

**EFFECT OF OUTDOOR EXPERIENTIAL EDUCATION ON LIFE  
EFFECTIVENESS SKILLS AND TEAMWORK AMONG SELECTED KENYA  
ARMY AND ADMINISTRATION POLICE IN KENYA**

**BY**

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**SEPTEMBER, 2014**

**DECLARATION**

“This thesis is my Original Work and has not been presented for a Degree in any other University”

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**DEDICATION**

To all outdoor facilitators who dispense their duties diligently and in harsh environments with a focus to instill good life skills to participants.

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## **ABBREVIATIONS AND ACRONYMS**

ANOVA.....Analysis of Variance

AP..... Administration Police

KA..... Kenya Army

KESAL..... Mount Kenya School of Adventure and Leadership

LEQ-H..... .Life Effectiveness Questionnaire Version H

OEE..... ..Outdoor Experiential Education

SPSS.....Statistical Package for Social Sciences

## OPERATIONAL DEFINITION OF TERMS

**Achievement Motivation-** Self-perception of the extent to which the individual is driven to achieve excellence and put the required effort into action to attain it.

**Active Initiative-** The extent to which the individual likes to ignite action and get busy in new situations.

**Experiential Education-** The process through which a learner constructs knowledge, skill, and value from direct experiences in outdoor activities.

**Emotional Control-**The extent to which individuals perceives and manage to stay calm in stressful situations and overcome anxiety.

**Intellectual Flexibility-**The extent to which individuals perceive they can adapt their thinking and accommodate new information from changing conditions and different perspectives.

**Life Effectiveness Skills-** Domains of personal and social development that include emotional control, time management, achievement motivation, social competence, self-confidence, task leadership, intellectual flexibility and active initiative.

**Outdoor Activity/Adventure-** Activities that are conducted in nature, and done by individuals or group, for recreation, competition and for learning purposes.

**Outdoor Education-** An experiential and active process of learning by doing, which takes place primarily through exposure to selected outdoor activities.

**Self-Confidence-**The degree of belief the individual has in his abilities and the success of his actions.

**Social Competence** - The self-perception of the degree of confidence in the ability to interact and communicate with others.

**Task Leadership**-The extent to which the individual perceives he/she can provide direction to other people effectively when a given assignment needs to be done.

**Teamwork**-Perception of willingness to share information, solving group's problems, sharing work and assisting in determining the common goals and activities for the group.

**Time Management**-The extent that an individual perceives that he makes optimum use of time and avoids time wastage.

## ABSTRACT

The purpose of this study was to find out whether Outdoor Experiential Education (OEE) has any beneficial effects on the overall life effectiveness and team skills of Kenya Army and Administration Police based on an 11 days outdoor programme. Life effectiveness skills are a measure of how proficient a person perceives himself or herself to be in areas necessary for success in life. OEE programmes utilize the outdoors and/or activities to accomplish goals that are recreational, educational, health enrichment and enhancement of life effectiveness skills. These programmes encourage active manipulation of the surroundings and the utilization of pro-active survival skills. In the growing field OEE, there exists a need to link valuable programme characteristics to specific outcomes. The study, therefore aimed at finding out whether outdoor education plays any significant role in enhancing one's life skills and teamwork. The study looked at the effects of outdoor experiential education on individual's traits like social competence, achievement motivation, intellectual flexibility, task leadership, emotional control, time management, self-confidence, active initiative and teamwork. The study had an in-depth look at the effects of the training based on life effectiveness questionnaire and self-designed questionnaire on teamwork. This was a quasi-experimental research design which focused on determining the effects of outdoor experiential education. A total sample size of 150 respondents comprising males and females from Kenya Army and Administration Police were involved. Both pre-test and post-test were used to determine the effect of the programme. T-test was used to determine the effect of training before and after the programme. A test-retest was used to determine validity and reliability of the questionnaire within Kenya. An analysis of the quantitative data showed that LEQ and team-work scores did increase after the course for both AP and KA. The data collected was analyzed using descriptive statistics and t-test and were presented in tables for easier interpretation. After analyzing the data using t test, the following p-value were obtained: KA- Time management (0.017), social competence (0.007), achievement motivation (0.24), intellectual flexibility (0.035), task leadership (0.007), emotional control (0.012) active initiative (0.005) and self confidence (0.031). For the AP, the p-values scores were as follows: Time management (0.047), social competence (0.032), achievement motivation (0.044), intellectual flexibility (0.040), task leadership (0.068), emotional control (0.070) active initiative (0.045) and self-confidence (0.032). Consequently, there was an improvement on teamwork skills after attending the OEE. The mean score for KA on teamwork improved from 4.19 to 4.78 and generated a p-value of 0.003 whereas the AP mean scores improved from 4.33 to 4.63 and generated a p-value of 0.002. From the research findings, it was recommended to have many personnel attend OEE from KA and AP. Also, it was recommended KESAL to modify some of the training activities, especially those that target Task Leadership and Emotional Control.

## **CHAPTER ONE: INTRODUCTION**

### **1.1 Background to the Problem**

Modern Outdoor Experiential Education (OEE.) has been in existence for more than 5 decades. Its origin is attributed to Kurt Hahn, who initiated the approach with a view to improving the chances of survival to British naval seamen who were dying in large numbers during naval warfare (Flavin, 1996). Initially, the programme was aimed at helping the young men to develop strong character, realize their potentials and develop the willpower to survive.

OEE is recognized as an important field in inculcating learning experiences that enhance qualities such as teamwork and life skills (Neil, 2003). Hattie, Marsh, Neill and Richards (2003) define experiential activity/adventure as the activities conducted in the wilderness such as camping, biking, hiking, and climbing that are participated in by individuals as a means of recreation or competition. However, it was later discovered that participation in these activities not only serves recreational needs but has major benefits on the psychological, social and physical wellness of a person (Etiene, 2004). Neil, (2008) purports that people who participate in outdoor activity on a regular basis reap mental and physical health benefits. It is, therefore, imperative to determine whether these benefits can be reaped by people in other parts of the world, including Kenya army (KA) and administration police (AP) through their participation in OEE. Police are mandated to provide security and to prevent the commission of crimes. For police to execute their duties well, they must have self- confidence and life effectiveness skills. Since OEE is believed to enhance some of the attributes that police need, this calls for research to be

conducted amongst Army and Police personnel who are required by their job description to have good life effectiveness skills and teamwork. The effect of OEE on participants ranges from; psychosocial, life effectiveness skills and physical benefits (Neil, 2003; Simpson, 2010). However, not many people, particularly in the developing countries, have fully embraced the tendency/tradition of participating in OEE. There is also little documented evidence on how OEE within the Kenyan setup can impact on those who engage in it, necessitating the need to fill this gap.

According to Glass (2002), outdoor education is predominantly determined by the individual with the purpose of achieving individual development and growth. This has not been fully utilized and can be seen in terms of the few numbers of outdoor experiential institutions in Kenya. On the other hand, conventional training and teaching tend to be delivered by an organization for the purpose of developing the capabilities of a group of people, necessary to meet organizational needs or to achieve a known measurable standard or qualification (Andrew, 2002).

In most cases, OEE is pursued by the individual with the overriding objective of achieving personal development and growth (Glass, 2002). However, good teamwork skills are essential in bringing together warring groups, better their skills and resolving conflicts (Ochieng', 2010). For instance, post-election violence of 2007 in Kenya led to the need of having reconciliation and team building activities (Ochieng', 2010). It is in the light of this that a peace outreaches and team building programme was organized by



Kenya national outreach, counseling and training programme to reconcile the people and change their attitude in the way they perceived others from different ethnic groups.

In Kenya, the concept of outdoor education, though not very popular is gaining ground through institutions such as Outward Bound, Mark Savage White Water Rafting and Mount Kenya School of Adventure and Leadership (KESAL). Later, KESAL was established in 1991 as a government OEE centre based in the Mount Kenya region. It uses a heuristic approach to learning, which encompasses self-discovery and actualization. KESAL focuses on short, but intensive training programmes for responsible leadership and good citizenship (KESAL, 2010).

## **1.2 Problem Statement**

The world has become more dynamic, and as a result, competition for jobs and the limited resources is on the rise. This has culminated in many people attending learning institutions to gain knowledge and relevant skills, but still, the challenges of effective teamwork, time management, positive self-concept, emotional stability and initiative have not been exhaustively addressed (Neil, 2003). To effectively manage daily life challenges, it calls for heightened levels of self-confidence, self-concept, teamwork, social skills and intellectual flexibility (Simpson, 2010). These skills are paramount in police work; the police must have self-confidence, work as a team and have social competence so as to deal with their responsibilities in an effective and efficient way. It has not been empirically established whether number of years of service have a bearing on the development of life skills and teamwork. According to David (2003), the

conventional education has fallen short to fully enhance individuals with the skills of tackling daily life and work-related challenges because the emphasis has been more on excelling in examinations rather than enhancing life skills and teamwork which are best achieved in outdoor education. Despite the significance of outdoor education in imparting life skills and teamwork, limited research has been carried out in Kenya to find how participation in OEE can help in bridging the gap between theoretical concepts and real life experience. It is in the light of this that it became necessary to find out how OEE could enhance individuals' life skills and teamwork, especially amongst KA and AP personnel

### **1.3 Purpose of the Study**

The purpose of this study was to analyze the effect of outdoor experiential education on teamwork and life effectiveness skills of KA and AP personnel. The life effectiveness skills included time management, social competence, achievement motivation, task leadership, emotional control, intellectual flexibility, active initiative and self-confidence. Teamwork attributes included sharing of information; group problem-solving, group working skills, assisting in determining the goals of the group and understanding group activities.

### **1.4 Objectives of the Study**

The objectives of this study were to:

- a) Determine the effect OEE on life effectiveness skills which includes; time management, social competence, achievement motivation, intellectual flexibility,

task leadership, emotional control, active initiative and self-confidence among KA and AP personnel.

- b) Determine whether OEE would develop team-work skills among KA and AP personnel

### **1.5 Research Hypotheses**

H<sub>01</sub> OEE would not have a significant effect on life effectiveness skills, namely: Time management, social competence, emotional intelligence, task leadership, active initiative, intellectual flexibility, achievement motivation and self-confidence of KA and AP personnel.

H<sub>02</sub> There would be no significant effect of OEE on team-working skills among KA and AP personnel.

### **1.6 Significance of the Study**

This study may be useful reference material for other researchers who intend to carry out similar researches in other institutions to investigate the possible outcomes of engaging in OEE thereby, enhance literature on outdoor programmes. Since OEE uses heuristic method and maximizes use of the philosophy of participant being in the driver's seat, general public can greatly benefit by using this approach to enhance their life skills and teamwork. Countries can also embrace use of OEE to enhance lifelong skills of their citizens, which in turn can lead to realization of short-term and long-term goals. This can be possible since OEE augments teamwork and life effectiveness skills like time management, hard work and intellectual flexibility. The study will also likely encourage

other researchers in the same field to engage in more research on OEE as well-revising and expanding existing knowledge in this field.

### **1.7 Delimitations of the Study**

- i. The research was delimited to KA and AP officers who undertook an OEE leadership course at KESAL.
- ii. The study relied on self-reporting information from the subjects to draw conclusions.

### **1.8 Limitation of the Study**

The study focused on KA and AP officers who trained together and were known to one another. It therefore follows that generalizations of this study may not be applicable to other groups undertaking OEE who might not necessarily have had an opportunity of having prior interaction and training.

### **1.9 Assumptions of the Study**

- i) The participants responded appropriately to the questionnaire.
- ii) The information provided by the respondents was truthful.
- iii) Any changes observed after the outdoor leadership course were as a result of engagement in OEE and not any other factors.

### **1.10 Theoretical Framework**

This study was based on Experiential Learning Theory advanced by Kolb (1984), who asserts that concrete experience comes not only from classroom work, but through reflection of the experiences one gets from participating in activities and as a result of

drawing knowledge and skills from it. Kolb highlights the need of presenting content in relation to previous experiences in constructing own model of experiential education. In OEE, the learner is expected to derive learning opportunity by participating in the activities given, and in which he /she can draw experiences that are believed to assist the individual in coping with daily stresses of life as well as developing skills that will support in dealing with challenges in a better way (Ibid).

In the initial phase, the facilitator engages the learners in a tangible experience in the form of a play, demonstration or even a game. The learners then review the experiences from many perspectives by asking themselves questions like what happened? What did I observe? The second phase is the reflective observation where participants look back critically on what they did and lapses, as well as areas they did well. Here, they analyze how well they communicated, managed time, initiated new and workable ideas, how well they remained calm during the execution of the task and how they accommodated each other's views and opinions. During the third phase of abstract conceptualization, the learners develop theories and look at patterns. They ask themselves questions like: how do you account for what you observed? And how is it significant? It is in this phase that any change in life effectiveness skills is expected to take place by making participants to be in a position to learn from their mistakes and understand how they can enhance the best attributes. The last phase is active experimentation; the learners suggest ways of applying learnt principles and ask themselves questions like; how can we apply this learning? In what ways can we use it next time? What would we do differently? After going through the four phases, the learners are expected to draw concrete experience

which they can transfer to other areas in their life like proper time management and collaborating with others. Life effectiveness skills and teamwork are captured in the four stages of Kolb's learning theory of experiential learning by having learners execute tasks that were presented, reflecting, conceptualization and putting into practice what they had learnt. In summary, Kolb's theory in relation to experiential outdoor education is illustrated in figure 1.1.

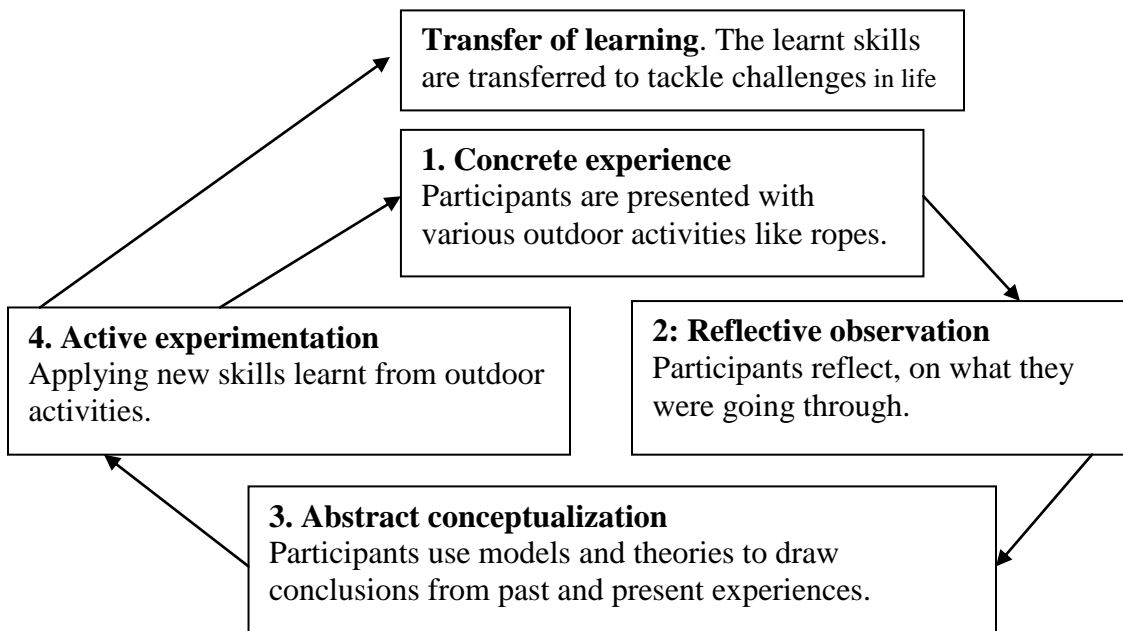


Figure 1:1: Kolb's Theory of Experiential Learning (Adapted from Kolb, 1984)

Experiential learning theory provides a model that enables learners to draw from their past experiences to acquire new knowledge, skills and attitudes that they can then apply in their organizational settings like life effectiveness skills and teamwork.

## **CHAPTER TWO: LITERATURE REVIEW**

### **2.0 Introduction**

This chapter covers a review of related literature that pertains to the role of OEE in enhancing an individual's life skill, history of OEE, benefits of outdoor activities, trends in OEE, outdoor experiential education and lifelong skills, outdoor experiential education and life effectiveness skills and teamwork.

### **2.1 History of Outdoor Experiential Education**

The birth of OEE is much attributed to Kurt Hahn, who realized that soldiers at sea were dying in large numbers during combat (Neil, 2008). He believed that character development was as important as academic achievement. Kurt Hahn was intrinsically motivated to educate people since he felt that people needed to express their minds freely. He believed much on societal norms and did not shy from condemning wrong things in public. Further, he emphasized on self-effacement and positive character-building. Academic alone could not lead to an all round person without the individual having the acceptable character in the society (Flavin, 1996). He advocated for a hands-on, real and practical challenges that were aimed at character development of an individual (Ibid). Indeed, as Kurt Hahn tried to understand why young soldiers were dying in large numbers during the carnal warfare, he strived to deeply get to the root cause of the problem since older soldiers were not dying in alarming rate like the young ones. He couldn't understand why the energetic and athletic young soldiers could easily succumb to challenges than the old soldiers.

OEE has also been referred to as adventure therapy, adventure recreation, environmental education, experiential education and challenges the education (Cook, 1999 and Gass, 2003). OEE became evident in the late 19th century and early 20th century. Across the world, OEE is most prevalent in USA, UK, New Zealand, Europe and it is gaining ground in Asia and Africa (Cook, 1999).

## **2.2 Characteristics of Experiential Learning Styles**

Experiential education focuses more on the learner than the trainer. Most of learning is by the learner with facilitator being there to guide the process (Neil, 2008). As a result, learners are able to achieve life skills through direct experience with elements presented (Neil, 2003). Participants are presented with activities that are aimed at achieving a number of attributes. Kolb (1984) classifies learning styles into four main categories; converging, assimilating, diverging and accommodating. Each learning style has distinct characteristics as shown in table 2.1.



| <b>Table 2.0</b>                               |  |   |
|--|--|---|
| <b>Kolb's Learning Styles' Characteristics</b> |  |   |
| <b>Learning style</b>                          | <b>Learning characteristic</b>                         | <b>Description</b>  |
| <b>Converger</b>                               | Abstract conceptualization and active experimentation. | <ul style="list-style-type: none"> <li>• Strong in practical application of ideas</li> <li>• Has narrow interests.</li> <li>• Unemotional.</li> <li>• Can focus on hypo-deductive reasoning about specific problems.</li> </ul>             |
| <b>Diverter</b>                                | Concrete experience and strong in imaginative ability. | <ul style="list-style-type: none"> <li>• Reflective observation.</li> <li>• Good at generating ideas and seeing things from different perspectives.</li> <li>• Interested in people.</li> <li>• Broad cultural interests.</li> </ul>        |
| <b>Assimilator</b>                             | Abstract conceptualization and reflective observation. | <ul style="list-style-type: none"> <li>• Strong ability to create theoretical models.</li> <li>• Excels in inductive reasoning.</li> <li>• Concerned with abstract concepts rather than people.</li> </ul>                                  |
| <b>Accommodator</b>                            | Concrete experience and active experimentation.        | <ul style="list-style-type: none"> <li>• Greatest strength is doing things.</li> <li>• More of a risk-taker.</li> <li>• Performs well when required to react to immediate circumstances.</li> <li>• Solves problems intuitively.</li> </ul> |

Adapted from Kolb's Learning Styles (Kolb, 1984)

### 2.3 Differences Between Conventional and Experiential Learning.

Unlike experiential learning, conventional learning focuses more on developing a person from outside rather than inside. According to Businessball (2005), experiential learning focuses on imparting lifelong skills through simulative exercises to inculcate skills that can be applied in various fields of work with learners learning to improve from their mistakes. Table 2.1 summarizes the differences between conventional and experiential learning.

| <b>Conventional training</b>  | <b>Experiential learning</b>  |
|---|---|
| Training-centered/focused – theoretical.  | Learner-centered/focused - really doing it  |
| Prescribed fixed design and content.  | Flexible open possibilities.  |
| For external needs (organization, exams, etc.)  | For internal growth and discovery.  |
| Transfers/explains knowledge/skills.  | Develops knowledge/skills/emotions via experience.  |
| Fixed structured delivery/facilitation  | Not delivered, minimal facilitation, unstructured.  |
| Time bound measurable components (mostly).  | Not time bound, more difficult to measure   |
| Suitable for groups and fixed outcomes.   | Individually directed, flexible outcomes  |
| Examples: PowerPoint presentations, chalk-and-talk classes, reading, attending lectures, exam study, observation, planning and hypothesizing, theoretical work, unreal role-play. | Examples: Learning a physical activity, games and exercises, drama and role-play which become real, actually doing the job or task, 'outward bound' activities, teaching others, hobbies, pastimes, passions. |

Adapted from Businessball (2005)

## **2.4 Methodology of Outdoor Experiential Education**

Experiential education is a philosophy of education which focuses on describing learning process which takes place between student and teacher that aims at infusing direct experiences to the students by use of the learning environment (Paul, 2001). The main purpose of outdoor education is to provide learners with direct experiences that are geared towards developing desired traits and skills, knowledge and values to the students. Students are provided with simulation activities that are aimed at bringing out different traits depending on the needs of the students. These activities range from group dynamics, initiative tests and physical activities (Harris, 2000). Once students are presented with tasks to solve, the teacher moderates on safety and execution issues by ensuring activities are done within set rules and with a focus on safety of the participants.

Depending on the aspect that is in focus, students are given time limit to tackle the problem presented (Neil, 2003). This is later followed by a debriefing session, which entails reviewing what the students went through and what they can learn from it. Students get time to focus on their behaviour, what they did well and where they failed. They also focus on contributing factors that made them to achieve or fail as well. At the reflective moment, students are able to derive practical and long-lasting experience on how certain attributes under study can help them in their life and career to overcome problems they may face in their day-to-day undertakings. Outdoor activities help students to enhance their confidence, trust, communication, hard work, teamwork and self-esteem. They get an opportunity to discover their strong attributes and areas of tolerable weakness and how well they can overcome their weakness (Hattie, 2003).

## **2.5 Benefits of Outdoor Experiential Education**

Through participation in OEE, it is believed that there exists a psychological and or physical risk which generates a level of challenge or perceived risk that forms the basis of deriving lifelong experiences (Gass, 2003). Challenges in life are imperative in drawing out desired behavioral changes. It is believed that being in the wilderness and the natural setting, and actively engaging in activities helps individuals learn something about themselves that they had never known before, leading to self discovery (Scherl, 1982). As noted by Ken (2006) and Davidson (2003), experiential learning takes place when one participates directly in the events presented and as a result of reflecting on the situation, one gets the opportunity to improve skills in leadership, time management, social interaction and above all, self confidence that are essential in dealing with the challenges of life.

As put forth by Paul (2001), areas of outdoor education are good for the mind. They have psychological benefits, including the prevention or reduction of stress; improved self-esteem, confidence and creativity and spiritual growth (Paul, 2001). It is further noted that exposure to OEE tends to provide unambiguous, neutral and immediate feedback which is a recipe for adaptive coping rather than resorting to defense mechanisms (Skehil, 2004). Positive behaviour change, which are synonymous with psychological healing, can occur through isomorphic connections. An isomorphic connection is where learning is transferred from detailed experience to other life experiences (Gass, 2003). This connection occurs through the structure of framing and activity. Framing is the creation of a metaphoric theme for a given activity or a series of activities that relates to a

targeted treatment issue (Khamis, 2008). It is thus important for employers to understand how well they can structure their training programme so that such benefits can be utilized in the organization setup.

In most cases, outdoor education is viewed as experiential, more so when leaning predominantly takes place through experience (Ford, 1989). At times, it is loosely defined as learning by doing, combined with reflection. Most programmes for experiential learning are founded on the belief that purports behaviour change must focus on processes of growth (Gass, 2003). As put forward by Stenger (2001), outdoor activities enhance mental values, physical values and emotional values. This implies participants who engage in outdoor activities benefit psychologically, physically, socially and education wise.

## **2.6 Trends of Outdoor Experiential Education**

OEE has gained popularity in industrialized countries and the trend is gaining ground in the developing countries of Africa and Asia (Priest & Gass, 2001). It is also becoming the widespread business of learning and teaching when at the same time, there is a decline in wilderness resources upon which it depends (Miles, 1986). The lack of extensive research in Kenya on the how OEE is impacting on individuals engaging in it, is a major concern and thus the need to have more findings on how organizations taking their employees for teambuilding can quantify the purpose and reasons for spending money on such forms of training. The ongoing urbanization has delineated people away from environments that were previously believed to guide their genotype evolution. This creates a mass

disconnection from the natural environment culminating to problems related to physical, social, psychological health and wellbeing of the world populace (Maller et al., 2002). These assertions were explored to the fullest so that many organizations in Kenya could utilize outdoor education should it be found worthy.

The world is becoming more dynamic by presenting more and complex challenges to its populace than before. Work environment and employing organizations are placing more demands to their employees who must perform well and achieve results (David, 2008). Apart from the academic certificates, the organizations are more specific on other attributes like leadership skills, self-confidence, teamworking skills and the ability to thrive under pressure, attributes that are well-enhanced in outdoor education, which has seen an enormous mushrooming of outdoor organizations across the globe (Rebecca, 2002). More information and research thus needs to be done in Africa to determine whether people engaging in OEE can reap benefits that can translate into their performance.

The outdoor experiential education has been used in various parts of the world in the military. For instance, in the United States of America, outdoor adventure education which implies the use of recreational programmes that contain numerous elements of thrill, stress, challenge, adventure or risk has been used by the military personnel in order to enhance their physical and emotional wellbeing. Some of the activities that have been commonly linked to such programmes include Kayaking, spelunking, mountaineering, rock climbing, wilderness camping, rock climbing and rope courses (Wang, 2004).

The outdoor leaders training the military personnel are mandated to have some minimum medical training like the “Wilderness First Responder”, the “Leave No Trace” and other particular skill related certifications like for example rappelling, climbing, challenge course training, canoeing, and back country travel (Priest & Gass, 2001). To ensure that Modern Outdoor Experiential Education (OEE) activities among the military personnel in the United States become successful, numerous professional associations and other adventure recreation resources have been established in the country (Priest & Gass, 2001). It includes, among others the American Alliance aimed for Physical Education, Health, Recreation and Dance, The American Camp Association, The Association for Experiential Education, the Association of Outdoor Recreation and Education, the Wilderness Education Association and the National Recreation and Park Association.

The US Armed Forces together with their family members are normally provided by the military recreation centres as part of the Morale, Welfare and Recreation Programmes (Priest & Gass, 2001). Most of the military centres in the United States, therefore presents the military personnel with the athletic fields, family programming, the gyms and courts, theatres, clubs, fitness centres, hobby areas, pools, travel centers, trips, rental programmes, outdoor recreation activities, community centers and bowling centers which are all aimed at providing military personnel with Modern Outdoor Experiential Education (Stenger, 2001). As a result, Modern Outdoor Experiential Education among the military personnel has been made possible through the establishment of numerous Military Recreation Associations and Recreational Resources like the Armed Forces

Recreation Society (AFRA), the Association of Outdoor Recreation and Education and the Department of Defence under the Office of Morale, Welfare and Recreation (Priest & Gass, 2001).

The major history of Modern Outdoor Experiential Education in countries like Singapore and the United Kingdom can be traced back to the camping movements which were established during the early 20<sup>th</sup> Century. For instance, Mr. Frank Cooper, a UK trained Scout is recognized for having founded the *Boy Scouts Movement* in the year 1910 which has formed the basis of Modern Outdoor Experiential Education in different parts of the world especially among the military personnel (Stenger, 2001).

The Boy Scout Movement was known to have served the vital needs of young people together with the initiation of the Movement in the United Kingdom by Lord Baden Powell 2 years after. In a country like Singapore, the success of Modern Outdoor Experiential Education has been made possible through the creation of the Uniformed Group Unit, which specifically deals with the monitoring of all programmes (Priest and Gass, 2001). The programmes include the Outdoor Education programmes meant for the scouts and the Boys and Girls Brigade, the National Police Cadets Corps, The National Cadets Corps, the Civil Defence Cadets Corps, the St. John's Ambulance and the Red Cross. It also manages the modern outdoor education centre that is specifically built to be used by the National Police Cadets Corps students.



The adventure based modern outdoor experiential education programmes like expeditions and adventure camps meant for the military personnel have been regarded by most governments across the entire world as being a vital means of developing the most important attributes and life skills among not only the military personnel but also in the entire population of any given country (Priest & Gass, 2001). It was stressed that indeed, some of the rugged activities like the adventure camps, sports and expeditions not only presented the military personnel in such countries with experiential education, but also formed a natural basis for the development of well-suited qualities like self reliance, perseverance, self-confidence and a spirit of a “can do”. All these qualities were important in the numerous challenges that the military personnel have to undergo at different stages of their professional career (Statistics Singapore, 2005).

Most governments across the world like, for instance, those in the United States, the UK, Australia, and Singapore among others, have provided strong support for the beneficial and effective role that modern Outdoor Experiential Education plays in both the social and personal developments of the military personnel in their countries. Indeed, there has been the development of fully equipped adventure centres in various military stations in numerous countries across the world which include facilities for initiative and problem-solving, team building, high towers for rock climbing and both high and low elements courses.

**Teamwork in Relation to OEE**

The use of outdoor education is vital in that it helps in instilling most of the basic elements of teamwork since participants will at most times need to not only work together, but also rely on other people as well (Priest & Gass, 2001). For many military policemen, OEE like an outdoor activity or ropes course may actually help them to indulge in teamwork and thus making them to stretch their comfort zones causing physical challenges and mental challenges as well. OEE enables military police officers to enhance their team-building spirit and thus making them to become effective leaders in their respective places of work.

**Research Findings on Police in Relation to OEE**

Research conducted indicated that most of the police officers were positive regarding OEE in that most of them who were interviewed indicated that OEE helped them to learn how to overcome their numerous adversity and challenges (Priest & Gass, 2001). In addition to that, OEE also helped the officers to develop a very deeper relationship with the nature that they interact with (Stenger, 2001). Outdoor Experiential Education was also proved to be beneficial to the police officers who are inspired to further apply it in their lives since it acts as being a self-discovery or as a revelation.

**2.6.1 Trends in the use of modern Outdoor Experiential Educational Programmes by Military Police**

Currently, the adventure based outdoor experiential educational programmes for the military in various countries across the world have tended towards what has been referred to as being the *McDonaldisation Phenomenon* (Bruce, 2006). This trend is marked

through a process in which the life of the military personnel or other individuals as well is provided increasingly as being not only a dependable and standard product, but also regarded as being a safe product that can be likened to the “McDonald’s Hamburger”. This trend is, therefore, capable of guaranteeing the military police with “an adrenaline rush” as being a predictable outcome.

According to numerous research studies, it was ascertained that most of the military training centres across the world have started to adopt the use of adventure-based learning as a means of offering the personnel modern Outdoor Experiential Education (Bruce, 2006). It was discovered that this was a type of therapeutic or educational programmes through which the pursuits of adventure were psychologically and physically demanding and were used as being a framework of both safety and skills development with an aim of promoting the intrapersonal and interpersonal growth of the military personnel in various countries across the world (Sibthorp, 2004).

The use of experiential outdoor Education by the military personnel in different countries across the world has been made possible through the use of a self-reporting instrument known as the *Review of Life Effectiveness and Locus of Control* (ROPELOC). It is used in the measurement of both locus of control, and the perception of life effectiveness among the military personnel in the world (Stenger, 2001). The ROPELOC tool is capable of assuming that the general behavioural and psychological processes are capable of being explained with numerous dimensions explained here.

The use of Experiential Outdoor Education by the military in the contemporary world has stressed on the need for active involvement in which action and energy are used in order to make things happen and with cooperative teamwork in various team situations (Bruce, 2006). The modern Outdoor Experiential Education among the military police has also tended to focus on the ability of military personnel to cope with change and accepting the fact that external issues control is capable of ascertaining or determining their success. The current Outdoor Experiential Education has also tended to focus on the need for the military personnel to take an internal responsibility for their own actions and individual success.

Indeed, numerous studies have indicated that there has been a positive impact or effect of Outdoor Experiential Education programmes for the military police, especially in the physical, interpersonal, social, affective and behavioural domains. All the studies concluded that the use of modern Outdoor Experiential Education was capable of having a positive impact on the military personnel through enhancing their beliefs, self-perceptions and attitudes (Stenger, 2001). These were manifested through their outcomes of confidence, independence, personal effectiveness, self-esteem and self-efficacy and also through the development of their social and interpersonal skills like communication skills like, for instance, social effectiveness, teamwork, group cohesion and communication skills.

The use of Outdoor Experiential Education provides an effective, fascinating and interesting way of learning new skills among the military personnel. This is because it

helps them to be in a good position of being inspired to apply such skills in their lives through following the Kolb Cycle. Kolb Cycle states that in our daily lives, we have experiences, which we think about through reflection, which we talk about, or write about it through recording and eventually which we analyze through processing thus resulting to another experience that may necessitate that we have to apply learning. Modern Outdoor Experiential Education also implies the entire learning wheel comprising goal setting right to observing and experimenting, reviewing and action planning (Sibthorp, 2003).

### **2.7 Outdoor Experiential Education and Lifelong Skills**

OEE impacts on its participants directly since participants are required to participate fully by being active to the items presented which range from initiative tests, games and other elements like ropes course and rock climbing (Neil, 2003). According to Davidson (2003), outdoor experiential education is holistic and enhances lifelong skills that help participants socially, emotionally, physically and academically. This is further supported by Coopersmith (2002), Roland (2004) and NASSPA (2007), who believe that outdoor activities are crucial components that positively improve the self-esteem of an individual. Participating in outdoor activities as opposed to regular exercising helps participants in promoting physical, social and psychological self-esteem and teamwork at the same time (Coopersmith, 2002 and Roland, 2004). Despite the articulated benefits of outdoor experiential education, Africa and other developing countries are rated to have low participation due to few outdoor educational institutions (Priest & Gass, 2001).

## **2.8 Outdoor Experiential Education and Life Effectiveness Skills and Teamwork**

Dembar (2006) asserts that outdoor activity encompasses varying techniques and environments to elicit change that makes participants get equipped with skills which positively impact on their life. These activities include cooperative games, problem solving initiatives, trust building activities, high adventure (rock climbing/rappelling, ropes courses, peak ascents) and wilderness expeditions like backpacking, canoeing, dog sledding and sailing (Gass & McPhee 2003). Outdoor education not only helps individuals in improving social skills, but also encompasses equipping participants with skills that are essential in a work environment like planning, teamwork and competency which are essential in transforming the organization towards achieving its goals (Geoffrey, 2005). The benefit of engaging in an outdoor activity is that it encourages one to have a positive social life. The great outdoors afford social benefits like bonding with like-minded people, controlling one's emotion so as to fit well with others and having good inter and intra personal relationship (Bruce, 2006).

Outdoor recreation pays off with economic, social and mental benefits. People who regularly participate in outdoor recreation tend to be more productive at work and can interact and relate with others well, which end up in having a healthy internal work environment (Ibid). Gaining of such skills will be vital to both employees and employers of today to overcome some of the never ending challenges.

According to Paul (2001), there exist five areas of main importance of engaging in outdoor education as opposed to the classroom setting. The author argues that outdoor

education is good for the mind; it has psychological benefits, including the prevention or reduction of stress; improved self-esteem, confidence and creativity; spiritual growth; and an increased sense of exhilaration, adventure and challenge of life. These attributes are essential in life through increasing one's output and performance in the workplace.

Many of the problems that exist in our societies are as a result of manifestation of social deficiencies and inadequacy of life skills which are not fully developed to individuals of the society. Exposures to the negative influences impede individuals experiencing a fulfilling and a satisfying life and as a result lead to dysfunctional and antisocial individuals (Berman, 2004). The work of Abraham Maslow occupies a vital position in popular psychology and is the foundation upon which humanistic management models were first developed. Eugene (2006) asserts that getting in touch with the natural surroundings, greatly assists in the psychological development of an individual, self-actualization and the hierarchy of needs in tandem with participation in outdoor activities. These skills are important in creating a holistic approach to individual development which is currently lacking to most people since they have not understood what they can derive from outdoor education. It was thus imperative to find whether Kenyans could benefit from engaging in OEE.

## **2.9 Previous Research**

Research done by Hattie et al (2004) in Australia involving a sample size of 3000 participants engaging in 16 days' Australian OEE established that the students enhanced their leadership skills, self-concept, personality and interpersonal relationship with the

time management having the greatest significance. They used quasi-experimental research design with a p-value set at 0.05. They also applied a repeated measures multivariate ANOVA to analyze the data. Despite the big sample size, the research was not based in Kenya and it was hence imperative to find out whether OEE in Kenya could derive out similar results.

Research by Rahman (2009) on effects of OEE on students' social and emotional competencies comprised 40 high school students in Singapore. The duration of the outdoor course was 8 weeks. The research findings indicated medium to large effects on the participants' social emotional competence. Mean scores, standard deviations and Pearson correlation values were calculated using standardized mean difference. This research failed to consider significant difference based on age and did not look at effect of OEE on teamwork.

Muthomi (2008) found that there was a significant difference in selected life skills of 260 staff from corporate organizations after attending a 3-day outdoor programme in Kenya. The data were analyzed using paired t-test and ANOVA. The duration was short necessitating looking further into the effects of a prolonged outdoor course. The study utilized a lesser range of activities not including energy draining ones like navigation, expedition and ropes course, but these were incorporated into this research.

Research by Neil (2008) in Australia to determine the effect OEE has on an individual's life skills had a sample size of 3640 participants. The study found that life skills were greatly enhanced. Data were analyzed using paired t-test and MANOVA. The group



comprised adolescents, family, special population, corporate and young adults. The study did not focus on police and army personnel as was the case in this current study within the Kenyan setup.

Hattie et al (1997) point that outdoor education has great variability in outcome which might be influenced by the length of the programme, facilitation method and age of participants among others. Study by Cason and Gillis (1994) found a positive relationship between length of programme and outcome size. A study by Garst et al., (2001) found similar results for programmes with 3 days or more. They further reiterated the importance of novelty experience for any effect to take place. Age and length of the programme had a big influence on the outcome of the programme. Hattie et al., (1997) found self-concept, locus of control and leadership to vary significantly depending on programme whereby the outcome improved when duration and age of participants increased. In the study, adults were reported to report greater impact compared to students. The explanation for this trend is that many students depend on their parents, teachers and guardians make decisions for them unlike adults who engage in outdoor activities voluntarily. Contrary to these findings, Cason and Gillis (1994) found a notable correlation where younger participants reported a greater change after the outdoor programme.

### **2.9.1 Dimensions of Life Effectiveness Skills**

Life effectiveness is viewed as the way an individual thinks, acts and responds in a variety of situations. The dimensions of life effectiveness skills include time

management, social competence, achievement motivation, intellectual flexibility, task leadership, emotional control and active initiative. Life effectiveness is closely associated with success in life (Hattie et al., 1997; Neill, 1999; Neill, 2000).

### **2.9.2 Time Management**

The ability of planning and efficient use of time is considered as an important aspect in both professional and personal life (Neil et al., 2003). Most books and magazines place more emphasis on ability to manage time for a successful living (Stenger, 2001). Tools for evaluating time-management training programmes have been limited (Macan, 1996). In OEE, activities are supposed to be done within the time provided. Participants are encouraged to make time management a priority when planning for the execution of the entire activity. This is believed to inculcate supreme time management skills to participants (Dembar, 2006). All outdoor experiential education activities in the military should, therefore at all times, focus on not only efficient planning of time but also on the effective utilization of time. Time wasted always waits for no man and therefore, it is always prudent that all the military personnel take into consideration time management and ensure that everything is done at the right place and at the right time. Time is always an important aspect in the da-to-day life of not only a military person, but in all professions as a whole. Failure to observe time management by the military police can have a negative impact on the general lives of the nation's population since they are tasked with the responsibility of ensuring there is general life protection of a country's citizens.

### **2.9.3 Social Competence**

According to Neil et al., (2003), social competence focuses on the ability of an individual to effectively function in social forums, decision-making, communication skills and problem-solving, which are important attributes in life. Social competence promotes cohesiveness among people (Darst & Armstrong, 1980).

The ability of having effective communication skills is essential, especially when the military policemen are working as a team. Lack of effective communication skills may lead to failure of the entire team to achieve their set objectives and aims. There is need for social effectiveness among the military personnel since effectiveness and competence in operating and communicating in social institutions is vital for such situations.

A study by Glass and Benschhoff (2002) found that participation in a low-element challenge course programme increased the perception of group cohesion among normal adolescents between ages of 11 and 14. However, a study by Terry (2002) using the LEQ found no change in the levels of social competence for 27 female adolescents, as measured before the adventure course and directly after the course. There are, however, limited empirical data in the Kenyan context on how OEE can impact on social competence skills of participants.

### **2.9.4 Achievement Motivation**

The research has shown that there exists a strong correlation between motivation and achievement of goals (Arkes, 1982). People with heightened levels of motivation are believed to achieve goals more easily as opposed to those with low levels of motivation.

With intervention programmes, it has been possible to enhance motivation of people with the aim of increasing their achievement (Nicholls, 1984). Research by Donley (2004) on effect of OEE on achievement motivation found that participants got more motivated when they are given tasks that are within their ability. He further found that most participants appreciated any time they achieved success in presented activities as opposed to failure which dumped their motivation. Current techniques aimed at ensuring the military personnel are well-equipped with modern outdoor experiential education, skills should, therefore, aim at motivating the personnel rather than discouraging them. In addition to that, high achievers in the experiential outdoor education should be rewarded so as to encourage the low achievers into performing better as this will greatly help them enhance the numerous skills that cannot be achieved in a classroom environment.

### **2.9.5 Intellectual Flexibility**

This is the ability of an individual to accommodate and act on ideas of others (Neil et al., 2003). As Stenger (2010) puts it, there is limited research on how use of metaphors in processing learning in Outdoor Education relates to intellectual flexibility. However, according to Neil et al., (2003), there exists a relationship between metaphors and intellectual flexibility. Participation in OEE activities is not the only major influence on positive outcomes, but debriefing is a key component to make these outcomes happen. The importance of the debriefing, the use of metaphors, and transferring the lessons learned while on an adventure course has been emphasized in literature (Beard & Wilson, 2002; Gubitz & Kutcher, 1999; Kolb, 1984; Priest, 2001; Terry, 2002). This phase provides time for participants to express thoughts, comments or questions. During

reflection, questions are incorporated that encourage participants to examine the experience, search for personal meaning and develop an abstract meaning that can be metaphorically transferred into real life experiences.

It is prudent for the military personnel who are involved in the modern Outdoor Experiential Educational activities to be in a better position of sharing their experiences with their juniors and other relevant stakeholders so that they can help them to develop an interest in the achievement of such skills. The sharing of such skills will make the military personnel in various countries to become all round people who are capable of withstanding both the hard and soft environments and situations. New ideas should be passed to all and sundry so as to make experiential learning a success in the military fraternity.

### **2.9.6 Task Leadership**

Task orientation is an important aspect of leadership. It is the ability to get others actively involved in an activity as well as being motivated to achieve the desired results (Neil et al., 2003). In outdoor education, individuals are given an opportunity to assess their ability to assume leadership roles as situations demand (Ibid). The author of LEQ emphasizes the importance of individuals to be in a position to motivate, take charge and enthuse others towards a common goal that enhances harmony and productivity. The success of modern outdoor experiential education is normally highly dependent on the leadership skills and qualities that are possessed by the participants. Having good leadership qualities of the participants not only makes the activities that they are involved

in to become easier, but it also makes it possible for the teams to be in a better position of managing themselves with either no or little supervision. As a result, leaders who are involved in the implementation of modern outdoor experiential activities should, therefore, have excellent leadership traits to ensure that the people they lead imitate their good characters in the process of attaining or achieving such education.

### **2.9.7 Emotional Control**

Emotional control can be explained in-depth by employing the theory of emotional intelligence (Goleman, 1995). Emotional intelligence focuses on knowing oneself, empathizing, understanding the relationship between emotions and rational thoughts, managing and coping with emotions. In outdoor programmes, group processing plays a vital role (Gass, 1993). This provides participants in outdoor education to evaluate their thought process and emotions that go along with an activity. This makes participants to enhance awareness of thoughts and emotions. Empathy for others, such as understanding diverse perspectives and respecting differences, is another major concept in emotional intelligence (Goleman, 1995). One of the goals of OEE is to assist participants to respect individual differences and to appreciate what they are capable of doing (Robert, 2003). The main focus of LEQ-H is to assess participants' ability to deal with their emotions when subjected to demanding situations in the outdoors (Neil et al., 2003).

Having good emotional control is vital in that it will help the military policemen involved in outdoor experiential education to better understand themselves and therefore, be in a better position of managing stress. Stress has been the major cause of problems in most of

the military police and thus having good emotional control will reduce or minimize stress related problems which has been known to greatly affect individuals in the military profession.

### **2.9.8 Active Initiative**

Active initiative looks at the ability of an individual to actively and independently initiate new actions and thoughts under different work settings (Neil et al., 2003). Garst and Scheider (2001) note that novelty is an important aspect of the outdoor adventure experience and it helps participants perceive their work in a different manner and to think objectively. In essence, military police should aim at being capable of initiating new strategies which are capable of ensuring that the process of outdoor experiential education is not only easily accessible to all people, but also ensure that it enhances the professional careers of the people who are involved in such processes. Indeed, military personnel should aim at ensuring that the conventional experiential education strategies are replaced with more modernized techniques which are capable of achieving a positive outcome among the relevant personnel.

### **2.9.9 Self-Confidence**

Numerous constructs have been used to explain the affective component of self, including self-esteem, self-concept and self-perception (Garst & Scheider, 2001). Self-confidence is a term used regularly to refer to an individual's general belief in his/her abilities (Neill et al., 2003). Active participation in OEE is believed to enhance confidence levels of the participant. This is achieved through giving participant responsibilities which help them develop confidence in tackling similar assignments in

future, (Neil, 2008). Having self-confidence is quite essential in that it will help the military personnel or policeman to have total belief and trust in themselves. Having self confidence will make the military police to have beliefs in their personal abilities of being successful and thus making outdoor experiential education to be easily achieved. The lack of confidence among the military police can make them to doubt their abilities of achieving their set goals while having confidence makes them have the ability of succeeding in each and every aspect of outdoor experiential education.

### **2.10 Summary of Literature Review**

This chapter highlights literature on the effects of OEE to selected life skills. It has also covered related research in outdoor education and exposed emerging gaps and the shortcomings of previous research. Some of the gaps are in terms of the locations of the study; most of the researches were done outside Kenya. Neil (2008) and Rahman (2009) carried out their research on effects of OEE on selected life skills outside Kenya and none of them carried out research on effects of OEE on police and military personnel. It was thus imperative to find out whether similar findings can be derived within the Kenyan setup and more so on police and military personnel. Muthomi (2003) focused on corporate groups in Kenya who underwent a 3-day programme; thus the need to find out whether an 11-day OEE course in a different setup can produce similar results on KA and AP. Research by Muthomi (2008), Neil (2008) and Rahman (2009) all focused on the effects of OEE on life effectiveness skills but did not look at the effects OEE can have on teamwork, which the researcher intended to find out.



## **CHAPTER THREE: METHODOLOGY**

### **3.0 Introduction**

This chapter describes research design, location of the study, target population, sample size and sampling techniques, research instruments, variables, reliability and validity, pilot study, data collection techniques, data presentation and analysis and logistical considerations.

### **3.1 Research Design**

This was a case study that investigated the effect of OEE on individuals' life effectiveness skills and teamwork from KA and AP. According to Robert (2003), a case study is normally based on in-depth investigation of group, single individual or event with the aim of exploring the causes. Since the research looked at effect of OEE on an individual's life skills, a case study adequately served the purpose of the research. The case study was used in this research whereby participants from KA and AP personnel were the study subjects. The participants underwent the 11 days OEE course at KESAL. The course is aimed at enhancing leadership and team-working skills. Since the course is geared towards hand-on approach of doing things, participants are fully engaged, this brings out their character and improvement as well without any bias. Consequently, the researcher employed single-group quasi-experimental pretest-post-test design whereby OEE was the treatment. According to William (2006), quasi-experimental employs a pre and post-test to the group which is studied so that one can determine any significant difference before and after manipulation of research variables. Since the study looked at

the effect of OEE on participants from KA and AP, a quasi experimental design was appropriate.

### **3.2 Location of the Study**

The study was conducted at KESAL, which is a training centre where trainees from KA and AP regularly go for their OEE and leadership. KESAL is located on the eastern side of Mount Kenya (6 figure grid reference-255071). The institution also trains other participants from both government and private sector in areas relating to OEE and adventure as well.

### **3.3 Target Population**

The target population for this study comprised participants who had been selected by the KA and AP to participate in an outdoor leadership programme at KESAL. The total number of participants in the experiential outdoor leadership course in that year from KA and AP was 280 (100 from KA and 180 from AP).

### **3.4 Sampling Techniques and Sample Size**

On an average, KESAL conducts 4 courses in a year for the KA and AP. The researcher selected 2 courses (50%) out of the 4 (100%). On average, the KA was sending an average of 50 participants whereas AP was sending an average of 90 participants for each course. The researcher used the census approach to select the subjects, that is, everyone attending the two courses from KA and AP, composed the sample size. The sample size was, therefore, 140 subjects (50 from KA and 90 from AP). This was a proportion of

50% of the target population, and this is adequate in a quasi-experimental research (William, 2006).

### **3.5 Research Instruments**

The researcher adopted Life Effectiveness Questionnaire (LEQ-H) and self-designed questionnaire for Teamwork (Appendix C). The LEQ-H was developed by James Neil and has been used in many OEE researches as a tool for measurement of life effectiveness skills (Neil, Marsh & Richards, 2003). The LEQ-H has 24 items which describe participants' behaviours in Likert rating format with five-point scale. LEQ-H is psychometrically sound, multidimensional, and linked to aims of OEE programme and has been found to have a high correlation coefficient above .96 (Neil *et al*, 2003). The LEQ has been shown to have a high internal consistency with alpha levels from eight of the scales ranging from .78 to .93 and test-retest correlations ranging from .60 to .81 (Neill *et al.*, 1997).

The adopted LEQ-H covered the 8 subscales attributes on life skills which included; time management, social competence, achievement motivation, intellectual flexibility, task leadership, emotional control, active initiative and self confidence. The self-designed questionnaire on teamwork was subjected to a pretesting to determine its reliability and validity. It had 5 sub-scales which include; willingness to share information, solving group's problems, sharing work and assisting in determining the common goals and activities of a group. The respondents rated themselves on how well the statement described them. In addition, the questionnaire contained the Likert rating scale adopted

from Neil (2003) which consists of five statements with choices ranging from, 'strongly disagree to strongly agree'. The respondents were instructed to circle the score that represented their feeling about each statement on the Likert scale. The scale was scored by adding the circled numbers and then computing the mean statistic on each attribute for all the respondents.

### **3.6 Variables**

Participants' OEE was the independent variable, whereas selected attributes of teamwork and life effectiveness skills, like time management, task leadership, social competence, achievement motivation, emotional control, intellectual flexibility, active initiative and self-confidence were the dependent variables. The academic level, gender and rank were examined as demographic variables.

### **3.7 Pre-Testing of Instruments**

The purpose of the pre-testing was to determine the reliability and validity of the research instruments within the Kenyan context. The random sampling procedure was used to select 16 participants composed of KA and AP in Kenya who had an interest in undertaking OEE and who were not involved in the main study. During the pre-testing study, the research assistants also got an opportunity to be trained on administering LEQ-H and self-designed questionnaire on teamwork. Research assistants were also introduced to the methodology that was employed to inculcate learning lessons to participants as well as informed on how outdoor methodology differs from conventional learning.

### **3.7.1 Reliability and Validity**

To determine the reliability and validity of LEQ-H and self-designed questionnaire for teamwork within Kenyan setup, the researcher conducted a pretesting of the instruments of the study with 15 participants of KA and AP who did not form the sample for the final data collection. A split-half method was employed to determine the correlation coefficient; the questionnaires were split into two halves and the responses subjected to correlation using the Spearman rank. A reliability index of 0.79 was obtained for life effectiveness skills and 0.71 for teamwork and was considered substantially high enough to determine the reliability of research instruments.

### **3.8 Data Collection Techniques**

The adopted LEQ-H and self-designed questionnaire on teamwork was administered in two phases (before and after training). To effectively determine the effects of OEE, participants were given the first administration of the questionnaire the very first day they arrived at KESAL. The purpose of this study was to ensure all participants recorded the way they rated life effectiveness and team-work skills prior to indulging in OEE. The questionnaire was administered on the first and last day of training. This helped in determining whether any change had taken place as a result of engaging in OEE. Since the two groups from KA and AP were not doing the course at the same time, the researcher collected the data independently, with content, facilitation method and administration of the questionnaire remaining the same.

### **3.9 Data Presentation and Analysis**

Both descriptive and inferential statistics were used to analyze the data. Quantitative data obtained from this study were analyzed using descriptive statistics, which were used to determine the difference in means between pre- and post-test results. The collected data were presented in tables. The paired t - test was used to test the null hypotheses. This test was appropriate because it compares two means on a given attribute (Macdonald, 2009). The significance level was set at 0.05. The effect of OEE on participant's life skills was analyzed by comparing mean scores of responses before and after the training.

### **3.10 Logistical and Ethical Considerations**

Prior to the research, relevant authorization letter was sought from the Department of Recreation Management and Exercise Science of Kenyatta University and a research permit from the Ministry of Higher Education, Science and Technology (Appendix B). The participants also filled consent letter (Appendix A) which explained the purpose of the study, gave assurance of confidentiality and which requested them for their voluntary participation in the research.

## CHAPTER FOUR: FINDINGS

### 4.1 Introduction

This chapter presents findings of the study that were obtained by the use of the methodology described in the previous chapter. The findings are presented in relation to the research objectives and the null hypotheses.

### 4.2 Effect of OEE on Life Effectiveness Skills

The research sought to gather information concerning effect of OEE on time management, social competence, achievement motivation, intellectual flexibility, task leadership, emotional control, active initiative and self-confidence among KA and AP personnel.

#### 4.2.1 Time Management

Participants were presented with statements that aimed at determining how efficient they were in managing their time. Table 4.1 shows mean difference on how the participants responded before and after the OEE programme on Time Management.

| Time Management | KA            |                |                      | AP            |                |                      |
|-----------------|---------------|----------------|----------------------|---------------|----------------|----------------------|
|                 | Pre-test mean | Post-test mean | Change between means | Pre-test mean | Post-test mean | Change between means |
| Means           | 3.84          | 4.79           | 0.95                 | 3.89          | 4.33           | 0.44                 |
| Effect Size (r) | 0.92          |                |                      | 0.92          |                |                      |

To determine whether there was any significant difference before and after undertaking OEE programme, the pre- and post-test mean scores were analyzed using paired T test and results are presented in table 4.2.

| Pretest-<br>posttest | Paired Difference |                   |                    |   | t      | df     | Sig.(2<br>-<br>tailed) |       |
|----------------------|-------------------|-------------------|--------------------|---|--------|--------|------------------------|-------|
|                      | Mean              | Std.<br>deviation | Std. error<br>mean | 95% Confidence<br>interval of the<br>difference |        |        |                        |       |
|                      |                   |                   |                    | Lower   |        |        |                        | Upper |
| KA                   | -.7266            | .1680             | .09701             | -1.14   | -.3093 | -7.49  | 2                      | .017  |
| AP                   | -.2733            | .10693            | .06173             | -.539   | -.0077 | -4.428 | 2                      | .047  |

**Null hypothesis 1.** The null hypothesis stated that “OEE would not have a significant effect on time management skills among KA and AP personnel”. Participants were presented with statements that were aimed at determining their ability of managing time. They were required to give a rating on how they perceived themselves in relation to time management. After analyzing the data using paired t-test as indicated in table 4.2, the results proved that both KA and AP personnel recorded an improvement on their ability to manage time after undertaking OEE and a statistical threshold was obtained, leading to rejection of the null hypothesis.



### 4.2.2 Social Competence

The participants were presented with items that focused on determining participants' competency levels in social skills. The means of their scores on Social Competence are summarized in table 4.3.

| <b>Table 4.3</b>  |               |                |                      |               |                |                      |
|---|---------------|----------------|----------------------|---------------|----------------|----------------------|
| <b>Comparison of KA and AP Personnel Responses on Social Competence During the First and Second Administration of the Questionnaire</b> |               |                |                      |               |                |                      |
| Social Competence   | KA            |                |                      | AP            |                |                      |
|   | Pre-test mean | Post-test mean | Change between means | Pre-test mean | Post-test mean | Change between means |
| Means   | 4.22          | 4.85           | 0.63                 | 3.93          | 4.37           | 0.44                 |
| Effect Size (r)   | 0.99          |                |                      | 0.96          |                |                      |

To determine the significance value for social competence, data were analyzed using paired t-test and results are presented in table 4.4.

| <b>Table 4.4</b>                           |                          |                   |                    |   |         |        |      |                |
|--|--------------------------|-------------------|--------------------|---|---------|--------|------|----------------|
| <b>Paired T-Tests on Social Competence</b> |                          |                   |                    |   |         |        |      |                |
|  | <b>Paired Difference</b> |                   |                    |   | t       | Df     | Sig. |                |
| Pretest-<br>posttest                       | Mean                     | Std.<br>deviation | Std. error<br>mean | 95% Confidence<br>interval of the<br>difference |         |        |      | (2-<br>tailed) |
|  |                          |                   |                    | Lower   | Upper   |        |      |                |
| KA   | -.620                    | .08888            | .05132             | -.8407  | -.39921 | -12.08 | 2    | .007           |
| AP   | -.3866                   | .12220            | .07055             | -.6902  | -.08310 | -5.480 | 2    | .032           |

**Null hypothesis 2.** The null hypothesis stated that “OEE would not have a significant effect on social competence skills among KA and AP personnel”. Survey participants were asked to rate statements on their levels of social competence before and after undertaking the OEE. The mean difference was computed and analysed using paired t-test to determine whether the effect of OEE programme. After the analysis of data obtained, both KA and AP reported positive effect and the p-values obtained (0.007 for KA and 0.032 for AP) were statistically significant. This led to rejection of the null hypothesis and it was concluded that OEE played a significant role in enhancing social competence in both KA and Ap.

#### **4.2.3 Achievement Motivation**

Table 4.5 shows a summary of the respondents mean score before and after the administration of the OEE programme on Achievement Motivation.

| Achievement Motivation | KA            |                |                      | AP            |                |                      |
|------------------------|---------------|----------------|----------------------|---------------|----------------|----------------------|
|                        | Pre-test mean | Post-test mean | Change between means | Pre-test mean | Post-test mean | Change between means |
| Means                  | 4.38          | 4.78           | 0.40                 | 4.49          | 4.76           | 0.27                 |
| Effect Size (r)        | 0.97          |                |                      | 0.95          |                |                      |

**Table 4.6: Paired t-Tests on Achievement Motivation**

To determine the statistical significance on Achievement Motivation, data was analyzed using paired t-test and results are presented in table 4.6.

|    | Paired Difference  |        |                |                 |   | t      | df | Sig. (2-tailed) |       |
|----|--------------------|--------|----------------|-----------------|---|--------|----|-----------------|-------|
|    | Pre-test-post-test | Mean   | Std. deviation | Std. error mean | 95% Confidence interval of the difference |        |    |                 |       |
|    |                    |        |                |                 | Lower                                     |        |    |                 | Upper |
| KA | -.38000            | .10440 | .06028         | -.6393          | -.12065                                   | -6.30  | 2  | .024            |       |
| AP | -.14667            | .05508 | .0310          | -.2834          | -.00985                                   | -4.612 | 2  | .044            |       |

**Null hypothesis 3.** The null hypothesis stated that “OEE would not have a significant effect on Achievement Motivation among KA and AP personnel”. Survey participants were asked to rate how they felt on “I do the best to get details”, “I try to get the best results” and “I try to do the best I can”. Their scores before and after undertaking the OEE were analyzed using paired t-test. The results as indicated in table 4.6 shows that both KA and AP did benefit from the OEE and the corresponding null hypothesis on Achievement Motivation was rejected. As indicated in table 4.5, it can be noted that both KA and AP recorded positive results from the mean difference during the pre-test and post-test periods.

#### 4.2.4 Intellectual Flexibility

Table 4.7 shows a comparison between pre-test and post-test scores for responses on Intellectual Flexibility.

| <b>Table 4.7</b>  |               |                |                      |               |                |                      |
|---|---------------|----------------|----------------------|---------------|----------------|----------------------|
| <b>Comparison of KA and AP Personnel Responses on Intellectual Flexibility During the First and Second Administration of the Questionnaire.</b> |               |                |                      |               |                |                      |
| <b>Intellectual Flexibility</b>   | <b>KA</b>     |                |                      | <b>AP</b>     |                |                      |
|   | Pre-test mean | Post-test mean | Change between means | Pre-test mean | Post-test mean | Change between means |
| Means   | 4.38          | 4.92           | 0.54                 | 4.24          | 4.54           | 0.30                 |
| Effect Size (r)   | 0.96          |                |                      | 0.96          |                |                      |

To determine if there were significant differences in levels of Intellectual Flexibility, the mean scores for pre-test and post-test were analyzed using t-test and results are presented in table 4.8.

|    | Paired Difference |        |                |                 |   | t     | df | Sig. (2-tailed) |       |
|----|-------------------|--------|----------------|-----------------|---|-------|----|-----------------|-------|
|    | Pretest-posttest  | Mean   | Std. deviation | Std. error mean | 95% Confidence interval of the difference |       |    |                 |       |
|    |                   |        |                |                 | Lower                                     |       |    |                 | Upper |
| KA | -.700             | .23388 | .13503         | -1.2809         | -.11901                                   | -5.18 | 2  | .035            |       |
| AP | -.250             | .08888 | .05132         | -.47079         | -.02921                                   | -4.87 | 2  | .040            |       |

**Null hypothesis 4.** The null hypothesis stated that “OEE would not have a significant effect on Intellectual Flexibility among KA and AP personnel”. The research participants were presented with a questionnaire before and after the OEE. The statements on intellectual flexibility were randomly distributed in the questionnaire and were; I Change opinions for better ideas, I am open to new ideas and I am flexible in my thinking and ideas. The aim of these statements was to determine whether OEE enhances exhibited Intellectual Flexibility of an individual. After analyzing the data using paired t-test, it was

concluded that OEE enhanced Intellectual Flexibility to both KA and AP personnel who attended the 11 days programme.

#### 4.2.5 Task Leadership

Table 4.1.2 gives a summary of pre- and post-test of responses on Task Leadership of KA and AP personnel before and after the OEE programme.

| Task Leadership | KA            |                |                      | AP            |                |                      |
|-----------------|---------------|----------------|----------------------|---------------|----------------|----------------------|
|                 | Pre-test mean | Post-test mean | Change between means | Pre-test mean | Post-test mean | Change between means |
| Means           | 4.34          | 4.88           | 0.54                 | 3.85          | 4.32           | 0.47                 |
| Effect Size (r) | 0.99          |                |                      | 0.93          |                |                      |

Mean scores of pre-test and post-test of the responses from the KA and AP personnel were analyzed using t-test and results are presented in table 4.10.

| Pretest-posttest | Paired Difference |                |                 |   |         | t      | df | Sig. (2-tailed) |
|------------------|-------------------|----------------|-----------------|---|---------|--------|----|-----------------|
|                  | Mean              | Std. deviation | Std. error mean | 95% Confidence interval of the difference |         |        |    |                 |
|                  |                   |                |                 | Lower                                     | Upper   |        |    |                 |
| KA               | -.6200            | .08888         | .05132          | -.8407                                    | -.39921 | -12.08 | 2  | .007            |
| AP               | -.59333           | .28361         | .16374          | -1.29785                                  | .11119  | -3.624 | 2  | .068            |

**Null hypothesis 5.** The null hypothesis stated that “OEE would not have a significant effect on Task Leadership among KA and AP personnel”. Research personnel from KA and AP were asked to rate how they perceived their abilities on Task Leadership before and after undertaking the OEE programme at KESAL. They were provided with three statements in the questionnaire which were randomly distributed. The statements were; I can get people to work for me, I am a good leader when a task needs to be done and As a leader I motivate other people during work. After analyzing the data obtained using paired t-test, the KA scored a p-value of 0.007 which was statistically significant. The AP scored a p-value of 0.068 which was above the set p-value of 0.05 and thus, the corresponding null hypothesis on AP was not rejected. This implies that OEE programme was not statistically significant to AP personnel as opposed to KA who recorded a tremendous gain on their Task Leadership skills after undertaking the OEE.

#### **4.2.6 Emotional Control**

Table 4.11 shows a comparison of Emotional Control mean scores from the responses of KA and AP personnel at pre-test and post-test period.

The pre-test and post-test mean scores were analyzed using t-test to determine any statistical significant difference and results are presented in table 4.11 below.

| <b>Table 4.11</b>   |                  |                   |                            |                  |                   |                            |
|---|------------------|-------------------|----------------------------|------------------|-------------------|----------------------------|
| <b>Comparison of KA and AP Personnel Responses on Emotional Control During the First and Second Administration of the Questionnaire</b> |                  |                   |                            |                  |                   |                            |
| Emotional Control   | KA               |                   |                            | AP               |                   |                            |
|   | Pre-test<br>mean | Post-test<br>mean | Change<br>between<br>means | Pre-test<br>mean | Post-test<br>mean | Change<br>between<br>means |
| Means   | 4.21             | 4.75              | 0.54                       | 3.68             | 4.17              | 0.49                       |
| Effect Size (r)   | 0.98             |                   |                            | 0.91             |                   |                            |

From table 4.11, it is evident that the mean scores for KA and AP personnel increased considerably after the OEE programme. Participants were presented with items whose purpose was to determine their ability to stay calm in stressful situations and how they managed to overcome anxiety.

Data on Emotional Control was analyzed using t-test to determine if there were any significant differences and results are presented in table 4.12.



| <b>Table 4.12</b>   |                          |                |                 |   |          |           |                        |      |
|---|--------------------------|----------------|-----------------|---|----------|-----------|------------------------|------|
| <b>Paired T-Tests Mean Scores From Responses on Emotional Control</b> |                          |                |                 |   |          |           |                        |      |
|   | <b>Paired Difference</b> |                |                 |   | <b>T</b> | <b>df</b> | <b>Sig. (2-tailed)</b> |      |
| Pretest-posttest  | Mean                     | Std. deviation | Std. error mean | 95% Confidence interval of the difference |          |           |                        |      |
|   |                          |                |                 | Lower                                     | Upper    |           |                        |      |
| KA  | -.5133                   | .09866         | .05696          | -.7584                                    | -.268    | -9.01     | 2                      | .012 |
| AP  | -.4333                   | .24090         | .1390           | -1.031                                    | .1651    | -3.11     | 2                      | .070 |

**Null hypothesis 6.** The null hypothesis stated that “OEE would not have a significant effect on Emotional Control among KA and AP personnel”. Research participants were presented with statements on Emotional Control and they were asked to rate themselves before and after undertaking the OEE programme. The statements were; I can stay in stressful situations, I can stay calm, overcome anxiety in new situations and I stay calm when things go wrong. After analyzing their responses using paired t-test, the personnel from KA recorded a p-value of 0.012 which was statistically significant. However, personnel from AP recorded a p-value of 0.070 which was above the set p-value of 0.05. This led to corresponding null hypothesis on AP not being rejected, implying that OEE programme did not reach the statistical threshold to be considered significant.

#### 4.2.7 Active Initiative

The statements presented to participants aimed at determining how innovative they could be in a new environment where outcomes were not predictable. This is where one looks at how an individual comes up to initiate an action geared towards solving problems to unfolding events. Table 4.13 shows a comparison of responses on Active Initiative before and after participants were subjected to OEE programme.

| Active Initiative | KA            |                |                      | AP            |                |                      |
|-------------------|---------------|----------------|----------------------|---------------|----------------|----------------------|
|                   | Pre-test mean | Post-test mean | Change between means | Pre-test mean | Post-test mean | Change between means |
| Means             | 4.14          | 4.79           | 0.65                 | 4.21          | 4.54           | 0.33                 |
| Effect Size (r)   | 0.99          |                |                      | 0.94          |                |                      |

From table 4.13, it can be noted that the scores were higher in the post-test administration than the pre-test administration. In OEE, participants were presented with simulations and mind-boggling activities aimed at provoking their thinking process.

| <b>Table 4.14</b>   |                          |                |                 |   |         |        |    |                 |
|---|--------------------------|----------------|-----------------|---|---------|--------|----|-----------------|
| <b>Paired T-Tests Mean Scores on Responses on Active Initiative</b> |                          |                |                 |   |         |        |    |                 |
|   | <b>Paired Difference</b> |                |                 |   |         | t      | df | Sig. (2-tailed) |
| Pretest-posttest  | Mean                     | Std. deviation | Std. error mean | 95% Confidence Interval Of The Difference |         |        |    |                 |
|   |                          |                |                 | Lower                                     | Upper   |        |    |                 |
| KA  | -.6200                   | .07550         | .04359          | -.80755                                   | -.43245 | -14.22 | 2  | .005            |
| AP  | -.3166                   | .13429         | .07753          | -.65026                                   | .01692  | -4.084 | 2  | .045            |

**Null hypothesis 7.** The null hypothesis stated that “OEE would not have a significant effect on Active Initiative among KA and AP personnel”. Research participants were given the same questionnaire before and after the 11 days OEE programme. Among the statements in the questionnaire, there were three statements that were geared towards determining the Active Initiative levels of the research personnel. The statements were; I like to be busy and actively involved in things, I like to be active and energetic and I like to be an active ‘get into it’ person. It can be concluded that OEE programme was impactful in enhancing Active Initiative skills to both KA and AP personnel.

#### **4.2.8 Self-Confidence**

Participants were presented with statements that aimed at determining how strongly they believed in themselves when undertaking a given task. A statistical summary of their responses is presented in table 4.15.

Table 4.15 shows a summary of participants' pre-test and post-test mean scores after undertaking OEE.

| <b>Table 4.15</b>   |               |                |                      |               |                |                      |
|---|---------------|----------------|----------------------|---------------|----------------|----------------------|
| <b>Comparison of KA and AP Personnel Responses on Self-Confidence During the First and Second Administration of the Questionnaire</b> |               |                |                      |               |                |                      |
| Self Confidence   | KA            |                |                      | AP            |                |                      |
|   | Pre-test mean | Post-test mean | Change between means | Pre-test mean | Post-test mean | Change between means |
| Means   | 4.21          | 4.79           | 0.58                 | 4.35          | 4.77           | 0.42                 |
| Effect Size (r)   | 0.96          |                |                      | 0.96          |                |                      |

Data were analyzed using t-test to determine the significant value and results are presented in table 4.16.

| <b>Table 4.16</b>   |                   |                |                 |   |         |        |    |                 |
|---|-------------------|----------------|-----------------|---|---------|--------|----|-----------------|
| <b>Paired T-Tests Mean Scores on Responses on Self-Confidence</b> |                   |                |                 |   |         |        |    |                 |
| Pretest-posttest  | Paired Difference |                |                 |   |         | t      | df | Sig. (2-tailed) |
|   | Mean              | Std. deviation | Std. error mean | 95% Confidence interval of the difference |         |        |    |                 |
|   |                   |                |                 | Lower                                     | Upper   |        |    |                 |
| KA  | -.5733            | .17786         | .10269          | -1.0151                                   | -.13151 | -5.583 | 2  | .031            |
| AP  | -.2466            | .07638         | .04410          | -.43640                                   | -.05694 | -5.594 | 2  | .032            |

**Null hypothesis 8.** The null hypothesis stated that “OEE would not have a significant effect on Self-Confidence among KA and AP personnel”. The researcher sought to determine whether OEE programme can enhance self-confidence. Personnel from KA and AP were given the same questionnaire on day 1 and day 11 of their programme. This was to determine the impact of the 11 days OEE programme. In the questionnaire, statements relating to self-confidence were randomly distributed. The statements were; I know I have the ability to do anything I want, when I apply something I am confident to succeed and I believe I can do it. The pre- and post-mean scores obtained were analyzed using paired t-test. The p-values obtained for both KA and AP reached the statistical threshold, which led to rejecting of the null hypothesis. It was, therefore, concluded that the 11 days OEE programme was beneficial to both KA and AP in enhancing their Self-confidence levels.

#### **4.3.9 Effect of OEE on Teamwork Skills Among KA and AP Personnel**

The research sought information on whether OEE could develop and enhance teamwork skills among the KA and AP personnel. Data were collected in both the pre-test and post-test periods.

| Teamwork        | KA            |                |                      | AP            |                |                      |
|-----------------|---------------|----------------|----------------------|---------------|----------------|----------------------|
|                 | Pre-test mean | Post-test mean | Change between means | Pre-test mean | Post-test mean | Change between means |
| Means           | 4.14          | 4.74           | 0.60                 | 3.82          | 4.21           | 0.39                 |
| Effect Size (r) | 0.97          |                |                      | 0.98          |                |                      |

Data was analysed using t-test and results are presented in table 4.18.

| Pretest-posttest | Paired Difference |                |                 |   |        | t     | df | Sig. (2-tailed) |
|------------------|-------------------|----------------|-----------------|---|--------|-------|----|-----------------|
|                  | Mean              | Std. deviation | Std. error mean | 95% Confidence interval of the difference |        |       |    |                 |
|                  |                   |                |                 | Lower                                     | Upper  |       |    |                 |
| KA               | -.6040            | .21836         | .0976           | -.87513                                   | -.3328 | -6.18 | 4  | .003            |
| AP               | -.3860            | .10831         | .04844          | -.52048                                   | -.2515 | -7.96 | 4  | .002            |

**Null hypothesis 9.** The null hypothesis stated that “OEE would not have a significant effect on Teamwork skills among KA and AP personnel”. Research participants were provided with a questionnaire with various statements that aimed at establishing their

Team-Work skills on day one and day eleven of their OEE programme. The means of their responses were recorded and analyzed using paired t-test. From the results obtained, both KA and AP recorded a significant change with p-values of 0.003 (KA) and 0.002 (AP). These were statistically significant and it was, therefore, concluded that OEE was effective in enhancing teamworking skills to both KA and AP who attended the 11 days OEE programme.

## **CHAPTER FIVE: DISCUSSION**

### **5.0 Introduction**

This chapter looks at the possible phenomenon that led to results obtained from the research. It is, however, important to point out that all areas in this study recorded a positive posttest mean scores compared to pre-test mean scores. From the data obtained, it can so far be ascertained that indeed, the use of outdoor experiential education had a positive impact on the general lives of security officers from KA and AP.

### **5.1 Time Management**

This component was aimed at ascertaining whether OEE did enhance time management skills of KA and AP personnel. From the data on table 4.2, P-values of 0.017 for KA personnel and 0.047 for AP were lower than the set p-value of .05. This implies that OEE enhanced time management skills in both KA and AP. This can be attributed to the fact that participants in experiential outdoor education are encouraged to execute given tasks within the time provided. Most activities are timed and participants must try to accomplish the tasks given within time limits. This research finding is in line with that of Doherty (2003); Eagle et al., (2002), Neill (1997), Neill (1999), Neill and Flory (2000), Stenger (2001) and Terry (2002) who found a significant improvement in time management for participants who took part in outdoor education. This is possibly so because nearly all outdoor adventure-based programmes put emphasis on the time management aspects through the tight schedule of the various activities (Bruce, 2006). Participants are required to accomplish a given task within set time frame, instilling the sense of urgency.



## **5.2 Social Competence**

As depicted in table 4.3, it is evident that OEE had some impact on participants' Social Competence. Participants enhanced their social skills and this is seen in the mean difference in pre-test and post-test results. From the 3 statements of social competence, there was a positive score after the OEE programme. As a result, OEE was found to be effective in enhancing Social Competence of individuals who undertook the programme. This can be attributed to opportunities that participants are given to express themselves and their views during debriefs and activity sessions. Stenger (2001) notes that there is need for numerous governments across the world to devise mechanisms aimed at ensuring that delivery of key knowledge regarding outdoor experiential activities are done within the scope of the military personnel to ensure their career enhancement.

Based on the above information and on Werner (2011), it can also be ascertained that outdoor education is capable of achieving various aims. For instance, it is capable of helping the military personnel to be in a better position of learning how best they can overcome adversity, enhance their personal and social developments and be better placed in developing a deeper relationship with nature. As shown in table 4.4, p-values of .007 and .032 for KA and AP personnel respectively, were obtained after analyzing the mean scores for pre-test and post-test. These p-values were lower than the set p-value of .05. The OEE significantly enhanced the Social Competence of KA and AP. This implies that, after the programme, participants were more competent in communication and ably thrived in social forums. The research findings on Social Competence are similar to findings of Eagle et al., (2002), Neill (1999), Neil (2000) and Neill & Flory (2000) who

found participants to be more competent in social forums as well as in their communication skills after undertaking OEE programme.

Following the philosophy and theory of Stenger (2001), it was further ascertained that the use of modern outdoor experiential education tended to emphasize the impact of the natural environments on the human population and the educative role of challenges and stress on an individual person. According to Bruce (2006), the use of modern outdoor experiential education was vital in that it can present the military police of an opportunity to become stripped of the modern life. Therefore, making the participants to be more aware that indeed, they are part and parcel of the wider ecosystem and therefore, not bound by any particular social norms and customs. This will make the participants to become true to themselves and thus see other individuals as being fellow people regardless of their religious affiliations, race or class. Apart from that, outdoor education is essential in the military environment because it aids in instilling of the major elements of teamwork since participants will be forced to work together as a team and also be able to rely on other people for their individual success (Dewey, 2007).

Participants were divided into small groups and encouraged to give their opinions freely. Some of the activities that they did during the 11 days programme, were purposely selected to enhance social competence of the participants. This could have positively influenced the enhanced social competency skills after the undertaking OEE.

### **5.3 Achievement Motivation**

Participants were presented with items in the Life Effectiveness Questionnaire that were aimed at determining the motivation levels of participants in achieving a given assignment, goal or objectives. Unlike intrinsic and extrinsic motivation, Achievement Motivation looks at how an individual is motivated towards achieving certain set goals. OEE programme enhanced participants' ability to be motivated in achieving set goals and standards. This could be attributed to the fact that outdoor trainers encourage and motivate participants in believing that everything is possible as long as one has the right attitude. Participants were encouraged to appreciate anything good that was done by a team member. The activities that they did during their programme included those which provoked their thinking and making them to have a desire to achieve in given assignments. This could have motivated them to aspire for more achievement as well as being eager to succeed.

As indicated in table 4.6, significant values of .024 for KA and .044 for AP personnel were achieved after analyzing mean scores for pre-test and post-test. The p-values achieved were, however, lower than the set p-value of .05. This implies that the OEE had a positive significant contribution towards enhancing Achievement Motivation of the participants. A similar research done by Neill and Richards, (1998) found outdoor education to be an effective way of enhancing Life Effectiveness Skills to participants.

#### **5.4 Intellectual Flexibility**

Participants who attended OEE were presented with statements that were aimed at determining how one was ready to change his/her opinion when better ideas were put forth. From statistical analysis of post-pretest scores, it was noted that all aspects of Intellectual Flexibility recorded a positive change. Most of the activities in the OEE call for collaboration, brainstorming and embracing of workable ideas. The positive effect recorded by the participants can be attributed to the way in which the activities were designed to ensure that participants aired their views and unanimously agreed on which plan to implement when tackling presented tasks.

As indicated in table 4.8, a p-value of .035 for KA and .040 for AP personnel was achieved. These were however; lower than the set critical value of .05. This implies that OEE had an impact in terms of enhancing participants' Intellectual Flexibility. Intellectual Flexibility looks at the ability of an individual to readily accept better opinions from others rather than holding on his/her ideas even if they are vague. This research finding tallies with that of a research conducted by Neill and Flory (2000) who found some correlation between outdoor education and Life Effectiveness Skills.

#### **5.5 Task Leadership**

Table 4.9 shows that the mean scores for the post-test results were higher compared to the pre-test mean scores in both KA and AP personnel. Participants were presented with a statement whose main focus was to determine the extent to which individuals perceived they could provide exemplary leadership skills to other people effectively and towards the right direction. Participants recorded improvement on how they inspired, motivated,

led others and their influential capability after undergoing through the 11 days OEE programme.

As shown in table 4.10, p-value of .007 for KA personnel was lower than the set p-value of .05. As a result, the null hypothesis that stated “OEE would not have a significant effect on Task Leadership among KA personnel” was rejected. These research findings concur with those of Neil (2003), and Cason and Gillis (1994) who found a correlation between outdoor education and Life Effectiveness Skills. On the other hand, a p-value of .068 for AP was slightly higher than the set p-value of .05. This resulted in a statistical decision not to reject the null hypothesis that stated “OEE would not have a significant effect on Task Leadership of AP personnel”. The difference in p-value for AP and KA personnel could be attributed to work experience and years in service. KA personnel had on average served for many years in their department than the AP personnel. As Neil (2003) puts it, cultural background, exposure, previous experience and age have a significant effect on the overall effect of outdoor education to life skills. A higher p-value for AP personnel (.068) could have been influenced by the number of years in service.

Generally, participants from AP were younger and they had fewer years in service than KA. Through experience, one is better placed to gain skills and aspects of leadership. This research finding tallies with that of Doherty (2003) who found no significant levels after undertaking OEE. The OEE programme was not conducted simultaneously and this could also have contributed to the observed difference between KA and AP.

## **5.6 Emotional Control**

From table 4.11, it is evident that the mean scores for KA and AP personnel increased considerably after the OEE programme. Participants were presented with items whose purpose was to determine their ability to stay calm in stressful situations and how they managed to overcome anxiety. Participants from both KA and AP were presented with activities in which, some were tailor-made to provoke their emotions. A debrief was done at the end of every activity and participants were guided in deriving lessons from activities presented. They were encouraged to remain focused and learn that emotional instability hardly helps in solving the prevailing situation.

As indicated in table 4.12 values of .012 for KA personnel and .070 for AP personnel were obtained after analyzing the data. For KA personnel, the significant value obtained was lower than the set p-value of .05. This led to rejecting of the null hypothesis that stated “OEE would not have a significant effect on Emotional Control of KA personnel”. This implies that OEE impacted significantly on KA personnel after attending the 11 days OEE. The p-value for AP personnel was however higher than the set p-value and this resulted in rejection of the null hypothesis on Emotional Control for AP personnel that stated that “OEE would not have a significant effect on Emotional Control of AP personnel”. A number of meta-analysis researches done have presented different results, some showing outdoor education to have significant influence and others to the contrary.

It is however, important to note that the effectiveness of outdoor education is influenced by a number of factors like previous experience, age and cultural factors (Neil, 2003). In

this research finding, the higher p-value could be attributed to the number of years in service where the AP personnel may not have gained adequate experience to deal with their emotions when provoked. Hattie et al., (1997) also found that the impact of outdoor education from 96 studies that examined self-concept, locus of control and leadership, varied substantially according to the particular programme and it was observed that the outcome improved as the length of the programme and ages of participants increased. As in other studies done by Neill (1999) and Doherty (2003), little effect was observed in dimensions such as Achievement Motivation, Intellectual Flexibility and Active Initiative. KA personnel had served for many years compared to AP. Since AP personnel had served for a few years, this could imply that they had not fully learnt how to cope with stress and remain calm in stressful situations.

### **5.7 Active Initiative**

From table 4.13, it can be noted that the scores were higher in the post-test administration than the pre-test administration. In OEE, participants were presented with simulations and mind-boggling activities aimed at provoking their thinking process. Most of the activities needed a critical thinking approach to solve them.

As depicted in table 4.14, the p-values for KA personnel on Active Initiative (.005) and AP (.045) were lower than the set p-value of .05. This implies that OEE was statistically significant in impacting positively on their Active Initiative. The null hypothesis that stated “OEE would not have a significant effect on Active Initiative of KA and AP personnel” was rejected. This shows that participants from KA and AP personnel became

more innovative by embracing new ways of tackling problems at hand. This research finding tallies with the findings of Neil (2008) who found significant achievement by participants who engaged in Outdoor Education.

Some of the activities that were presented to KA and AP personnel required them to think and come up with workable plans to solve them. They were tailor-made to provoke their thinking process so that at the end of the activity, participants would appreciate why they needed to think critically in solving a given task. Doherty (2003) asserts that people become more innovative when they are presented with scenarios that provoke their thinking process since it makes them to be alert and always be on the look out for all possible ways that can make them unravel the problems at hand. The activities presented to KA and AP during the 11 days OEE programme required them to remain alert and active in coming up with workable ideas that would make them achieve the desired end results. As a result, such mind provoking activities could have enhanced their ability to remain determined and innovative in designing course of action to every problem presented to them. It can, therefore, be concluded that OEE played a vital role in promoting innovativeness to participants from KA and AP.

### **5.8 Self-Confidence**

Research participants were presented with statements that aimed at looking at their confidence levels before and after the 11 days programme. During the programme, a number of activities for enhancing self-confidence like ropes course, rock climbing and rappelling were provided. From table 4.15, it can be noted that the mean of the responses



on Self-Confidence of participants improved after the OEE programme. From the post-test mean scores for both KA and AP personnel, it is evident that the OEE did enhance self-confidence for participants.

From table 4.1.9, it is evident that KA and AP personnel reported a significant value of .031 and .031 respectively. The p-value obtained was lower than the set p-value of .05 and this implies that there was significant positive effect after undertaking OEE programme by both KA and AP personnel. As a result, the null hypothesis that stated “OEE would not have a significant effect on Self-Confidence of the KA and AP personnel” was rejected. This implies that the participants’ ability to express and believe in themselves with confidence was enhanced. This research finding is in line with similar research done by Neil et al., (2003) who found OEE to be an effective way of elevating participants’ self-confidence within a short time through the use of outdoor activities. These effects can be attributed to the way in which outdoor activities are conducted. Participants are presented with confidence-building activities which are aimed at enhancing their self-belief when faced with challenges.

### **5.9 Teamwork**

Table 4.17 presents statistics on the extent to which OEE developed teamwork skills among the KA and AP personnel by comparing the pre-test and post-test mean responses. The results indicate that there was a notable improvement on the quality of teamwork skills after KA and AP personnel undertook OEE. The means in the post-test period were greater than the means in the pre-test. The increase in the means postulates that both KA

and AP personnel recorded an improvement after undertaking OEE. The research findings tally with those in a study conducted by Glass and Benshoff (2002) who found that participation in a low-element challenge course programme increased the perception of group cohesion

Table 4.18 shows that there was an enhancement in team-work after the KA and AP personnel were subjected to OEE. From the results obtained, it is evident that OEE had positive effects on teamwork skills. P-values of .003 for KA and .002 for AP were obtained which were lower than the set p-value of .05. The null hypothesis that stated “there would be no significant of effect OEE on team-working skills of KA and AP personnel” was, therefore, rejected. Most of the activities presented to KA and Ap required them to collaborate and work as a team. As a result, it was concluded that participants from KA and AP improved their team-working skills after attending the 11 days OEE programme at KESAL.

## **CHAPTER SIX: CONCLUSIONS AND RECOMMENDATIONS**

### **6.1 Introduction**

This chapter gives conclusions and recommendations drawn from the findings on how OEE impacted on life effectiveness skills and teamwork of KA and AP personnel. Indeed, it was ascertained that the use of modern Outdoor Experiential Education covered three major domains of the self, other people and the natural world as well. In addition, it was capable of helping the military police to teach the outdoor survival skills to other people, enhance their skills in problem-solving, enhance teamwork and minimize recidivism among such personnel. In addition to that, the use of modern outdoor experiential education was capable of helping the military personnel in not only work as a team, but to also promote spirituality and be in a better position of understanding or comprehending natural environments.

### **6.2 Conclusions**

Based on the results of the research findings, the following conclusions were made:

- a) That OEE impacted positively on KA's life effectiveness skills.
- b) OEE had a positive impact on AP's life effectiveness skills apart from Task Leadership and Emotional Control which did not reach the statistical threshold to be regarded as significant. This implies that AP who attended OEE did not gain significantly on Task Leadership and Emotional Control after the 11 day programme
- c) OEE impacted positively on team-work for both KA and AP personnel who attended the 11 days OEE programme.

### **6.3 Recommendations**

The author hopes that this study will provide a thrust to future research studies in the area of OEE, more so within the local context. Based on findings from this study, here are recommendations that could be considered for future research.

- a) The researcher noted that few females participated in OEE. The researcher recommends that more research on effect of experiential learning be carried out on women to determine whether there is any significant difference.
- b) The KESAL training institution needs to modify some of the training activities, more so, on those which target Task Leadership and Emotional Control to see if all clients can record an enhanced gain on life effectiveness skills.
- c) The AP department needs to increase the duration of the OEE programme from 11 days to see if the AP personnel will record an enhanced gain in Task Leadership and Emotional Control.
- d) Kenya Defense Forces and Administration Police should expose more of their personnel to OEE since it was found to enhance life effectiveness skills and teamwork.

### **6.3 Suggestions for Further Research**

Based on the research findings, the researcher hopes that this study will provide a yardstick for future research studies in the area of Life Effectiveness Skills and Teamwork, especially within the local context. Here are some recommendations that may be considered for future research.

1. For future research designs, use of bigger sample size will be ideal in order to determine the relevancy of OEE. For instance, Neill et al. (2003) used a sample size of at least 2000 while this study only employed a sample size of 150 participants.
2. Since this study focused on employed participants, more research need to be carried out on non-employed participants to determine whether they would derive same benefits from an OEE programme.
3. Since this study was based on an 11 day programme, future studies should focus on determining whether participants will gain more on life effectiveness skills and teamwork in shorter and longer courses in OEE.
4. Future studies should include a longitudinal long term effect of OEE (eg. 2 months, 12 months after the programme) as the short time period of 11 days between pre and post-tests in this study may capture all the possible changes that require more time to develop. Case in point, Eagle et al., (2002) used LEQ-H a month after the programme and found significant changes.

The researcher hopes this study will provide some helpful insights to researchers who seek to determine the effect of adventure and team-building programmes which are gaining popularity in the country.

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**APPENDIX A: INFORMED CONSENT LETTER****KENYATTA UNIVERSITY****DEPARTMENT OF LEISURE AND RECREATION MANAGEMENT**

Dear Respondent,

I would like you to participate in a research project on the “effects of outdoor experiential education on individual’s life skills”. Along with this letter is a short questionnaire that asks a variety of questions about how you think and feel about yourself in some ways. I would request you to look over the questionnaire and, complete it as indicated.

Through your participation, I hope to understand the effects outdoor experiential education has on you in terms of life skills like time management, task leadership, and active initiative among others. I hope that the results of the survey will be useful to you, your organization and society at large. By agreeing to fill the questionnaire, it will be assumed that you have willingly consented to the research.

Thank you in advance for taking time to complete this questionnaire voluntarily. If you would like a summary of my findings, email me at [mwangi2010@gmail.com](mailto:mwangi2010@gmail.com)

The Kenyatta University, Department of Leisure and Recreation has approved this study.

Peter Mwangi

**Researcher**

**APPENDIX B: PERMIT FROM THE MINISTRY OF HIGHER EDUCATION  
SCIENCE AND TECHNOLOGY**

REPUBLIC OF KENYA



**NATIONAL COUNCIL FOR SCIENCE AND TECHNOLOGY**

Telephone: 254-020-2213471, 2241349, 254-020-2673550  
Mobile: 0713 788 787 , 0735 404 245  
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When replying please quote  
secretary@ncst.go.ke

P.O. Box 30623-00100  
NAIROBI-KENYA  
Website: www.ncst.go.ke

Our Ref:

**NCST/RCD/14/013/82**

Date:

**19<sup>th</sup> February, 2013**

Peter Ndungu Mwangi  
Kenyatta University  
P.O.Box 43844-00100  
Nairobi.

**RE: RESEARCH AUTHORIZATION**

Following your application dated *6<sup>th</sup> February, 2013* for authority to carry out research on "*Effect of experimental training on life effectiveness skills and teamwork among selected Kenya Army and Administration Police in Kenya,*" I am pleased to inform you that you have been authorized to undertake research in **Selected Districts** for a period ending **31<sup>st</sup> December, 2013**.

You are advised to report to **the Commander of Kenya Army and the Deputy Inspector General, Administration Police** before embarking on the research project.

On completion of the research, you are expected to submit **two hard copies and one soft copy in pdf** of the research report/thesis to our office.

**DR M.K. RUGUTT, PhD, HSC.  
DEPUTY COUNCIL SECRETARY**

Copy to:

The Commander  
Kenya Army.

## APPENDIX C: LIFE EFFECTIVENESS QUESTIONNAIRE

### PART A:

#### READ THESE INSTRUCTIONS

**This is not a test** - there are no right or wrong answers, and everyone will have different responses.

Over the page are a number of statements that are more or less true (that is like you) or more or less false (that is unlike you). Please use the 5 point scale to indicate how true (like you) or how false (unlike you), each statement is as a description of you. **Answer the statements as you feel now**, even if you have felt differently at some other time in your life. Please do not leave any statements blank.

L.E.Q.

AGE: \_\_\_\_\_(years)    DATE: \_\_\_\_/\_\_\_\_/\_\_\_\_

MALE / FEMALE (circle one)

Educational level (tick one)

High school    ( ) College            ( ) University            ( ) Other (specify) ( )

Previous exposure to experiential learning/ yes    no

Department \_\_\_\_\_

Current rank \_\_\_\_\_

|  | 1. Strongly Disagree | 2. Disagree | 3. Not sure | 4. Agree | 5. Strongly Agree |
|--|----------------------|-------------|-------------|----------|-------------------|
| 01. I plan and use my time efficiently.                                  |                      |             |             |          |                   |
| 02. I am successful in social situations.                                |                      |             |             |          |                   |
| 03. When working on a project, I do my best to get the details right.    |                      |             |             |          |                   |
| 04. I change my thinking or opinions easily if there is a better idea.   |                      |             |             |          |                   |
| 05. I can get people to work me.   |                      |             |             |          |                   |
| 06. I can stay calm in stressful situations.                             |                      |             |             |          |                   |
| 07. I like to be busy and actively involved in things.                   |                      |             |             |          |                   |
| 08. I know I have the ability to do anything I want to do.               |                      |             |             |          |                   |
| 09. I do not waste time.   |                      |             |             |          |                   |
| 10. I am competent in Social situations.                                 |                      |             |             |          |                   |
| 11. I try to get the best results when I do things.                      |                      |             |             |          |                   |
| 12. I am open to new ideas.  |                      |             |             |          |                   |
| 13. I am a good leader when a task needs to be done.                     |                      |             |             |          |                   |
| 14. I stay calm and overcome anxiety in new or changing situations.      |                      |             |             |          |                   |
| 15. I like to be active and energetic.                                   |                      |             |             |          |                   |
| 16. When I apply myself to something I am confident I will succeed.      |                      |             |             |          |                   |
| 17. I manage the way I use my time well.                                 |                      |             |             |          |                   |
| 18. I communicate well with people.                                      |                      |             |             |          |                   |
| 19. I try to do the best that I possibly can                             |                      |             |             |          |                   |
| 20. I am adaptable and flexible in my thinking and ideas.                |                      |             |             |          |                   |
| 21. As a leader I motivate other people well when tasks need to be done. |                      |             |             |          |                   |
| 22. I stay calm when things go wrong.                                    |                      |             |             |          |                   |
| 23. I like to be an active, 'get into it' person.                        |                      |             |             |          |                   |
| 24. I believe I can do it  |                      |             |             |          |                   |

**PART B Teamwork Questionnaire**

1 I offer information and opinions

**a.** Very frequently      **b.** Frequently **c.** Not sure **d.** Rarely **e.** Never

2. I summarize what is happening in the group

**a.** Very frequently      **b.** Frequently **c.** Not sure      **d.** Rarely **e.** Never

3. When there is a problem I try to identify what is happening

**a.** Very frequently      **b.** Frequently **c.** Not sure      **d.** Rarely **e.** Never

4. I start the group working

**a.** Very frequently      **b.** Frequently **c.** Not sure      **d.** Rarely **e.** Never

5. I suggest directions the group can take

**a.** Very frequently      **b.** Frequently **c.** Not sure      **d.** Rarely **e.** Never

6.I offer help to help the team achieve set goals and objectives

**a.** Very frequently      **b.** Frequently **c.** Not sure      **d.** Rarely **e.** Never