. Date:……………………………..

Name: Semekor Kwaku Fiadzo

Supervisor's Declaration

I hereby declare that the preparation and presentation of the dissertation were supervised in accordance with the guidelines on supervision of dissertation laid down by the University of Cape Coast.

Signature:…………………………....... Date:……………………………..

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ABSTRACT

The roles to prevent and also fight fires, in order to save lives and protect property, are still fundamental to the goal of fire service departments in many Countries   This study therefore set out to assess the effectiveness of training and development programmes on the Central Regional Fire Service department. The study adopted a mix of qualitative and quantitative research approaches and a descriptive design to study 30 fire service personnel who had participated in any of the training programmes Questionnaires were used to collect data from the selected fire service personnel and an in-depth interview with the Deputy Regional Commander was conducted using an interview guide. The study concluded that a mix of methodologies were needed to be applied in training the fire service personnel. Informative, interactive, and vestibule methods were require in the form of lectures, role plays, and simulations. The key finding is that trainees were best suited for their jobs after training and that the training programme was aligned to the training needs of the personnel. Also, the training programme had significant improvement on the performance of the personnel in all the practical fields of fire fighting. However training programmes were challenged by funding constraints to train the required number of personnel, to acquire enough gadgets for practice and simulations, as well as participatory training and also to upgrade the technology needed to improve on the fire fighting abilities of the personnel. More stress-coping activities were recommended during training. Collaborative efforts with donors to fund training and the acquisition of gadgets were also recommended.

ACKNOWLEDGEMENTS

DEDICATION

To my father, my wife, and children I dedicate this study.

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CHAPTER ONE

INTRODUCTION

The unpredictable nature of fire occurrences and the risk involved in fighting fires, has made the roles of preventing and fighting fires, a fundamental goal of fire service departments in many countries in the world today. Klinoff (2007). The need to fight fire and prevent lives and properties is now major challenge among many communities in Africa and for that matter, Ghana. It is against this background that this study intends to assess the effects of training and development programmes on the performance of fire service officers in the fire and rescue service department in central region of Ghana.

Background to the study

The earliest known fire department was formed in Ancient Rome by Egnatius Rufus who used his slaves who fought fires using bucket chains and also patrolled the streets with the authority to impose corporal punishment upon those who violated fire-prevention codes (Lafer, 2001). The roles to prevent and also fight fires, in order to save lives and protect property, are still fundamental to the goal of fire service departments in many countries. Klinoff (2007) accounts that most public or municipal fire departments also carry out an enforcement role, to ensure that buildings are equipped with adequate fire precautions to limit the chances of fire and ensure that in the event of fire, people can safely evacuate the premises unharmed.

Given the unpredictable nature of fire occurrences and the risk involved in fighting fires, Coe (2009) indicates that consistent training of fire service personnel in advanced and safer methods of carrying out their duties is essential

for the safety of the personnel and the public. Hensler (2011) emphasises that a slight miscalculation in fire fighting could lead to casualties involving the fire fighter and other individual, and thus, the importance of training of fire service personnel cannot be underestimated.

The training of the fire service personnel would involve a systematic learning process in which employees acquire knowledge, skills, experience, and attitudes that they need to enhance their performance towards the achievement of organisational goals (International Fire Service Training Association, 2014). In the principle of the knowledge spill-over theory, Romer, (1986) proposes that training facilitates innovation and growth of employees, which influence their development on the job. Katz and Khan (1996) also theorised from the systems thinking that training and development forms part of an organisational system which reinforces the achievement of goals and objectives.

According to Armstrong (2009), training and development are intricately connected, but the difference exists, where training is task-oriented and short-term, employee development is long-term and focuses on the employee. Thus, well-trained fire service personnel would show competence in the procedural processes of performing their duties, but some well-developed personnel would show creativity and innovation in applying the procedures in unpredicted circumstances (Hensler, 2011).

The progress towards goal achievement is assessed through a system of evaluation, as proposed by Kirkpatrick's (1994) training evaluation model. Evaluating training and development therefore involves a continuous and systematic process of assessing the value or potential value of a training program, course, activity or event (Fullard, 2006). Hoyle (2006) also

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describes training evaluation as a systematic analysis of training to determine whether it has met its business objectives in an effective and efficient way. Following this, Rajeev et al. (2009) assert that evaluation of training is underscored by key performance indicators, which serve as benchmarks for the measurement of employee competence.

According to Pollock (2007), key performance indicators vary by the nature of the job, departmental objectives and targets and organisational goals. For example, in the fire service department, the IFTA (2014) indicates that performance indicators can cover competence in tying different types of knots; selecting appropriate rope and knot to lift selected equipment, utilising seat belts; exiting a hazardous area before exhausting the air supply; climbing and safely work from various size ground and roof ladders while utilising a leg lock or ladder belt on appropriate ladders, extinguishing a Class A, B and C fire; working as a team when given ladders, attack lines, and forcible entry tools effectively; utilising water application procedures to extinguish fire; and safely searching for hidden fires in a structure.

Statistics at the Ghana National Fire and Rescue Service revealed that a total of 7,670 fire outbreaks occurred between January 2008 and June 2010 leading to 102 deaths, 119 injuries and damages worth GH¢23,964,380 (Ghana National Fire and Rescue Service, 2009, 2011). In the year 2008, a total of 137 deaths were recorded from rescue attempts by the Ghana National Fire and Rescue Service and 31 deaths were recorded in fire outbreaks. In 2011, there were 278 deaths resulting from rescue attempts and 54 deaths resulting from fire outbreaks. In the year 2013 alone, the cost of damage from disasters across all the 10 regions of the country was GH¢25.08 million, involving 5489 fire

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outbreaks, 1,128 injuries and 213 deaths. In the first two months of the year 2014, a total of GH¢2.43 million, involving 300 domestic fires, 71 bush fires, and 107 commercial fires all totalling 779, 256 injuries and 48 deaths (Daily Graphic, April 18, 2014).

The rising cases of fires, as well as injuries and deaths resulting from fire outbreaks necessitate the training and development of Fire and Rescue Service personnel for skill and competency improvement. In Ghana, new recruits are taken through intensive training in the areas of fire-fighting drills, fire safety in the premises and fire precautions, written communication, first aid, fire science, corporate image building and other operations in the service, such as search and rescue, as well as ICT usage (Daily Graphic, April 18, 2014). Moreover, the Service engages its personnel in annual national training programmes which involve all regional and sub-regional Fire and Rescue Service units, in order to renew and upgrade the skills of personnel in the performance of their duties.

The rising cases of fire outbreaks, as well as injuries and deaths resulting from rescue attempts makes it imperative to evaluate the effectiveness of the training and development of Fire and Rescue Service personnel. This study therefore evaluates the effectiveness of in-service training given to Fire and Rescue Service personnel as death tolls from rescue attempts and fire outbreaks increase over the years.

Statement of the Problem

Organisations operate in an ever changing and risky environment, which makes it imperative for employers to develop the competencies of their

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staff. For fire service personnel, a slight error in procedures and safety measure could be the differentiating factor between saving a life and causing casualties (Cote, 2003). Thus, training of fire service personnel is essential, not only for the sake of the job, but also for the safety of the employees and the public (Hensler, 2011).

In Ghana, training of fire service personnel involves recruitment training for all newly recruits as well as in-service training for existing employees. Annually, the National Fire and Rescue Service department engages all its employees in a national training programme, which is aimed at improving the competence of fire service employees to carry out their duties of fire prevention, fighting fires, as well as search and rescue (Daily Graphic, April 18, 2014). However, statistics show that Central Region has been recording high number of fire cases in comparison to the other Regions. For example, in 2007, a total of 309 cases were recorded, and this was only next to the cases recorded Ashanti Region and Greater Accra Region. According to Ghana National Fire and Rescue Service, report (2009), in 2008, Central Region recorded the fourth highest cases of fire outbreaks, next to Ashanti Region, Greater Accra Region and Brong Ahafo Region

Moreover, the death tolls from fire outbreaks as well as search and rescue missions have increased in number over the years (Ghana National Fire and Rescue Service, 2009, 2010, 2011, 2012). This requires an investigation into the effectiveness of the fire service training programmes as well as other factors that might be contributing to a rather worsening situation with fire outbreaks and increasing casualties of fire fighting and rescue attempt. This study therefore uses the case of Central Regional Fire and Rescue Service

department to evaluate the effectiveness of training programmes of the National Fire Service Department of Ghana.

Objective of the study

The general objective of the study was to assess the effects of training and development on the performance of fire service personnel of the Fire Service department in the Central Regional. Specifically, the study sought to:

1. Examine the training methodologies for fire service personnel;

2. Evaluate the training processes for fire service personnel;

3. Assess the effects of training on the performance of the personnel; and

4. Assess the challenges encountered in the training programme of the personnel.

Research questions

The study will further answered the under-listed questions:

1. What methodologies are used for training fire service personnel?

2. How effective are the training processes for fire service personnel?

3. How does training programme influence the performance of the personnel?

4. What challenges are encountered in the training programmes of the Fire Service department?

Significance of the study

The Fire Service department could benefit from the finding of the research, as it provides valuable information on the effectiveness of training and development programmes for their staff. A study into the challenges encountered in the training programmes could highlight the peculiar issues that

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may hinder personnel from fully benefiting from the training exercises. The study also tends to analyse how applicable the theories of the study are in the context of the Fire Service department in the Central Region. The literary contribution could incite further academic research in the area of training and development in other Regional departments of the Fire Service.

Scope of the study

The study was limited to the Central Regional department of the Ghana Fire Service in Cape Coast. The research covered all staff members the Department that are directly involved in fire-fighting, search and rescue missions, as well as the Deputy Regional Commander of the Fire Service Department. The primary concepts discussed in the study included staff training and development, as well as training evaluation and assessment.

Organization of the study

The study was organised into five chapters. The first chapter was an introduction that dealt with the background, research problem, research questions, significance and scope of the study. Chapter two undertakes a broad review of both theoretical and empirical underpinnings of staff training and development. The study organisation, the study design, the population, sampling techniques, data collection and data analyses are described in Chapter Three. Chapter Four looks at the analysis, presentation and discussion of results. The report ends with the summary, conclusions and recommendation in chapter Five.

CHAPTER TWO

REVIEW OF LITERATURE

Introduction

This chapter reviewed theoretical and conceptual issues related to effectiveness of training programmes. Additionally, empirical studies are presented, as well as the lessons learnt from the empirical studies. The conceptual issues on training are also reviewed. The chapter also amalgamates the conceptual and theoretical issues into a framework which in diagrammatically presented.

Theoretical review

According to Livingstone (1997), the core thesis of human capital theory (Schulz, 1961) is that peoples' learning capacities are comparable to other natural resources involved in the production process; when the resource is effectively exploited the results are profitable both for the enterprise and for society as a whole. Within the framework of this theory, training of human resource forms an essential component of the comparability of human capital. Training within this context may be cognitive development directed towards child education (Becker, 1994) or skill development often for on-the-job or off-the-job training (Sullivan & Sheffrin, 2003). The purpose of training in human capital development is to build the capacity of human resource to attain desired levels of effectiveness and efficiency (Hanushek & Woessman, 2008). The training of fire service personnel is therefore founded in the theory of human capital development.

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The Programme Theory developed by Bickmann (1987) maintains that, there is a logical sequence or consequence of any occurrence. The theory is a logic model of evaluation approach that seeks to describe the sequence of events or phases of a programme towards the attainment of specific goals. It is a construction of a plausible and sensible model of how a programme is supposed to function. Chen (1990) describes programme theory as a specification of what must be done to achieve the desired goals, what other important impacts may also be anticipated, and how these goals and impacts would be generated.

The Programme Theory maintains that effective training programme results from effective inputs such as commitment of stakeholders and appropriate allocation of resources including time, equipment, and finances towards the achievement of the training objectives (Herman, 1997). The theory justifies the intervention in terms of its expected causal effects. In formal terms, a programme theory can be expressed as 'If A, then B'. For example, logically, if fire fighters are given the appropriate training on their duties, then their performance should improve.

Implicit in the programme theory is a normative phase, which provides the rationale and justification for the programme structure and activities (Bickmann, 2000). There is also a causative phase, which represents the empirical knowledge about the causal relationship between the intervention and the outcome. These essentially imply the evaluation of the planning phase and the assessment of the implementation stage respectively. According to Rogers (2000), this allows for the detection of the particular stage of the programme literally malfunctioned.

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The programme could have suffered a basic conceptual failure, an implementation failure, or an evaluative failure. At any level of failure, the unilateral or reciprocal logic of the programme, for example training teachers for effectiveness, can be distorted, thus making the objectives of the programme unattainable. The theory has however, been criticised for being over optimistic in its logical functioning and making little reference to values such as participation and dialogue,

The concept of training and development

The recognition of the importance of training in recent years has been heavily influenced by the intensification of competition and the relative success of organisations where investment in employee development is considerably emphasised. Technological developments and organisational change have gradually led some employers to the realisation that success relies on the skills and abilities of their employees. Therefore, considerable and continuous investment in training and development of employees is essential to organisational success (Cole, 2002).

In the simplest form, Goldstein and Gilliam (1990) defined training as a deliberate process of imparting specific skills, abilities and knowledge on an employee in order to improve current or future employee performance by increasing an employee's ability to perform. The training process is a learning process aimed at changing the employee's attitude or increasing his or her skills and knowledge. In relation to training is the concept of development which refers to learning opportunities designed to help employees grow, in terms of general knowledge and attitudes which will be helpful to employees in higher

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positions. Efforts towards development often depend on personal drive and ambition, and also based on the employees' personality and overall intellect.

According to Cole (2002), training is a learning activity directed towards the acquisition of specific knowledge and skills for the purpose of an occupation or task. Swist (2002), on the other hand, defined training as the systematic process of altering the behaviour and or attitudes of employees in a direction to increase the achievement of organisational goals. This means for any organisation to succeed in achieving the objectives of its training program, the design and implementation must be planned and systematic, tailored towards enhancing performance and productivity. In a related literature, Armstrong (2006), points out that, training is the use of systematic and planned instruction activities to promote learning. The approach can be summarised in the phrase "learning-based training". It involves the use of formed process to impart knowledge and help people to acquire the skills necessary for them to perform their job satisfactorily. It is described as one of several responses an organisation can undertake to promote learning.

Stone (2000) observed that, training has a complementary role to play in accelerating learning. It focuses on fulfilling specific needs of a task, and should be reserved for situations that justify a more directed, expert-led approach rather than viewing it as a comprehensive and all-pervasive people development solution. Stone (2000) also noted the effects of the learning process can only be inferred from a comparison of an individual's behaviour prior to the experiences of specific kinds of task. This is not to say that there has been no learning if there is no overt behavioural change. Since training generally is intended to provide learning experiences that will help people perform more effectively in

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their jobs, organisational training should follow the learning principle. A formal training program is therefore an effort by the employer to provide opportunities for the employee to acquire job-related skills, attitudes, and knowledge (Swist, 2002).

According to Armstrong (1996), expressing an understanding of training emphasises that training should be developed and operated within an organisation by appreciating learning theories and approaches if the training is to be well understood. Training therefore can be explained as a planned and systematic effort by management aimed at altering behaviour of employees, in a direction that will achieve organisational goals.

The training process

Scores of literature available on training indicate that traditionally, training in an organisation involves systematic approach (Beardwell & Holden, 1993; Gordon, 1991; Rajeev et al., 2009). According to Leslie (1990), there are four prerequisites for training. Motivation comes first, as the trainee must be enthused and willing to train and learn. Cue is the second requirement. The learner can recognise related indicators (cue) and associate them with desired responses with the help of training. Response comes third. Training should be immediately followed by positive reinforcement so that the learner can feel the response. Last is the feedback, which is the information which learner receives and indicates in the quality of his response.

 Training generally follows a sequence of activities involving the establishment of a training policy, followed by training needs identification, training plans and programs design and implementation, evaluation and training

feedback for further action. According to Armstrong (1996), training policies are expressions of the organisational training philosophy, which shows the degree of importance the organisation attaches to training. Training policies are necessary to provide guidelines planning and implementing training, ensure that a company's training resources are allocated to pre-determined requirements provide for equality of opportunity for training throughout the company, and to inform employees of training and development opportunities (Bates, 2001).

Taylor (2003) makes a point that companies should have different policies for training depending on the class or level of employment or level of employees to be trained. However, most researches done in Ghana reveal that many institutions have training policies but the majority of the personnel were not involved as it was mostly a managerial duty (Kambilige, 2012; Adu-Darko, 2012; Donyina, 2012; Larbi, 2011).

The first step in managing training is to determine training needs and set objectives for these needs. Organisations adopting a systematic approach to training and development will usually set about defining their need for training in accordance with a well organised procedure. Such a procedure will entail looking at training needs from the organisational, departmental or functional, job and employee perspectives. The organisational analysis happens in a situation where effectiveness of the organisation and its success in meeting its goals are analysed to determine where deviation or differences exist. The need can also be determined by observing the job performance of work groups and survey job holders, supervisors, and training committees. Any lapses in their efficiency and effectiveness help determine the training need (Byars & Rue, 2001). Employees' training needs could be measured by the individual

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performances of the employees. This is done by measuring effectiveness and efficiency against the required standards through interviews, observations, attitude surveys, or objective records of their performance (Fullard, 2006). The training needs of employees are essentially what can be formed into the training objectives.

In Ghana, Kumordzi-Ablo (2011) found that the determinants for training included existence of performance problems, regular training necessary for certain roles, frequency of errors in performance of roles by staff, changes in systems/technology, new opportunities, regulatory issues, growth trends of competitors, and the availability and deployment of new technology. They also emphasised that the determinants identified must be aligned to the three levels of needs analysis namely organization, task, and person, to ensure optimum utilization of the organizations resources.

Cole (2002) indicated that employee training usually follows a training plan, which details the course content, resources required, method of training, who should do the training, and who should be trained. In several studies conducted in Ghana on training in different institutions, a training plan was a core component of the training programme (Kambilige, 2012; Larbi, 2011). The variance was dependent on the type of institution and the training objectives. Adu-Darko (2012) also observed that the training plan comprises the specific segments of scheduled training sessions.

The content of the sessions are taught by a trainer. According to Gilley and Maycunich (2000), the selection of a trainer involves picking qualified personnel, either within or outside the organisation, to execute the training objectives. Therefore, the key criteria for selecting a trainer involves superior

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skills or knowledge of the activities, communication and presentation skills, presentable personality, ability to engage learners and control the class, and ability to objectively assess performance.

Training methodology

Training methodology is the practical activity for achieving training objectives. Training methods are the techniques and principles used to present the required instructions for the achievement of training objectives. Cascio (1995) established three training techniques, namely; information presentation and interactive methods vestibule training. Information presentation technique entails the systematic presentation of a subject matter, which includes lectures, conference methods, correspondence course, motion pictures, reading lists, programmed instruction and computer-assisted instruction (Cole, 2002). According to Ferrara (2013), this is a formal, usually one-way presentation from trainer to trainee. Trainees may ask questions and make submissions, but the core principle of this method is for the trainee to learn by listening and observation.

Interactive methods involves interactive exercises in which trainees practice their skills in mock situations based on real work-related activity through the use of role-playing, programmed group exercise and the in-basket techniques and business games (Corrigan, 1998). This may include role-plays, as well as computer or visual simulations either by trainees or other professionals. Thus, interactive exercises may border on participatory training methods, where trainees simulate the expected conditions either in the class or

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in the field. However, these environments are controlled and many of the variances in the real event may not affect the simulation, especially in role plays.

Usually, training programmes are prepared as part of off-the-job training. Thus, this is quite different from on-the-job training, which includes orientation training, apprenticeship, near-the-job training, job rotation, committee assignments, understudy assignments, and coaching. Off-the–job training on the other hand, entails training outside the job environment.

Cascio (1991) also makes a case for vestibule training, which represents a form of training involving the use of training equipment's exactly duplicating the materials and equipment's used on the job. According to Cole (2002), trainees learn in an environment that simulates the real working environment as closely as possible. The purpose of vestibule training is to reproduce an actual work setting and place it under the trainer's control to allow for immediate and constructive feedback. The use of role play and simulations were reported by Anewe (2012) and Adu-Darko (2012) in teacher training programmes. Attah-Tutu (2014) also reported role plays, lectures and simulation is HIV/AIDs training programmes in Bibiani, but Larbi (2012) noted that only lectures were used in training banking staff in Tamale branch of Bank of Ghana.

Kenney et al. (1992) found that job characteristics and firm background were found to play key roles in determining training provision. Workers who received off-the-job training were less likely to receive on-the-job training, while those who received on-the-job training were neither more nor less likely to have received off -the-job training. However, they found a complementary relationship between receiving informal training and receiving on-the-job or

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off-the-job training. Earnings differentials were not found to correlate with different types of training.

Effects of training on employees

The purpose of training is mainly to improve knowledge and skills and to change attitudes or behaviour endeavours. Ajibade (1993) and Arikewuyo (1999) mentions that training is an avenue to acquire more and new knowledge and develop further the skills and techniques to function effectively. Scholars, experts, social scientist, and school administrators recognise the fact that training is obviously indispensable not only in the development of the individuals but also facilitate the productive capacity of the workers.

Training is a type of activity which is planned, systematic and it results in enhanced level of skill, knowledge and competency that are necessary to perform work effectively (Gordon, 1992). There exists a positive association between training and employee performance. April (2010) found that a significant difference between the organisations that train their employees and organization that do not. In the development of organisations, training plays a vital role, improving performance as well as increasing productivity, and eventually putting companies in the best position to face competition and stay at the top. Training generates benefits for the employee as well as for the organization by positively influencing employee performance through the development of employee knowledge, skills, ability, competencies and behaviour (April, 2010). The more highly motivated a trainee, the more quickly and systematically a new skill or knowledge is acquired.

Training is not coaxing or persuading people to do what is wanted, but rather a process of creating organisational conditions that will cause personnel to strive for better performance (Derek & Hall, 2000). They identify the functions of training as follows: increases productivity, improves the quality of work; improves skills, knowledge, understanding and attitude; enhances the use of tools and machine; reduces waste, accidents, turnover, lateness, absenteeism and other overhead costs; and eliminates obsolescence in skills, technologies, methods, products, capital management.

Training brings incumbents to that level of performance needed for the job, enhances the implementation of new policies and regulations, prepares people for achievement, improves man-power development, and ensures the survival and growth of the enterprise (Akintayo, 1996). In China, Ying Chu Ng (2004) found a positive relationship between training and employee performance. Benedicta and Appiah (2010) confirmed that training generates benefits for the employee as well as the organisation by positively influencing employee performance through the development of employee knowledge, skills, ability, competencies and behaviour. Sultana et al. (2012) found that organisations can enhance employee performance as well as competencies and skills when they invest in right type of employee training it In addition, training is seen as a useful means of coping with changes fostered by technological innovation; market competition, organizational structuring and most importantly it plays a key role to enhance employee performance.

Obisi (1996) is of the opinion that the objectives of training are to provide the skills, knowledge, and aptitudes necessary to undertake required job efficiently and develops the workers to progress. The training process also

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increases efficiency by reducing spoilt work, misuse of machines, and lessening physical risks. Oguntimehin (2001) asserts that training and development aim at developing competences, such as technical, human, conceptual, and managerial for the furtherance of individual and organisational goals.

Organisation's compensation system has foremost impact on transfer of training. Off-the-job training does not have worthwhile effect on salary (Lynch, 1992; Veum, 1995). Mincer (1996) found that the increase in income from on-the- job training is approximately 12 percent to 15 percent whereas it is 2 percent to 8 percent increase in case of off-the-job training. In case of informal training, the increment in salary is about 2 percent (Bowers & Swaim, 1994). In manufacturing sector there is 0.9 percent enhancement in earnings due to on-the-job training (Xiao, 2001). Lynch (1992), Booth (1993), as well as Ok and Tergeist (2003), also found that salary tends to increase as a result of on-the-job training when the employee remains with the present employer. In case of change of employer, the previous on-the-job training will have no positive change on earnings. Heckman, Lalonde and Smith (1999) revealed that employees who do not take training have minimal chances to avail increment in salary as compared to those who undergo training. They also found that training of workforce significantly enhances the earnings of financially deprived females as well as of underprivileged males.

Training has also been found with positive psychosomatic effects on employees, namely in their job involvement, morale, job security, and job satisfaction. Job involvement is the degree to which an individual identifies psychologically with the job and considers his/her perceived performance level important to self-worth (Blau and Boal, 1987). Job Involvement is a

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psychosomatic recognition or dedication towards occupation (Kanungo, 1982; Paullay et al., 1994). The construct of job involvement is rather similar to organisational commitment in that they are both concerned with an employee's identification with the work experience but these constructs differ in that job involvement is more closely linked with identification with one's immediate work activities while organisational commitment refers to a person's attachment to the organisation (Brown, 1996). It is likely to be involved in a specific job but not be committed to the organization or vice versa.

High job involvement is linked with fewer absences and lower turnover rate. Employees can improve jobs performance with high job involvement. One way to improve employee performance is to efficiently transfer the skills and knowledge acquired during training to the actual job (Harrison & Kessel, 2004). Thus, trained employees are ushered into the real job environment with expectation of applying their learnt skills. Employees that do not receive training are less likely to be given tasks that border on the training content. Cole (2002) found that training helps to manage change by increasing the understanding and involvement of employees in the change process and also provide the skills and abilities needed to adjust to new situations.

Employee morale refers to the state of mind of the employees, which is the feeling of being motivated or demotivated, enthusiastic or lackadaisical, happy or indifferent, about performing a duty. According to Cole (2002) training can boost employee high moral and increase their confidence and motivation. Harrison and Kessel (2004) also found that training improves morale of employees and also encourages a sense of job security and job satisfaction. They

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explained that the higher employee satisfaction and job security encourages higher morale for organisational success and lower turnover.

Rajeev, Madan, and Jayarajan (2009) add that training provides recognition, enhanced responsibility and the possibility of increase pay and promotion. It can also give a feeling of personal satisfaction and achievement, and broaden opportunities for career progression. In addition, employee training helps in creating the healthy working environment, builds good employee relationship, and helps synchronise individual goals with organisational goals.

Training has been found with some effects of new employees and recruits. According to Krietner (1995), no matter how carefully job applicants are screened, typically a gap remains between what the employee does know and what they should know. An organisation which desires to gain the competitive edge in its respective industry, needs among other things, extensive and effective training of its human resources. Stone (2000) adds that many new employees can be equipped with most of the knowledge, skills and attitudes needed to start work, but others may require extensive training to ensure their effective contribution to the organisation. A majority however, will require some type of training at one time or another to maintain an effective level of job performance.

Training is therefore a key element for improved organisational performance. It increases the level of individual and organisational competences and helps to reconcile the gap between desired targets or standards and actual levels of work performance. Although many employers continue to have reservations about the cost and extent of tangible business returns from training,

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the development of skills has been identified as a key factor in sharpening competitiveness (Swist, 2002).

Process of training evaluation

Program evaluation may be conducted at several stages during a program's lifetime. Each of these stages raises different questions to be answered by the evaluator, and correspondingly different evaluation approaches are needed. Rossi et al. (2004) suggest the five kinds of assessment, which may be appropriate at different stages. The five assessments are the assessment of the need for the program, assessment of program design and logic/theory, assessment of the program's cost and efficiency, assessment of how the program is being implemented, and assessment of the program's outcome or impact or what it has actually achieved.

Assessing Training needs

A needs assessment examines the population that the program intends to target, to see whether the need as conceptualised in the program actually exists in the population; whether it is, in fact, a problem; and if so, how it might best be dealt with. This includes identifying and diagnosing the actual problem the program is trying to address, who or what is affected by the problem, how widespread the problem is, and what are the measurable effects that are caused by the problem (Louw, 1999).

For teacher training program aimed at improving teaching effectiveness and consequently improving students' performance, a program evaluator may want to find out which techniques, methods, values, attitudes, and practices in teaching that requires to be attended to. Potter (2006) cautions against doing an

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intervention without properly assessing the need for one. This might result in a great deal of wasted funds if the need did not exist or was misconceived.

Assessing the programme theory

The programme theory, also called a logic model or impact pathway is an assumption, implicit in the way the program is designed, about how the program's actions are supposed to achieve the outcomes it intends (Bickman, 2000). The logic model is often not stated explicitly by people who run programs, it is simply assumed. An evaluator will need to draw out from the program staff how exactly the program was supposed to achieve its aims and assess whether this logic is plausible. If the logic is not plausible, then the programme was flawed fundamentally and there is the likelihood that the assessment would conclude that the programme objectives were not attained.

Explicating this logic can also reveal unintended or unforeseen consequences of a program, both positive and negative. The program theory drives the hypotheses to test for impact evaluation. Assessing the logic model can also reveal whether there was common understanding amongst program staff and stakeholders about what the program is actually supposed to do and how it is supposed to do it (Larsen, 2001).

Assessing implementation

Process analysis looks beyond the theory of what the program is supposed to do and instead evaluates how the program is being implemented. This assessment determines whether the components identified as critical to the success of the program were implemented as planned (Goe, 2008). The evaluation determines whether target populations were reached, people received the intended services, and staff was adequately qualified. Process evaluation is

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an ongoing process in which repeated measures may be used to evaluate whether the program was implemented effectively (Ryan & Cousins, 2009).

Assessing the impact (effectiveness)

The impact assessment determines the causal effects of the program. This involves trying to measure if the program has achieved its intended outcomes. This can involve using sophisticated statistical techniques in order to measure the effect of the program and to find causal relationship between the program and the various outcomes. This is termed by Rossi et al. (2004) as determining causation. This refers to the part of evaluation that determines whether the program itself is causing the changes that are observed in the population it was aimed at. Events or processes outside of the program may be the real cause of the observed outcome or the real prevention of the anticipated outcome.

Hypothetically, students being taught by a teacher under frequent training programmes begin to perform better. This may not be as a result of the training the teacher receives or its effectiveness, but as a result of the students' efforts to study harder or to employ extra private tutoring after class hours (Potter, 2006).

The isolation of causal factors outside the programme being evaluated is important to determine the real causality. However, the effects of some social phenomena may be difficult to extricate from the programme (Stufflebeam & Shinkfield, 2007). For example, the effects of a bitter divorce on teacher under training and his effectiveness resulting from training may be difficult to extricate.

Assessing efficiency

The assessment may also cover cost-benefit or cost-effectiveness analysis of a program. This refers to the process of outlining the benefits and cost of the

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program for comparison. Generally, an efficient program has a lower cost-benefit ratio (Theall & Franklin, 2001). The challenge is finding a common unit of measurement for both costs and benefits to effect comparison. For example, if the costs of a teacher training programme are stated in currency or monetary units, then the effects, such as improved performance of students must also be stated in monetary terms to enable objective comparison (Theall, Abrami & Mets, 2002). However, it may be a difficult task to quantify improvements in students' performance in currency.

Challenges in employee training

Training programmes are evidenced with several benefits for employees and organisations. However, training programmes have to overcome several possible challenges. Harrison (2000) and Garavan et al. (1998) asserted that a lack of support, commitment, involvement and cooperation in the development of human resources often challenge the efficiency of the HRD systems such as training programmes. According to Kupritz (2002), the heavy workload on the production line is typically cited by line managers as the reason for their lack of cooperation and support of training activities.

Watkins and Marsick (1993) as well as Gilley and Maycunich (2000) affirmed that a lack of commitment on the part of human resources management reduces the effectiveness of employees' learning and motivation programmes. They indicated that a lack of commitment is evidenced in slow response by management, inadequate commitment of resources to training programmes, and overriding the importance of training. This analysis showed that with other organisational issues. For example, Abdullah (2011) found that managers in

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Malaysian manufacturing firms viewed production output as more important than providing employees with the required training, hence their obstructive behaviour.

Studies have exhibited the importance for employers to hire educated, skilled and knowledgeable employees in their organisations, as they are the main human capital or assets of the company (Nadler & Wiggs, 1986; Nadler & Nadler, 1989; Harrison, 2000, Schmidt & Lines, 2002; Harrison & Kessels, 2004). Some firms focus hiring and replacing employees with more skilled labour as opposed to training their own employees.

Similarly, HRD practitioners are also deemed to be important human capital in organisations because of their knowledge, skills, experience and competence to manage a complex and broad function such as employee development and training. In some cases, firms hire managers who lacked the knowledge and skills to carry out the appropriate managerial functions including the performance of needs analysis, as well as evaluation and follow-up assessment is suggested to impede the effective implementation of employee training and development initiatives. In some cases, the problem lies with the age of employees, as Low (1998) and Chermack et al. (2003) revealed that the senior workforce are unable to cope with the increase reliance on computers and rapid technological advancement, and thus developing them to become knowledge workers may pose a challenge or rather a waste of resources.

Some researchers have also reported that employees' pessimistic attitudes can be detrimental and challenging because behavioural changes, performance improvement and organisational effectiveness may be affected (Marsick & Watkins, 1994; Swanson & Holton III, 2001). According to Chermack et al.

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(2003), training and development programmes work best when HRD practitioners are concerned with the employees' attitudes and mind-set towards their jobs, learning, training and development, particularly in terms of fostering a learning climate.

Another dilemma is employees' inability to transfer and apply knowledge from the training programmes attended to the workplace. Earlier research on the transfer of learning has provided convincing evidence that the work environment, including the physical, social, and psychological conditions that individual employees experience at work, can either encourage or discourage the acquisition and transfer of new skills and knowledge (Tannenbaum & Yukl, 1992; Reid & Barrington, 1994; Cheng & Ho, 2001; Kupritz, 2002).

Furthermore, employees are also reported to lack commitment towards learning and training, particularly the commitment to participate in training activities. For example, as noted by several managers, achieving full attendance for in-house training programmes is almost impossible (Harrison, 2000; Desimone et al, 2002). The above attitudinal problems may imply that employees are actually resisting change. Of course, the phenomenon of change is often resisted, as it requires taking in new learning and adopting new skills and competencies (Tichy, 1983; Watkins & Marsick, 1993).

Human resource practitioners, employers, and trainers are, therefore, faced with the challenge of changing employees' attitudes, behaviour and mind-set towards positive learning and development. Indeed, top managers' allegiance and support for training and development can facilitate the monitoring of employees' continuous learning and development (Kotter, 1996; Fernald et al., 1999; Harrison, 2000; Desimone et al., 2002), but only a very small proportion

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of the top managers are involved in and committed to training programme. Guile and Young (1999) employers and HRD practitioners in these manufacturing firms are observed to be confronted by the individual employee-negotiated character of learning other than the necessary resources required to support such learning. Indeed, these dimensions are said to be an important adaptation in fostering learning and development in the workplace.

Training and career development are essentially long term investments, which means that their effects will only be realised after a certain amount of time has passed. However, as it would be difficult to predict the results of any training program over a long period of time. Thus, designing training programmes can be difficult given the uncertainties, such in the labour market and technology. However, successful organizations are ever changing entities. Its equipment, goals, methods, assets and personnel have to change. Designing a flexible training strategy that can adapt to such changes with minimal cost or problems can also be a challenge.

One other major challenge for training programmes is the evaluation of outcomes. According to source, it is easy to measure actual assets, like income, properties, assets, equipment or inventory, but outcomes like employee proficiency, communication skills, group cohesion, leadership, or inter-personal skills cannot be measured in very precise terms. A good measurement method would be to quantify their effects on employee morale/opinion, personnel productivity, and workplace efficiency. However, such factors may not be directly related to these rather abstract measures such as proficiency or leadership.

Establishing a career development program poses certain challenges. For starters, it requires organizations to consider exactly what it is they want their personnel to learn. Another good question is how career development may serve the future interests of the organization. Likewise, company executives will also have to think about how their upwardly mobile personnel may influence the overall structure of their organization. And finally, they will need to think about their expectations and goals with regards to personnel training, especially in regards to improving output and productivity of all trained employees.

Conceptual framework

The conceptual framework for the study suggests that the process of training begins with the identification of training needs of employees. According to the empirical review, this can be done through problem analysis approach. The results should highlight the knowledge and skill gaps of employees, for which the training programme is designed. The next step is to match the training needs to the organisational goals. By so doing, the skill deficiencies that can improve and reinforce the organisational current and future goals can be separated from those that may not have the desired effect of the organisational objectives.

The methods and intervention approaches adopted must be clarified. Trainers may require training and familiarisation with the method employed. This will require off-the-job or on-the-job training for employees. Trainers must also be familiarised with the implementation procedures. However, the trainers are only a segment of an entire programme. Therefore, other factors such as the training environment, the training content, duration, scheduling, training

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equipment's and finances, must be coordinated and adequate to support the delivery of the trainers as well as effective participation of trainees.

The outcomes must then be evaluated for effectiveness, efficiency, cost-benefit, and impacts. These represent the short-term and intermediate effects of the programme. The outcome training programme must be evaluated for the effectiveness of the transferability of the knowledge and skills learnt to the practical working environment. The results of the evaluation serve as feedback into future training needs of the employees as well as the non-performance areas of the programme that need rectification.
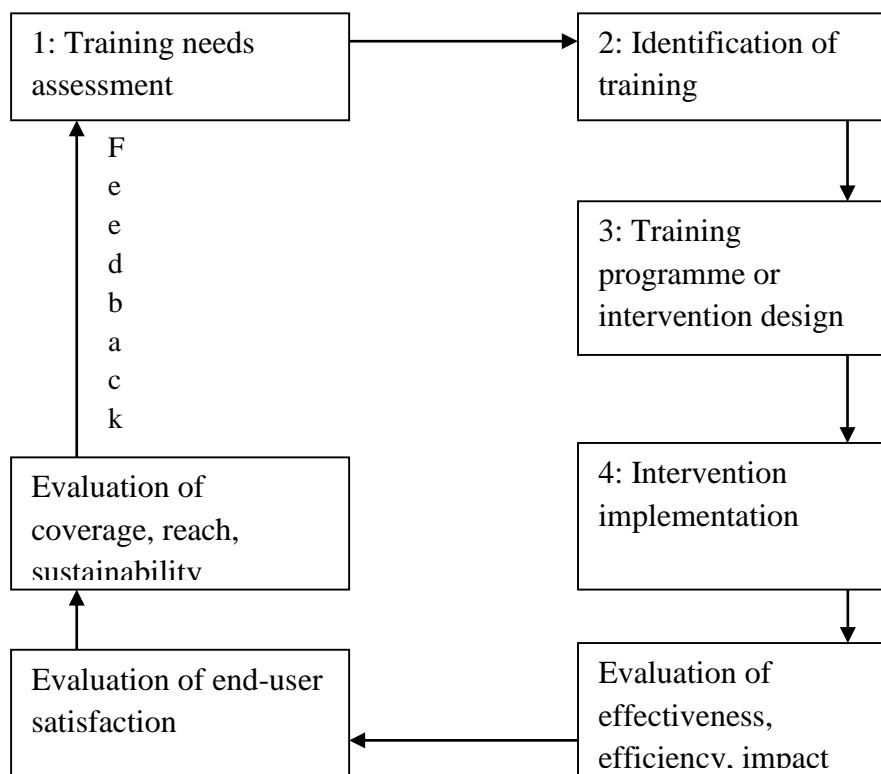
Figure 1: Assessing the training effectiveness of training programmes

Source: Author's construct, 2012

CHAPTER THREE

METHODOLOGY

Introduction

This chapter deals with the methodology used in gathering the data. It involves a description of the study area and provides information on the study design, study population, sampling technique, pilot-test and data collection methods. The chapter closes with a discussion on the data processing and analysis.

Study design

An important aspect of any research is the design. It is the logical sequence that connects the empirical data to the initial questions of the study and, ultimately, to its conclusions (Sarantakos, 2005). The study adopted a mix of qualitative and quantitative research approaches. According to Creswell (2003), such an approach provides complementarities between the research approaches whereby the strengths of one approach complement the weakness of the other. Thus, the statistical approach of quantitative research will be supported with the narrative approach of qualitative research in this study. This will allow for generalisability and inferences to be made in the same study.

In this respects, the study will be descriptive design which describes the status quo, the correlation study which investigates the relationship between variables, to developmental studies which seek to determine changes over time (Babbie, 2005). Sarantakos (2005) also asserts that a descriptive study is one in which information is collected without changing the environment. The adopted research design was used because the data collection was done at the post

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intervention phase of the training programmes which will require a description of the status quo and inferences about the effects of the programmes on the competence of the personnel.

Study population

All the fire-fighters, as well as the search and rescue teams and Deputy Regional Commander of the Fire Service Department were purposively targeted for the study.

Sampling procedure

From the target population, the fire-fighters, including search and rescue teams, as well as Deputy Regional Commander of the Fire Service Department were purposively selected. A total of 30 fire-fighters were employed at the Central Regional Service Department in Cape Coast, who also formed part of search and rescue teams. Thus, a census of all the fire-fighters was conducted. The Deputy Regional Commander was purposively selected as a key informant on the training processes of the Fire Service department.

Sources of data

The study elicited both primary and secondary data. Primary data on the effectiveness of the different sections of the training and development programmes, such as fire fighting and rescue was solicited from the respondents. The challenges involved in the training programmes were sought from the respondents, as well. Secondary data on fire outbreaks as well as casualties of firefighting and rescue missions in the Central Region were also be collected.

Instruments for data collection

Questionnaires were used to solicit data from all the respondents. The questionnaire was divided into five sections; from 1 to 5. Section 1 covers the demographic profile of the respondent. Section 2 focuses on the effects of fire-fighting drills on the safety and speed of putting out fires, Section 3 elicits data on the effects of prevention and precautions exercises of the Fire Service department on prevention of fires and Section 4 collected data on the competence of trained search and rescue personnel. The challenges encountered in the training programmes of the Fire Service department were analysed with Section 5 of the questionnaire. An unstructured interview guide was used to elicit qualitative data from the key informant. The instrument covers questions on the training practices, procedures, evaluation methods and the competence of the fire-fighters and rescuers.

Pilot-test

The instruments for data collection was tested in the Western Regional division of the Ghana Fire Service department at Takoradi. This was done to serve as the preliminary testing of the research questions to provide insights into ideas not yet considered and problems unanticipated, which could challenge the data analysis. Furthermore, it helped to check and try the planned statistical tests of association between variables. Besides these, the pilot-test enabled the researcher to revise the contents of the questionnaire and the interview guide, thereby revising the instruments to achieve the reliability and validity standards required in scientific research.

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Ethical issues

The researcher presented a letter of introduction, to the management of the Central Regional Fire Service department in Cape Coast to formally introduce the research purpose and the researcher. It was also to gain management's consent and to acquire permission to conduct the study in the establishment. The researcher explained the purpose of the study to all participants and only included them in the study based on their informed consent and their own free will. The purpose was to allow participants to be completely aware of the purpose of their participation and to be able to voluntarily accept to be part of the study. The respondents were also assured of the confidentiality of their responses and that the purpose of the study is for only academic reasons. This was important given that the researcher was the Regional Commander and that it was necessary to ensure that no officer was coerced or intimidated to participate in this study. The study adhered to other codes of ethics regarding data collection and information retrieval, as well as attributing secondary data to the valid sources.

Field work

The fieldwork was conducted from 5th to 19th November, 2015. Given the rank of the researcher as the Regional Commander, research assistants were employed to administer the questionnaire. This was to avoid any possible influence and intimidation regarding the rank of the researcher on the lower rank employees. The participants were briefed on the purpose of the study and assured of anonymity and confidentiality and were encouraged to complete the questionnaires within a week. The research assistants paid subsequent visits to

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the firms after the initial delivery of the questionnaires. During these visits, completed questionnaires were collected while discussions were held to help employees with some difficulties to understand issues raised in the questionnaire. This was repeated until all the answered questionnaires were collected from the respondents.

Methods of data analysis

The quantitative data were cleaned and checked for reliability using statistical tools in Statistical Product for Service Solutions (SPSS version 21). The study employed descriptive statistical tools, such as frequencies and percentages to analyse profile of the respondents. The competence of the trained fire-fighters were examined by descriptive statistical tools. Relationships between the study variables were tested using cross-tabulations and their statistical significance of the associations were tested using the chi-square values and their associated p-values (Pallant, 2005).

CHAPTER FOUR

RESULTS AND DISCUSSION

Introduction

This chapter presents the results and discussion of the study in relation to assessing the effectiveness of training programmes for fire service personnel in the Cape Coast Department. The results of statistical significance and practical implications of the results are presented and discussed in relation to the specific objectives. The study targeted 30 fire service personnel who had ever participated in the training programmes, one Deputy Group Officer, and the Deputy Regional Commander of the Fire Service Department in Cape Coast. The first section of the analysis dwelt on the demographic characteristics of respondents, while the subsequent sections focused on the specific objectives of the study.

Demographic Characteristics of the respondents

The demographic characteristics of respondents studied were gender, age, and occupational characteristics. These were studied in order to provide a background profile of respondents and to examine the association between the variables and respondents assessment of training programmes. The distribution of trainees' gender and ages was examined by study. The results showed that the study captured more males (50.3%) who had been participants of training programmes than their female counterparts (49.7%). In general, however, the Fire Service Department, in the responses of the Deputy Regional Commander comprised more males than females. A total of twenty-two (22) males were captured by the survey as against eight (8) females. The age distribution of the

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respondents showed that the majority of the personnel were within the ages of 30 and 35 years, with a few below 30 years and a handful above 35 years of age. The Deputy Regional Commander explained that this was due to the fact that the fire fighters were required to be in their most active ages to perform their duties with precision.

Table 1: Sex and age distribution of trainees

Age cohort	Sex		Total
	Male	Female	
26-30	5(22.7%)		5(16.7%)
30-35	12(54.5%)	5(62.5%)	17(56.7%)
36-40	3(13.6%)	2(25%)	5(16.7%)
40-45	2(9.1%)	1(12.5%)	3(10%)
Total	22(100%)	8(100%)	30(100%)

Source: Field work, 2015

Some assertions (Goe, 2008; Gordon, 1991) point to the fact that tenure of employees can influence their assessments of workplace factors, including the training programmes for employees. Underlain by such claims, the study explored the tenure of respondents, first as teachers, and then as teacher of their respective schools. This was differentiated between the sexes, because earlier findings confirmed that respondents' sex could be a significant basis for differences in respondents' assessment of the effectiveness of training programmes.

Subjecting the distribution of the respondents' personnel of the fire department revealed that the distribution was not normal, with an overall

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skewness statistic of 1.53. The representative average used was therefore the median. It was thus, shown that on the average male respondents had worked for 7 years in the fire service department, while female personnel had an average of 4 years of working experience (Table 2). Males therefore had longer average tenure as fire fighters than females covered by the study.

Table 2: Length of service

		Length of service (years)			
Sex	f(%)	Mean	Median	Mode	Skewness
Male	22(49.2)	9.14	7.00	6.00	1.122
Female	8(50.7)	5.18	4.00	6.00	2.160
Total	30(100)	7.13	6.00	6.00	1.529

Source: Field work, 2015

Under the assumption that workers' responsibilities may influence their participation in training programmes (Knapper & Cranton, 2001) as well as their assessment of training effectiveness (Kellaghan & Stufflebeam, 2003), the distribution of the ranks of the personnel was explored to put the results further into context. According to the results in Table 3, most of the respondents had the rank of fireman or firewoman. About 20 percent of the respondents were recruits and a few were of different ranks including senior fireman/ firewoman and leading fireman. The results therefore indicated that most of the trainees were in lower ranks. In the response of the Deputy Regional Commander, this could be explained by the fact that most fresh recruits from the fire service training school usually lack the hands-on real experience of fighting fire in a real disaster. As such the requirement is to train them as regularly as possible to

prepare them for a live disaster with the conditions that may not be present in a simulated fire.

Table 3: Ranks of trainees

Rank	Sex		Total
	Male	Female	
Recruit	4(18.2%)	2(25%)	6(20%)
Fireman	11(50%)	3(37.5%)	14(46.7%)
Senior Fireman	5(22.7%)	3(37.5%)	8(26.7%)
Leading Fireman	2(9.1%)		2(6.7%)
Total	22(100%)	8(100%)	30(100%)

Source: Field work, 2015

Training methodologies used by the fire service department

The training methods used by the fire service department were explored in this section. The rationale is that the methods for assessing the training needs, the type of training and forms of techniques and the specific approaches that were implemented to fulfil the skill deficiency of the training must be subjected to a review. This should inform the programme officers of the success of the training programme and for future improvement of the training programme.

The Deputy Regional Commander was interviewed in-depth on the training methods and practices of the Fire Service Department. The first enquiry was on the types of training exercises. According to the Deputy Regional Commander, the training of fire service personnel conforms to training on precautionary measures needed by the personnel to perform their duties acceptably. The respondent indicated that

''import of their functions is to rescue people in distress, especially in fires, and therefore, there is the need for the personnel to perform their duties with precision and carefulness. The precautionary exercises included fitness training, breathing apparatus training, infection prevention, familiarisation of equipment, and road traffic accident. ''

According to the respondent, about 300 firemen are trained at a time and they convene from different regional departments. The respondent was asked to briefly describe the drill exercises in an in-depth interview. The summary of the interview is reported in the next section.

Fire drills for fire service department trainees

The respondent mentioned six different types of fire drills used to train fire service personnel in training programmes. They included ladder drills, pump drills, hydrant drills/hose drills, foot drills, foam drills, as well as search and rescue drills. The first drill described was the ladder drills. The responses gathered revealed that ladder drills are designed to provide system of work which will enable crews to work effectively and safely with Fire Service ladders. The ladder drills are categories from L1 to L5, where:

1. L1 (ladder drill 1) is to slip (removing the ladder from the fire engine) and pitch (to place the ladder against a building) a 9m and 10.5m ladder with a crew of four.

2. L2 (ladder drill 2): to slip and pitch a9m and 10.5m ladder with a crew of four.

3. L3 (ladder drill 3): To slip and pitch a 13.5m ladder with a crew of four.

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4. L4 (ladder drill 4): To slip and pitch a 13.5m ladder over obstruction with a crew of five.

5. L5 (ladder drill 5): To slip a 13.5m ladder in a restricted space with a crew of four

The responses on the pump drills revealed that pump drills are system drills which are conducted to enable trainees to work effectively and safely with Fire Service pumps and also be able to know the kind of drill to perform at a particular time. Pump drills are also categories from 1-10 with different but reinforcing objectives:

i. P1(pump drill 1): to get one hose reel to work with a crew of four

ii. P2(pump drill 2): To extend a hose reel length when only one hose reel is in use

iii. P3(pump drill 3): To augment the supply of water from a hydrant with a crew of four

iv. P4 (pump drill 4): To get hose reels to work and augment the supply with a crew of five.

v. P5(pump drill 5): To get a pump to work from a hydrant using soft suction with a crew of four. (one delivery).

vi. P6(pump drill 6): to get a pump to work from a hydrant using soft suction with a crew of five (2 delivery)

vii. P7(pump drill 7): to get a pump to work from a main supply with a low flow rate using soft suction from two hydrants with a crew of four (2 delivery)

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viii.   P8 (pump drill 8): to get a pump to work from open water with a crew of four (delivery).

ix.   P9 (pump drill 9): to get a pump to work from open water with a crew of five (2 delivery).

x.   P10 (pump drill 10): To get a ground monitor to work with a crew of five.

Hydrant/Hose Drills are fundamental drills conducted to help trainees acquire pace, skills and competence that will suit their level of performance. They are classified according to their objectives from H1 to H7, where:

i.   H1 (hydrant/hose drill 1) is to get a branch to work using one line of hose from a hydrant with a crew of four.

ii.   H2 (hydrant/hose drill 2): To add a length to a line of hose and advance the branch with a crew of four.

iii.   H3 (hydrant/hose drill 3): To remove a length from a line of hose with a crew of four.

iv.   H4 (hydrant/hose drill 4): To replace a burst length of hose with a crew of four.

v.   H5 (hydrant/hose drill 5): To get a branch to work aloft using a line with a crew of four.

vi.   H6 (hydrant/hose drill 6): To divide a length of hose into two using a dividing breeching with a crew of five.

vii.   H7 (hydrant/hose drill 7): To remove a dividing breeching from a line of hose with a crew of five.

Foot drills are performed to allow trainees gain experience of responding to verbal orders, enable crews to be formed up in preparation for and enable groups of personnel to be moved about in a safe and orderly manner. The foot drills demonstrate the correct method of:

    i.   Responding to verbal orders

    ii.   Forming into squad

    iii.   Standing to attention, at ease and easy

    iv.   Numbering a squad

    v.   Moving about as a squad

    vi.   About turn as part of a squad

    vii.   Falling out

Foam drills have been designed to help trainees on how to use foam concentrate by means of foam making branch to produce foam for firefighting. It helps to know the particular type of drills to perform. Foam drills are classified into F1 to F4 where;

    i.   F1 (foam drill 1) aims to get a foam making branch to work with a crew of four;

    ii.   F2 (foam drill 2) aims to get an in-line foam generator to work with a crew of five;

    iii.   F3 (foam drill 3) is purposed to get a foam generator to work with a crew of five, and

    iv.   F4 (foam drill 4) is intended to get a variable inductor and No.10 foam branch pipe to work with a crew of five.

The search and rescue drills have been designed to train personnel on how to effect rescue operations both during firefighting and road traffic collisions. According to the respondent, this is to ensure that fire service personnel handle their victims well in order not to cause more injury (casualties) to them as well as the rescuers themselves. The respondent emphasised that this is one of the core areas of the training as it involves saving the lives of others, while protecting the lives of the fire service personnel as well.

Training methodology for fire service personnel

The training methodologies were further investigated through in-depth interviews. The summary of the interview is presented in the subsequent paragraphs. It was deduced that Fire Service Personnel are trained in the classroom and on the field. That is, personnel are taught the theoretical aspect of the things that go on in the field and later these things are done practically to make them have real feel of what is being taught in the classroom. Therefore, lectures form an important segment of the training processes.

Further responses from the key personnel showed that the persons in charge undertake advance training in every aspect of the field in order to be well prepared for the training sessions. In some cases, the trainers, who are usually those of senior ranks such as the Group officers are also taken abroad to undertake refreshers courses to accustom themselves with new methods and trends of firefighting and training personnel.

The duration of the training was reported to be six months, during which written and practical test were organised after which simulation exercises are undertaken. Thus, simulations were also central to the training programme, as

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described in the fire drills by the key personnel (commandant). The format of the training is such that, in the first two months' trainees are trained on building their physical fitness with some classroom works, followed by practical exercises in the next three months. The final month is for simulation exercises, mock exercises, written and practical tests.

Expected training outcomes

The respondent was asked to indicate the expected outcomes of trainees in term of skills and qualities. The Deputy Commander responded that every trained fire service man should be able to exhibit bravery and courage. They should also be good observers, by being able to watch carefully and make vivid description of distress situations. This will form the basis of finding the safest entry and exit points as well as determining the most effective method of dealing with the distress situation. The fire fighters are also expected to build on their tactfulness after training. They should have developed skills and understanding in handling people and situation successfully without causing harm. The respondent further indicated that the trainees are also expected to be explicit in clearly defining the situation with which they are faced when in distress and also to develop the attitude of perseverance by putting in the effort until the objective is achieved or the situation is under control.

Assessment of trainees

An important element of training is the assessment of trainees' extent of knowledge or skills acquired. Once the expected outcomes are determined, the methods of assessing the trainees' competence follow. According to the Deputy Commander, trainees undergo series of simulation exercises, road traffic

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extrication exercise and mock exercises. That is to say, during the performance of one simulation exercise, the speed at which the drill is executed, the safety measures adopted and the preventives measures used are identified as performance indicators. In the specific response of the Deputy Commander,

''The department determines the fastness of a trainee through a simulation of drills exercise, such as inter-drills competition. For instance, trainees may be grouped into crews of four in a group to let say perform Pump Drill 1(P1), which is getting a hose reel to work. Through this drill the trainee is able to be accessed individually as he/she execute his/ her role in the crew and how fast that role is performed.''

The respondent was asked to comment on how the trainer assesses the safety of the practices being conducted by the trainee. The summary of the responses indicated that there are several guidelines in the training manual which serve as the benchmark for determining safety practices by trainees. The Deputy Commander indicated that:

''While helping victims of fire or accidents, fire fighters may be exposed to contagious and infectious diseases including blood borne diseases such as AIDS, hepatitis B and C, so the trainees are trained to use their personal protective equipment and clothing at every incident they attend. Fire fighters also have a high degrees of burns, especially those who enter the burning building/structure first and who are usually those who hold the front end of the nozzle. Dry hot air typically is not hazardous, but steam or wet hot air can cause burns. Radiant heat is also an issue, and burns can occur for

extended exposure. Trainees are being trained more on the precaution exercises in order to be safe at all cost. Through observation, the trainer can know if the protective equipment is correctly fixed and applied.'' For instance, the breathing apparatus or the personal protective clothing

The respondent was also requested to share his views on how the readiness of the trainee to perform a real assignment is determined. The Deputy Commander indicated that the trainees' readiness is determined through a simulation of written and practical test exams. The trainee is expected to go through these exams successfully and have at least an average mark of 45 percent.

Evaluation of training processes

The evaluation of the training programmes was conducted by the trainees. The processes for training fire service personnel including the content, context and methods were examined and evaluated from personnel's perspective. The motivation for the trainees' involvement was examined to provide the context within which Fire Service personnel participated in training programmes. The study found that generally their motivation for participating in the training programmes was divided between their need to better their skills and the fact that other colleagues who had been trained were exhibiting better performance at their jobs. According to Learning Point Associates (2010), the willingness of employees to participate in such programmes could have particular influence on their performance and evaluation of the programme. It is therefore seen that the fire service personnel participated in training programmes voluntarily to satisfy their personal goals.

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The first step towards evaluating the effectiveness of the training programme was to ask the respondents to evaluate the ability of the programme to achieve the objectives set. This was in line with Kirkpatrick's Tier 1, reaction stage, of the training evaluation model. Results in Table 4 show that 43.3 percent of the respondents strongly agreed and 30 percent agreed that they were given sufficient information on the objectives of the training course before their participation in the programme. Similarly, 76.7 percent of trainees strongly agreed to the preamble that training programmes address the essential training needs. Overall, majority of the trainees (90%) were of the view that the objectives of the programme were achieved at the end of the programme Table 4

Table 4: Evaluation of training objectives

| | Preamble | | |
| | Sufficient information about objectives was given | Objectives addressed essential needs | Objectives were achieved |
Responses	f(%)	f(%)	f(%)
Strongly agree	13(43.3)	23(76.7)	18(60.0)
Agree	9(30.0)	7(23.3)	9(30.0)
Disagree	6(20.0)		3(10.0)
Strongly disagree	2(6.7)		
Total	30(100.0)	30(100.0)	30(100.0)

Source: Field Survey, 2012

It was therefore shown that the trainees' initial reaction of the training programmes was that the programme was effective in providing adequate

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information to participants, addressing their essential performance needs, and achieving the stated objectives. The later assertion suggested that the respondents were of the view that the training programmes effectively improved skills, efficiency, and effectiveness in firefighting, and also improved appropriate use of gadgets for rescuing and firefighting.

The approach to training was also examined by the study. The majority (94.7%) of responses showed that the training methods satisfied the training needs of the trainees. The results in Table 5 depict that most of the respondents shared the view that the theoretical (100%) and practical (93.3%) methods satisfied their training needs. It was therefore revealed that both theoretical and practical methods were employed in training the personnel and these methods satisfied the training needs of most of the trainees. According to Rajeeve et al. (2009), an effective training programme aims to fulfil training needs and per that benchmark, the trainees are of the view that the training programme was effective. The evaluation of the approaches adopted showed that, mostly, personnel were of the view that training approaches adopted were relevant to their performance needs.

Table 5: Training approaches satisfy the needs of trainees

	Approach		
	Theoretical	Practical	
			Total
Response	f(%)	f(%)	f(%)
Strongly agree	11(36.7)	10(33.3)	21(35.0)
Agree	19(63.3)	18(60.0)	37(61.7)
Disagree	0(0.0)	2(6.7)	2(3.3)
Total	30(100.0)	30(100.0)	30(100.0)

Source: Field survey, 2015

The relevant training methods to the performance needs of the trainees was evaluated from the perspective of the trainees. This could also be classified under the initial reaction stage of Kirkpatrick's (1994) model of training evaluation. Multiple cross-tabulation shows in table 6 was used to examine the relevance of the techniques used during personnel training programmes.

The results found in table 6, indicated that the majority of responses either strongly agreed (62%) or agreed (32%) that the techniques used were relevant to the performance needs of fire service personnel (Table 6). However, six percent of responses confirmed that the techniques used were not relevant to the performance needs of the personnel. The later responses were recorded only for a few responses concerning discussions and audio visuals. This indicated that in most cases, training techniques were appropriately aligned with the objectives of the programme and performance needs of fire service personnel.

Table 6: Relevance of techniques to performance needs

Response	Lecture f(%)	Discussion f(%)	Audio/Visual aid f(%)	Demons-tration f(%)	Role-play f(%)	Total f(%)
Strongly agree	13(43.3)	14(46.7)	15(50.0)	21(70.0)	30(100.0)	93(62.0)
Agree	17(56.7)	9(30.0)	13(43.3)	9(30.0)		48(32.0)
Disagree		7(23.3)	2(6.7)			9(6.0)
Total	30(100.0)	30(100.0)	30(100.0)	30(100.0)	30(100.0)	150(100.0)

Multiple response; n = 189

Source: Field survey, 2012

Larsen (2001) makes a logical argument that the goals of training are likely to be achieved when objectives are properly aligned with activities at the planning phase of the programme. However, the effectiveness of the programme is also underlain by other characteristics of the programme including the programme duration and the trainers' competence (Boateng, 2007).

The evaluation of training duration was conducted and the results as shown in the graph indicated that 46.7 percent of the respondents strongly agreed that the training duration allowed for adequate coverage of the manual. Moreover, 40 percent of the respondents also agreed to the same assertion. The study therefore revealed that the six-month period for training was adequate for coverage of the training manual.
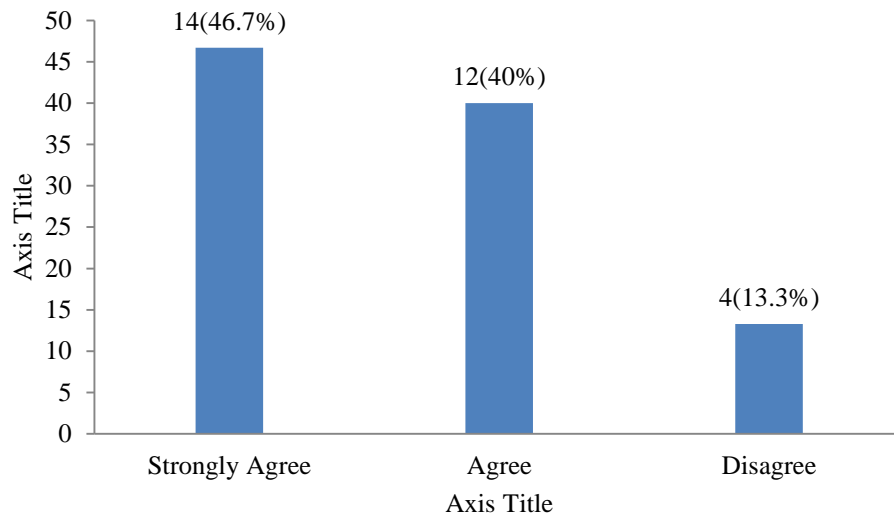
Figure 2: Training duration allows for enough coverage of training manual

Source: Field work, 2015

The Programme Theory (Larsen, 2001) allows for logical inferences from a sequence of events. Based on this, it was inferred that in the effort to cover the course contents in the six-month period, trainees may be stressed up to undergo training. The study therefore assessed the adequacy of stress coping exercises and psychological support given to reduce the stress and pressure from the training programme. This examination was conducted using frequencies of responses of trainees. According to the results shown in Table 7, a total of 86.7 percent of the respondents strongly agreed that the training programme was stressful. The rest of the respondents also agreed that the training programme was stressful. On the other hand, 10 percent of trainees strongly agreed and 16.7 percent agreed that adequate support was given to cope with stress in the programme. Therefore, the majority of the trainees were of the view that the trainers did not inculcate adequate stress coping mechanisms in the programme.

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Table 7: Evaluation of stress coping techniques

	The programmes were stressful	Adequate stress coping exercises
Response	f(%)	f(%)
Strongly Agree	26(86.7)	3(10.0)
Agree	4(13.3)	5(16.7)
Disagree		22 (73.3)
Total	30(100.0)	30(100.0)

Source: Field survey, 2012

The implication for the study was that adequate efforts were not made during training programmes to help trainees cope with the stress of having to undergo the practical and theoretical training content over the six months' period. As a logical inference trainees are likely to be able to relax psychologically and deal with the stress of the training.

Berk (2005) noted that trainers' competence as one fundamental determinant of the training process. According to the Deputy Regional Commander, trainees are expected to cultivate certain abilities and qualities after training. Evidently, a significant contribution to the trainees' abilities to achieve and obtain the expected qualities and skills will depend on the trainer. The characteristics of trainers evaluated by the study included their ability to foster teamwork, adequacy of their knowledge of the course content, fairness in assessments and relations, and the appropriateness of their delivery, including demonstrations and use of gadgets.

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The results indicated that the majority (73.3%) of trainees strongly agreed that trainers were able to foster effective teamwork among participants of the teacher training programmes. Similarly, most of the respondents shared the view that trainees had adequate knowledge of course contents (93.3%), were fair in their assessment and relations with trainees (60%), and appropriately delivered skills (70%). This indicated that trainees were generally effective in their functions and trainees were thus of the impression that trainers' performance was effective.

Table 8: Evaluation of trainers

	Trainers' characteristics			
Response	Teamwork f(%)	Knowledge f(%)	Fairness f(%)	Delivery f(%)
Strongly Agree	10(33.3)	19(63.3)	8(26.7)	17(56.7)
Agree	12(40.0)	9(30.0)	10(33.3)	4(13.3)
Disagree	8(26.7)	2(6.7)	12(40.0)	9(30.0)
Total	30(100.0)	30(100.0)	30(100.0)	30(100.0)

Source: Field work, 2015

Centra (1999) relates effective trainers to effective learning and higher achievements, with respects to the goals of the programme. Given the fact that trainers were generally evaluated as effective in all the characteristics assessed by the study, it was inferred that trainers' performance fostered effective learning of trainees and the achievement of programme objectives. The methods of assessment also form an integral part of training programmes.

Influence of training of job performance

According to Kirkpatrick (1994), training programmes must be evaluated for their influence on job performance of employees. This conforms to Tier 3 of the training evaluation model of Kirkpatrick. Multiple responses were used to examine the aspects of the teacher's job that have been improved by training programmes. The performance areas where the trainees felt they had improved and could actually perform better on their jobs were investigated. In the case of pump drills, ladder drills, foot drills, hose drills, safety and precaution, and problem shooting, most of the respondents indicated that they had made significant improvements due to the training exercises. The study therefore asserted that training programme had significant positive impact on the fire-fighting skills of the trainees. According to Cole (2002), the aim of training programmes is to improve skills of trainees and to effectively transmit and apply the knowledge and skills learnt during training to the actual job. In this case, the trainees' perspective revealed that the training programme had a positive impact on their job performance.

Table 9: Areas of performance improvement due to training programs

Areas	Improved	Not improved
Pump drills	30 (100%)	
Ladder drills	30 (100%)	
Foot drills	30 (100%)	
Hose drills	30 (100%)	
Safety and precaution	30 (100%)	
Problem shooting	18 (60%)	12 (40%)
Rescuing and saving lives	30 (100%)	

Source: Field survey, 2012

In relation to these findings, the study examined the specific ways through which the training programmes improved fire personnel performance. This was conducted in the context of the specific drills that the trainees performed. The respondents were asked to indicate specific component of drills that they felt they made the most significant improvement.

The first to be analysed was the ladder drills as shown in table 10. The results showed that overall, ladder drills 5 was the area of the most significant improvement in trainees' performance. The interpretation was that the most significant improvement made in terms of the largest number of trainees was in the area of slipping and pitching a 13.5m ladder in a restricted space with a crew of four. The males were more competent with ladder drill 5 than any other ladder drill. The females were however, more evenly distributed in their competence improvements with the ladder drills.

Table 10: Improvement in ladder drills

	Sex		
	Male	Female	Total
Response	f(%)	f(%)	f(%)
Ladder drill 1	2(9.1)	2(25.0)	4(13.3)
Ladder drill 2	4(18.1)	1(12.5)	5(16.7)
Ladder drill 3	5(22.7)	2(25.0)	7(23.3)
Ladder drill 4	3(13.7)	2(25.0)	5(16.7)
Ladder drill 5	8(36.4)	1(12.5)	9(30.0)
Total	22(100.0)	8(100.0)	30(100.0)

Source: Field work, 2015

The improvements in the pump drills were analysed next. The results are shown in Table 11. The table shows that overall, pump drill 5 was the area with most significant improvement in trainees' performance. The interpretation was that the most significant improvement made in terms of the largest number of trainees was in the area of slipping and pitching a 13.5m ladder in a restricted space with a crew of four (4). Fifty percent of the females indicated that they had the most improvement in pump drill 3, which is to augment the supply of water from a hydrant with a crew of four. On the other hand, most of the male respondents indicated that they were most competent and had the most significant improvement in pump drill 5, which is to get a pump to work from a hydrant using soft suction with a crew of four.

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Table 11:   Improvement in pump drills

	Sex		
	Male	Female	
			Total
Response	f(%)	f(%)	f(%)
Pump drill 2	2(9.1)	4(50.0)	6(20.0)
Pump drill 4	4(18.1)	3(37.5)	7(23.3)
Pump drill 5	8(36.4)	1(12.5)	9(30.0)
Pump drill 7	5(22.7)		5(16.7)
Pump drill 9	3(13.6)		3(10.0)
Total	22(100.0)	8(100.0)	30(100.0)

Source: Field work, 2015

The analysis of improvements in the hose drills as shown in table 12 indicated that most significant improvement in trainees' performance was on hose drill 4, which is to replace a burst length of hose with a crew of four. Most of the improvement made by the females was in hydrant drill 2, which is to add a length to a line of hose and advance the branch with a crew of four. The interpretation was that the influence of hydrant drills had different impacts on the performance of male and female fire fighters.

Table 12: Improvement in hose drills

	Male	Female	Total
		Sex	
Response	f(%)	f(%)	f(%)
Hose drill 2		2(50.0)	2(6.7)
Hose drill 3		4(25.0)	4(13.3)
Hose drill 4	10(20.7)		10(45.5)
Hose drill 5	2(22.7)	2(25.0)	5(16.7)
Hose drill 6	4(13.6)		4(13.3)
Hose drill 7	6(18.1)		6(20.0)
Total	22(100.0)	8(100.0)	30(100.0)

Source: Field work, 2015

The foam drills represent one of the most important exercises of fire-fighting. The skills improvement in this area therefore goes a long way to reinforcing successful firefighting. According to the study, the foam drills were categorised into four different but reinforcing exercises. It is shown in table 13. In the respondents' analysis, most of the males were of the view that they made the most significant progress in getting a variable inductor and foam branch pipe to work with a crew of five. On the other hand, most of the female respondents indicated that from their self-evaluation, foam drill 3 have had the most significant influence on their job performance on the job. Foam drill 3 was to get a foam generator to work with a crew of five. In brief, the males had a different influence than their female counterparts.

Table 13: Improvement in foam drills

	Sex		
	Male	Female	Total
Response	f(%)	f(%)	f(%)
Foam drill 1	1(4.5)		1(3.3)
Foam drill 2	6(27.3)	3(37.5)	9(30.0)
Foam drill 3	5(22.7)	3(37.5)	8(26.7)
Foam drill 4	10(45.5)	2(25.0)	12(40.0)
Total	22(100.0)	8(100.0)	30(100.0)

Source: Field work, 2015

Challenges of the training programme

According to Ryan and Cousins (2009), training programmes are often constrained by several problems. These challenges can represent important constraints with potential of diminishing the effectiveness of the training programmes. The study therefore examined the challenges of the training programmes as a form of feedback into future programmes and also to rationalise recommendations that may be made to improve the effectiveness of future training programmes. The challenges of the training programme were analysed from the perspective of the Deputy Regional Commander and the subordinate personnel.

The responses of the Deputy Commander were captured as follows:
''One of the major challenges of the programme is that of finance. There are in three folds. First, the funds are inadequate, and also, the little funds are not released on time for adequate preparation. Lastly, the funds are released in bits, which makes planning and procurement for the trainees and the programme materials a major problem.''

The responses therefore showed that inadequate funds and late release of funds constrain both trainees and the programme. Some training programmes conducted in Ghana have revealed similar problems although the programmes were meant for institutions other than the fire service (Adu-Darko, 2012; Kambilige, 2012; Larbi, 2011). The implication is that inadequate finance is a common challenge for training programmes for various institutions in Ghana. The respondent further elaborated on how limited finances impinge on the success of the training programmes. The responses were captured as follows:

''The department is compelled to reduce the number of trainees the department is expected to train at a time owing to the fact that, there is inadequate funds. As a result of inadequate funding, the department is not able to organise in-service training and refresher courses for personnel in order to sharpen their skills and operational performance. In short developing of the human resource internally is not efficiently met.''

The responses therefore indicated that inadequate finances had rippling effects on the training programme and also on the quality of human resource in the fire service department. This is a logical consequence from

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the literature. For example, Rossi et al. (2004) mentioned that untrained personnel are less likely to be as efficient as trained personnel.

The inadequacy of finances also had implications on the duration of the training programme. The key informant mentioned that the expected six months training period is sometimes shortened to four months due to inadequate finance. Although it was also mentioned that those training programmes are also intensive, they do not equip the trainees with the requisite knowledge and skills. Moreover, short programmes put pressure on both the trainees and the trainers and also increase stress. The respondent noted the following as well:

''Owing to the problem of finance, the department does not have adequate gadgets that would help to support the training. For instance, Turn Table Ladders in the country are limited in number and the training centres do not own one either. It has to rely on the National Headquarters for theirs to be spared to them.''

The other challenge mentioned by the Deputy Commander was that of the use of outdated technology at the training programmes. The specific response of the respondent was:

''The trainers are also expected to undergo series of workshops and courses to update their knowledge and skills in modern techniques in firefighting so as to march up advanced as well.''

The respondent also mentioned the following:

''During the first two to three weeks of the training, trainees normally find things difficult because they are very new to the system and have

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never experienced such training before. However, from the fourth week onward they begin to cope spectacularly.''

In the summary of the responses of the Deputy Chief Commander, the challenges of the training programme covered inadequate finances, irregular time schedules for the training programme, outdated technology for training personnel and the initial difficulty of coping among the rookies.

The challenges of the training programme were also assessed from the perspective of the trainees as shown in table 14. The results showed that short training period (63.3%) was mostly emphasised as challenging to the programme (Table 14). It was established by trainees that; the stress of the programme was quite unbearable. The course content according to the trainees was loaded and would require an extension of the training period (53.3%). The gadgets were also not adequate to go around and thus it was mentioned by 60% of the respondents that not all the participants of the training programme had the chance to partake in the simulation exercises. On the other hand, 80% of trainees indicated that there were no challenges in the training programme. Several other studies (Boer, 2007; Goe & Croft, 2009) confirm similar constraints of training programmes. However, in most cases, financial constraints are identified as the major constraint of training programmes.

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Table 14: Challenges of training programs

	Response	
Challenge	Yes	No
No challenge	4(13.3%)	26(86.7%)
Short training period	19(63.3%)	11(36.7%)
Content overload	16(53.3%)	14(46.7%)
Inadequate gadgets	18(60.0%)	12(40.0%)
Not all participants get involved	17(56.7%)	13(43.3%)

Source: Field work, 2015

CHAPTER FIVE

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

Introduction

This chapter presents the summary of major findings of the study. It also presents the conclusions drawn from the study as well as recommendations derived from the conclusions of the study.

Summary of the study

The study set out to assess the effectiveness of training and development programmes of the Central Regional Fire Service department. The study adopted a mix of qualitative and quantitative research approaches and a descriptive design was used to study 30 fire service personnel who had participated in any of the training programmes for fire service personnel, as well as the Deputy Regional Commander of the Fire Service Department. All the fire-fighters at the Cape Coast department and the Deputy Regional Commander of the Fire Service Department were purposively targeted for the study. Questionnaires were used to collect data from the selected fire service personnel and an in-depth interview with the Deputy Regional Commander was conducted using an interview guide. The statistical tools used to analyse the data collected included descriptive tools such as frequencies and percentages, as well as measures of central tendencies.The study examined the training methodologies used by the fire service department as the first objective and it was found that the off-the-job training was the most popular method used once the personnel are recruited. During the training, interactive methods, such as training drills, role plays, and simulations were used in fire drills and practical training in

search and rescue teams. Moreover, informative methods, mostly lectures, were also used to teach the theoretical and conceptual underpinnings of the training exercises. Gadgets and materials that are used on the job were also used by the trainers to train the personnel and this conformed to vestibule training. This was used in fire drills, familiarisation exercises, and precautionary exercises.

The second objective was to evaluate the training processes. The summary of the findings indicated that the expected influence of the training exercises on the employees where both practical and psychological. For example, while trainees were expected to build up on their skills in the use of ladders and hoses, they were also expected to build their courage and perseverance to fight fires and save lives. The trainees expressed that the training approaches satisfy their training needs and the specific training techniques were also relevant to their performance needs on their jobs. The trainees also indicated that generally, the trainers were effective in both knowledge and practices of the training techniques, and also the training duration allowed for enough coverage of the training manual. However, the trainers did not engage the trainees in adequate stress coping exercises.

The third objective was to examine the influence of training on job performance of the employees. The trainees generally agreed that the training programme had relevant and performance improvement influence on their pump skills, ladder skills, foot skills, hose skills, safety and precaution abilities, and their problem shooting skills. In respect of ladder skills, the most significant improvement in trainees' performance was in slipping and pitching a 13.5m ladder in a restricted space with a crew of four. In terms of pump drills, the most significant improvement for males was in getting a pump to work from a hydrant

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using soft suction with a crew of four, but for the females, it was in augmenting the supply of water from a hydrant with a crew of four. The general improvement in hose skills was in replacing a burst length of hose with a crew of four.

The final objective was to analyse the challenges of the training programme. The summary of the findings was that adequate financing was one of the most challenging factors of the training programmes. Coupled with late release of funds, the inadequacy of finance the department is forced to cut down on the number of trainees who are to be trained at a time. This has other repercussions on the quality of staff at the department. Similarly, the programme is sometimes shortened due to the insufficiency of funds to carry on throughout the demarcated six months' period. There was also the challenge of insufficient number of apparatuses to support the training programme as well as the modernity of the gadgets and technological equipment needed for the training. There was also the problem of content overload of the trainees.

Conclusions

The study makes the following conclusions based on the major findings. The study concluded that a mix of methodologies was applied in training the fire service personnel. Informative, interactive, and vestibule methods were applied in the form of lectures, role plays, and simulations. On evaluating the processes of the training programme, the study concluded the trainees were best suited for their jobs and that the training programme was aligned to the training needs of the personnel. Moreover, the training programme had significant improvement on the performance of the personnel in all the practical fields of

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fire-fighting. The programme was however mostly challenged by inadequacy of financing to train the required number of personnel, to acquire enough gadgets for practice and simulations, as well as participatory training and also to upgrade the technology needed to improve on the fire fighting abilities of the personnel. Finally, the study concludes that the training programmes of the fire service department was effective in improving the skills needed by personnel for higher job performance.

Recommendations

The following recommendations were made in response to the findings and conclusions of the study. The recommendation that the Fire Service Department to introduce more stress coping strategies into the training programme in order to reduce any negative effects of stress and fatigue on the trainees. One of the major problems had to do with insufficiency of finances for the programme. The Department can work in collaboration with donors and willing sponsors to elicit funds for their training programmes. This would help provide the necessary equipment and materials for the training sessions in order to enhance the effectiveness of the programme. It could also resolve most of the aftermath challenges of funding.

Suggestions for further studies

The study suggests further research into viable and sustainable funding options for training programmes of the Fire Service Department. All the findings of the study were also based on the self-evaluation of the respondents. A future study that focuses on the actual evaluation of job performance of the respondents could be more objective.

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APPENDIX 1: QUESTIONNAIRE FOR FIRE SERVICE PERSONNEL

This instrument seeks to assess the effectiveness of training programmes for fire service personnel in fulfilment of an academic study. Please provide candid responses as this is essential for the validity of the study. Thank you.

1. Please state your sex

   a. Male

   b. Female

2. Please state your age

3. For how long have you served in the fire service department?

4. What is your current rank?

   a. Recruit

   b. Fireman

   c. Senior Fireman

   d. Leading Fireman

   e. Others, please specify

Please indicate the extent to which you agree or disagree to the following statements regarding the training programmes you have undertaken at the fire service department

Legend for the table:

U = Undecided

SA = Strongly Agree

A = Agree

D = Disagree

SD = Strongly disagree

Preamble	U	SA	A	D	SD
5. Sufficient information about objectives was given					
6. Objectives addressed essential needs					
7. Objectives were achieved					
8. Training approaches satisfied the theoretical needs of trainees					
9. Training approaches satisfied the practical needs of trainees					
10. The lectures were relevant to performance needs					
11. The discussions were relevant to performance needs					
12. The audio-visual aid were relevant to performance needs					
13. The demonstrations were relevant to performance needs					
14. Role-plays were relevant to performance needs					
15. Training duration allows for enough coverage of training manual					
16. The programmes were stressful					
17. Adequate stress coping exercises were inculcated					

18. Trainers encouraged teamwork					
19. Trainers had adequate knowledge of contents of the manual					
20. Trainers were fair in their evaluations					
21. Trainers had effective delivery ability					

22. Please indicate the areas which you think you have improved in as a result of the training programmes

Performance areas	Improved	Not improved
Pump drills		
Ladder drills		
Foot drills		
Hose drills		
Safety and precaution		
Problem shooting		
Rescuing and saving lives		

23. Please indicate the ladder drills in which you have made significant improvement

Ladder drills	Improved	Not improved
Ladder drill 1		
Ladder drill 2		
Ladder drill 3		
Ladder drill 4		
Ladder drill 5		

24. Please indicate the pump drills in which you have made significant improvement

Pump drills	Improved	Not improved
Pump drill 1		
Pump drill 2		
Pump drill 3		
Pump drill 4		
Pump drill 5		
Pump drill 6		
Pump drill 7		
Pump drill 8		
Pump drill 9		

Please indicate the hose drills in which you have made significant improvement

Hose drills	Improved	Not improved
Hose drill 1		
Hose drill 2		
Hose drill 3		
Hose drill 4		
Hose drill 5		
Hose drill 6		
Hose drill 7		

25. Please indicate the foam drills in which you have made significant improvement

Foam drills	Improved	Not improved
Foam drill 1		
Foam drill 2		
Foam drill 3		
Foam drill 4		

26. Have you faced some challenges in the training programmes?

    a. Yes

    b. No

27. If yes, Please what challenges you have encountered in the course of the training programmes of the fire service department?

APPENDIX 2: INTERVIEW GUIDE FOR DEPUTY REGIONAL COMMANDER OF THE CENTRAL REGIONAL FIRE SERVICE DEPARTMENT

1. Please describe the fire service drills employed at the training programmes

2. Please indicate the precautionary exercises undertaken

3. Is there a fire service training manual for the training programmes?

4. Please describe briefly how the training of fire service personnel is done including

    a. The person in charge

    b. The duration of the training

    c. Written and practical tests

    d. Pass mark, averagely

    e. The schedule of the training

    f. The number of people trained at a time

5. How can the department tell if a trainee is ready for the field, or otherwise?

6. How does the department measure the readiness of the trainee to go out to the field?

7. What are the challenges involved in the training in terms of?

    a. Finance

    b. Human resource

    c. Compliance

    d. Training content

    e. Training gadgets

      f. Training practice

      g. Assessment of trainees

8. How does the department determine if one trainee is faster than the other?

9. How do you determine if a trainee is practicing safe approach to killing fires?

10. Provide a brief description of a perfect fire fighter

11. What qualities do you look out for in fie service?

12. What skills do you expect the trained fire service man would cultivate?

13. What attitude do you look out for as a fire fighter?

APPENDIX 3: TRANSCRIBED RESPONSES FROM THE DEPUTY REGIONAL COMMANDER OF THE FIRE SERVICE DEPARTMENT

Length of interview: 1 hour and 56 minutes

A LIST OF THE FIRE DRILL EXERCISE WITH A BRIEF DESCRIPTION OF EACH

1. Ladder Drills

2. Pump Drills

3. Hydrant Drills/Hose Drills

4. Foot Drills

5. Foam Drills

6. Search and Rescue Drills

1. Ladder Drills: Ladder drills are designed to provide system of work , which will enable crews to work effectively , and safety with Fire Service ladders

   Under the ladder drills, it has been categories from L1 to L5. Where

   i.   L1 (ladder drill 1) is to slip (removing the ladder from the fire engine) and pitch (to place the leader against building) a 9m and 10.5m ladder with a crew of four.

   ii.   L2 (ladder drill 2) : to slip and pitch a9m and 10.5m ladder with a crew of four.

   iii.   L3 (ladder drill 3): To slip and pitch a 13.5m ladder with a crew of four.

   iv.   L4 (ladder drill 4): To slip and pitch a 13.5m ladder over obstruction with a crew of five.

  v. L5 (ladder drill 5): To a 13.5m ladder in a restricted space with a crew of four.

2. Pump drills: Pump drills are system drills which are conducted to enable trainees to work effectively and safely with Fire Service pumps and also be able to know the kind of drill to perform at particular time. Pump drills have categories from 1-10 .details are below:

  xi. P1(pump drill 1): to get one hose reel to work with a crew of four

  xii. P2(pump drill 2): To extend a hose reel length when only one hose reel is in use

  xiii. P3(pump drill 3): To augment the supply of water from a hydrant with a crew of four

  xiv. P4 (pump drill 4): To get hose reels to work and augment the supply with a crew of five.

  xv. P5(pump drill 5): To get a pump to work from a hydrant using soft suction with a crew of four.(one delivery).

  xvi. P6(pump drill 6): to get a pump to work from a hydrant using soft suction with a crew of five(2 delivery)

  xvii. P7(pump drill 7) : to get a pump to work from a main supply with a low flow rate using soft suction from two hydrant with a crew of four (2 delivery)

  xviii. P8 (pump drill 8): to get a pump to work from open water with a crew of four (delivery).

  xix. P9 (pump drill 9): to get a pump to work from open water with a crew of five (2 delivery).

xx.   P10 (pump drill 10): To get a ground monitor to work with a crew of five.

3. H hydrant/Hose Drills: they are fundamental drills which conducted to help trainees acquire pace, skills and competence that will suit their level of performance. Under this drill they have been classified 7 i.e. H1 to H7 where:

    i.   H1 (hydrant/hose drill 1) is to get a branch to work using one line of hose from a hydrant with a crew of four.

    ii.   H2 (hydrant/hose drill 2): To add a length to a line of hose and advance the branch with a crew of four.

    iii.   H3 (hydrant/hose drill 3): To remove a length from a line of hose with a crew of four.

    iv.   H4 (hydrant/hose drill 4): To replace a burst length of hose with a crew of four.

    v.   H5 (hydrant/hose drill 5): To get a branch to work aloft using a line with a crew of four.

    vi.   H6(hydrant/hose drill 6): To divide a length of hose into two using a dividing breeching with a crew of five.

    vii.   H7 (hydrant/hose drill 7): To remove a dividing breeching from a line of hose with a crew of five.

4. FOOT DRILLS: These are drills which are performed to allow trainees gain experience of responding to verbal orders, enable crews to be formed up in preparation for and enable groups of personnel to be moved about in a safe and orderly manner.

The foot drills demonstrate the correct method of:

1) Responding to verbal orders.

2) Forming into squad.

3) Standing to attention, at ease and easy.

4) Numbering a squad.

5) Moving about as a squad.

6) About turn as part of a squad.

7) Falling out.

5. FOAM DRILLS: They have been designed to help trainees on how to use foam concentrate by means of foam making branch to produce foam for fire fighting. It helps to know the particular type of drills to perform. Under the foam drills it has been categories F1 to F4 where;

    i.   F1 (foam drill 1): To get a foam making branch to work with a crew of four.

    ii.   F2 (foam drill 2): To get an in-line foam generator to work with a crew of five.

    iii.   F3 (foam drill 3): To get a foam generator to work with a crew of five.

    iv.   F4 (foam drill 4): To get a variable inductor and No.10 foam branch pipe to work with a crew of five.

6. SEARCH AND RESCUE DRILLS:

The search and rescue drills have been designed to train personnel on how to effect rescue operations both during fire fighting and road traffic collisions. This is to ensure that fire service personnel handles their

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victims well into order not to cause more injury to them and themselves to as well.

A LIST OF ALL THE PRECAUTIONS EXERCISE

1. Fitness training exercise

2. Breathing apparatus training exercise

3. Infection prevention exercise

4. Familiarization of equipment exercise

5. Road Traffic accident exercise.

IF THERE IS A TRAINING MANUAL THAT WOULD ALSO BE VERY HELPFUL

Fire Service Training Manual Volume4

PLEASE DESCRIBE BRIEFLY HOW THE TRAINING OF FIRE SERVICE PERSONNEL IS DONE INCLUDING.

Training of fire service Personal

Fire Service Personnel are being trained in the classroom and on the field. That is, Personnel are being taught the theoretical aspect of the thing that goes on in the field and later these things are being done practically to make them have real feel of what is being taught in the classroom.

i. The person in charge under takes advance training in every aspect of the field in order to be well brazed and also at times they are being taken abroad to have refreshers courses in order to be in tune in ways of fire fighting and training.

ii. The duration of the training is six months

iii. Written and practical test are being organized after every simulation exercise undertaken. This is to monitor the performance of the trainees.

iv. Pass mark, averagely is 45%.

v. The schedule of the training is designed such that, in the first two months trainees are trained on building their physical fitness (physical fitness) with some classroom works, followed by practical exercises in the next three months. The final month is for simulation exercise, mock exercises, written and practical tests.

vi. The number of people trained at a time is 300 personnel.

HOW CAN THE DEPARTMENT TELL IF A TRAINEE IS READY FOR THE FIELD, OR OTHERWISE

The trainee readiness is been determine through a simulation of written and practical test exams. The trainee is expected to go through these exams successfully and have at least an average mark of 45%.

THE SEPCIFIC PERFORMANCE INDICATORS FOR EXAMPLE, HOW DOES THE DEPARTMENT MEASURE SPEED, SAFETY AND PREVENTION MEASURES?

Trainees undergo series of simulation exercises, Road Traffic exercise and mock exercises. That is to say, during the performance of one simulation exercise, the speed at which the drill is executed, the safety measures adopted and the preventives measures used are identified as performance indicators.

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WHAT ARE THE CHALLENGES INVOLVED IN THE TRAINING IN TERMS OF

1) FINANCE : a) Funds are inadequate

   b) Funds are not released early on time

   c) They are being released in pieces (bit by bit)

2) HUMAN RESOURCE: a) The number of trainees the department is expected to train owing to the fact that, there is in adequate funds, so the department is compelled to cut the number.

   b) As a result of in adequate fund, the department is not able to organize in-service training and refresher courses for personnel in order to sharpen their skills and operational performance.

   In short developing of the human resource internally is not efficiently met.

   c) The expected six (6) months training period is sometimes shortened to 4 months, even though intensive, does not equip the trainees with the requisite knowledge and skills.

3) The trainers are also expected to undergo series of workshops and courses to update their knowledge and skills in modern techniques in fire fighting so as to march up advanced as well.

   COMPLIANCE

   During the first 2 to 3 weeks of the training, trainees normally find things difficult because they are very new to the system and have

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never experienced such training before. But from 4th week onward they begin to cope spectacularly.

TRAINING CONTENT:

With the training content they are readily available and enough as well.

Training gadgets:

Owing to the problem of finance, the department does not have adequate gadgets that would help to support the training. For instance Turn Table Ladders in the country are not enough so therefore the training centers do not own one for it. It has to rely on the National Headquarters for theirs to be spared to them.

Training practice:

Assessment of training: With the trainees assessment there is no challenge because by aid of the good team of instructors in the training school, trainees are being monitored and accessed categorically in every simulation exercise they undertake, in order to be brazed with their performance.

HOW DOES THE DEPARTMENT DETERMINE IF ONE TRAINEE IS FASTER THAN THE OTHER

The department determines the fastness of a trainee through a simulation of drills exercise (i.e. inter drills competition). For instance trainees may be grouped into crews (four in a group) to perform let say Pump Drill 1(P1) (getting a hose reel to work with, a crew of four). And through this drill the trainee is

able to be accessed individually as he/she execute his/ her role in the crew and how fast that role is perform.

HOW DO YOU DEETERMINE IF A TRAINEE IS PRACTING SAFE APPROACH TO KILLING FIRES.

While helping victims of fire or accidents, fire fighters may be exposed to contagious and infectious diseases including blood borne diseases such as AIDS, hepatitis B and C, so trainees are being trained use their personal protective equipment at every incidents they attend.

On the scene of a fire, there is exposure to various combustion products. The toxicity of the smoke depends greatly on the fuel (the materials or chemicals being burnt), the heat of the fire, and how much oxygen is available for combustion. Common combustion products include:

- Carbon monoxide.
- Hydrogen cyanide.
- Nitrogen dioxide and many others.

In addition, oxygen depletion from the air is common during fires. Hypoxia (the condition caused by little or no oxygen in the air) can result in a loss of physical performance, confusion and inability to escape. In order to prevent such situations, trainees are being trained in the use of breathing apparatus (this is an equipment used by the fire fighter to enable him to work in an environment which does not support life.)

There are many situations where physical demands involve very strenuous work, force, repetition, awkward postures and prolonged activities, often under extreme conditions. These include:

- Overexertion (reaching, carrying, etc.).

- Walking or working on your feet for long periods of time.

- Lifting.

In this case trainees are also trained to work using heavy equipment, self-contained breathing apparatus (SCBA), and personal protective equipment which may require more effort to perform the same tasks.

Heat stress is common. Heat may come from various sources including the fire and surroundings, but heat is also produced by the body during work (exercise). This effect can be worsened by the properties of the protective clothing and continuous physical exertion. The heat stress and exertion can cause fatigue. In order to acquaint themselves to these situations, trainees are being exposed to various level heats and safe they can work in such environment.

In a fire situation, there are many situations where there a risk of injury (including the fire itself, structures breaking, unstable floors, falling objects). Falls from heights are also common.

Fires can create dangerous situations such as:

- Sudden ignition of products creating flashover.

- Back draft where air is introduced to an area that is superheated and oxygen starved.

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Driving to the scene may also introduce increased potential for traffic accidents due to speeds travelled and road/weather conditions. Fire fighters also have a high risk of burns, especially those who enter the burning building/structure first and those who are holding the front end of the nozzle. Dry hot air typically is not hazardous, but steam or wet hot air can cause burns. Radiant heat is also an issue, and burns can occur for extended exposure. Trainees are being trained more on the precaution exercises in order to be safe at all cost.

PROVIDE A BRIEF DESCRIPTION OF A PERFECT FIRE FIGTHER

A perfect fire fighter should possess the following:

1. Tolerance: Understanding, compassionate, level-headed, thick-skinned

As a firefighter you work and live with a variety of personalities. The long hours and often close living quarters, combined by the stressful working conditions can often create tension in your relationships with co-workers. For those who exhibit tolerance, understanding and compassion these same things that create tension can also create bonds between co-workers. Unlike other professions where you can often escape from the stress or chatter of an annoying co-worker after a few hours, as a firefighter you will be forced to deal with them, sometimes for days on end.

Intolerance is not an option. It leads to anger and hatred and these are cancerous emotions that destroy a group, and over time can spread to destroy the organization as a whole. The smaller the organization the faster the cancer spreads. Exercising tolerance will help you maintain your sanity, make for a

happier work environment for you and everyone else around you and benefit the entire organization. This is not to say you should tolerate the intolerable, but you cannot let the little things get to you. You must learn to accept people for who they are, like it or not. You must learn to accept everyone's differences. You must also have thick skin and not let others lack of tolerance, ignorance or need to find your limits and push them get to you.

2. Self-Sacrifice: Courageous, giving

Self-sacrifice means that you are equally concerned with the wellbeing of others as much you are with your own wellbeing. Those who possess this trait volunteer their time to worthy causes. They have a natural propensity to help others and have a giving spirit. They also tend to be those we label as courageous, because they are willing to take risks and make sacrifices in order to help others.

As a firefighter you will be a part of an organization whose primary purpose is to serve and protect its community. You will be involved in fund raisers for causes that don't benefit you, you will be expected to give both on and off duty and not always get paid for your time. Those who lack this mind set and are more self-centered aren't a good fit. This is why the fire service seeks those who exhibit that volunteer spirit and people who are involved in their communities because they want to be, not because it benefits them. One good way to measure this is to ask yourself if the fire service overnight became an all-volunteer organization, would you still get involved and want to be a part of it, or is the pay check essential for you to do the job. Also, if you have never volunteered

for anything in your life you may want to re-evaluate your motives and whether or not this is the right career for you.

3. Team Player

Firefighters are a part of team. Being a team player and understanding the team concept is of utmost importance. This means that others are always relying on you to do your job and do it efficiently. When one person does not, the whole team suffers and the team's safety can become jeopardized. The goal will also not be accomplished in the most effective way unless the entire team is working together. Just like on a sports team, when one person fails to perform their job the whole team begins to break down. You may not always like the task you are given, but it is always essential to accomplishing the goal at hand. Your firefighting team mates are relying on you at all times. This team concept applies to virtually every aspect of a firefighter's job and life. Those who like to freelance, isolate themselves do not understand the team concept or are too self-absorbed to be true team players hurt the entire team. Do any professional athletes come to mind when thinking of bad team players? People who, in spite of their talent, always seem to hurt the team rather them help them.

5. Self-Discipline

Self-discipline appears in various forms, such as perseverance, restraint, endurance, thinking before acting, finishing what you start doing, and as the ability to carry out one's decisions and plans, in spite of inconvenience, hardships or obstacles.

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Self-discipline also means self-control, the ability to avoid unhealthy excess of anything that could lead to negative consequences.

One of the main characteristics a perfect fire fighter should have is self-discipline and is the ability to forgo instant and immediate gratification and pleasure, in favor of some greater gain or more satisfying results, even if this requires effort and time.

The term self-discipline often causes some discomfort and resistance, due to the erroneous notion that it is something unpleasant, difficult to attain, and which requires a lot of effort and sacrifice. Actually, exercising and attaining self-discipline can be fun, does not require strenuous efforts, and the benefits are great.

A perfect fire fighter's true self-discipline is not a punitive or restrictive lifestyle as some people think, and it has nothing to do with being narrow minded or living like a fakir. It is the expression of inner strength and staying power, vital for dealing with the affairs of daily life and for the achieving of goals.

WHAT QUALITIES DO YOU LOOK OUT FOR IN FIRE SERVICE

1. Humble

Nobody likes someone who boasts or brags about their accomplishments. The more preferred candidate for a future employee is someone who would prove their value through their hard and commendable work rather than through words, whether they are true or exaggerated. A productive workplace should not have arrogant employees.

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2. Committed/Passionate

All employers love a person who's willing to do more than what's required from him (even things that don't fall into his line of duty), is constantly exceeding expectations and happily accepts any task, however difficult it may be. In addition, a person who is passionate about his job will not feel like he is working. Thus, he will naturally put in his best because he loves what he does. He also derives happiness from the time spent with his co-workers and superiors. The service very concise with this point.

3. Reliable

What could be more irritating than a trainee who does not follow instructions? Either he is not as serious as he should be or did not listen attentively when the instructions were given. Either way, the result is mistakes, faulty products and the missing of important deadlines not to forget unhappy, disappointed customers and/or clients. Personnel who does not listen to the whole thing but likes to budge in between presents a picture of lack of respect for his boss. Following instructions shows that the personnel takes his responsibilities seriously and is capable of shouldering additional responsibility. Reliable also means showing up for work on time, informing the concerned authorities when he cannot make it, and keeping to deadlines. The service does not accommodate mistakes because very mistake at a scene would cause loss of lives and properties.

4. Hard-working

Nothing can replace the benefits of hard work. There are some people who work hard for a few years and then lose pace. Also, people who are particular

about working only from 9 to 5 even when urgent projects need to be completed cannot be considered as hardworking as one who is willing to put in extra time and effort. The basis of an effective organization lies in how capable it is of hiring result-oriented and industrious workers who execute. Firefighting is very difficult task / job so therefore it requires hardworking personnel.

5. Honest

Whatever and how many other qualities a personnel may have, he is incomplete without authenticity and integrity. Personnel who are not forthright and honest would lead to clients being out off and consequently, trouble for the department.

Honesty and transparency are two sides of the same coin. So, an honest employee will be transparent at all times. Transparency improves the office culture and environment and makes people feel happy within the walls of the workplace.

Honest and humble people, especially when they are in the higher ranks of the company, are greatly appreciated.

WHAT SKILLS DO YOU THINK THE TRAINED FIRE SERVICE MAN WOULD CULTIVATE

Every trained fire service man should able to cultivate the following:

1. Gallantry: Bravery, devotion. The trained fire man should exhibit the skill of braveness and courageous.

2. Observation: seeing and noticing things. He should also have the ability to watch carefully and make vivid description.

3. Dexterity: he should posses specially skills in handling things such as equipment's.

4. Tactful: he should have skills and understanding in handling people and situation successful without causing offense or harm.

5. Explicitness: should have the ability to express clearly and fully being defined a situation.

6. Perseverance: Constant effort to achieve something steadfastness. Should continue to work until a successful result in attain.

WHAT ATTITUDE DO YOU THINK IS IMPORTANT FOR A FIRE FIGHTER?

1. Integrity: Honest, trustworthy, reliable and accountable Unlike famous figures such as actors and athletes, when public safety professionals end up in the headlines in a negative way, people don't remember their names; they remember the occupation and city associated with these stories.

Trust is of the utmost importance in public safety. The public needs to trust us in order for us to do our job. They need to trust us with their personal property, their safety, their privacy, their loved ones' care and even their lives. A firefighter's misconduct of any kind not only hurts their department but hurts all firefighters because it chips away at the public's trust that is so essential. Our firefighting forefathers established a long legacy of trust and respect in our profession that we must continue to uphold. The reputation of a firefighter as

being trustworthy and someone you can always rely on in any situation is something that all firefighters are responsible to help maintain.

In order for the team to function optimally each member must also trust everyone on their crew as well. Firefighter's rely on each other in every. Integrity and trust within the crew is essential. You must be able to trust your fellow firefighter; trust them to know their job, trust them to have your back, trust them to keep your secrets, trust them with your safety and even your life. A person who lacks integrity can never be truly trusted in all of these ways within the firehouse or on the fire ground and can be detrimental to the safety and cohesiveness of his crew.

2. Communication: Good people skills, articulate

One could fill a novel discussing the importance of communication in the fire service. Communication is essential in any successful relationship. As a firefighter you will have many different types of relationships with different types of people. Clear, intelligent, courteous and open communication is essential within the firehouse, on the fire ground and when interacting with the public. You will need to know how to be an active listener, just like they teach in couple's therapy and live with, work with and get along with a multitude of personality types. You will need to know how to handle irate citizens, use radios to relay essential information to your crew, IC or others, calm frightened patients and victims, console distraught family members and even co-workers, relay essential patient information to paramedics, nurses and doctors, instruct children in the area of fire safety, educate adults in fire prevention and CPR,

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explain and enforce fire codes to business owners, enlighten residents as to what their tax dollars are paying for, and do all of this with the utmost tact, patience, intelligence, professionalism and courtesy. Some people are naturally better communicators then others, but it is a skill that can be improved and must be improved if you want to not only land a job (excel in an interview), but be a successful, well-functioning firefighter as well.

3. Flexibility/Adaptability: Low-maintenance, able to work under stress, compromising, able to adapt and overcome I will define a flexible person as one whose specific needs are few and dynamic rather than many and static. One who is flexible can sleep anywhere, eat anything, do any job under any circumstance, function as a part of any team or group and thrive in any group dynamic, has few, if any, pet peeve's and does not burden those around them with his or her wants or specific needs. Those who are not flexible are instead "rigid", or "high-maintenance". They have specific needs, many pet peeves and are particular about certain things. As firefighters these individuals not only have a hard time themselves, but they can make it difficult for everyone else around them. Firefighters need to make many sacrifices and compromises and have the willingness and ability to live and work very dynamically.

A related term is "adaptability". This is defined as finding a way to change with their environment and overcome various situations, whether they are living situations or stressful fire ground situations. Things are constantly changing for firefighters, from the environment we work in, to those we work side by side with, to the job itself. You must be able to easily adapt to new people, new settings, changing job descriptions and the changing conditions under which

you perform those jobs. When one road is blocked you must be able to quickly find the detours and navigate yourself and your crew creatively through any obstacle to accomplish the tasks and goal at hand. This includes the ability to work under stress and perform your job duties under a variety of time urgent, life threatening and otherwise high stress situations. The ability to maintain a clear presence of mind under stress is of utmost importance and an essential part of being considered "adaptable".

4. Dedication: Passion, pride, heart, desire, drive, competence, work ethic

Dedication to the job is a vague and generic term that encompasses many traits and often goes by other names. Regardless of what you call it, it is essential that firefighters are hardworking, hard training people who take pride in their work and want to be the best at what they do. Firefighters should never settle for mediocrity within themselves. They must strive for excellence at all times no matter how menial the task may be. They must be dedicated to the job and all that it entails, the glamorous and not so glamorous, the fun and exciting and the boring and monotonous.

There will naturally be aspects of the job that some are more drawn to than others, but a general passion for the work, a solid work ethic and the drive to always be learning and bettering yourself are essential. It is too easy to get comfortable and complacent, fall behind the curve and not learn new things or grow as a firefighter. In a field that requires such a vast knowledge and skills base and is constantly changing it is crucial to be pro-active in your education and training and always be looking to learn and improve yourself in job related ways. Firefighters that aren't dedicated to the job, or who lack passion or work

ethic quickly fall behind and can become a hazard to themselves and their crew, and stop contributing to the organization.

5. Mechanical Aptitude: Good with technical problem solving

You do not need to be a master mechanic to be a firefighter, but every firefighter must have some basic mechanical aptitude. If you've never turned a wrench, or know how your own house is built, you will need to start learning these things. A basic understanding of how things work is important. The more mechanical aptitude one has the more they can contribute and it also lends itself to being creative, problem solving and finding ways to accomplish goals or mitigate problems and disasters. Those who lack a natural desire to know how the world around them works, such as how their car starts when they turn the key and why it moves when they step on the accelerator, do not make very good firefighters. Our trade requires the use of a variety of tools, both hand tools and power tools. Being able to use these tools and understand the tasks we are performing with these tools as well as knowing how the tool itself works is obviously important. This is a blue collar profession like no other. Firefighters need to specialize in many different areas. We need to understand a wide variety of concepts and master many skills many of which require mechanical aptitude.

6. Public Image-Conscious

As public servants, you must always maintain a good public image. Like it or not we are judged by our appearance as well our conduct. Our appearance is the first and sometimes the only thing people have to go by before forming an opinion. For firefighters the way you look, speak and conduct yourself in public

both on and off duty reflects on not only yourself, but your department and profession. Public image is different than integrity. It is how you appear or come off to the public, it is not who you are at the core. You may have integrity, but if you come off unkempt, immature, disrespectful, obnoxious, unorganized, rude, arrogant, etc, it reflects on all that you represent in the same negative way. If you look like a bum, people will see you as a bum. If you look or act like a jackass or conduct yourself inappropriately in public it hurts us all. Again, the many generations of firefighters who preceded us left a long legacy of positive public image that we reap the benefits of. This positive public image is a big reason why the fire service and firefighters are so respected. As a firefighter you need to carry that torch and continue that legacy by always maintaining a positive public image.