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THE POTENTIAL OF EXPERIENTIAL LEARNING IN SKILLING OF AGRICULTURE STUDENTS: THE CASE OF BUKALASA AGRICULTURAL COLLEGE

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MAY, 2014

Declaration

I, Oguzu Evans, declare that the work presented in this thesis is mine. It has never been presented to any other university or institution. Where other people's works have been used, references have been provided, and, quotations made.

Signature of Candidate ..... Date 19/9/2013

Approval

We confirm that the work in this thesis was carried out by the candidate under out supervision as university supervisors.

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Dedication

I dedicate this thesis work to my family and friends. A special feeling of gratitude to my loving parents, Late Agobia Andrew and Anduru Janet, my wonderful daughters Asiomizu Patience and Taliru Evans for being there for me throughout the entire Master's program.

I also dedicate this thesis to my friends who have supported me throughout the process. I will always appreciate your efforts.

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List of Abbreviations and Acronyms

BAC	Bukalasa Agricultural College
BTVET	Business, Technical and Vocational Education and Training
IT	Industrial training
MVP	Masters in Vocational Pedagogy
NCDC	National curriculum Development Centre
SPSS	Statistical Package for Social Scientists
UNESCO	United Nations Educational, Scientific and Cultural Organization
WBL	Work Based Learning

Abstract

The study was carried out to investigate the potential of experiential learning approaches in the training of agricultural students at Bukalasa Agricultural College (BAC). It was guided by four objectives: to investigate the skills required by employers of agricultural graduates, to characterize the modes of delivery used in the training of students at BAC in relation to experiential learning, to examine the perceptions of the current and past students towards the training approaches at BAC in relation to experiential learning and to determine the best options in training approaches at BAC in relation to experiential learning. The study used a descriptive study design taking both qualitative and quantitative approaches based on a sample of 50 respondents which comprised of the employers, teaching staff, the graduates and continuing students. These were selected using purposeful sampling and stratified random sampling techniques. Data was collected using interviews, observation and questionnaire. The qualitative data was analysed using coding while the quantitative data was analysed using descriptive statistics after data was entered into the Statistical Package for Social Scientists (SPSS verson.17.0). Results indicated the following are the skills required by the employers; technical skills, communication skills, leadership skills, information technology skills, interpersonal skills, team building skills and time management skills. Responses from the employers show that the newly recruited agricultural graduates lack the following skills; leadership skills, critical thinking skills, interpersonal skills and financial management skills. The commonly used mode of delivery teaching staff during the training was lecture. Other modes of delivery used include demonstration, experiments and students projects. The findings revealed that the instructional materials used were inadequate. The respondents ranked internships as being the most useful experiential learning approach. The study concluded that that experiential learning has potential to improve the skill acquisition of the students if it is well planned and monitored by both the lecturers in the tertiary institutions. The study recommends that BAC should continue and reinforce the experiential learning approaches to training based on the positive impact expressed by respondents of this study hence the college should try to implement more experiential learning activities into their daily training activities to increase students ability to learn hands-on skills so that they may be able to use the skills in their future careers and academic advancements.

CHAPTER ONE

INTRODUCTION

1.1 Overview

In this study, the researcher investigated the potential of experiential learning in the training of agricultural students. T his chapter presents an analysis of vocational pedagogy and experiential learning, background to the study, statement of the problem, purpose of the study, specific objectives, scope of the study, justification, significance, and limitations of the study and definition of key terms.

1.2 Background to the study

1.2.1 Vocational Pedagogy and experiential learning

Vocational pedagogy is a field of knowledge oriented towards trades, occupation and profession (Masters in Vocational Pedagogy (MVP) Programme Document, 2008, p. 2). Hence, vocational pedagogy addresses how best the learners can be prepared for the world of work. Vocational pedagogy critically examines how knowledge can be created, skills developed and useful habits for the world of work can be established among the learners. Learners need to be equipped with the necessary skills to enter the world of work with minimum difficulties. Relatedly, Lucas, Spencer and Claxton (2012) defines vocational pedagogy, as the science, art and craft of teaching that prepares learners for certain kinds of working lives. The aim of vocational pedagogy is to prepare learners acquire relevant skills, knowledge and attitudes the enables them to perform at their workplaces hence the instructional strategies used should enable learners have a smooth school to work transition.

Nilsson (2007) stated that in order for learners to achieve the relevant competences for the world of work the following aspects are very important; the tasks to which learners are exposed; tutoring process, tools and materials used in the training process and the communication process during the training. In support, Lucas *et al* (2012) identified the following aspects as important in designing vocational pedagogy for development of competencies required in the workplaces; the role of the teacher, nature of activities, means of knowing, attitude to knowledge, organisation of time, organisation of space, approach to tasks, proximity to teacher and the role of the learner.

During the first year of Masters in Vocational Pedagogy at Kyambogo University a lot was emphasised on the experiential learning approach. Experiential learning is an important component of Vocational Pedagogy as a means of developing the competencies required of graduates in vocational trades. Experiential learning is learning derived from experiences. Experience is a crucial factor in the development of knowledge, skills and values required in the world of work.

The dominant teaching method in training institutions over the past century has been the lecture method (Fish, 2007). The advantages of this method includes the efficient dissemination of subject information; maximised control by an instructor; minimal "risk" for students; student engagement with the subject through a lecturer's enthusiasm; enhanced understanding for those who learn best by listening (Bonwell, 1996; Sadler, 2004; Fleming, 2001). In addition, this approach remains popular partly due to its convenience; that is the ability to teach large numbers of students with relatively little facilities (Nicholson, 2000).

However, the efficacy of the lecture approach in maximising student learning is increasingly questioned. Limitations include the failure to provide lecturers with feedback regarding student understanding; the emphasis on auditory learning as opposed to other learning styles; the assumption that all students learn at the same pace and have similar levels of understanding; and the risks of information loss due to the passive nature of many learners (Fish, 2007). Research indicates that lectures may not actively involve the student in their own learning (Frontczak and Kelly, 2000). This is a significant failing given the evidence that involvement of the learners in the learning process significantly improves knowledge retention and the ability to apply that knowledge (Karns, 2005).

Furthermore, a number of educationists have argued that teaching should not be restricted to simple dissemination of knowledge but should be focused on "the passing on of knowledge such as preparation for working life, learning how to learn, and the internalisation of value systems and culture" (Baruch, 2006, p. 43). As such, lectures may not be well suited to teaching higher order skills, such as application, analysis, synthesis, or evaluation which is needed in the world of work. This has led to a re-evaluation of the lecture method as a whole (Read and Kleiner, 1996; Baruch, 2006). For agricultural training the impetus for change is particularly intense. This is due to the fact that students do not simply need to learn about an established body of knowledge, but also how to practically apply new ideas or knowledge is very important (Nicholson, 2000, p. 45).

However, research suggests that incorporating experiential teaching methods in training like agricultural training modules may also be beneficial (Fish, 2007). Over the last decade, agricultural training has seen an increased use of experiential teaching methods (Hayes and Reynolds, 2005). These approaches involve activities where students

actively engage in an activity or event O'Malley and Ryan (2006). Examples include simulations, industrial trainings, student's projects, experiments and case studies. These examples share a key distinguishing feature when compared to traditional teaching methods; they are based on students generating knowledge by experiencing things first-hand, rather than by hearing about other's experiences Feinstein, Mann, and Corsun,. (2002),

The leading higher educational theorist, Kolb (1984) identifies a number of elements that are necessary for students to gain and apply knowledge from an experiential teaching method. First, the student must be actively involved in the experience (concrete experience). Second, they must be able to reflect on the experience (reflective observation). Third, the student must be able to analyse and conceptualise the experience (abstract conceptualisation). Finally, they must have the problem-solving skills to use new ideas gained from the experience (active experimentation). Depending on the nature of the experience, students follow different paths. For example, when learning to milk a cow a person may watch other people milking (reflective observation); develop a clear understanding of what is involved in milking a cow (abstract conceptualisation); receive practical advice from an expert (concrete experience); and then get on to milk a cow (active experimentation). Kolb argues that the effectiveness of an experiential teaching method is maximised when there is a balance between the four elements of the learning cycle.

Within agricultural education, the application of experiential learning approach has become increasingly popular (O'Malley and Ryan, 2006). It is argued that the inherent complexity and non-mechanistic interactions that exist within the discipline may

make experiential teaching methods particularly appropriate for student learning and skills acquisition (Holman, 2000). Experiential teaching methods have proven to be very useful in conveying subject information to students and in helping improve their ability to apply theories into practice Pfahl, Laitenberger, Ruhe, Dorsch, and Krivobokova, (2004)

In addition, there is evidence suggesting that such experiential learning can help develop higher order skills which are demanded by the employers beyond the specific, academic content of the module. For example, teamwork, interaction, communication, information gathering, conflict resolution, presentation, and decision-making may all be facilitated by experiential learning (Hayes and Reynolds, 2005). Such skills are important for students entering a contemporary work environment that is increasingly based on group, team, and network based models of working (Elam and Spotts, 2004).

1.2.2 The critical role of experiential learning in vocational training

Experiential learning is the process where knowledge is created through the transformation of experience (Kolb, 1984, p.20). Experiential learning is, therefore, learning derived from experience, and experience is seen as an important component in the development of competencies (Rothwell and Sredl, 2000, p. 7). Experiential learning complements students' academic learning and provides learners with experiences and knowledge that maximize their growth and development while meeting their needs for career exploration.

Research has shown that the concept of experiential learning is very important in preparing learners for future career challenges. As higher education continues to adapt to

new expectations from students, experiential learning has become more important. For example, Clark and White (2010) point out that "a quality educational program for skills acquisition must include an experiential learning component". With reference to this study, employers noted that graduating students need to build skills in "professionalism" which can be taught through experiential learning. For example, some skills and abilities cannot be taught using books or reviewing the works of others. A range of skills and abilities require experiential learning in terms of active observations which many educators refer to as "learning by doing" (Clark and White (2010).

Smith (2001) described experiential learning context as the sort of learning experienced by students who are given a chance to acquire and apply knowledge, skills and feelings in an immediate and relevant setting. He further stressed that the learning environment should be adequately equipped with the relevant instructional materials which are similar to the workplaces such that the learners can be able to benefit from their use. It is therefore, important to note that the effectiveness of using experiential learning in preparing learners depend very much on the relevance of the instructional materials with which the learners interact during the learning process. Whatever the educational setting, it is important to remember that the context of experiential learning involves a direct experiential encounter with the learning event through the instructional tools rather than simply a thought process associated with the learning (Borzak, 1981).

The idea of experiential learning is not new in the field of education (Wulff-Risner and Stewart, 1997). The theory of experiential learning goes back to the work of some very prominent twentieth century scholars (Kolb and Kolb, 2005), Some of the scholars who helped to model the theory of experiential learning include John Dewey,

Kurt Lewin, Jean Piaget, William James, Carl Jung, Paulo Freire, Carl Rogers (Kolb and Kolb, 2005). Experiential learning has long been valued in the field of agricultural education and has been recognized as an integral part of the educational process (Cheek, Arrington, Carter, and Randell, 1994). Research carried by Newcomb, McCracken, Warmbrod, and Whittington(2004) concluded that experiential learning in agricultural education allows students to apply practices and principles learned in the classroom and to develop new skills and abilities needed in the world of work. Relatedly, Clark and White (2010) concluded that educational programs have embraced experiential learning as a true learning methodology for students to obtain occupational skills valued by employers.

This study was guided by Kolb's theory of experiential learning. Kolb (1984) identified a number of elements that are necessary for students to gain knowledge and competence from an experiential learning approach. First, the student must be actively involved in the experience (concrete experience). Second, they must be able to reflect on the experience (reflective observation). Third, the student must be able to analyse and conceptualise the experience (abstract conceptualisation). Finally, they must have the problem-solving skills to use new ideas gained from the experience (active experimentation).

Kolb argues that the effectiveness of an experiential teaching method is maximised when there is a balance between the four elements of the learning cycle. Knowledge results from grasping and transforming experience. In Kolb's Experiential Learning Cycle, the learner utilizes two strategies for grasping experiences: Concrete Experience (CE) and Abstract Conceptualization (AC), and the learner utilizes two

strategies for transforming experiences: Reflective Observation (RO) and Active Experimentation (AE). Reflective observation allows students to make the connection between theory and practice and allows the principles learned in the classroom to be applied. Reflection is essential to learning from experience, and it is the "core difference between whether a person repeats the same experience several times, becoming highly proficient at one behavior, or learns from experience in such a way that he or she is cognitively or affectively changed" Reflection helps the individual travel from a destination of uncertainty to a field of clarity. The role of reflection, as defined in the context of learning, serves as a "bridge between experience and theory". They indicate that through reflective learning, student learning is deepened and strengthened. Active Experimentation allows learners to apply knowledge into practice.

1.2.3 The Ugandan experience

The Ministry of Education and Sports is transforming Business, Technical and Vocational Education and Training (BVET)to provide learners with more opportunities for high quality and relevant learning experiences that build on their competencies (Skilling Uganda, 2011). This transformation has advocated for a BTEVT system that provides learners with valuable experiential learning opportunities that helps to prepare learners for employment. The main purpose of the strategic plan is to enhance employability skills and relevant competencies that are needed in the labour market. BAC uses theoretical and practical approaches like practical lessons, students' projects, and internships in the training of the students with the ultimate aim of producing competent agriculturalists for the world of work. This is in line with the BTVET strategicp lan which advocates for a comprehensive system of skills development for employment and

enhanced productivity with the ultimate aim of re-orienting BTVET to the needs of the labour market such that training contents is aligned with skills requirements in the labour market.

According to BTVET strategic plan, Ugandan employers face a growing need for highly skilled personnel in response to the demands of an emerging knowledge economy. Cumming and Lesniak (2000), Smith (2001) reported that students' unacceptable levels of skills and lack of preparation for the workforce were major concerns for employers. Cumming and Lesniak (2000) suggested that this was partly due to lack of student preparation to address skills needed in the workplaces. Relatedly, a study conducted by Makerere University Institute of Social research (2006) found that only 38% of the graduates in agricultural sector admit to have been adequately prepared in terms of the skills required for the work environment. It is based on the above findings that the researcher investigated the potential of e xperiential learning in the skills training of agricultural graduates in BAC for the world of work.

1.3 Statement of the problem

Vocational Pedagogy addresses how best the learners can be prepared for the world of work and experiential learning is a vital component of vocational pedagogy. Efforts have been made to implement experiential learning approach in terms of students projects, practical lessons, experiments and internships in vocational training institutes to enable learners develop competencies needed in the world of work. Despite these efforts research has shown that many graduates get difficulties in the world of work prompting further training by employers. There seems to be a gap between what the training institutions offer and what the world of work requires. This study therefore investigated the use of experiential learning approaches in developing skills needed by agricultural graduates for the workplaces.

1.4 Purpose of the study

The purpose of this study was to investigate the potential of experiential learning approaches in the training of agricultural students at Bukalasa Agricultural College.

1.5 Objectives of the study

1. To investigate the skills required by employers of agricultural graduates.
2. To characterize the modes of delivery used in the training of students at BAC in relation to experiential learning.
3. To examine the perceptions of the current and past students towards the training approaches at BAC in relation to experiential learning.
4. To determine the best options in training approaches at BAC in relation to experiential learning.

1.6 Research questions

1 What skills are required by the employers of agricultural graduates?

2. What are the characteristics of the modes of delivery used in the training of students at BAC in relation to experiential learning?

3. What are the perceptions of the current and past students towards the training approaches at BAC in relation to experiential learning?

4. What are the best options among the training approaches at BAC in relation to experiential learning?

1.7 Scope of the study

1.7.1 Geographical Scope

This study was delimited to the Bukalasa Agricultural College W obulenzi in Luwero district, central Uganda.

1.7.2 Content Scope

The study was delimited to the variables addressed in the objectives. That is to investigate the skills required by the employers of agricultural graduates, to characterize the modes of delivery used in the training of students at BAC in relation to experiential learning, to examine the perceptions of the students towards the training approaches at BAC in relation to experiential learning and to determine the best options in training approaches at BAC in relation to experiential learning.

1.7.3 Time scope

The study investigated the period from 2007 to 2012. The graduates who trained during the above period were considered. This duration was suitable because most of the graduates within the above stated duration are employed.

1.8 Conceptual framework

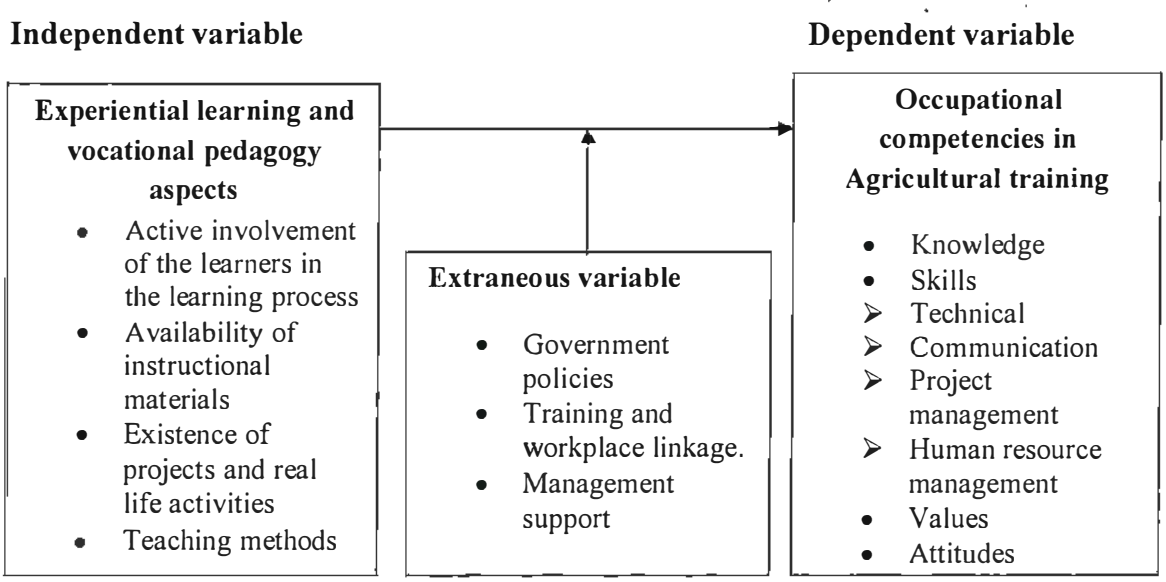

Figure 1.1: Conceptual Framework

In this study experiential learning is conceptualized as active involvement of the learners in the learning process, availability of instructional materials, problem solving and existence of projects. These influence the acquisition of the knowledge, skills, values and attitudes acquired during the training program. This conceptual framework is constructed on the concept of constructivists which emphasises that learners actively construct their own knowledge and meaning from their experiences. It is argued that the responsibility of learning should reside increasingly with the learner (Glasersfeld, 1989). Social constructivism thus emphasizes the importance of the learner being actively involved in the learning process, unlike one where the responsibility rested with the instructor to teach and where the learner played a passive, receptive role. The extraneous factors in the conceptual framework are the government policies and the training institution to workplace linkage.

According to the social constructivism approach, instructors have to adapt to the role of facilitators and not teachers (Bauersfeld, 1995). Whereas a teacher gives a didactic lecture that covers the subject matter, a facilitator helps the learner to get to his or her own understanding of the content and this helps the learner acquire the relevant knowledge, skills, values and attitude in relation to the particular field of specialization. In order; for the learners to develop the occupational competencies in terms of knowledge, skills, values and attitudes required for the world of work there is need to actively involve the learners in the learning process, there must be availability of instructional materials and there is need for existence of projects and real life activities and the modes of delivery needs to be learner centered. This greatly depends on other variables such as government policies in terms of training and workplace linkage and the institutional management support in terms of provision of instructional materials.

1.9 Significance of the study

The findings from this study may act as resource for the policy makers and implementers towards the improvement of agricultural education and training. Besides it will show the need to fill the gaps between work requirements and experiential learning mode of training. Specifically, students will benefit from enhanced employability skills as a result of being exposed to relevant experiences enabling them to successfully manage their long-term careers as well as the initial transition from higher education to work. Trainers will benefit from access to a range of innovative teaching, learning and assessment materials allowing them to better prepare students to enter and succeed in a highly competitive marketplace. Employers will benefit from graduates entering the

workforce with an increased awareness of the employability attributes which allow them to make highly effective and immediate contributions to their employing organisations.

1.10 Justification of the study

Few researchers have carried out research on the potential of experiential learning on training agricultural graduates in the Ugandan context. The study has generated recommendations to help improve the training of practitioners in the agriculture sector in Uganda.

1.11 Motivation for the study

The motivation for this study is on the premise that during the various facilitations and plenary sessions in my first year of Masters in Vocational Pedagogy a lot was emphasized on experiential learning by the facilitators and the mentors. This prompted me to read literature on the role of experiential learning and instructional strategies in vocational subjects. Hence I was inspired to investigate the potential of experiential learning in training agricultural graduates. To me experiential learning offers a fundamentally important aspect of vocational education and training.

1.12 Limitations

The limitation to this study includes the busy schedules at the above institution hence getting time to talk to some of the respondents proved to be a challenge. The same limitation also applied to the employers and the graduates of BAC. Through frequent visit to the respondents the researcher was able to overcome the challenge.

1.13 Operational definitions of terms and concepts

Learning: Change in the learners' ability to perform as a result of experience or practice.

Vocational pedagogy: Is subject specific mode of instruction for vocational subjects.

Vocational Education and Training: Is education for work or to fit in the world of work.

Experiential learning: It is learning derived from meaningful experiences.

Pedagogical approaches: These are instructional strategies used in teaching and learning process. These include experiential learning, problem based learning and activity based learning among others.

Competence: is the ability of an individual to do a job properly

CHAPTER TWO

REVIEW OF RELATED LITERATURE

2.1 Introduction

This chapter is an analysis of the existing literature on the skills required by employers of agricultural graduates, the mode of delivery used in relation to experiential learning and the perceptions of students towards experiential learning.

2.2 The theoretical frame work

The theoretical framework guiding this study is Kolb's Theory of Experiential Learning (1984). Kolb incorporated concepts from several philosophers who studied teaching and learning, including John Dewey, Kurt Lewin, and Jean Piaget, into his theory. He believed that experiential learning is a "holistic integrative perspective on learning that combines experience, perception, cognition, and behavior" and could be applied to any educational setting Kolb (1984, p.21). From the collaboration of the three theorist perspectives, Kolb developed four components of the experiential learning cycle: concrete experience, reflective observation, abstract conceptualization, and active experimentation. These cycles are represented in the figure below.

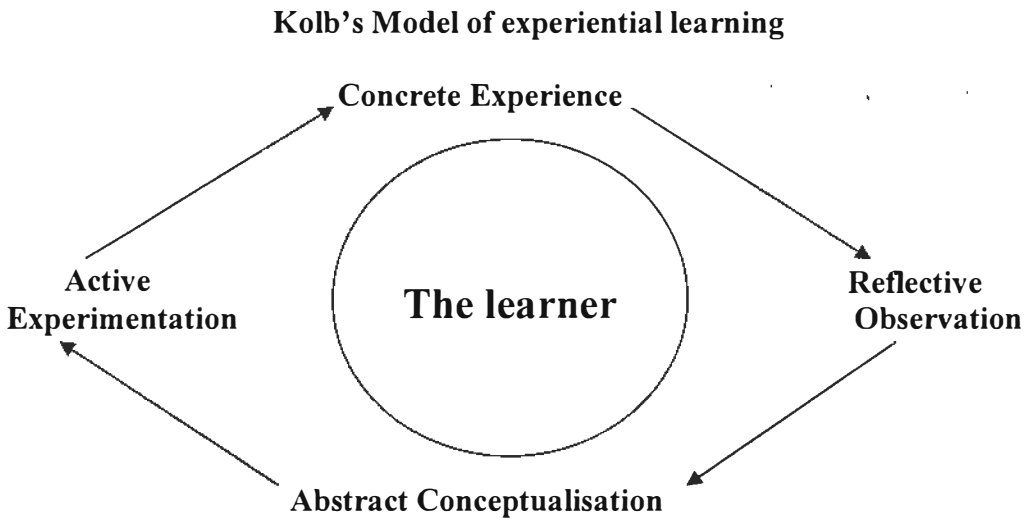

Figure 1.2 Kolb's Model of Experiential Learning

Explanation of the theoretical framework

The experiential learning approach sees the learner as a cognitive, emotional and physiological being actively involved in the learning process. This approach gave rise to the argument that learning should be holistic in nature and that learners should be assisted in learning from their own unique experiences (Kolb, 1984, p.20). Concrete experiences allow for application, understanding, and meaning of abstract principles. In this model, the classroom is not a teacher-centered environment; instead, it is primarily student-driven. The teacher is seen as an agent assisting students in educational experiences and making connections between previous knowledge and new learning. The reflective observation component encourages students to critically examine a concrete experience (Zilbert and Leske, 1989). This reflection period forces students to take responsibility for their own learning and engages the learner mentally and emotionally in the recent experience (Proudman, 1992). The use of abstract conceptualization allows students to make generalizations about principles related to the experience and strive for improvement. The final stage, active experimentation, requires the transfer and

application of principles to a new situation. Students must be allowed the opportunity to apply the new knowledge and test for validity and usefulness.

In summary, the various principles of experiential learning theory (ELT) are highlighted by Kolb and Kolb (2005) as follows:

- Learning is best conceived as a process. To improve learning in higher education, the primary focus should be on engaging learners in a process that best enhances their learning hence a process that includes feedback on the effectiveness of their learning efforts.
- All learning is relearning. Learning is best facilitated by a process that draws out the learner's beliefs and ideas about a topic so that they can be examined and tested, and their existing knowledge and experiences integrated with new, more refined ideas and concepts.
- Learning is a holistic process of adaptation to the world. Not merely the result of cognition, learning involves the integrated functioning of the total person-thinking, feeling, perceiving, and behaving.
- Learning results from synergetic transactions between the person and the environment.

In conclusion, in order for this model to be successfully implemented, trainers must adequately prepare students to use the required skills of observation, reflection, conceptualization, evaluation, and experimentation that enable them to learn most effectively from their experiences. In addition, trainers must understand that all experiences are not educational. Therefore, it is the responsibility of the teacher to create meaningful, engaging, lasting, effective experiences for all students.

2.3 Experiential learning in agricultural education and competence development.

"Agricultural education programs in the public schools are designed to accomplish educational objectives that pertain specifically to acquiring appreciation, understanding, knowledge, and skills applicable to the agricultural sciences, agribusiness, and the production and processing of food" (Newcomb, McCracken, Warmbrod, and Whittington, 2004, p.10).

In Africa, education systems are short of life skills that link well with the needs of rural communities (Vandenbosch, Hagmann, Momoh, and Ngwenya, 2002). It has been argued that schools can serve as platforms for reaching rural communities with farming innovations through learners. Skeptics point to past failures, noting that school gardens were often poorly managed, giving rather negative examples to communities (Riedmiller, 2002). It has also been argued that training curricula in Africa are dominated by competitive academic subjects and prioritize terminal examinations over practical experiential learning approaches and contextualized learning.

2.4 Skills required by employers of agricultural graduates

Graduates are entering the workforce without the necessary skills demanded in industry (Atkins, 1999; Peddle, 2000). Supervisors perceived the three most important skills for graduates to possess were: "working well with others," "functioning well in stressful situations" and their "ability to work independently." Supervisors perceived graduates to be most competent at: "maintaining a positive attitude," "relating well with supervisors" and their "ability to work independently."

A disparity exists in the types of skills taught at training institutions and those that are demanded in industry (Andrews & Wooten, 2005). Atkins (1999, p. 271) posited that

"there is currently a skills gap between what employers need and what training institutions are producing". Evers et al. (1998, p. 16) echoed that "the skills most in demand are least in supply" Specifically, the types of skills in demand include those that are transferable to a variety of situations (Billing, 2003). These transferable skills, also known as employability skills, include the ability to "solve complex, multidisciplinary problems, work successfully in teams, exhibit effective oral and written communication skills, and practice good interpersonal skills" (Schmidt, 1999, p. 31).

Fuhrmann and Grasha (1983) concluded that training institutions could better meet the needs of their students by adjusting how and what they teach. Therefore, higher education must assess its curriculum and evaluate its purpose in helping students attain skills required by the employers. Shivpuri and Kim (2004) suggested that higher education should listen to the needs of its stakeholders in industry.

A possible reason for higher education institutions failing to address the employability skills of its students could be because college faculty have do not understand what the lacking skills are and do not possess the necessary resources to teach them (Hofstrand, 1996).

2.5 Modes of delivery used in experiential learning.

Modes of delivery in this study refer to the approaches used by the lecturers to enhance the learning process. Determining the modes of delivery used in experiential learning depends on the objectives of the course. There is a wide range of views about appropriate modes of delivery used that can take both teaching objectives into account as well as the particular profile of students with their personal motivations. Some modes of delivery may be more applicable in some institutions and situations, and not in others

Blenker, Dreisler, Færgemann and Kjeldsen, (2008). Nevertheless, Hindle (2007) argued that it is helpful to use modes of delivery that stimulate creativity, imagination and risk taking, and students learning together, and using realistic scenarios.

This reflects Fiet's (2000) view that trainers could implement a range of experiential activities where the focus is on what the student does. For example, Newcomb, McCracken, Warmbrod, & Whittington, (2004) have argued that agricultural skills are learned in a variety of ways and methods. Some are best learned by doing and observing others. Lecture-based education has its place in the curriculum, but the training of future agriculturalists should also include interactive and action oriented modes of delivery. Relatedly, Clark, J., & White, G. (2010) recommended that agriculture education requires experiential learning styles, creative problem solving and learning by doing in order to engage students to acquire skills required by the employers.

Student engagement has been described as a combination of the time and energy students devote to their learning, and the effort institutions make in using effective educational practices Kuh,, Cruce, and Shoup, (2008). It has been proposed that engagement in agricultural courses may be achieved by adopting the general proposition that deep learning occurs and is supported by aspects including a common understanding of learning objectives, student motivation, student freedom to focus on the task and interaction between fellow students and with teachers (Biggs, 2003). In order to achieve this deep learning, some educators propose that agricultural education should be linked to practice and be seen by students to be useful, so that they are encouraged to develop skills necessary for success as an agriculturalist (Knobloch, (2003). Implementing

teaching methods that draw on practice is seen to be particularly important for the agriculture students.

Earlier, experiences in promoting school agriculture in Tanzania and other parts of Sub Saharan Africa were largely regarded as discouraging because of poor modes of delivery (Taylor, 2003). The quality of school gardens was identified as the single most important factor influencing the knowledge, skills and attitudes of learner towards studying agriculture (Riedmiller, 2002). In the case of Uganda, school gardening is often simply a labour based activity that offers few learning opportunities to learners engaged in it, a majority of whom leave school without employability skills (Kibwika & Tibezinda, 1998; NCDC, 2000; Reidmiller, 2002). Astin, (1999) also suggested that for a curriculum to achieve the desired effects, it must elicit sufficient effort and energy on the part of the student in order to bring about the desired learning and development. He pointed out that simply exposing the student to a particular set of courses, as often done with classroom theory, may not work for developing the skills of the learners.

According to Astin (1999), content based approaches to teaching such as the examination driven teaching of agriculture tend to make students passive as simple recipients of information without the practical involvement needed to encourage skill acquisition and transfer. Dormody and Seevers (1994) argued that students should be encouraged to develop a supervised agricultural experience.

Whatever the educational setting, the important point to remember with the concept of experiential learning is that it involves a direct experiential encounter with the learning event rather than simply a thought process associated with the learning (Borzak, 1981). This direct experiential encounter with a learning event requires active

engagement of the student as opposed to passive engagement commonly associated with teacher directed instruction that generally results in minimal student interaction in the learning process.

Demonstrations also have the potential to promote problem solving skills and help students develop higher order thinking skills such as analysis, characterisation, evaluations and synthesis (Meyer, Schmidt, Nozawa, & Panee, 2003). However, teachers have to implement a process that would facilitate students' thinking and questioning (Kelter, 1994). In order to achieve this, teachers should frame nurturing questions that lead progressively to "explanations and understanding concepts" (Meyer et.al., 2003, p. 432). Demonstrations enable teachers to model cognitive strategies and a teacher who thinks aloud and "invites students to observe how he or she deals with perplexity" encourages them to "follow along and participate in problem solving" (Meyer et.al., 2003, p. 432).

Experimental activities have been used in science education since the middle of 19th century. An experimental mode of delivery helps to improve students' hand skills, makes them more productive and increases their active involvement in learning. Students can create a relationship between theory and practice by using experimental mode of delivery and by applying what they learn into their real life problems through experiments, hence they can make their life more meaningful.

Additionally, by using concrete and tangible explanations, students become more involved and absorbed in the lesson (Okan, 1993). Students are active when experimenting and get involved in the experiment excitingly. That is why; activity and high participation is observed during experiments. Experimental mode of delivery has a

great importance as it ensures student's active involvement. Observation and learning by doing are the most valid modes of delivery of our time (Ivgen, 1997). Using experimental activities gives the learners opportunity to develop cognitive skills easily and it gives a lot of opportunities for the students to work in groups which enhances the team building skills.

Further, through this mode of delivery students are also given opportunity to learn by practice (Algan, 1999). Experimental activities encourage affect reasoning, critical thinking, understanding and also helps students to develop ways of producing knowledge Akdeniz , Çepni and Azar (1998). The main goal to reach for experimental studies is to achieve meaningful learning by putting the theoretical information into practice and by proving it (Nakhleh, 1994).

Another mode of delivery used in relation to experiential learning is students' projects. Students working on live projects have shown improvements in communication, teamwork, problem solving, leadership research and presentation skills, as well as in confidence and their belief in their own efficacy Campbell, Mothersbaugh, Brammer, and Taylor, (2001). They provide a challenging environment in which students can practice skills step-by-step (Shepherd, 2004). Hence by participating in projects students are able to apply the knowledge gained from the theoretical lessons.

2.6 Perceptions of students towards experiential learning approach

Studies assessing the effects of experiential learning in form of cooperative education on students have been conducted in a number of agricultural colleges and universities (Trede and Andreasen, 1997). Most of the results reported a change in perceptions and attitudes of graduates. Trede and Andreasen (1997) state that experiential

learning improved team work, problem solving and allowed students to visualize the actual application of their knowledge.

In a study conducted by Jones (2002), students mentioned that they learned to build a portfolio, which improved their writing skills. Other students stated that the internship helped in realistic training and had an impact on the improvement of communication skills. On the other hand Kerka (1999) indicated that in California State University, students who participated in an experiential learning initiative reported that it had opportunities to explore career options, and enhanced employability skills such as communication, problem solving, and leadership as well as awareness of community and social problems. Clark and White (2010) cites a case of students who participated in problem-based experiential learning. The student evaluation of the participants pointed out that students felt that it enhanced their ability to appraise problematic situations constructively and objectively.

At Iowa State University, another problem based learning experience case was undertaken. The program involved an experimental course, titled "Society and Agriculture: Confronting Modern Problems". In preparing for student's experience in confronting problematic situations related to agriculture and natural resource management, they employed a number of learning techniques that included examination of case studies. The students organized themselves into teams in order to analyze a specific problem, identifying competencies required by a team to analyze that specific problem and matching those needs with individual expertise and learning styles (Salvador, Countryman and Miller, 1994). Student response to the course was favorable and comments indicated that students perceived practical value in this learning focus.

According to the lecturers; students displayed a natural ability to deal with complex situations in a holistic fashion. Students also appreciate the value of problem-based experiential teaching and feel that it enhances their ability to appraise problematic situations constructively and objectively (Salvador et al., 1994).

2.7 Benefits of experiential learning

Studies assessing the effects of cooperative education on students have been conducted in a number of agricultural colleges and universities (Trede and Andreasen, 1997). Most of the results reported a change in perceptions and attitudes of graduates. Trede and Andreasen (1997) state that experiential learning improved team work, problem solving and allowed students to visualize the actual application of their knowledge.

According to Kolb (1984), learning is the creation of knowledge and meaning which occurs through the active action and grounding of ideas and experiences in the external world and through internal reflection about the attributes of these experiences and ideas (Kolb, 1984). Fenwick (2000) concurs that experiential learning is understood as reflective construction of meaning with particular emphasis on critical reflection and dialogue. Peterson (1997) defines dialogue as a process that builds shared meanings and which enhances the ability of an individual to resolve problems. Therefore, effective experiential learning promotes dialogue.

2.8 Experiential learning approaches

Industrial internship is an important part of an academic curriculum in higher education institutions. An internship is an opportunity for students to incorporate work-related experience and knowledge into their formal education in a training institution by

taking part in supervised and planned work in real-world professional environments. Although the majority of higher education institutions offer internship programmes for their students, the exact nature of each programme may differ according to the aims and objectives set by the respective institutions. However, all internship programmes are mainly formed to give the opportunity for students to experience and gain practical knowledge in authentic professional environments before they graduate.

In general, internship programmes try to merge students' learning gained in campus-based environment with real-work environment. Thus, terminologies used to describe this relationship between learning and work becomes important. Terms such as work-related learning, workplace learning and work-based learning (WBL) have been used to discuss and describe internship programmes. However, the similarities and differences of these terms are not entirely clear (Streumer and Kho, 2006). Thus, the term WBL will be used broadly to encompass these experiences and the literature on WBL is also included to explore the importance of internship programmes for learners.

WBL is based on the notion that the experience a learner gains at work is considered as an important aspect in matters concerning teaching and learning. Therefore, WBL involves a conscious effort to establish situations where learning takes place in real-life contexts. WBL encourages a "more participative, learner-centred approach, which places an emphasis on direct engagement, rich learning events and the construction of meaning by learners" Kolb (1984).

Giving learners an opportunity to experience work in a real-world environment will offer a chance for the students to apply theoretical knowledge learned in the earlier years as student to related, authentic working sites (Hughes, 1998). Many higher

education institutions have "sandwich" industrial internship courses where students do their industrial attachment (Auburn and Ley, 1993). This will complement their classroom knowledge whereby the industry location will provide the added practical learning experience. Learning is therefore seen as a two-way process whereby practical experience gained during internship can complement studies undertaken earlier in the training institutions (Little, 2004).

Knowledge and experience obtained from classrooms differs from that gained during industrial internships. Training institutions provide formal structured education which is often guided by the teaching staff whereas work placement experience promotes informal or incidental learning (Brennan and Little, 1996; Hughes, 1998; Johnson, 2000). In addition, classroom inputs are usually uniform for all students whereas during internships, the learning environment differs for each student (Agarwal and Gupta, 2008).

According to Trotskovy and Sabag (2010, p. 5), students also have the opportunity to identify the differences in "traditional learning process in the academic environment and the learning process in the industrial environment". Thus, WBL can also contribute to a better academic understanding when students return to their respective training institutions after industrial training (Jackson, 1995).

In addition, participation in internships is also regarded as increasing the marketability of the students when they graduate. The employment market now does not only demand graduates who have a high level of academic knowledge, but also graduates who can demonstrate core competencies essential to succeed in the work environment (Binks, 1996; Johnson, 2000; Okay and Sahin, 2010). Some of these competencies such as working in teams, presenting orally and problem-solving skills can enhance graduate

employability (Mason et al., 2006). Thus, through internship placements, students have the opportunity to develop these much needed skills while pursuing their academic qualifications in the training institutions (Semedo et al., 2010; Young, 1995).

2.9 Summary of the literature review

This section of the chapter is a summary of the literature and gaps identified from the literature in relation to the study. The literature indicates that a disparity exists in the types of skills taught at training institutions and those that are demanded in industry. There is a skills gap between what employers need and what training institutions are producing. The literature recommended that to avert the disparity that exists between the skills taught at the training institutions and those skills that are demanded at the labour market; there is need for training institutions to use relevant experiential learning approaches for example allowing learners to receive specific workplace training to build on their skills. The literature shows that the modes of delivery used in the training determine the acquisition of the skills hence to acquire some of the skills, the trainers need to use specific modes of delivery for the learners to acquire some of the skills and the experiential learning approach necessitates the trainers to use adequate relevant training materials, varied training activities and the role of the trainer is to guide the learners during the various training activities so as to help the learners understand the content and help the learner acquire the relevant knowledge, skills, values and attitude in relation to the particular field of specialization. Conclusions from the literature shows that once the experiential learning approach principles are implemented correctly the learners can acquire the skills required by the employers. The following research gaps were identified from the literature review; the relevancy of training materials to the skills

training, the role of the trainers in skills training in terms of the assessment and evaluation of the skills, linking the training to the labour market needs and the influence of modes of delivery on skills acquisition needs to be considered during experiential learning to ensure that learners benefit from the experiential learning approach. Therefore this suggests a research gap as far as the question of the potential of experiential learning approaches in the skills training of agricultural students is concerned.

CHAPTER THREE

METHODOLOGY

3.1 Introduction

The study sought to investigate the potential of experiential learning in the training of agricultural students at Bukalasa Agricultural College. The chapter provides an analysis of the research design, the target population, Sample size, Sampling techniques, data collection methods and tools, Data collection procedure, Data processing and analysis, Data quality management and ethical considerations.

3.2 Research design

In this study, the researcher used a qualitative research approach, supported by quantitative research approach since it involved determination of the perceptions of the students towards experiential learning by use of a likert scale and a descriptive research design was used. The decision to use a qualitative research approach is based on the principle that qualitative research approach enhances the data collected by looking at the context in which a phenomenon occurs (Neuman, 1997, pp.133-134). A qualitative research approach enables the researcher to focus on interactive processes hence the understanding of experiential learning is therefore of a subjective nature and cannot be studied by means of quantitative research approach alone. A descriptive design was used because the data collected was mainly in form of descriptions of the respondents' responses and the researchers' observations. This is supported by Kothari (2004, p.37) who stated that studies concerned with specific predictions, with narration of facts and

characteristics concerning individual, group or situation are best studied through descriptive research design.

3.3 Study population

The targeted population for this study included administrators, the teaching staff, graduates of BAC, the students and the employers of BAC graduates. Administrators participated in the study because they determined the management of these institutions and they had information on challenges of training learners using experiential learning and the teaching staff took part in the study because they had information on the modes of delivery used in relation to experiential learning and the students been recipients of experiential learning approach had their perceptions regarding the potential of the approach in developing their skills.

Graduates participated in the study. Since they are working they had information on the training gaps, skill required by employers, and the perceptions of using experiential learning and the employers also participated in the study because they employ these graduates and had information in relation to the skills required in the world of work.

3.4 Sample size and selection

The sample size used is presented in the table below.

Table 3.1 Sample sizes

Type of Population	**Sample Size**
Administrators	5
Lecturers	5
Graduates	15
Students	20
Employers	5
Total	**50**

3.5 Sampling procedure

Sampling is the process of selecting elements from a population in such a way that the sample elements selected represent the population Amin (2005, p.236). For this study the researcher used purposive sampling, stratified random sampling and snow ball sampling.

3.5.1 Purposive sampling technique

The researcher used a purposive sampling technique for the administrators, lecturers and employers because it is believed that the above categories of respondents had information in relation to the objectives. In support Patton (1990) stated that the researcher chooses the sample based on whom they think would be appropriate for the

study. Hence in purposive sampling, Subjects were selected because of some characteristics.

3.5.2 Stratified random sampling technique.

Stratified random sampling technique was used to select the students. According to Amin (2005) this technique allows a representative sample to be got hence there is an equal chance of being selected. The stratum includes the second year students who had participated in the projects and internships and also the first year students. The names of the students in class lists was obtained from the Academic registrar's office. These names were placed in a box and they were picked at random after stratifying them as above.

3.5.3 Snow ball sampling technique

For the graduates a few key informants were identified and they named other graduates who were later contacted. Their contacts were got from BAC. The graduates selected were those who completed from 2007 to 2012 and are working within Kampala.

3.6 Data collection methods

Data was obtained from primary and secondary sources. According to Kothari (2004, p.96) primary data are those which are collected afresh and for the first time, for this study the researcher collected data from the respondents. He further stated that the secondary data are those which have already been collected by someone else and passed through the statistical process. The secondary data sources for this study included the time table and project reports of the students.

Data was collected using the following methods:

3.6.1 Interviews

Personal interviews with the administrators, lecturers and students were carried out using the interview schedules. The interview helped the researcher to collect information on the skills required by the employers, teaching methods, challenges faced in the institutions. The interview method was of advantage because the researcher was able to probe more and ask for repetition of information which was not clear enough. Kothari (2004, p.98) pointed out that interview method can enable more information and in greater depth to be obtained and also there is greater flexibility under this method as the opportunity to restructure questions is always possible.

3.6.2 Observation

The researcher observed some teaching sessions using an observational checklist to study the activities and methods used in teaching. The researcher used this method because it helped to eliminate the preference of information given by respondents. According to Kothari (2004, p.96) under the observation method, the information is sought by way of investigator's own direct observation without asking from the respondent. The main advantage of this method is that subjective bias was eliminated, if observation is done accurately. Secondly, the information obtained under this method relates to what is currently happening; it is not complicated by either the past behaviour or future intentions or attitudes and the perception of the students towards experiential learning approach was collected using the questionnaire method.

3.6.3 Questionnaire

To determine the perception of the current and past student students towards training approaches at BAC in relation to experiential learning, the respondents were asked to score the factors on a Likert scale of 1-5, where score 1 represents strongly disagree, score 2 is disagree, score 3 neutral, score 4 agree and score 5 strongly agree.

3.7 Data collection instruments.

The following instruments were used for collecting data.

3.7.1 Interview schedule

According to Amin (1999, p.86) an interview schedule is a set of questions that the interviewer asks when interviewing. He further stated that an interview schedule makes it possible to obtain data required to meet specific objectives of the study.

3.7.2 Observation checklist

According to Amin (1999, p.86) a researcher utilizes an observation checklist to record what he or she observes during data collection. He further stated that the checklist permits the observer to spend time thinking about what is occurring rather than on how to record it and this enhances the accuracy of the study and questionnaire based on likert scale was used to get the perceptions of the learners towards experiential learning.

3.7.3 Questionnaire

Questionnaires were used to collect data on the perception of the students towards experiential learning approaches. The questionnaire had statements concerning the various aspects of experiential learning approach. The Likert Scale was used to rate the perceptions. The scale ranged from 1 (strongly disagree), 2 (disagree), 3 (neutral), 4

(agree) to 5 (strongly agree). The students were to mark on every statement their perception in reference to the rating scale. The mean scores were used to judge students perception. A score of 3 denoted neutral perception, a mean score of less than 3 denoted negative perception and a mean score of above 3 denoted positive perception.

3.8 Data collection

Data on the objectives was collected using the following process.

3.8.1 Expectations of the employers regarding agricultural graduates.

The data on this objective was collected using interview schedule (Appendix 2). Each session lasted at least 20 minutes. Questions regarding skills required by the employers were asked to the employers.

3.8.2 Modes of delivery used in the training of students at BAC.

The data collection process for this objective was based on the interview schedule and observations while attending training sessions especially the students' projects (Appendix 6). Each session lasted for at least 40 minutes. Observations were made of how learning activities are organized, the modes of delivery used by lecturers, instructional materials used and the interaction between learners and the lecturers.

3.8.3 Perceptions of the current and past students towards the training approaches at BAC.

A questionnaire was used to collect the data on perceptions of the current and past students in relation to the training approaches (Appendix 4). The students responded to their perception of how experiential learning helps them to develop their skills. A 5 point likert scale consisting of: 1 strongly disagree, 2 disagree 3 neutral 4 agree 5 strongly agree was used to measure the responses.

3.8.4 Ranking of the best options in training approaches at BAC in relation to experiential learning.

A questionnaire was u sed to collect the data on the best options in training approaches at BAC in relation to experiential learning (Appendix 5). The students responded to their rankings of the available training approaches and practices in relation to experiential learning by ticking the first to sixth choices of their preference depending on their perception of how important the training helps them to develop their skills.

3.9 Data processing and analysis

According to Mugenda and Mugenda (1999) data analysis is the process of bringing order, structure and meaning to the mass of information collected and data processing refers to operations performed on a given set of data to extract the required information in an appropriate form. For this study data processing involved scrutinizing the collected raw data to identify errors and omissions. This was done to assure that the data collected is accurate, consistent with other facts gathered and as complete as possible. The first stage in analysis was the open coding during which the various themes emanating from the different responses were obtained from respondents (Neuman, 1997,

p. 423). During the second stage the initial codes were reviewed and examined (Neuman, 1997, p. 423). The last stage in analysing the data was the selective coding (Neuman, 1997, p. 424) of major themes in order to identify core ideas. Quantitative data was coded and entered into the Statistical Package for Social Sciences (SPSS v. 17.0) for analysis. The quantitative data was analysed using descriptive statistics in terms of mean scores and frequencies.

3.10 Data quality management

According to Mugenda and Mugenda (1999, p.95) it is important for researchers to try to maximize the reliability and validity of data collected. He defined reliability as a measure of the degree to which a research instrument yields consistent results or data after repeated trials, while validity is the degree to which results obtained from the analysis of the data actually represent the phenomenon under study. To achieve validation the researcher used triangulation approach. This involved the use of different methods of data collection like interview and observation. Gay (1996) defines triangulation as the use of multiple methods, data collection strategies and or data sources. Data was collected from different sources for example.the lecturers and students were asked same questions on some aspects to cross check for data reliability. Validity of the instrument was determined by discussing the instruments with experts like the supervisors of this research and further the reliability of the instruments was also determined by pre-testing the instruments with respondents who did not participate in the actual study. This enabled adjustments of the data collection instruments.

3.11 Ethical considerations

Informed consent was sought from all the respondents before interviewing them and the identity of the respondents remained confidential and anonymous.

CHAPTER FOUR

DATA PRESENTATION AND INTERPRETATION

4.1 Introduction

This chapter is a presentation and interpretation of the findings in relation to the objectives. Objective one sought to answer the question of what skills are required by the employers of agricultural graduates. Findings were obtained qualitatively using interviews with the employers from both the public and private sector institutions. Objective two was set to characterize the modes of delivery used in the training of students at BAC in relation to experiential learning. The main sources of data for this objective were the lecturers and continuing students. Qualitative data was obtained through interviews and observation of the training sessions. Objective three was set to answer the question of the perceptions of the current and past students towards the training approaches at BAC in relation to experiential learning and the fourth objective was to determine the best options in training approaches at BAC in relation to experiential learning. For objective three and four data was obtained through questionnaire. The responses by the respondents are denoted as E for the employers, L for the lecturers, ST for the students, GT for the graduates and ADM for the administrators.

4.2 Respondents' demographic profile

In total, 50 respondents participated in this study in the following categories. Five administrators, five lecturers, twenty graduates, twenty nine students and five employers. Most of the respondents were male, forty one were males and nine were female. Of the respondents in the category of employers, three were from public sector and two from the

private sector. In terms of experience, five had up to ten years job experience, five had ten to fifteen years of experience, while only two had more than fifteen y ears' job experience. The age of most of the twenty nine respondents in case of students and graduates was between 21-30 years. The remaining other the respondents were between thirty five to forty years. While nine respondents were above forty years. The researcher considered these categories of respondents to be an adequate sample for the study. Employers are denoted as E for example E1 refers to employer 1 while L denotes lecturers and ST denotes students.

4.3 Skills required by employers of agricultural graduates.

This section of the chapter gives a presentation and interpretation of the findings on objective one. Objective one sought to establish the skills are required by the employers of agricultural graduates. The respondents on this particular objective were the employers. Results were obtained qualitatively using interviews with the respondents (Appendix 2).

The responses by the employers denoted as E1, E2 and E3 indicated a number of skills, attitudes and behaviors the employers felt were important for efficient performance of agricultural graduates.

> .....for an agricultural graduate, technical skills are very important. Skills in agronomy, horticulture, animal production, Business skills, for example financial management, record keeping, and budgeting skills are also important. Othe r skills include analytical skills and time management skills.... (E1).

> .....important skills that agricultural graduates should have include driving, communication, leadership and information technology skills for example writing reports using word processing, and using the internet especially the e-mail....(E2).

> .....the ability to work with people is also an important skill, as we work with people a lot, you must treat the people equally and you must not show disinterest in the people because they will reject you with all your skills and expertise. agricultural graduates also need to possess problem solving skills.... .(E3)

> .....project management skills go with the ability to assess the needs of the community. The needs assessment skills are also very important because that is how you get to know the problems of the people, especially if you are new in the area.... (E4).

> .....leadership skills in terms of working successfully in teams, exhibit effective oral and written communication skills, and practicing good interpersonal skills, critical thinking skills and creativity and innovativeness skills...(E5).

The responses show that skills required by employers vary depending on the type of job role to be carried out within an organization. The categories of skills emerging from the employers responses are as follows: communication skills, problem solving skills, analytical skills, project management skills, time management skills, team work and team building skills, communication skills, financial management skills, critical thinking skills, information technology skills, interpersonal skills, leadership skills, creativity and innovativeness skills. The responses indicate that employer' desire agricultural graduates who possess the above skills.

4.3.1 Skills lacking in new agricultural graduates

Responses from the employers show that the skills missing in the newly recruited agricultural graduates include the following:

> ....some new agricultural graduates lack technical skills for example practical skills in agriculture but what is good is that they are willing to learn when given a chance. Most of them become confused in the field where they have to apply the theory in practice and the graduates do not have computer skills that is shown when they write monthly progress reports.... (E1).

> .....new agricultural graduates lack leadership skills and also interpersonal skills hence graduates lack the ability to work in teams, help others to learn, provide customer service, negotiate agreements, resolve differences, and work in a multicultural organization.... (E2).

> .....the agricultural graduates do not have critical thinking skills and analytical skills which include the ability to think creatively, make decisions, and solve problems which arise in the work places..... (E3).
>
> ...agricultural graduates seem have limited communication skills, problem solving skills and financial management skills.... (E4).

The responses from the employers show that newly recruited agricultural graduates lack the following skills when they assume their duties: communication skills, problem solving skills, analytical skills, time management skills, team work and team building skills, communication skills, financial management skills, critical thinking skills, information technology skills, interpersonal skills, leadership skills, These responses indicate that the agricultural graduates do not possess these skills when they begin working with the various employers.

4.3.2 Reasons for lack of skills exhibited by the new graduates

When probed for any possible reasons for the lack of skills exhibited by new agricultural graduates the following were the responses:

> .... there is lack of communication between training institutions, and labour market. The training institutions have minimum interaction with workplaces regarding what skills required by the labour market..... (E1).
>
> .....a possible reason for training institutions failing to address the skills of its students could be because these institutions do not understand what skills are required by the employers..... (E2).
>
> .....graduates are entering the workforce without the necessary skills demanded in labour market because training institutions do not possess the necessary resources to teach them the skills need in the labour market... (E3).
>
> .....training institutions curricula do not meet the employment needs hence the skills that training institutions are promoting includes "generic study skills, intellectual skills, but work related skills are not promoted by many training institutions.... (E4).

> ....subjects studied in most training institutions are not as important as the graduates' ability to handle complex information and communicate it effectively. Graduate attributes are more important than the specific occupational skills unfortunately many training institutions pay more attention to the generic subject specific skills at the expense of the graduates employability skills in terms of the ability of graduates to handle workplace dynamics and communicate effectively..... (E5).

The above responses imply that in order for training institutions to produce graduates with the skills required in the labour market there is need to involve the work places in the design of the training curriculum. Hence the training institutions need to carry out survey on what skills are required by the labour market and they design training approaches that can enable the learners acquire skills which are on demand in the labour market.

4.3.3 Support systems for new graduates

Regarding whether the employers provide support systems for new agricultural graduates to enable them acquire the skills needed for them to perform at their work places the following responses were given by employers:

> ....our organisation has induction programmes for newly recruited employees to cope up with the skill needs of the organisation.... .(E 4).

> ..... the new graduates are assigned a supervisor who assists them. The graduates normally work under the supervision of a senior staff member or an experienced worker who guides newly recruited agricultural graduates such that they can be able to perform well in their various jobs..... (E1).

Responses from the respondents E4 and E1 indicate that some work places have programmes aimed at assisting recently employed graduates to cope up with the skill demands of the workplaces. This component reinforces the skills of the graduates. This

implies that training institutions need to include work place learning as a component of their curriculum such that the students can learn work related skills expected of them.

4.4 Modes of delivery used in the training of students at BAC in relation to experiential learning.

This section of the chapter provides the presentation and interpretations of findings in relation to objective two. Objective two was set to characterize modes of delivery used in the training of students at BAC in relation to experiential learning. Sources of data for this objective were the lecturers, and the students. The findings addressed the research question two which stated: What are the characteristics of the modes of delivery used in the training of students at BAC in relation to experiential learning? Data was obtained through interviews and observation (Appendix 1, 3 and 6).

Responses from the interviews with the lectures, students and observations revealed that the modes of delivery used in the training involved both theoretical and practical aspects. Based on the training module documents the training takes a period of fifteen weeks per semester. During the semester students were exposed to various practical activities at the college. The students at the end of the year were also exposed to field attachments or the industrial training majorly in workplaces and this normally takes six weeks at the end of the academic year. The lecturers revealed that in order to make learners understand better some of the practical aspects there is need to provide the theoretical aspects first such that the learners can connect the theory to the practical aspects. Interviews with the students revealed that there were more theoretical lessons that the practical lessons. In explaining this further, ST 6 and ST 15 noted:

> .....most times we are in the classrooms attending lectures and we have limited time for practical work..... (ST 6).
>
> .....we are given a lot of notes in terms of handouts to read instead of engaging us in more practical's than the theory lessons.....(ST 15).

During interview with one of the lecturers he said that:

> ....Due to shortage of the instructional materials we are forced to teach theoretically some aspects because some of insufficient tools and equipment's. Realistically some of these instructional materials needed for the practical's are expensive to buy for every student..... (L 3).

According to ADM 1, shortage of instructional materials affects the learning process of the students. He expressed this in an interview as follows:

> .....Some of the tools and materials we need for training are very expensive and we need them for training but we cannot afford to provide all the students with these tools and materials this can influence the method used for training.....(ADM 1)

In view of the findings above, it appears that theoretical lessons was prevalent compared to the practical aspects of training. When learners are exposed to more theoretical lessons than the practical's it implies that the learners are not actively involved in the learning process and this can influence the acquisition of skills.

Observations of some training activities and interview with the lectures indicated that demonstrations forms part of the mode of delivery used in training students at BAC. For example the researcher observed L3 demonstrating to the students how to carry out feed mixing for animals. When probed for why he chose to demonstrate feed mixing instead of allowing students carry out the feed mixing, he stated that:

> .....showing how something is done is a much more effective way of teaching than describing how it is done theoretically..... (L3).

Relatedly, students at BAC were also observed carrying out experiments in some training models. For example soil science module had experiments of testing soil fertility in the laboratory. The lecturers noted that:

> .....experiments help to improve students' manipulative skills, analytical skills and make them more critical besides the students are actively involved in learning process..... (L4)

> .....through experiments students can create a relationship between theory and practice and helps them apply what they learn..... (L5).

From the observation of the training activities it was further realized student projects formed part of the delivery mode at BAC. The students had various projects which include poultry projects and piggery projects while others had vegetable growing projects. The following reasons were given by the lecturers for engaging students in the project work.

> ..... projects enable students to apply the theory they learn in the class hence the students can generate the relationship between theory and practice through these projects..... (L 2).

> ..... projects carried out by the students facilitate them to become active and also reflect upon the learning process..... (L 4).

Learning was organized on the individual basis, although in some cases group work tasks were given to students. The classes had up to eighty students hence the sizes of the classes were very big. This implies that the lecturers cannot attend to the learners as individuals and even individual guidance may not be possible.

From the findings it is clear that the modes of delivery used in the training of students at BAC in relation to experiential learning includes demonstration, experimentation, students projects and lecturing. This implies that the college uses both theoretical and practical modes of delivery in the training of the agricultural graduates.

Responses from the respondents revealed that the theoretical mode of delivery in form of classroom based lectures was used more than the practical modes of delivery like the demonstrations, experiments and the students' projects. Relatedly, it was observed that the large class sizes do not match with the supply and provision of training resources. This implies that with large number of students in the class it becomes hard for the lecturers to attract and retain the attention of all students during lessons.

4.5 The perceptions of the current and past students towards the training approaches at BAC in relation to experiential

The study examined the perceptions of the current and past students towards the training approaches at BAC in relation to experiential learning. Data was collected through the questionnaire (Appendix 4) and was analysed using descriptive statistics of mean scores. To determine the perception of the current and past students towards training approaches at BAC in relation to experiential learning activities the respondents were asked to score the items on a Likert scale of 1-5, where score 1 represents strongly disagree, score 2 is disagree, score 3 neutral, score 4 agree and score 5 strongly agree. The responses are presented in the tables below.

4.5.1 Training and experiential learning activities

The table 4.1 below shows the mean scores on the perception of the respondents concerning the training and experiential learning activities. The items were rated on the 5 point Likert scale ranging between 1=strongly disagree to 5=strongly agree.

Table 4.1: Perceptions about the training activities

	Minimum	Maximum	Mean	Std. Deviation
Learning activities were based upon my needs in the labour market	1.00	5.00	3.45	1.145
Learning activities involved group tasks	1.00	5.00	2.10	1.428
Training activities involved active learning	1.00	5.00	2.42	1.611
Varied training activities were provided	1.00	5.00	2.23	1.413

Source: Primary data

The results in Table 4.1 indicated that the respondents maintained a neutral response on the relationship between the learning activities and the labour market needs (3.45*1.145), while the respondents disagreed that learning activities involved group tasks (2.10*1.428) and the respondents also disagreed that training activities involved active learning (2.42*1.611) and varied training activities were provided (2.23*1.413).

Relatedly one of the lecturers explained that:

> .... when the students are given group tasks, some of the students tend to dodge such tasks and leave few students to carry out the tasks. For me I prefer individual tasks than the group tasks..... (L3)

These findings suggest that the respondents were not aware of the labour market needs because they were not able to connect the training activities to their labour market requirements. Learners were passively involved in the training because the respondents disagreed that they were actively involved in the training. Providing students with individual tasks implies it will likely affect the team building skills of the learners.

4.5.2 Instructional materials

The table 4.2 below shows the mean scores on the perception of the respondents regarding the use of instructional materials during training activities. The items were rated on the 5 point Likert scale ranging between 1=strongly disagree to 5=strongly agree.

Table 4.2 Instructional materials

	Minimum	Maximum	Mean	Std. Deviation
Sufficient instructional materials are provided during activities and training sessions	1.00	5.00	1.69	.741
Much time would allocated to interact with the instructional materials	1.00	5.00	1.79	.815
Trainer guided us in using the instructional materials during learning activities	1.00	5.00	4.14	.735
Instructional materials are relevant to learning activities we were exposed to	1.00	5.00	4.22	.941

Source: Primary data

The results in Table 4.2 indicated that the respondents strongly disagreed that sufficient instructional materials were provided during learning activities and training sessions (Mean=1.69*.741) and they also strongly disagreed that much time would be allocated to interact with the instructional materials (Mean=1.79*815), though the respondents agreed that the trainers guided them in using the instructional materials during learning activities (Mean=4.12*.735) and the instructional materials they were given was relevant to the training activities (Mean=4.38*.941).

During interview with the lecturers the following were the responses.

> .....increased rate of enrolment has increased pressure on the available resources hence providing students with adequate instructional materials is challenging to the college.... (L1)
>
> ....the high number of the students is challenging to us because there is limited time to allow students engage in many activities because we have to finish the syllabus in the training module before the semester examinations..... (L2).
>
> .....the cost of some of the materials I need for the experiments are very expensive and providing them to each student is a challenging.... (L3).

The findings suggest that there was shortage of instructional materials and the students were provided less time to interact with the instructional materials during training activities though the respondents agreed that the trainers guided them in using the instructional materials during learning activities hence the training materials, basic tools and equipment's supplied to the students for training were inadequate. Lack of adequate facilities to enhance teaching and learning process is probably as a result expansion of the numbers at the college. This is likely to affect the students' skill acquisition which can then be a threat to the preparation of the learners to the world of work.

4.5.3 Organisation of the training activities

The table 4.3 below shows the mean scores on the perception of the respondents regarding organisation of the training activities. The items were rated on the 5 point Likert scale ranging between 1=strongly disagree to 5=strongly agree.

Table 4.3: Organisation of the training activities in relation to experiential learning

	Minimum	Maximum	Mean	Std. Deviation
Training involved classroom and community involvements activities	1.00	5.00	2.23	1.488
Training activities were organized in groups	1.00	5.00	2.10	1.194
Training activities enabled us to reflect on the experiences	1.00	5.00	2.26	.810
Training activities encouraged active observation	1.00	5.00	2.42	.935

Source: Primary data

The results from Table 4.3 show that the respondents disagreed that training activities did not involve community activities (2.23*1.488), limited training activities were organized in groups (2.10*1.194), training enabled the learners to reflect on their experiences (2.26*.810) and the training activities encouraged active observation during the training (2.42*.935).

The findings from the above table 4.3 imply that there was less community involvement activities carried out by the college. When training activities do not involve community activities for agricultural students, they are likely to miss out on extension skills and communication skills because through community involvement the students are

able to understand the dynamics of working with the farmers hence providing students with opportunities for community involvement enables them to develop their extension skills while they are training institutions.

Organizing training activities in groups enables students to share ideas and to develop skills like communication and team building. Where training activities are not organized in groups, there are chances that students may not develop their communication and team building skills.

Reflecting on the experiences during training enables students to obtain greater insights into the training activities hence it draws out the learners' beliefs and ideas about a training activity so that they it be examined and tested, and their existing knowledge and experiences integrated with new, more refined ideas and concepts. Thus when the learners are not given chance to reflect on their experiences, they may fail to connect their previous experiences with new knowledge and ideas.

Active observation during training activities elicits and sustains student motivation and interest in the training activities hence the motivation and interest of the students become low when less opportunities are provided for the students to actively observe during the training activities.

4.5.4 Role of lecturers during the experiential learning activities.

The table 4.4 below shows the mean scores on the perception of the respondents regarding the role of lecturers during the experiential learning process. The items were rated on the 5 point Likert scale ranging between 1=strongly disagree to 5=strongly agree.

Table 4.4: Role of lecturers during the training activities.

	Minimum	Maximum	Mean	Std. Deviation
Provided opportunities for active learning	1.00	5.00	2.42	1.611
Provided a variety of learning activities	1.00	5.00	2.10	1.428
Provides clear instructions and explanations	1.00	5.00	4.38	.918
Provided opportunities for application of knowledge	1.00	5.00	1.51	.505

Source: Primary data

In Table 4.4 above, the respondents' decisions show that the respondents disagreed that there were provided opportunities for active learning (2.42*1.611), and a variety of learning activities (2.10*1.428) while the respondents agreed that the lecturers provided clear instructions and explanations during training. The respondents strongly disagreed that they were provided opportunities for application of knowledge (1.51*.505)

Talking from their experience L3 and L4 noted that:

> .....relevant experiences for the world of work can best be learnt from the work places ..... (L3).
>
> ..... varying learning activities mean more time yet you have to finish the syllabus in the training module before the semester examinations..... (L4)

These findings imply that there were fewer opportunities for the learners to apply the knowledge and the training activities were not varied besides less opportunities are being provided for active learning. This can affect the ability of the students to acquire relevant skills for the world of work. This seems to suggest that students are exposed to more theoretical lessons than the practical lessons.

4.5.5 Evaluation and assessment of the training and learning process in relation to experiential learning

The table 4.5 below shows the mean scores on the perception of the respondents regarding the evaluation and assessment of the training and learning process in relation to experiential learning. The items were rated on the 5 point Likert scale ranging between 1=strongly disagree to 5=strongly agree.

Table 4.5: Evaluation and assessment of the training activities in relation to experiential learning

	Minimum	Maximum	Mean	Std. Deviation
I knew how the learning activities was going to be assessed	1.00	5.00	4.03	1.365
The way I was assessed was a fair test of my skills	1.00	5.00	4.14	1.154
I was assessed at appropriate intervals	1.00	5.00	4.22	.832
I received useful feedback on my assessment	1.00	5.00	4.14	1.154
The assessment was a good test of what I was taught	1.00	5.00	4.12	1.164

Source: Primary data

The results in Table 4.5 revealed that the respondents agreed that they knew how the learning activities was going to be assessed (4.03*1.365), the way they were assessed was a fair test of their skills (4.14*1.154) and the assessment was a good test of what they were taught (4.14*1.154) that they were assessed at appropriate intervals (4.22*.832) and that agreed that they received useful feedback on their assessment (4.14*1.154).

While explaining the above findings, the respondents noted the following:

> ..... I knew that the industrial training is normally assessed by writing a report according to a prescribed format, course work tests at the end of every module are known ways of assessing us ..... (ST 3).
>
> ....the college has examinations at the end of the semester for the theory examination and this is normally at the last two weeks of the semester and the theoretical examinations are dominant... (ST 2)

This implies that when the students know how they are going to be assessed, they are likely to master the skills to be assessed for example knowing how to examine report writing will enhance their writing skills hence the students should be informed of how they are likely to be assessed on the various skills and there is need for appropriate feedback on the assessment results.

4.6 Ranking of the best options in training approaches at BAC in relation to experiential learning

Objective four sought to determine the best options in training approaches at BAC in relation to experiential learning. The rankings were based on a scale of 1-6, 1 – being the most useful and interesting approach and 6 being the least useful and interesting experiential learning approach. Results were obtained quantitatively from the students and graduates using a questionnaire (Appendix 5)

Table 4.6: Rankings of the best options in training approaches at BAC in relation to experiential learning

Experiential learning approaches		Ranking					Number of students
	1	2	3	4	5	6	
	N %	N %	N %	N %	N %	N %	TOTAL
Internships	20 (57.14)	05 (14.28)	03 (08.57)	02 (05.71)	03 (08.57)	02 (05.71)	35
Equipment Simulators	14 (40.00)	06 (17.14)	05 (14.28)	05 (14.28)	03 (08.57)	02 (05.71)	35
Case Study	16 (45.71)	07 (20.00)	04 (11.42)	03 (08.57)	03 (08.57)	02 (05.71)	35
Practical lessons	19 (52.29)	05 (14.28)	03 (08.57)	04 (11.42)	03 (08.57)	01 (02.86)	35
Experiments	15 (42.85)	08 (22.86)	04 (11.42)	02 (05.71)	03 (08.57)	03 (08.57)	35
Students projects	19 (54.29)	06 (17.14)	04 (11.42)	03 (08.570	02 (05.71)	01 (02.86)	35

Source: primary data

Note: Rank is based on number of respondents

The table 4.6 above shows that the respondents ranked internships (20, 57.14%) as being the most useful experiential learning approach they experienced during their training; this was followed by the students' projects (19, 54.29%), practical lessons (19, 52.29), case studies (16, 45.71%), experiments (15, 42.85%) and equipment simulators (14, 40.0%) respectively.

The respondents gave the following reasons for the rankings included in the table above.

The respondents revealed that during internships they received work relevant skills. The following are the responses from the students and graduates who participated in industrial training:

.... I gained experience and knowledge of handling farmers during my industrial training that experience still helps me in my current job..... (GT 1)

> ……. my role through the internship was to write reports on extension activities detailing the findings. While I had written reports for projects at the college, they have always been for an academic purpose. The internship gave me the opportunity to learn how to write reports for a work environment. Now feel I have a much better understanding of the report writing… (GT 5).
>
> ….. through internship, I was able to help improve on my team building skills and it also enabled me improve my communication Skills. I really gained a lot of valuable skills and knowledge about social issues…. (ST 10).

From the above findings it can be implied that industrial training enhances the ability of the students to acquire some skills which are important for them in the world of work.

However the respondents noted that they had limited time during the industrial training. The respondents confirmed that they were given only six weeks to carry out the industrial training and yet some of the workplaces have a lot of tasks which required a lot of time to master the skills required. The respondents expressed their experiences as follows:

> …. I wanted to have an opportunity to interact more with the tasks at the farm where I trained for because it had a lot of activities for me to gain practical knowledge but the time we were given by the college was very short for the industrial training…… .(ST 6).
>
> ……. When you give someone just six weeks for industrial training it's too short. It doesn't make sense to give more time for the theories than the practical component of engaging with the world of work…… (ST 10).

The above finding implies that the time given for the learners to interact with workplaces was inadequate hence it can possibly affect their ability to get the skills they are expected to develop by participating in the industrial training. This limitation in time possibly can influence the students in their skills acquisition because when the students are constrained with time they may miss on some of the learning opportunities at the workplaces.

From the observations made during this study the college equipment simulators consists of scientific modeling of animal systems to gain insight into their functioning. Findings from the lecturers revealed that equipment simulators are used when the real materials for training cannot be engaged, because it may very expensive to acquire, or it may be dangerous to engage. Some of the equipment simulators at this college seem to be old and also with some relevant parts missing and this can possibly also lead to students finding it hard to connect the simulated equipment to the real object.

According to the lecturers case studies are student centered activities based on topics that demonstrate theoretical concepts in an applied setting. The respondents revealed that case studies allow the application of theoretical concepts to be demonstrated, thus bridging the gap between theory and practice, it encourages active learning, provides an opportunity for the development of key skills such as communication, group working and problem solving and also it increases the students' enjoyment of the topic and hence their desire to learn. The lectures revealed that they mostly use case studies for students to enhance their extension skills hence the students are exposed to similar situations like the one they are likely to experience while they are in the field. This implies that it is clear that there are certain situations in which hands-on learning is the only way to teach something. For example, there is no use trying to teach a learner how to control pests in a traditional classroom hence they need to get outside in the garden and try to control pests in the college gardens.

Findings from the students and lecturers revealed that an experiment allows learners directly observe and understand what is happening. The lecturers revealed that experiments helps learners develop skills associated with being critical and organised since it involves following procedures.

The students revealed that the students projects enable them take greater responsibility for their own learning than during more traditional classroom activities and develop problem-solving, collaborating, and communicating skills while the lecturers reported that students' projects provides opportunities to build relationships with other learners hence building on their interpersonal skills. Based on the interview and observations carried out during the study, the students projects were not covering wide areas for example a student may carry out project work in designing appropriate feeds for animals yet such a student has other skills to learn which includes some aspects of treating sick animals. This implies that when students engage in few number of students projects they may miss other important skills.

CHAPTER FIVE

DISCUSSIONS, CONCLUSION, AND RECOMMENDATIONS

5.1 Introduction

This chapter presents the discussion, conclusion and recommendations of the study based on the findings in relation to the objectives of the study. The main objective of this study was to investigate the potential of experiential learning approaches in the training of agricultural graduates at BAC. The study examined the skills required by employers of agricultural graduates, characterized the modes of delivery used in the training of students at BAC in relation to experiential learning, investigated the perceptions of the current and past students towards the training approaches at BAC in relation to experiential learning and determined the best options in training approaches at BAC in relation to experiential learning. The findings of this study have implications for the lecturers, employers, students and the development of curriculum as well as course reviews of training institutions.

5.2 Skills required by employers of agricultural graduates.

The study examined the skills required by employers of agricultural graduates. the findings of this study (section 4.3) indicated that skills required by employers includes: communication skills, problem solving skills, analytical skills, project management skills, time management skills, team work and team building skills, communication skills, financial management skills, critical thinking skills, information technology skills, interpersonal skills, leadership skills, creativity and innovativeness skills.

The findings of this study indicated that the emphasis on skills required by employers varies depending on the type of job role to be carried out within an organization. This means that the type of skill expected from the graduates depended on the kind of job roles each organization has. This therefore creates a situation where in training there may be emphasis on skills that might not have effective demand in the labour market hence causing a situation where the employers may perceive the graduates lacking skills yet the reality may be that the graduates may not have received training in the area required by a particular employer. This can cause a mismatch between the skills produced at the training institutions and the skills demanded at the labour market. There are several possible explanations for this result. One possible cause of these mismatches is the rapid changes in the workplaces in terms of technological changes. For example most workplaces are using Microsoft software office 2010 yet most training institutions are still training using Microsoft office 2003 computer packages. Possibly such a situation can cause disparity in skill requirements by the employers. This is supported by (Eduardo, 2007) who argued that globalization and education, meant diversification in the labour market. In consequence, competence profiles became more and more diverse thus training institutions need to cope up with the effects of globalization by changing the styles of training to fit into the challenges brought by the globalization.

From the responses of the employers, one of the major challenges facing training institutions is how to align skills training with the labour market demands. Therefore it is necessary to understand the nature of skills required of graduates by the employers such that the curriculum in the training institutions is designed to engage learners to gain skills which employers require of students in order to succeed in the job market. The findings

of this study are consistent with those of Atkins (1999) who observed that if nothing is done to improve educational performance in terms of skills acquisition, the gap between the skill needs of industry and the skills received by graduates will continue to grow. The students need to be trained taking into account what changes are taking place in the labour market such that obsolete technologies are not taught to the learners while in the training institutions hence this calls for training students in job specific skills in the training institutions. Therefore the training institutions need to always align their training with the labour market needs and this call for labour market survey and constant periodic revision of the training curriculum to suit the labour market needs.

5.2.1 Skills lacking in new agricultural graduates.

The findings from the potential employers revealed that new agricultural graduates lack some skills (section 4.3.2). Such skills identified includes; l eadership skills, critical thinking skills, interpersonal skills and also lack of practical skills in agriculture. This could possibly be attributed to the kind of training the graduates receive from the training institutions because if learners are not exposed to the skills they are expected to exhibit while in the training instructions they are likely to experience difficulties in their work place. There are a number of factors reported in the literature that might contribute to the successful teaching of skills. These include instructional methods, trainer attributes, the inclusion of skill acquisition as an explicit learning goal, student involvement in the learning process and activities, relevant context and student responsibility and autonomy. Relatedly, (Ester & Nicola, 2009) observed that skills acquired by the learners depend on the effectiveness of training programme design,

implementation and delivery methods which in turn depend on support and agreement from both management and academic staff.

The design of teaching and learning for employability therefore needs to offer an experience for students which allow them to see their employability skills as part of their core activities in higher education. In support, Cotton (2001) reviewed teaching employability skills and concluded that training institutions need to identify and implement specific educational practices which directly address the issue of employability skill development which may not be entirely straightforward given the diversity of constraints many training institutions are facing. The literature suggests that there is a gap between skill requirements for entry-level graduate Simon (2003). A good supply of skilled employable graduates is essential for national, economic and social wellbeing of a nation and the failure to equip young people with employability skills has far-reaching consequences (Cotton, 2001). There is increasing evidence for the need of information about graduates' transition to work, particularly in the crucial period shortly after graduation, and graduates' early careers (Stephen and Christine, 2000). Therefore the training institutions need to identify skills lacking in the graduates such that they can adjust the training strategies in order to impart the skills required by the employers in the labour market.

5.2.2 Possible reasons for lack of skills exhibited by the graduates

The research results revealed the possible reasons for the lack of skills exhibited by agricultural graduates (section 4.3.2) includes lack of communication between training institutions, employers and students. This mismatch prevented employer-school contact and the involvement of the various stakeholders in the design of the curriculum used for

the training of the students. According to Stephen and Christine (2000).''producing employable graduates is becoming more complex and more important. Graduate numbers are expanding faster than the market for traditional graduate jobs; graduates are more diverse in age, social background and motivations, while the labour market which they enter is more complex and volatile. As a result, the employers have become more interested in measuring the competencies of the employees and this consequently calls for more increased interaction between training institutions and the world of work. In a situation where the training institutions operate in isolation without regard to the demands and changes in the world of work there is bound to arise complains of lack of skills.

Findings from the respondents (section 4.3.2) indicated that majority of the employers faulted the training institutions for doing a poor job to prepare their graduates for employment hence the employers are concerned by the lack of skills exhibited by most of the agricultural graduates and employers consider it the responsibility of educational institutions to develop such skills. Many employers believe training institutions are not adequately preparing students for jobs. This appears to give an impression that a disparity exists in the types of skills taught at the training institutions and those that are demanded by the employers. While some employers attributed this lack of skills by the graduates on the more broad based education curriculum used in training institutions. Hence to some employers in order to allow effective skills acquisition; students need to receive specific workplace training. A possible reason for higher education institutions failing to address the employability skills of its students could be because college faculty have do not understand what the lacking skills are and do not possess the necessary resources to teach them (Hofstrand, 1996). While higher education

faculty may not know what the lacking skills are, employers do, and as such, can have an influence on the enhancement of these skills in education (Taylor, 2003). Therefore, training institutions need to assess their curriculum and evaluate its purpose in helping students attain skills needed in the world of work.

5.2.3 Support Systems for new graduates

Findings from the employers (section 4.3.3) revealed that there were programmes aimed at assisting recently employed graduates in the workplaces for example in terms of induction co urse in order to familiarize new graduates to the working environment. Besides, the new graduates were assigned a supervisor who assists them to acquire the required skills him or her with what is expected of them in their field of specialization and also according to the duty sheet of the graduate. During the discussions with some of the employers, they suggested that besides intervention by training institutions, other stakeholders could play a critical role in the training of agricultural graduates. The employers suggested that different stakeholders could influence the curriculum in training institutions a positive way and provide relevant experiential learning opportunities.

5.3 Mode of delivery used in the training of students at BAC in relation to experiential learning

Responses from the interviews with the lectures, students and observations revealed that the modes of delivery used in the training involved both theoretical and practical aspects (section 4.4). The lecturers revealed that in order to make learners understand better some of the practical aspects there is need to provide the theoretical aspects first such that the learners can connect the theory to the practical aspects. This implies that it any training there is need to incorporate theories into the learning. This is

because it is important to provide leaners with some theoretical aspects. For example, it is important to provide leaners with safety rules theoretically when going for some practicals. Thus the amount of theory learners are exposed to is an important factor. In support Blenker, Dreisler, Færgemann, and Kjeldsen, (2008), argued that some modes of deliver may be more applicable in some institutions and situations, and not in others hence certain situations may require the trainer to use theoretical modes of delivery while others may demand practical modes of delivery. The important point to note here is the whether the mode of delivery used can deliver the intended goals of the training. Where learners are expected to demonstrate practical skills it is better for the trainers to select modes of delivery that can allow the learners to acquire the practical skills required. In support, Hindle (2007) argued that it is helpful to use modes of delivery that stimulate creativity, imagination and risk taking, and students learning together, and using realistic scenarios if in future learners are expected to reflect such skills. This therefore calls for trainer to select the modes of delivery putting into consideration the likely out comes expected of the modes of delivery used.

Findings from the study indicated that the lecturers also use demonstrations in the delivery of content (section 4.4). This is an activity- oriented mode of delivery strategy in which the teacher guides the students through problem solving approach to discover answers to instructional topics at hand hence demonstrations can enable the students to acquire skills related to problem solving. In support Meyer, Schmidt, Nozawa, & Panee (2003). argued that demonstrations have the potential to promote problem solving skills and help students develop higher order thinking skills such as analysis, characterisation, evaluations and synthesis. Ho wever, teachers have to implement a process that would

facilitate students' thinking and questioning (Kelter, 1994). In order to achieve this, teachers should frame nurturing questions that lead progressively to "explanations and underlying concepts" during demonstrations such that the learners can benefit from this mode of delivery (Meyer et.al., 2003, p. 432).

Demonstrations enable teachers to model cognitive strategies and a teacher who thinks aloud and "invites students to observe how he or she deals with perplexity" encourages them to "follow along and participate in problem solving" (Meyer et.al., 2003, p. 432). Engaging students, monitoring their thinking and providing feedback are also considered to be essential to the success of lessons during demonstrations hence it is important for trainers to select modes of delivery that encourage the active participation of the learners.

Further findings from the study showed that the lecturers also use experiments as one of modes of the delivery of used (section 4.4). Experimental mode of delivery helps to improve students' hand skills, makes them more productive and increases their active involvement in learning. Students can create a relationship between theory and practice by using experimental mode of delivery and by applying what they learn into their real life problems through experiments, hence they can make their life more meaningful.

Students are active when experimenting and get involved in the experiment excitingly. That is why; activity and high participation is observed during experiments. Experimental mode of delivery has a great importance as it ensures student's active involvement. The experimental mode of delivery activities gives the opportunity to develop cognitive skills easily and further it gives a lot of opportunities for the students to work in groups or alone. Further, this mode of delivery giveso pportunity to learn by

practice (Algan, 1999). Experimental activities encourage affect reasoning, critical thinking, understanding of scientific principles, practices and also help students to develop the ways of producing knowledge (Akdeniz et al., 1998). The main goal to reach for experiment studies is to achieve meaningful learning by putting the theoretical information into practice and by proving it (Nakhleh, 1994). Therefore using experimental mode of delivery is very important for the learners to develop skills associated with reasoning such as critical thinking and it needs to be encouraged in order to enable learners get skills associated with it.

Based on the findings of the study the students projects are used as a mode of delivery by the college (section4.4). Working on projects has shown improvements in communication, teamwork, problem solving, leadership and presentation skills, of the learners Campbell et al. (2001). This implies that by engaging the learners in projects students can develop skills related to teamwork and problem solving skills hence training institutions need to encourage such modes of delivery in order to improve the skills acquisition of the learners.

Observations during the study revealed that learning was basically organized on the individual basis, although in some cases group work tasks were given to students. The sizes of the classes were very big. This implies that the lecturers cannot attend to the learners as individuals and even individual guidance may not be possible. According to Chris (1998) trainers need to organize learners in groups such that they can help each other to learn hence group tasks promote skills learners have to acquire in relation to team building. Group tasks only are beneficial when the group sizes are small but a

situation where the groups are big then the learners may not benefit much from the group tasks.

5.4 The perceptions of the current and past students towards the training approaches at BAC in relation to experiential.

5.4.1 Training and experiential activities

The findings from the respondents (Table 4.1) i ndicated that the respondents disagreed that learning activities were based on their needs in the labour market, learning activities involved group tasks, training activities involved active learning and varied training activities were provided various experiential learning activities. Active learning consists of activities where the learners are given a marked degree of autonomy and control over the organisation, conduct and direction of the learning activities. According to Chris (1998) active learning is effective in fostering a number of important learning skills involved in the process of organizing activities as communication skills can be developed during group tasks. Providing learners with a variety of learning activities opportunities for learns to learn in different ways, and thereby build and develop different skills from different learning activities. In support (Hamer, 2000) argued that .experiential learning with varied activities enables enhancement of learning and learners perceiving the learning process as "value-adding".

5.4.2 Instructional materials

The findings from the study (Table 4.2) revealed that the instructional materials used during the various experiential learning activities were inadequate. This can affect the learners' skills acquisition process because the exposure of students to various instructional materials is very important for their skills acquisition. Experiential learning

associated with extension work. In support Wuff-Risner & Stewart (1997) argued that learners need to be trained and involved in the context in which they are going to apply the knowledge. Hence exposing learners to community work is one of the ways through which they apply the knowledge they gained from school.

Findings indicated that students had minimum opportunities to reflect on their learning. Reflecting on the experiences during training enables students to obtain greater insights into the training activities hence it draws out the learners' beliefs and ideas about a training activity so that they it be examined and tested, and their existing knowledge and experiences integrated with new, more refined ideas and concepts can be integrated into the training. Thus when the learners are not given chance to reflect on their experiences, they may fail to connect their previous experiences with new knowledge and ideas. Reflecting on their experiences encourages creative responses to problem solving which is an important skill for the agricultural students. Relatedly Kolb (1984) concluded that allowing learners to reflect on their experiences and learning makes learners gain useful insights into the way knowledge is created and applied. Relatedly, active observation and reflecting during training activities elicits and sustains student motivation and interest in the training activities hence the motivation and interest of the students become low when less opportunities are provided for the students to actively observe during the training activities.

5.4.4 Role of lecturers during the experiential learning process.

Findings in on the role of the trainer in relation to experiential learning (Table 4.4) indicate that respondents disagreed that there were opportunities provided for active learning and a variety of learning activities were provided to them. The respondents strongly disagreed that they were provided opportunities for application of knowledge. The role of lecturers in the experiential learning process is very important because the trainers programme, guide and assess the various experiential learning activities. This implies the role of lecturers during the experiential learning is very important for the success of the experiential learning approaches. The respondents complained of limited guidance provided to them during the experiential learning activities especially during the internships where the lecturers do not normally carry out follow ups while in the field and in most cases they are left in the hands of the workplace supervisor who do not possess adequate pedagogical competence to guide. Chris (1998) argued that for learning objectives to be successful the trainer is a very important factor hence the trainers knowledge and action in terms of the methods he uses and the management of the training process and materials is a very important factor in the success of the training programme. Therefore the trainer needs to be skillful in carrying out the duties of training thus the trainer attributes greatly influences the training process.

5.4.5 Assessment and evaluation of the learning Process in relation to experiential learning.

The college carries out formative and summative assessment. The summative evaluation is in form of theory examinations at the end of the semester. The findings revealed that the assessment process was examination oriented and there was minimum testing of the practical competences the students had acquired because it basically tests the ability of the students to recall facts. It is important for trainers to assess the practical aspects using practical assessment criteria and give it priority in relation to the skills required by the employers. According to Chris (1998), to monitor and assess the learners skills acquisition progress there is need to develop strategies that test the practical skills. Therefore giving learners a lot of theoretical assessments at the expense of the practical skills will make the institutions fail to take corrective actions to avert scenarios where learners are lacking skills hence training institutions need to assess practical skills using practical assessment procedures not theoretical assessment procedures.

Findings from the respondents revealed that mentoring and supervision during industrial training was left to the workplace supervisor for the biggest period of placement. It was not clear whether the workplace supervisors had adequate qualification to mentor the students appropriately. This implies that if the students are not adequately supervised by a well-qualified and experienced person with the right pedagogical competence. A situation where the facilitator does not have the required pedagogical competence to guide and assess the students in terms of the various stages during industrial training the students may not gain much from the industrial training. According to Mason et al (2010) creating and supervising an experiential learning environment can

be challenging for educators who have been taught through traditional classroom techniques and may not guide and assess students well during experiential learning activities. Therefore, the learners need to be assessed using appropriate methods during the experiential learning activities such that the learners can be assessed on their competencies and corrective measures can be taken.

5.5 Ranking of the best options in training approaches at BAC in relation to experiential learning

The respondents ranked internships as being the most useful experiential learning approach they experienced during their training; this was followed by the students' projects, practical lessons, case studies, experiments and equipment simulators. The respondent's reasons gave the following reasons for the rankings included in the table above. The respondents revealed that during internships they receive on-the-job, one-on-one training in a work setting from skilled professionals who provide the knowledge and expertise in their field hence they learn by doing hence they gain hands-on experiences. However the respondents noted that they had limited time given to them during the industrial training.

The respondents revealed that they were given only six weeks in most cases to carry out the industrial training and yet some of the workplaces have a lot of tasks which may require a lot of time to master in order to develop the required competencies. This limitation in time possibly can affect the students in their skills acquisition because when the students are constrained with time they may miss on some of the learning opportunities that may take long to learn for example an extension worker may take around six months to develop and acquire relevant skills in relation to community

development yet the internship takes only six weeks hence some skills need a lot of time to develop but the students in this case seem to be limited by the time they use during the industrial training.

The respondents revealed that industrial training is an opportunity for students to incorporate work-related experience. During industrial training learners are exposed to real workplace situations which enable them to acquire skills needed in the workplaces. Industrial training provides an opportunity for students to incorporate knowledge into work-related experience which enables them to acquire the required skills. In support (Hughes,1998) argued that giving students an opportunity to experience work in a real-world environment will offer a chance for the students to apply theoretical knowledge learned, authentic working sites this enables skills acquisition. Learning is therefore seen as a two-way process whereby practical experience gained during internship can complement studies undertaken earlier in the training institution. Work place experiences promotes incidental learning which may be hard to achieve at the training institutions. Some of the competencies such as working in teams, presenting orally and problem-solving skills can be developed during industrial training and can enhance graduate employability skills (Mason et al., 2006).

Thus, through industrial training, students have the opportunity to develop these much needed skills while pursuing their academic qualifications in the training institutions (Semedo et al., 2010). The respondents revealed that the time given for the industrial training inadequate. This is likely to minimise the opportunities for the students to gain from the experience. This is in line with Nilsson(2007), who argued that in order for learners to get the required competencies and skills they longer period of time to

interact with the various tasks such that they can get the required relevant skills and competencies required in the world of work.

5.6 Summary

5.6.1 Skills required by employers of agricultural graduates

Results from the study show that skills required by employers vary depending on the type of job role to be carried out within an organisation. The following were the skills which the respondents reported were important for the agricultural graduates. Technical skills, communication skills, leadership skills, information technology skills, interpersonal skills, team building skills and time management skills. Responses from the employers show that the newly recruited agricultural graduates lack the following skills; leadership skills, critical thinking skills, interpersonal skills and financial management skills. When probed for any possible reasons for lack of skills exhibited by some of the newly recruited agricultural graduates, majority of the employers blamed training institutions for failing to addresses the skill needs of the students. The respondents further argued that training institutions do not possess the necessary resources to train the students to meet the skills required by the employers in the labour market. This shows that a disparity exists in the types of skills taught at the training institutions and those that are demanded by the employers. The respondents suggested that in order to allow effective skills acquisition by the students; there is need for students to receive specific workplace training.

5.6.2 Characteristics of modes of delivery used in the training of students at BAC in relation to experiential learning

Responses from the respondents showed that the modes of delivery used in the training involved both theoretical and practical aspects. Observations during the study revealed that learning was organized on the individual basis with minimum group tasks and there was limited supervision of the learning process by the lecturers. The sizes of the classes were very big. The dominant mode of delivery was the lecture method. Other modes of delivery used includes demonstrations, students projects and experiments

5.6.3 Perceptions of the current and past students towards the training approaches at BAC in relation to experiential learning

Responses from the respondents indicated that the instructional materials given to them during the various experiential learning activities were inadequate; there were limited group tasks.

5.6.4 Best options in training approaches at BAC in relation to experiential learning.

The respondents ranked internships as being the most useful experiential learning approach they experienced during their training; this was followed by the students' projects, practical lessons, case studies, experiments and equipment simulators respectively.

5.7 Conclusion

From the responses of all the respondents, it is clear that experiential learning is important in helping students to integrate theory and practice and familiarizing the student with the world of work. Hence, experiential learning appears to have significant

potential to add value to student learning in Agriculture education. Students acquire workplace skills through experiential learning. For effective experiential learning programmes, partnerships with the industry are very important. In today's competitive knowledge based economy, the theoretical knowledge of academic subject is not enough for agricultural graduates to survive in the labour market. The graduates have to develop labour market-oriented skills to meet the challenging as well as changing needs of employers. They graduates need to improve their communication skills, problem-solving attitude, good knowledge of IT, and presentation skills. These features will enhance their employability. The curriculum of the college needs to mirror these skills. There are many limitations such as inadequate instructional materials, limited partnerships between the college and industry and large numbers of learners. These limitations can prohibit the effective implementation of experiential learning approaches.

5.8 Recommendations

The following recommendations were suggested based on the findings of this study:

1. Higher education service providers must ensure that they are aware of the expectations of employers, learners and should develop processes and systems to meet the expectations of all stakeholders. The development of policies will enable all stakeholders to identify, and relate to, the different components included in the education and training process.
2. BAC should continue and reinforce the experiential learning approach or programs based on the positive impact expressed by respondents of this study hence the college should try to implement more experiential learning activities.

3. It is also important to strengthen the relationships with the industry by engaging and other stakeholders in order to increase the chances of experiential learning sites or students.

4. Supervision of experiential learning activities should also be strengthened by the college. Additional assessments methods such as group assessments, self-assessment, observational reports and reflective diaries should be adopted.

5. There is a need to reinforce the technical skills of students in terms of computer programs and applied agricultural skills. More practical experience in agriculture is very important to boost the confidence. The study revealed that the graduates needed advanced computer programs, not computer literacy, as technology is advancing. It became clear that improving the curriculum of agricultural extension is important because of the significant role and the demand of these skills.

6. Partnerships between higher education service providers and industry representatives need to be created to ensure the integrity and value of experiential learning activities and to ensure that all the role players are familiar with the objectives of experiential learning placements, the components of experiential learning and the agreed responsibilities during experiential learning placements.

7. The course content should be more flexible such that it can respond to the demands of the labour market and needs to be revised periodically for example every two years to meet the changing needs of the labour market.

8. The respondents noted that the duration of internship should be increased from six weeks to 16 weeks to better relate the theoretical and practical skills in the curriculum.

5.9 Areas for further studies

The following suggestions for further research are offered based on the findings of this study:

1. A similar survey should be conducted in other colleges, as well as universities that train agricultural graduates. This could help to validate the findings of this study and might possibly determine universal experiential learning program guidelines. Furthermore, this would bring about the identification of different issues and needs related to experiences regarding the development of skills and abilities that need to be addressed.
2. A deeper inquiry of experiential learning program should be conducted to further understand the impact and effectiveness of the approach.
3. Longitudinal case studies should be conducted to evaluate the students' and employers' needs gap analysis hence leading to a regular curriculum audit.

References

Agarwal, V. and Gupta, O.K. (2008), "Summer internship projects in management education: an Indian experience", International Journal of Innovation and Learning, Vol. 5 No. 1, pp. 94-106.

Akdeniz AR, Çepni S, Azar A (1998). An approach for developing of pre-service Physic teachers' laboratory using skills :National Science Education Symposium, (Karadeniz Technical University, Trabzon, 23-25 September). pp.118-125.

Algan s (1999). The Effect of physics lessons supported by laboratory experiments to student's success and modern mathematics and science programmes conducted in Turkey between 1962-1985. Unpublished master's thesis, Gazi University Institute of Science, Ankara.

Amin, M. E. (2005). Social science research: Conception, methodology and analysis. Kampala: Makerere University Printery.

Andrews, K., & Wooten, B. (2005). Closing the gap: Helping students identify the skills employers want. *National Association of Colleges and Employers Journal, 65*(4), 40-43.

Auburn, T. and Ley, A. (1993), "Psychology undergraduates' experience of placements: a role-transition perspective", Studies in Higher Education, Vol. 18 No. 3, pp. 265-85.

Astin, A. W. (1999). Student involvement: A developmental theory for higher education. *Journal of College Student Development, 40*(5), 518–529.

Atkins, M. J. (1999). Oven-ready and self-basting: Taking stock of employability skills. *Teaching in Higher Education, 4(*2), 1356-2517.

Baruch, Y. (2006), "Role-play teaching: acting in the classroom", Management Learning, Vol. 37 No. 1, pp. 43-61.

Bauersfeld, H. (1995). 'Language Games' in the mathematics classroom: Their function and their effects. In P. Cobb & H. Bauersfeld (Eds.), The emergence of mathematical meaning: Interaction in classroom cultures (pp. 211-292). Hillsdale, NJ: Lawrence Erlbau

Biggs, J. (2003), "Constructing learning by aligning teaching: constructive alignment", Teaching for Quality Learning at University: What the Student Does, Open University Press, Philadelphia, PA.

Billing, D. (2003). Generic cognitive abilities in higher education: An international analysis of skills sought by stakeholders. *Compare, 33*(3), 335-350.

Binks, M. (1996), "Enterprise in higher education and the graduate labour market", Education and Training, Vol. 38 No. 2, pp. 26-9.

Blenker, P., Dreisler, P., Færgemann, H.M. and Kjeldsen, J. (2008), "A framework for developing entrepreneurship education in a university context", International Journal of Entrepreneurship and Small Business, Vol. 5 No. 1, pp. 45-63.

Bonwell, C. (1996), "Enhancing the lecture: revitalizing a traditional format", New Directions for Teaching and Learning, No. 67, pp. 31-44.

Borzak, L. (1981). *Field study, A source book for experiential learning* . Beverly Hills, CA : Sage.

Brennan, J. and Little, B. (1996), A Review of Work Based Learning in Higher Education, Department for Education and Employment, Sheffield.

Campbell, K., Mothersbaugh, D., Brammer, C. and Taylor, T. (2001), "Peer versus self assessment of oral business presentation performance", Business Communication Quarterly, Vol. 64 No. 3, pp. 23-42.

Cheek,J.G., Arrington,L.r., Carter, S., 7 Randell, R.S., (1994). Relation of supervised agricultural experience program participation and student achievement in agriculture.*journal of agriclutral education,41(3), 13-22.*

Chrish, K.(1998).Esssential Teaching Skills: Basil Backwell Ltd Cheltenham; United Kingdom.

Clark, J., & White, G. (2010). "Experiential Learning: A Definitive Edge In The Job Market". *American Journal Of Business Education*, 3(2), 115-118.

Cotton, K. (2001), Developing Employability Skills, Northwest Regional Educational Research Laboratory, Portland, OR, available at: www.nwrel.org/scpd/sirs/8/c015.html (accessed August 2013).

Cumming, T., & Lesniak, G. (2000). *Improving employability skills through cooperative education and tech prep.* Unpublished master's thesis, Saint Xavier University, Chicago, Illinois.

Dormody, T. J., & Seevers, B. S. (1994). Participation of FFA members in leadership development activities: A tri–state study. *Journal of Agricultural Education, 35*(4), 42–48.

Eduardo, T. (2007),"Employability, skills and training in Portugal (1988-2000): evidence from official data", Journal of European Industrial Training, Vol. 31 Iss: 5 pp. 336 – 357.

Elam, E. and Spotts, H. (2004), "Achieving marketing curriculum integration: a live case study approach", Journal of Marketing Education, Vol. 26 No. 1, pp. 50-65.

Ester, E & Nicola, B. (2009),"Enhancing employability: integrating real world experience in the curriculum", Education + Training, Vol. 51 Iss: 4 pp. 292 – 308.

Evers, F. T., Rush, J. C., & Berdrow, I. (1998). *The bases of competence. Skills for lifelong learning and employability*. Jossey-Bass Publishers, San Francisco.

Feinstein, A., Mann, S. and Corsun, D. (2002), "Charting the experiential territory: clarifying definitions and uses of computer simulation, games and role play", Journal of Management Development, Vol. 21 Nos 9/10, pp. 732-44.

Fenwick,T.(2000). Expanding conceptions of experiential learning: A review of five contemporary perspectives. *Adult Education Quarterly, 50* (4), 243-272. in higher education. *Academy of Management Learning & Education, 4*(2), 193–212.

Fiet, J.O. (2000), "The pedagogical side of entrepreneurship theory", Journal of Business Venturing, Vol. 16 No. 2, pp. 101-17.

Fish, L. (2007), "Graduate student project: operations management product plan", Journal of Education for Business, Vol. 83 No. 2, pp. 59-71.

Fleming, N. (2001), VARK: A Guide to Learning Styles, available at: www.vark-learn.com/ english/index.asp (accessed september 2013).

Frontczak, N. and Kelly, C. (2000), "The editor's corner: special issue on experiential learning in marketing education", Journal of Marketing Education, Vol. 22 No. 3, pp. 3-4.

Fuhrmann, B. S., & Grasha, A. F. (1983). *The past, present and future in college teaching: Where does your teaching fit?* In *A practical handbook for college teachers* (pp. 1-20). Boston, MA: Little, Brown, and Company.

Gay L.R (1996),Educational Research, Prentice Hall New Jersey USA

Glasersfeld, E. (1989). Cognition, construction of knowledge, and teaching.Synthese, 80(1), 121-140.

Hamer, L.O. (2000), "The additive effects of semi-structured classroom activities on student learning: an application of classroom-based experiential learning techniques", Journal of Marketing Education, Vol. 22 No. 1, April.

Hayes, D. and Reynolds, J. (2005), "Caroline's candy shop: an in-class role play of the revenue cycle", Journal of Information Systems, Vol. 19 No. 1, pp. 131-54.

Hindle, K.G. (2007), "Teaching entrepreneurship at university: from the wrong building to the right philosophy", in Greene, P. and Rice, M. (Eds), Teaching Entrepreneurship, Edward Elgar, Cheltenham, pp. 135-58.

Hofstrand, R. (1996). Getting all the skills employers want. Techniques: *Making Education &Career Connections*, 71(8), 51.

Holman, D. (2000), "Contemporary models of management education in the UK", Management Learning, Vol. 31 No. 2, pp. 197-217.

Hughes, C. (1998), "Practicum learning: perils of the authentic workplace", Higher Education Research & Development, Vol. 17 No. 2, pp. 207-27.

Ivgen, R. (1997). Guide of biological researches : Instanbul National Education Press.

Johnson, D. (2000), "The use of learning theories in the design of a work-based learning course at masters level", Innovations in Education and Training International, Vol. 37 No. 2, pp. 129-33.

Jones, L. (2002). *Internships as Applied Academic Experiences.* Paper presented at the 18th Annual Conference of the Association for International Agricultural and Extension Education held in Durban, 26-30 May. Durban, South Africa.

Karns, G. (2005), "An update of marketing student perceptions of learning activities: structure, preferences and effectiveness", Journal of Marketing Education, Vol. 27 No. 2, pp. 163-71.

Kelter, P. (1994). Are our demonstration-based workshops doing more harm than good? *Journal of Chemical Education, 71*, 109-110.

Kerka, S. (1999). *New directions for cooperative education*. Columbus, OH: ERIC Clearinghouse on Adult Career and Vocational Education.

Kibwika, P., & Tibezinda, J. P. (1998). Participation of youth in agriculture in Iganga District. *Makerere University Agricultural Research Institute Kabanyolo (MUARIK) bulletin. 1*(1), 1–5.

Knobloch, N. A., & Martin, R. A. (2002a). Factors influencing the integration of agriculture into the elementary school curriculum: Relevance, value, fit, and perceptions. Proceedings of the annual meeting of the AAAE Central Region Agricultural Education Research Conference, 219-230.

Kolb, A.Y. and Kolb, D.A. (2005), "Learning styles and learning spaces: enhancing experiential learning in higher education", Academy of Management Learning and Education, Vol. 4 No. 2, pp. 193-212.

Kolb, D.A (1984). Experiential learning: Experiences as the source of learning and development. Englewood Cliffs: Prentice-hall Inc.

Kothari. C. R.(2004). *Research Methodology Methods and Techniques*.New Age International Publishers, New Delhi.

Kuh, G.D., Cruce, T.M. and Shoup, R. (2008), "Unmasking the effects of student engagement on firstyear college grades and persistence", The Journal of Higher Education, Vol. 79 No. 5, pp. 540-63.

Little, B. (2004), Employability andWork-Based Learning, The Higher Education Academy, York.

Lucas, B., Spencer, E. & Claxton, G. (2012) *Progression in Creativity - Developing New Forms of Assessment: A literature review,* Newcastle: CCE.

Makerere Institute of Social Research (2002) .Graduate Tracer and Employers' Expectations in Uganda, *A Study conducted for and on behalf of the National Council for Higher Education (NCHE) in Partnership with Center for Higher Education Policy Studies (CHEPS) of the University of Twente Netherlands* .Makerere University Kampala.

Mason, G., Williams, G. and Cranmer, S. (2006), Employability Skills Initiatives in Higher Education: What Effects Do They Have on Graduate Labour Market Outcomes? National Institute of Economic and Social Research, London.

Meyer, L. S., Schmidt, S., Nozawa, F., & Panee, D. (2003). Using demonstrations to promote student comprehension in chemistry. *Journal of Chemical Education, 80*(3), 431-435.

Mugenda, O. M., &Mugenda, A. G. (1999).Research Methods. Nairobi, Kenya: Acts Press.

MVP programme Document. (2008). *Programme for Masters Degree in Vocational Pedagogy:* Kyambogo University, Akershus University College-Norway and Upper Nile University-Southern Sudan:Kyambogo University.

Nakhleh M (1994). Chemical education research in the laboratory environment. J. Chem. Educ., 71(3): 201-205.

National Curriculum Development Centre, [NCDC]. (2000).*Uganda primary school curriculum, (Vol. II).* Kampala, Uganda: National Curriculum Development Centre.

Neuman, w. L. (1997), Social Research Methods. Qualitative and Quantitative Approaches, 3rd ed.,Allyn &Bacon,Boston , MA.

Newcomb, L.H., McCracken, J.D., Warmbrod, J.R., & Whittington, M.S.(2004). Methods of teaching agriculture (3rd ed.). Upper River, NJ: Pearson Education.

Nicholson, A. (2000), "Reproducing the management process in the educational context", ın Riis, J., Smeds, R. and Landegehem, R. (Eds), Games in Operations Management: Fourth International Workshop of the SIG on Integrated Production Management Systems, Ghent, Belgium, November 1998, Kluwer, London, pp. 77-86.

Nilsson, L. (2007). *How to enrich vocational learning and It's consequences for vocational teacher training*: University of Goteborg.

O'Malley, L. and Ryan, A. (2006), "Pedagogy and relationship marketing: opportunities for frame restructuring using African drumming", Journal of Marketing Management, Vol. 22 Nos 1/2, pp. 195-214.

Okan K (1993). Science education. Ankara: Kadıoglu Press, Okan Publishing,

Okay, S. and Sahin, I. (2010), "A study on the opinions of the students attending the faculty of technical education regarding industrial internship", International Journal of the Physical Sciences, Vol. 5 No. 7, pp. 1132-46.

Patton, M. Q. (1990). Qualitative evaluation and research methods (2nd ed.). Newbury Park, CA: Sage Publications.

Peddle, M. T. (2000). Frustration at the factory: Employer perceptions of workforce deficiencies and training trends. *Journal of Regional Analysis & Policy*, 30(1) 23-40.

Peterson, M. (1997). *Skills to Enhance Problem-Based Learning. University of Delaware.* College of Health and Nursing Sciences (pp.1-9). Newark, Delaware.

Pfahl, D., Laitenberger, O., Ruhe, G., Dorsch, J. and Krivobokova, T. (2004), "Evaluating the learning effectiveness of using simulations in software project management education: results from a twice replicated experiment", Information and Software Technology, Vol. 46 No. 2, pp. 127-47.

Proudman, B. (1992). Experiential education as emotionally- engaged learning. *Journal of Experiential Education*, *15*(2), 19-23.

Read, C. and Kleiner, B. (1996), "Which trainıng methods are effective?" Management Development Review, Vol. 9 No. 2, pp. 24-9.

Riedmiller, S. (2002). *Primary school agriculture: What can it realistically achieve?* Retrieved from http://www.fao.org/sd/2002/KN0701a_en.htm on January 13, 2013.

Rothwell, W. J. and Sredl, H.J. (2000), *Workplace learning and performance: Present and Future Roles and Competencies, 3rd* ed. 1&II, HRD Pres, Amherst, MA.

Sadler, B. (2004), "How important is student participation in teaching philosophy?", Teaching Philosophy, Vol. 27 No. 3, p. 266.

Salvador, J., Countryman, D.W. and Miller, B.E. (1994). Incorporating Problem- Based Experiential Learning in the Agriculture Curriculum. *Journal of Natural Resource Life Science Education,* 24 (1), 58-63.

Semedo, L., Newman-Ford, L., Lloyd, S. and Thomas, S. (2010), "HoneyBee: evaluating Glamorgan's work-based learning initiative", available at: www.engsc.ac.uk/downloads/ honeybee-miniproject.doc (accessed 3 February 2013).

Schmidt, S. J. (1999). Using writing to develop critical thinking skills. *North American Colleges and Teachers of Agriculture Journal*, 43(4), 31-38.

Shepherd, D. (2004), "Educating entrepreneurship students about emotion and learning from failure", Academy of Management Learning and Education, Vol. 3 No. 3, pp. 274-87.

Shivpuri, S., & Kim, B. (2004). Do employers and colleges see eye-to-eye? *National Association of Colleges and Employers,* 37-44.

Skilling Uganda (2011) .BTVET strategic plan 2011-2020: Kampala.

Simon P. Ellis, (2003),"Anticipating employers' skills needs: the case for intervention", International Journal of Manpower, Vol. 24 Iss: 1 pp. 83 – 96

Smith, M.K. (2001). David A.Kolb on experiential learning.Encyclopedia of informal education, 1-15.

Streumer, J.N. and Kho, M. (2006), "The world of Work Related Learning", in Streumer, J.N. (Ed.),Work-Related Learning, Springer.

Stephen Fallows, Christine Steven, (2000),"Building employability skills into the higher education curriculum: a university-wide initiative", Education + Training, Vol. 42 Iss: 2 pp. 75 – 83.

Taylor, A. (2003). *The context of school-work transition in Canada.* Edmonton, AB: University of Alberta. Work and Learning Network, University of Alberta.

Trede, L.D. and Andreasen, R.J. (1997). An analysis of Experiential Learning and Instructional Techniques in AgEdS450 at Iowa State University. Iowa Agriculture and Home Economics Experiment Station. *Journal of the National Association of Colleges and Teachers of Agriculture,* 44 (2), 35-40.

Trotskovy, E. and Sabag, N. (2010), "Internship in engineering design at hi-tech industries: theory and practice", paper presented at the IEEE-IBM TEE 2010 – Transforming Engineering Education Conference, Dublin, p. 5.

Vandenbosch,T., Hagmann, J., Momoh, C. & Ngwenya, H. (eds). (2002, May).*Round–table discussion on the Farmers of the Future.*Nairobi, Kenya: World Agro–forestry Centre (ICRAF).

Wuff-Risner, L. & Stewart,B. (1997). Using experiential learning to teach evaluation skills. Journal of Agricultural Education, 38(3), 43-50.

Young, W. (1995), "Internship: intergrating theory and practice", Asia-Pacific Journal of Teacher Education, Vol. 23 No. 1, pp. 97-107.

Zilbert, E., & Leske, G. (1989). Agricultural education and experiential learning. The Visitor, 76(1), 1-4.

Appendices

Appendix 1: Interview schedule for the administrators

Dear respondent,

I am a student of Kyambogo University offering Master's Degree in Vocational Pedagogy. I am carrying out research as part of the requirement for the award of a master's degree in Vocational Pedagogy of Kyambogo University. Kindly spare some time to answer the questions. The information provided shall be used purposely for this study and shall be kept with the utmost confidentiality.

Thanks for your cooperation.

1. How do you support learning activities in this institution?
2. What benefits are reported to you of the experiential learning approach?
3. What challenges do your lecturers face in implementing experiential learning?
4. What suggestions can you propose in order to improve experiential learning activities?

Appendix 2: Interview guide for employers

Dear respondent,

I am a student of Kyambogo University offering Master's Degree in Vocational Pedagogy. I am carrying out an academic research as part of the requirement for the award of a Master's degree. The interview may take about 20 minutes. The information provided shall be used purposely for this study and shall be kept with utmost confidentiality.
Thanks for your cooperation.

Demographic information

Age Sex
What is your qualification?
Current Position
Major function or responsibility

1. Which one of the following skills does your organization require from agricultural graduates?

Problem solving	☐	Decision making	☐	Technical	☐
Communication	☐	Organisation and time management			☐
Conflict management	☐	Leadership	☐	Record keeping	☐
Financial management	☐				
Interpersonal	☐				

2. Do recent agricultural graduates' demonstrated required competencies when they first assumed their duties with your organization?
3. What skills do the graduates lack? And any possible reasons for the lack of skills?

4a. What learning opportunities do you offer to students?

5a. What tasks or activities do you typically assign recent graduates who join your organization?

5b. How are these new graduates assessed in terms of performance?

6. Who guides recent graduates during their first encounter with their job in this organisation?
7. What problems have you experienced with recent graduates who work for your organization?
8. What programs are there to assist recently employed graduates?
9. What professional development programs do you offer to recent graduates working for your organization?

Appendix 3: Interview guide for lecturers

Dear respondent,

I am a student of Kyambogo University offering Master's Degree in Vocational Pedagogy. I am carrying out an academic research as part of the requirement for the award of a Master's degree. The interview may take about 20 minutes. The information provided shall be used purposely for this study and shall be kept with utmost confidentiality.

Demographic information

Age Sex

What is your qualification?

Current Position

Major function or responsibility

1. What skills does the content of your curriculum provide to equip agricultural graduates such that they can be effective in their work?
2. In comparison to the world of work, what skills do you think are lacking in your students in order for them to be effective in their work?
3. How do you help students integrate theory with practice?
4. What tools do you use to assess the progress of students learning?
5. What support do you provide to students during learning process?
6. What role do you play as a lecturer?
9. What problems do you meet in the training?
7. What specific goals do you intent to achieve by the modes of delivery you use?
8. How is the assessment of students done?
9. What changes can you suggest in order to improve the learning?

Thanks for your cooperation

Appendix 4: Questionnaire on perception of current and past students towards training approaches at BAC in relation to experiential learning.

Dear respondent,

I am a student of Kyambogo University offering Master's Degree in Vocational Pedagogy. I am carrying out an academic research as part of the requirement for the award of a Master's degree. The information provided shall be used purposely for this study.

Demographic information

Age Sex

What is your qualification?

Current Position

Tick giving your perception on the items below according to the level you agree or disagree with the statements below. 5- Strongly Agree (SA), 4-Agree (A), 3-Neutral, 2 – Disagree (D) and 1 – strongly Disagree (SD)

A: Training activities

	Items	SD	D	N	A	SA
1	Learning activities were based upon my needs in the labour market	1	2	3	4	5
2	Learning activities involved group tasks	1	2	3	4	5
3	Training activities involved active learning	1	2	3	4	5
4	Varied training activities were provided	1	2	3	4	5

B: Instructional materials

	Items	SD	D	N	A	SA
1.	Sufficient instructional materials are provided during experiential learning activities and training sessions	1	2	3	4	5
2	Much time would be allotted to interact with the instructional materials	1	2	3	4	5
3	Trainer guided us in using the instructional materials during experiential learning activities	1	2	3	4	5
4	Instructional materials are relevant to experiential learning activities we were exposed to	1	2	3	4	

C: Organisation of the training activities and the learning process.

	Items	SD	D	N	A	SA
1	Training involved classroom and community involvements activities	1	2	3	4	5
2	Training activities were organized in groups	1	2	3	4	5
3	Training activities enabled us to reflect on the experiences	1	2	3	4	5
4	Training activities encouraged active observation	1	2	3	4	5

D: Role of lecturers during the training activities

	Items	SD	D	N	A	SA
1	Provided opportunities for active learning	1	2	3	4	5
2	Provided a variety of learning activities	1	2	3	4	5
4	Provides clear instructions and explanations	1	2	3	4	5
5	Provided opportunities for application of knowledge	1	2	3	4	5
6	Provided tasks that meet our skill needs					

E: Evaluation and assessment of the training activities and learning process.

	Items	SD	D	N	A	SA
1	I knew how the experiential learning activities was going to be assessed	1	2	3	4	5
2	The way I was assessed was a fair test of my skills	1	2	3	4	5
3	I was assessed at appropriate intervals	1	2	3	4	5
4	I received useful feedback on my assessment	1	2	3	4	5
5	The assessment was a good test of what I was taught	1	2	3	4	5

1. What important skills do you need to do your job?
2. How was your learning assessed?

Appendix 5: Questionnaire on the best options in training approaches at BAC.

Dear respondent,

I am a student of Kyambogo University offering Master's Degree in Vocational Pedagogy. I am carrying out an academic research as part of the requirement for the award of a Master's degree. The information provided shall be used purposely for this study.

Please rank the experiential learning approaches below from 1st to 6th according to what you consider to be the best.

Demographic information

Age Sex

What is your qualification?

Current Position

Major function or responsibility

Experiential learning approaches	**1** **1st choice**	**2** **2nd choice**	**3** **3rd choice**	**4** **4th choice**	**5** **5th choice**	**6th choice**
Internships						
Equipment Simulators						
Case Study						
Practical lessons						
Experiments						
Students projects						

1.G ive reasons for the rankings above.

Appendix 6: Observation checklist

1. How learning activities are organized.
2. The modes of delivery used by teachers.
3. The duration of the various activities.
4. Instructional materials used
5. Interaction between learners and the teachers.

Appendix 7: Introductory letter

KYAMBOGO UNIVERSITY

P. O. Box 1 Kyambogo, Phone: 041-285001/2 Fax: 041-220764, Kampala
www.kyambogo.ac.ug
FACULTY OF VOCATIONAL STUDIES
DEPARTMENT OF ART & INDUSTRIAL DESIGN

Date: 04/02/2013

To:
BUKALASA AGRICULTURAL COLLEGE
P.O. BOX 174 NOBULENZI LUWERO

RE: LETTER OF INTRUDUCTION

This is to introduce Mr/~~Ms~~/Mrs OGUZU EVANS
Registration No. 2011/U/ITD/2901MVP who is a student of Kyambogo University pursing on a post graduate programme in Vocational Pedagogy.

He/She intends to carry out a research in:
THE POTENTIAL OF EXPERIENTIAL LEARNING IN THE TRAINING OF AGRICULTURAL STUDENTS: A CASE OF BUKALASA AGRICULTURAL COLLEGE
as partial fulfillment of the requirements for the award of the Degree in Masters of Vocational Pedagogy.

We therefore kindly request you to grant him/her permission to carry out the research at your organization.
Any assistance accorded to him/her shall be highly appreciated.

Thank you.

Yours Faithfully,

Mugisha John
Ag. Head of Department
Art and Industrial Design

KYAMBOGO UNIVERSITY
09 JAN 2013
DEPARTMENT OF ART AND INDUSTRIAL DESIGN