SKILLS LABORATORY AND ENHANCEMENT OF PRACTICAL COMPETENCE AMONG INTERIOR DESIGN STUDENTS IN THE DEPARTMENT OF ART AND INDUSTRIAL DESIGN KYAMBOGO UNIVERSITY

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DISSERTATION SUBMITTED TO GRADUATE SCHOOL IN FULFILLMENT OF THE REQUIREMENT FOR THE AWARD OF A MASTER'S DEGREE IN VOCATIONAL PEDAGOGY OF KYAMBOGO UNIVERSITY

DECEMBER 2017

DECLARATION

I, Nansubuga Lydia, declare that the content of this dissertation is my original work and has never been presented for any award of a degree in any University.

NANSUBUGA LYDIA

Sign: .....

Date: .....

APPROVAL

This Dissertation Report entitled **"SKILLS LABORATORY AND ENHANCEMENT OF PRACTICAL COMPETENCE AMONG INTERIOR DESIGN STUDENTS IN THE DEPARTMENT OF ART AND INDUSTRIAL DESIGN":** has been done under our supervision. It has been submitted to the graduate school for examination with our approval as the student's supervisors.

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Sign.....

Date.....

DEDICATION

I dedicate this Dissertation report to my family especially my husband Mr. Kivumbi Patrick for the motivation and confidence he instilled in me to pursue my academic endeavors. To my three sons, Douglas, Timothy and Samuel for standing in for me at home and the encouragement they have rendered to me during my two years of study. You will always stand as pillars in my life. God bless you.

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ACRONYMS

AR	Action Research
DAID	Department of Art and Industrial Design
DIC	Diploma in Ceramics
DID	Diploma in Interior Design
DTEX	Diploma in Textile Design
ID	Interior Design
KYU	Kyambogo University
MVP	Masters in Vocational Pedagogy
NORHED	Norwegian Support for Higher Education
VET	Vocational Education and Training

Abstract

The study was carried out in the department of Art and Industrial Design particularly focusing on the Interior Design program to assess the occupational training provided by the department to the graduates. It was guided by four objectives; Examining the existing teaching and learning processes in the Department of Art and Industrial Design, establishing a skills lab by renovating and organizing the available resources, utilize the established lab in skills and competence acquisition and evaluate the impact of utilizing the skills lab on acquisition of skills and competence among interior designers. The main findings showed that the graduates lacked competence and confidence due to inadequate practice. It was deliberated that a skills lab be established to solve the problem. Descriptive study design was employed, taking a qualitative approach based on a sample of 35 respondents comprised of; Instructors, graduates already working, continuing students, technicians, experts from the world of work and administrative staff (secretary and Head of department).These were selected purposively to avail the relevant information. Data was collected using individual interviews, focus group discussions, documentary analysis, discussion and dialog using the future workshop tool. The skills lab helped students to gain skills in color selection for interior spaces, handling tools and materials for painting and practical skills in applying various paint effects in different hues. They also acquired skills in operating and maintaining sewing machines, curtain making, installing curtain rods and dressing the curtains. Lastly they acquired social skills like interpersonal relationships, delegation, responsibility, collaboration, creativity, research and critical thinking through group learning and project based learning

CHAPTER ONE: INTRODUCTION

The study sought to establish a skills laboratory towards improvement of students' competences in Interior Design programme under the department of Art & Industrial Design of Kyambogo University. This chapter covers; the brief explanation of vocational training and vocational pedagogy as a field, background of the study, statement of motivation situational analysis, Statement of the problem, Purpose of the study, objectives of the study, research questions, justification of the study, significance of the study, scope of the study, study Limitations and Delimitations, operational definition of Terms and Conceptual Framework.

1.1Vocational training and vocational pedagogy as a field

1.1.1 Vocational training

Vocational training prepares people for a certain trade or craft and it channels students to specific career paths. Bosch and Charest (2008) state that in recent decades, the differences between the education and training systems in the liberal and coordinated market economies have increased (p. 428–447). Vocational education and training (VET), particularly apprenticeship systems rather than school-based VET, are deeply embedded in the different national production, labor market, industrial relations and status systems (Bosch & Charest, 2008).In the coordinated market economies, the modernization of vocational training is seen as a contribution to innovation in the economy, while in liberal market economies it is seen as a system into which weaker pupils can conveniently be shunted (Charest, 2008).

Matthias (2016) stresses that, given the increasing demand for skilled labor; a well-trained workforce is believed to be central to a productive and competitive economy. In this light, the stakeholders in the department of Art and Industrial design collaboratively decided to establish a skills lab to facilitate production of skilled interior design graduates. Currently,

many countries, governments and individuals invest heavily into vocational training schemes for the production of a skilled workforce.

In the case of Uganda, the government has implemented a project, providing skills to Ugandans, where vocational courses are taught right from primary school level to enable learners to acquire vocational skills from an early stage. This is primarily because even young adults who are not college-bound benefit from knowledge about the effects of taking alternative paths, and from the provision of the most effective training scheme (Parey, 2016). (Shavit & Muller 2000) as quoted by Dániel (2011) continues to highlight that vocational degrees prepare people for concrete occupations and employers highly regard the occupational credentials

Compared to academic secondary school education, the system of vocational education is said to facilitate rapid entry into skilled blue and white collar work (Technical work). By lowering unemployment risks in particular, vocational education performs a safety net function while potentially diverting some young people from ambitious career paths (Winkelmann 1996; Müller and Shavit 1998; Shavit and Müller 2000; Scherer 2005). (Noelke & Horn, 2011).

1.1.2 Vocational pedagogy

Vocational pedagogy is a field concerned with cross cultural education; teaching international and national students in Vocational Education. New pedagogical approaches are designed to support vocational education teachers in both addressing the distinctive learning characteristics of international students and preparing domestic students for global skills mobility (Tran, 2013).

Ly Thi (2013) goes on to stress that; Vocational pedagogy is well grounded in theories concerning teaching and learning vocational education. These theories are highly effective pedagogical approaches within the context of competence- based training. These include the intercultural approach, the Ubuntu approach, the language and vocational learning integration approach, the perspective transformation approach, the value-added approach, work-based learning and flexible and divergent pedagogy. These approaches focus on developing the learner's ability to consider the broader issues in an intercultural context, to capitalize on prior experience and to adapt vocational skills to the workplace settings (Tran, 2013).

Furthermore, Kalantzis and Cope (2012) claims that, in this moment of tremendous change, investing in old ways of doing education is not the best way forward. The transformed economic system emerging from the current financial crisis will require human capacities that only education can nurture, based on deep knowledge, practical imagination, creative participation, intellectual inquisitiveness and collaborative commitment, not just on the part of a knowledge elite, but of the many in the labor force and in the broader society (Cope, 2012).

In Africa, unemployment of youths is at a record high compared to that of adults. Young people, especially those in younger age cohorts (15-19) find themselves engaging in low productivity, low income generating survival pursuits in a range of activities, whether licit or illicit in the informal economy. Furthermore, even the youths who get a chance to acquire education in institutions face a school-to-work transition process which is protracted and difficult. Chigunta and Elder (2013) claim that, the transition from school to work is a critical stage in the development of young people. It is a stage during which they acquire the necessary skills and experience that make them useful and productive members of society Chigunta (2013). Formal education programs focus majorly on academic credits and

certificates and do not provide enough focus on employment as an end goal. This focusing on academic credits and certificates rather than employment is further expounded by Mayomba and Lombard (2016) who argue that the existence of suitable training materials and qualified trainers with practical experience and specific technical skills constitutes enabling environments for graduate employment. Without improvement in material and human resources, adult trainees will continue to experience difficulties integrating into the labour market, and the cycle of poverty and social exclusion will remain unbroken (Lombard, 2016).

1.2 Study background

The Department of Art and Industrial Design (DAID), Kyambogo University, has various Vocational Education programs with different courses in Art and Design. These programs include; Diploma in Textiles Design & Surface Design (DTEX), Diploma in Ceramics (DIC) and Diploma in Interior Design (DID). It also offers a Diploma in Secondary Education (Art and Design) which produces Art and Design teachers for lower secondary, among others.

Soft furnishing and Paint Effects are vocational course units taught in the Diploma program of interior Design. Soft furnishing involves designing and production of various soft furnishing products like curtains, cushions, floor rugs, table linen, table mats and many others. Paint effects are concerned with beautifying the interiors through applying different paint effects in various hues. According to the Interior design program structure, graduates are expected to acquire a deeper understanding of interior design in terms of beautifying interiors and making them functional and comfortable to the users. And also to have technical and practical skills vital in translating design ideas into reality. This has not been possible to achieve due to the absence of a functional skills laboratory in the department. Technical and

practical skills can only be acquired through hands-on learning in an environment which has equipment, tools and materials that facilitate learning through practice.

This program is a response to the needs of the community for interior designs that includes furnishings which are beautiful, functional and comfortable. Furnishings are needed by people as an essential element both in exterior and interior spaces.to provide comfort and improved life sustainability (Nielson & Taylor, 1994). Furthermore, furnishings are functional and decorative products used in interior spaces made out of fabrics.

Painted interiors tend to create a favorable and comfortable environment to live in because different colors painted in rooms create various moods. For instance resting rooms like bedrooms tend to be comfortable with cool colors while active rooms like dining rooms are more comfortable with warm colors. This is supported by Yildirim (2011) who states that, warm colors tended to produce stronger participant responses compared to cool and achromatic colors that evoke calmer and more peaceful emotions (Yildirim, 2011).

According to the interior design program structure (2011), the paint effects course is aimed at providing students with a broad spectrum of colour theory, types of colour and their effects on various surfaces. It also aims at enabling students to understand colour as a multipurpose medium in design, acquire knowledge about different tools and materials used in painting and to understand the different paints and paint effects.

Acquiring skills in paint effects can only be effected through practice as students explore colour and its effects on various surfaces through hands-on learning favorably in a skills lab. This enables them to learn handling different tools and materials used in painting and through demonstrations by the instructors, students understand the different paints and paint effects.

So, by the end of the interior design course, students would be able to demonstrate ability to use color as a medium in design, to display competence in working with different tools and materials used in painting and also to practically demonstrate creativity in application of various paint effects.

1.3 Statement of Motivation

As an academic staff in the DAID, I had the opportunity of reading performance reports of the interior design student interns and graduates from the internal supervisors in the companies they conducted the internship training, these reports reveal that the ID graduates and interns have inadequate competences which reduces their ability to perform in the world of work effectively.

This scenario has since then left me questioning what I could do to interest the DAID to address this challenge, especially because all the stakeholders' involvement is required in this undertaking. Fortunately, study of the field of vocational pedagogy introduced me to Action Research as problem solving approach in social institutions. Action research aims at studying a system and concurrently collaborate with members of the system in changing it in what together regard as a desirable direction. Therefore I saw Action Research an avenue that could enable me to encourage stakeholders in the Department of Art and Industrial Design to explicitly identify and implement strategies for enhancing the acquisition of adequate practical competences among ID students.

1.4 Situation Analysis

The researcher carried out a situation analysis of the teaching and learning processes employed in the production of ID graduates in soft furnishing and paint effects. Through the situation analysis, the researcher sought to establish the gaps in the teaching-learning

processes used in the delivery of the soft furnishing and paint effect course units. The gaps were established through: interviewing the instructors students, employers internees and graduates of ID. Focus group discussions were also conducted with other ID program stakeholders like -, technicians, and administrative staff for in-depth analysis of the work process involved in the production of ID graduates in the DAID.

The situation analysis revealed that at the moment, the teaching-learning processes in the Soft furnishing and Paint Effect courses produce graduates with inadequate practical competences. The stakeholders indicated that they would like a situation where the teaching – learning processes in the ID program in the DAID at KyU produce graduates with adequate competences.

Reports from the employers and supervisors in the workplace indicate that Kyambogo University student interns and Interior Design graduates are still wanting in several ways, where ID graduates lack confidence, the knowledge of Computer Aided Design and practical competences and skills needed to operate various ID tools and equipment. Consequently, prospective employers deny ID internees and graduates the opportunity to use certain equipment in their workshops

The interviewees with the researcher and stakeholders of ID identified the following factors as the root causes of the production interns and graduates with inadequate competences:

1.4.1 Inadequate teaching-learning materials

The stakeholders at the DAID reported that the materials and tools required in the teaching-learning processes of these course units are grossly inadequate. The department provides only demonstration materials. Worse still, some students are not in position to avail

themselves with the necessary tools and materials in time. This limits their "hands - on" experience during the learning processes as illustrated by one instructor who said that;

> *Demonstration on the use and maintenance of a sewing machine is done using the instructor's personal sewing machine because the machines at the department are obsolete. This affects the learning process in a way that after the demonstration the instructor takes back her machine despite the fact that students are supposed to carry out self-study on the machine so as to master how to use it. As a result, the projects are always executed using hand needles which is time consuming and does not even produce a perfect finish. This also adversely affects the follow-up or continuous assessment of the students' projects. This is because the instructor cannot be certain whether the students execute the projects themselves because they do some of the sewing from home.... Furthermore, students who cannot provide for themselves the necessary materials tend to miss lectures..... Soft furnishing is essentially a practical course; hardly can one ably train without the necessary tools and equipment .... (Akite: Female instructor, 19/28/2016).*

The inadequacy of ID instructional materials has also restricted lecturers to do their demonstrations on small pieces of plywood. This hinders developing skills in handling the real painting tools and using the painting effects in real life experiences. This further calls for students to take a personal initiative and search for materials and surfaces where they can practice the learned paint effects. This is not an easy task as prospective site owners seldom allow their properties to be used as training sites and the students cannot afford to buy the materials needed. Hence, students engaged have extremely limited practical learning experiences yet this is the basis for competence acquisition in vocational training. This is

supported by (Dasmani, 2011), who states that, inadequate supply of instructional materials, large class sizes, inadequate training facilities, weak linkages with local industries for hands-on experience for both instructors and trainees lead to ineffective and inefficient training of students while emphasis is placed on passing final examination (DASMANI, 2011).

1.4.2 Students have limited contact hours with instructors

Analysis of the ID time table revealed that students have only 2 contact hours per week with the instructor. (See Appendix 1 for the time-table).This adds up to 30 contact hours a semester because each semester is composed of 15 teaching weeks (Program Document, June 2012) per semester. The ID teaching time table limits the quantity of time students have for interacting with their instructors. The time table contravenes the 45 contact hours a semester that the program allocates to the courses of soft furnishing and paint effects as the adequate time recommended for effective delivery (Program Document, June 2012).

In the aforementioned context, the time table robs students of fifteen (15) contact hours with their instructors. This in turn limits the degree to which the instructors and students use the methods prescribed in the program for teaching – learning in the ID courses (Akite: A female instructor, Nov, 2017). The program document recommends that students learn through plenary presentations, discussions, critiques, excursions, demonstrations and project assignments (Program Document June, 2012). However, due to the limited contact hours allocated for teaching ID courses, the DAID instructors use the; discussion, plenary presentation and critique.

Practical learning is limited to demonstrations and students' practice is done on small plywood in case of painting effects. This impedes competence acquisition because even the right tools used in painting cannot be used on the small surfaces. This is supported by

(McLaughlin, 2014) who stresses that, active learning exercises, such as teamwork, debates, self-reflection, and case studies, that prompt students' engagement and reflection encourage them to explore attitudes and values, while fostering their motivation to acquire knowledge and enhance skills (Mclaughlin, 2014).

1.4.3 Absence of a functional skills laboratory

A skills laboratory is a studio which is furnished with equipment tools and materials that facilitate practical learning. The interviewees noted that the department does not have a functional skills lab due to shortage of instructional; tools, materials, equipment and space. This undermines ID students' practical knowledge and competence acquisition in Painting and Soft furnishings production. A skills lab gives learners an opportunity to individually apply theoretically acquired knowledge from books and instructors' demonstrations into practice. This is supported by (Weller, 2004) who states that, students value simulation-based learning highly. In particular, they value the opportunity to apply their theoretical knowledge in a safe and realistic setting, to develop teamwork skills and to develop a systematic approach to a problem (Weller, 2004).

This means that the skills lab gives learners a chance to experience the VET pedagogical principle of learning by doing as a sure way of gaining skills and knowledge masterly. Using instructional materials, tools and equipment in the skills lab increases students' chances of acquiring the competences and confidence required for one to work effectively in the labour market.

Based on the aforementioned functions of the skills lab in VET, it is evident that the current absence of the use of a similar lab in the training process of ID students in the DAID impedes their skills and knowledge acquisition in Paint effects and Soft furnishing. It should

be noted that non-use of the skills lab in the training of a vocational student disregards the vocational didactic model that advocates for the enhancement of practical training through the use of such a facility. This is supported by Skubic (2014), who stresses that knowledge transmitted to the younger generations in a holistic and systematic manner is one of the key means of person's formation, cultivation and self-perfection. In other words, knowledge and the process of its acquiring have formative powers (Skubic, 2014)

1.4.4 Lax administration

During the Focus Group Discussions (FGD) in the future workshop, (a future workshop is a meeting comprised of stakeholders of a specified community who gather to critically analyze a problem, establish its root cause, lay interventions to solve it, plan and implement the interventions and lastly evaluate the impact of the interventions on the problem), the stakeholders identified lax administration of the DAID as the underlying cause of the inadequate competences of the ID students. Issues under lax administration included the following; lack of well-equipped studios, inadequate staffing and absence of instructional materials. (See Appendix 3 for the details of the prioritization process, pairwise ranking)

1.5 Intervention strategies

Through FGD that the researcher conducted with the DAID stakeholders using the Future Workshop tool, many possible strategies for addressing the root causes of the problem of ID graduates with inadequate competences and confidence were generated. These were categorized into; short term, medium term and long term solutions (See Appendix 2). Considering that the researcher had only three months for completing the study, she inevitably encouraged the stakeholders to select interventions for initial implementation from the category of the short term solutions. Based on this consideration, the researcher together with

the stakeholders selected the strategy of establishing a functional skills lab using available resources in the DAID. (See Appendix 4for the selection process).

The researcher together with the stakeholders further specified the activities and modalities of acquiring the materials required for establishing the functional skills lab. These included; repairing the existing sewing machines, renovating the existing tables so as to turn them into cutting tables, and purchase instructional tools like, tape measures, scissors and flat irons, re-painting the room for the lab and purchasing renovation materials. Repairing electrical gadgets, plumbing system, replacing the missing louvers and installing the burglar proof systems.

The researcher together with the stakeholders collaboratively designed a work plan for implementing the aforementioned interventions. (See the implementation work plan in chapter 3).

1.6 Statement of the problem

At the department of Art and Industrial Design of Kyambogo University, vocational education and training in interior design among others is offered to the learners at diploma level. This course aims at producing skilled graduates of interior design, equipped with relevant and adequate competences vital in translating design ideas into reality. However, from the work process analysis that the researcher conducted together with the stakeholders (instructors, students, technicians, administration staff and experts from the world of work), it was established that ID students and graduates lack professional confidence and appropriate practical competences in soft furnishing and paint effects. The root causes of these phenomena include inadequate; space, instructional materials, tools and equipment. Therefore, the stakeholders chose to establish a functional skills lab by renovating and organizing the

available resources as an intervention strategy that would help Department of Art and Industrial Design to enhance acquisition of relevant and adequate competences by its ID graduates students.

1.7 Purpose of the study

The purpose of this study was to utilize the available resources to establish a skills lab to enhance acquisition of skills and competence by ID students in Soft Furnishing and paint effects.

1.8 Objectives of the study

1. Examining the existing Teaching and Learning processes in the Department of Art and Industrial Design
2. Create a functional Skills Lab by renovating and organizing. the resources available in the DAID
3. Utilize the established skills lab to enhance ID students' acquisition of competences in Soft Furnishing and Paint effects.
4. Evaluate how the establishment and utilization of a Skills lab by students has enhanced their acquisition of competences in Paint effects and Soft furnishing.

1.9 Research questions

1. What are the existing Teaching and Learning processes in the Department of Art and Industrial Design?
2. How can a Functional Skills Lab be established using the renovated resources available in the DAID?
3. How can the utilization of the established Skills Lab enhance ID students' acquisition of competences in Soft Furnishing and Paint effects?

4. How has the establishment and utilization of a functional skills lab enhanced ID students' acquisition of competences in Soft Furnishing and Paint effects?

1.10 Justification of the study

According to the Government's White Paper on education, one of the main objectives of vocational education is to provide quality education that equips an individual with basic knowledge and skills for self-employment. As a result, the individual is expected to become self-reliant and to provide high quality services to the community and nation. The establishment and utilization of a Skills lab by DAID students will facilitate acquiring competences in Painting and Soft furnishing designing and production, thus enhancing the production of competent ID graduates who are self-reliant and will work effectively in the world of work.

The establishment and utilization of the skills lab was in line with Skilling Uganda BTVET strategic plan (2011-2020) whose main purpose is to create employable skills and competences relevant in the labour market instead of educational certificates. (Uganda, 2011-2020).

1.11 Significance of the study

The study is hoped to improve the quality of Interior Design graduates from the Department of Art and Industrial Design. The successful implementation of the establishment and utilization of a refurbished skills lab, by DAID stakeholders, for training ID students in Paint effects and Soft furnishing equipped the graduates with competences required in the world of work and for their own self-reliance as all the activities were hands-on and learning was through experience. It enabled the instructors to carry out demonstrations because the materials and tools were available and the equipment enabled students to practice hands-on

learning during the teaching and learning processes. The skills laboratory provided a conducive practical learning environment and the rehabilitated equipment facilitated hands-on learning. This resulted in enhancing students' acquisition of practical competence and thus they developed confidence in executing tasks because they learnt through experience.

1.12 Scope of the study

1.12.1 Geographical scope of the study

Study was conducted in the Interior Design section in the department of Art and Industrial Design of Kyambogo University.

1.12.2 Content scope of the study

The study took place in the department of Art and Industrial Design of Kyambogo University, in the Interior Design section. The content scope included, examining the teaching and learning processes for soft furnishing and paint effects courses, establishing a functional Skills Lab by renovating the resources available in the DAID. Utilize the establishment process of the Skills Lab to enhance ID students' acquisition of competences in Soft Furnishing and Paint effects. Furthermore, utilize the established Skills Lab for enhancing ID students' acquisition of competences in Soft Furnishing and paint effects and lastly, evaluate how the establishment and utilization of a Skills lab by students has enhanced their acquisition of competences in Paint effects and Soft furnishing.

1.12.3 Time scope

The study commenced in early November 2016 and went on up to August 2017

1.13 Study Limitations

Like any other study, there were some limitations to this study. These included the following:

1.13.1 Delayed Funding

Since the funding was through cost sharing, its availability was unpredictable, this hampered the steady progress of the implementation process in that sometimes work had to be halted due to lack of materials. As a result the examination time started before the implementation was done. This affected the implementation as the students had other projects to finalize in other courses and they even had to revise for their theory exams. In this case some of the activities had to be extended to the next semester.

1.13.2 Delayed services from the Estates department

Responses and execution of interventions by the Estates department technicians used to delay, causing the implementation to slow down as we waited for those tasks to be done thus, losing more time. For example, the burglar proofing delayed which led to a break-in at the lab where a computer and other valuable tools were stolen. The plumbing system is not repaired up to now, so the sink is not functional. This has affected the utilization of the skills lab in that, whatever have to be washed is taken outside. The renovation and repairing of the plumbing system and replacement of the missing louvers and broken glasses has been left for the next action research cycle.

1.14 Delimitations of the study

Study was conducted in the interior design section within the DAID in Kyambogo University. Participants were basically continuing interior design and textile students plus some of their instructors, technicians and the head of department. Two other respondents were experts from the world of work and two graduates from the world of work.

1.15 Operational Definition of Terms

Terminologies used in this study have been used in different platforms to mean and refer to different things. I would like to operationalize them here for the purpose of making them unambiguous, contextual and adaptable in this study. These are given based on my own understanding and the context in which I have used them.

Skills laboratory

According to this study a skills laboratory referred to a studio which is furnished with equipment, tools and materials that facilitate practical learning. The tools, materials and equipment include the following: sewing machines, cutting tables, work tops, storage facilities, scissors, tape measures, brushes, rollers, paints and so many others that enhance practical learning. It also refers to specifically equipped practice room functioning as training facilities offering students, instructors in training and other department staff a protected, fault-forgiving environment for the practice.

Enhance

Enhance according to this study referred to improving the acquisition of competence in paint effects and soft furnishing through practical learning in the skills lab. Enhance can also be referred to as to improve the quality, amount, or strength of something

Skill

The ability, coming from one's knowledge and practice to do something well. According to this study the skills needed were in soft furnishing

and paint effects which were to be achieved through hands-on learning in the skills lab.

Future workshop

A future workshop is a meeting comprised of stakeholders of a specified community who gather to critically analyze a problem, establish its root cause, lay interventions to solve it, plan and implement the interventions and lastly evaluate the impact of the interventions on the problem

Knowledge

In this study knowledge referred to the facts, information, and skills acquired by a person through experience. In this case particularly the practical understanding of paint effects and soft-furnishing.

Competence

This is when someone does a task perfectly well and professionally. This has been missing in the interior design graduates as they do not have the ability to do something successfully or efficiently. It can only be achieved by actual handling of tasks for some time so that you get experience in doing it. That's why the study opted for hands-on learning in the skills lab.

Confidence

This is where one handles a task without fear and all the activities involved are on fingertips. This creates a feeling or belief that you can do something well or succeed at something. From the situation analysis,

the way interior design students were handling tasks depicted that they were not very sure of what they were doing.

Refurbishing

Making something look good again or making it look better. The skills lab was in a bad state so it needed to be worked on to improve its appearance. Refurbishing can also mean servicing and/or renovation of older or damaged equipment to bring it to a workable or better looking condition as was the case with the sewing machines and the cutting tables.

Paint effects

These are creative painting techniques which add texture and variety to painted areas. They were the ones used in painting the skills lab to improve its appearance. They can also be referred to as decorative painting techniques which create depth, texture and they add detail to the painted surfaces.

Soft furnishing

These are all accessories made out of fabric which are used in interiors to beautify them and to make them more comfortable for the users. In another way Soft furnishing is a general name for coverings, and other things made of cloth that decorate a room.

Inadequate

Not having the basic of anything you need to accomplish a task. It can be knowledge, materials, equipment tools or even time. Which lacking the quality or quantity required; insufficient for a purpose

1.16 Conceptual Framework

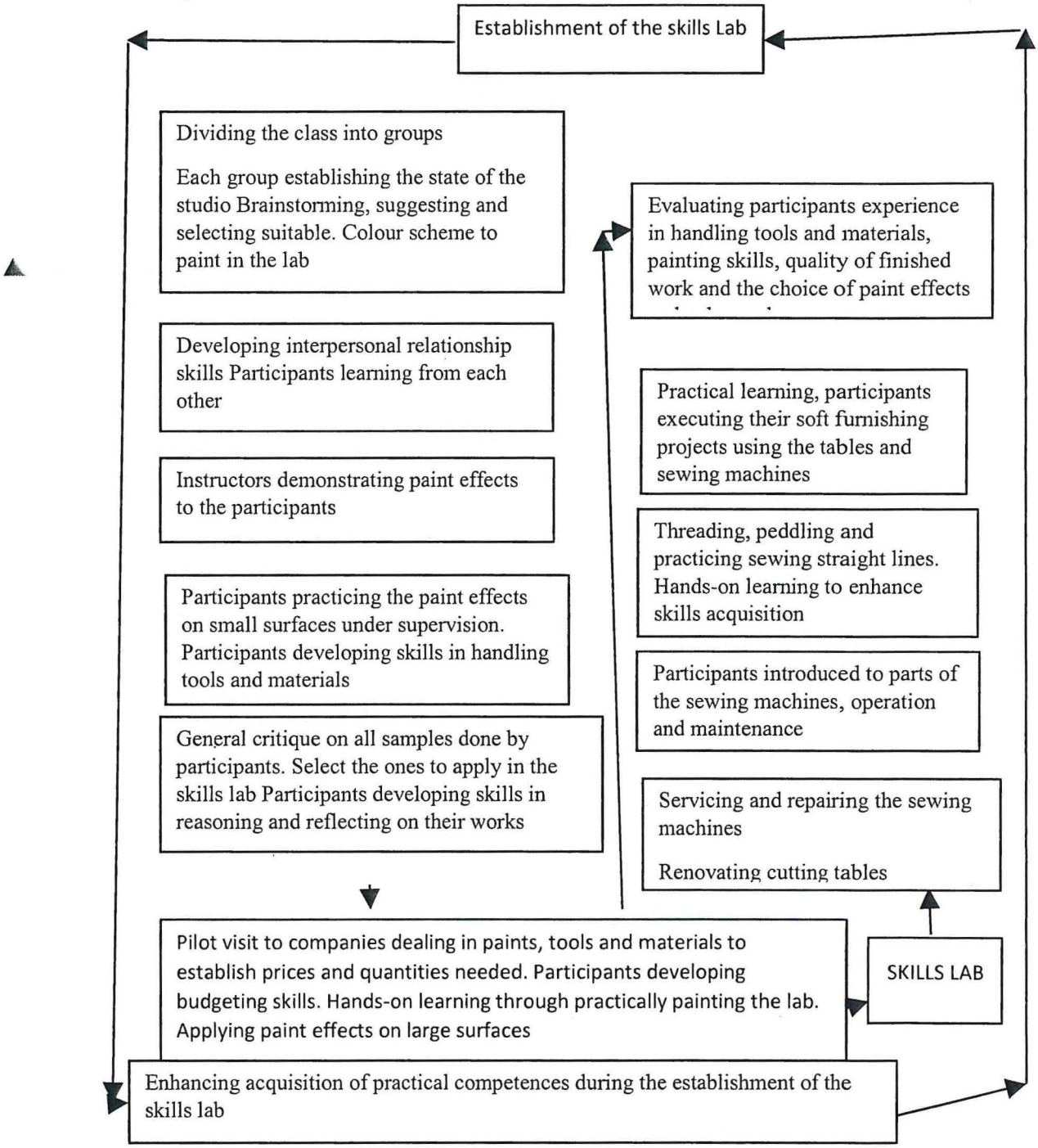

Figure 1: Conceptual framework

CHAPTER TWO: LITERATURE REVIEW

2.1 Introduction

This chapter reflects on scholarly contributions about the teaching and learning for interior design program and the effective use of a skills lab towards knowledge and competence acquisition for the world of work. While reflecting on the scholarly contributions, utilization, resources and evaluation of a skills lab were considered as core aspects for this section. The chapter presents the philosophical underpinnings that guided the study to objectives that were for gathering the needed information on what is taught and how it is taught in relation to practical competence acquisition

2.2 Learning to learn philosophy

In this study, the intervention strategy of establishing a skills lab is in line with Holm's (2017) philosophy that associates acquisition of competences by learners with pedagogical training that gives them opportunity of learning to learn through hands- on experiences. The skills lab intervention in this study is intended to ensure that students engage in learning how to learn (hands-on learning) rather than just learning what to learn (theoretically). This philosophy is commended for competence acquisition because learning has to be an active process and this is particularly true of learning how to learn.

Wirth and Perkins (2008) assert that, even though it is important to learn some facts while in college because they will be necessary for future employment, it is more important to have the skill to learn on one's own after leaving college (p.3). More so (AACU, 2002) as quoted by (Wirth & Perkins) argues that, learning to learn philosophy prepares students for emerging challenges in the workplace in a diverse democracy and in an interconnected world. Its emphasis is on training students who are purposeful and self-directed, empowered through

practical skills, informed by knowledge and ways of knowing and responsible for personal actions and civic values. (Perkins, 2008)

Action research gave the participants an opportunity to improve their ability to manage their own learning, challenge themselves, apply contextualized problem solving strategies, exhibit self and collective responsibility, develop a sense of appreciation towards learning in relation to their day to day lifestyles and becoming independent thinkers as advocated for by Warren (2011). Educators, too, are now arguing for an education that strives to pass down the ability for learners to own the learning processes.

Refurbishing of the skills lab by ID students is an intervention that gave them an opportunity to individually apply the knowledge acquired theoretically from books and from instructors' demonstrations into practice. Using the instructional materials, tools and equipment in the skills lab increased their chances of acquiring competences and confidence required for one to work effectively in the labour market as an interior designer. This is because the skills lab gives them a chance to experience the VET pedagogical principle of learning by doing as a sure way of gaining skills and knowledge masterly in Paint effect and Soft furnishings.

According to (Reese, 2011) learning by doing means learning from experiences resulting directly from one's own actions, including learn-by-doing, trial-and-error learning or discovery versus instruction, practical experience versus book learning, the practice-theory-practice dialectic, and "proof upon practice"(p.1). This is supported by Haynes (2007) as quoted by (Korerorero & Whakaaro 2016) who contends that, although learning content is important, learning from the process is at the heart of experiential learning (He Korerorero, 2016).

Holm (2017) stresses that, In order for a learner to successfully acquire competences by applying theory into practice one must adopt the 5Rs in the philosophy of learning to learn. These 5Rs include; Resilience, Resourcefulness, Responsibility, Reasoning and Reflection. It is believed that, these qualities are intrinsic to each student's achievement and development. Through the involvement of student stakeholders in this AR study, opportunities were created for all student stakeholders to develop these skills through their participation in the refurbishing the skills lab and using it in their learning processes.

2.2.1 Resilience

Resilient learners are able to persist in their learning through a positive way even when faced with challenges. The learners continue to collaborate in groups and remain committed throughout their learning endeavors. More, the learners practice flexibility whenever situations change and require alternative ways of performance. Souers (2016) as quoted in (Hall, 2016) stresses that, when students are taught coping skills and productive ways to communicate their needs, their behavior, social skills, and sense of self-worth improve. Similarly, the study prompted participants to develop resilience through engaging them to be part of the DAID stakeholders who identified the learning gaps in the ID courses and participate in laying the strategies for addressing them. The participant's involvement in this study would further depict the extent to which they would be resilient in creating change within their learning environment.

2.2.2 Resourcefulness

Furthermore, resourceful learners are able to question in a relevant, open ended manner and build on previous answers. They generate creative and imaginative ideas to complete tasks, find, gather and select information from different sources in order to learn

(source). They use their initiative to develop ideas, innovate solutions to problems on their own and/in groups. Resourceful learners are able to express themselves clearly and effectively verbally, in writing and using ICT. Olaniran (2012), as quoted in (Kolawol, 2012) defines Resourcefulness, as "the quality of being able to cope with a difficult situation in one's attempt at succeeding".

Through problem based learning students were supposed to learn through practice as one of the pedagogy of learning. In this case they had to involve critical thinking, creativity, research and to ask questions in the process so as to develop ideas and innovative solutions for the problem. Since the establishment of the skills lab was a learning process, students needed to be acquainted with the verbal, writing and ICT skills because they were supposed to formulate budgets for the study and at the end they were supposed to make presentations as course work and write reports for their final assessment.

2.2.3 Responsibility

Another quality, according to Holm (2017) is responsibility; learners are expected to be prepared, self-motivated and adapt to various ways of learning. They contemplate the things they want/need to learn themselves and find out the facts about them independently. Learners understand the need to refine and practice skills and ideas, contribute effectively and sensitively to group discussions and more so are able to organize and delegate effectively and sensitively. Responsibility as a quality was also essential for this study because the teaching and learning didactics executed during the establishment and utilizing of the skills lab. The process needed full time participation of the students, and this calls for them to be responsible in executing their tasks. The didactics included, student based learning which calls research, creativity, group learning, collaboration and hands on learning which enables the students to

own their learning. In order to achieve the desired goals, students must exhibit responsibility and commitment.

2.2.4 Reasoning

Another quality in support of the learning to learn philosophy is reasoning. Reasoned learners are able to draw together evidence and information to arrive at a conclusion. They can easily apply the existing facts and knowledge in an organized and logical way to solve problems, evaluate and assess their work. In the due course identify ways in which they can improve their work and learning plus explain their thinking. Reasoning was intrinsic to the study in a way that, the students would be in position to analyze the current situation of the space where the lab was to be established. Then, through their reasoning and using the knowledge they had acquired, come up with colour schemes which can make the space comfortable, beautiful and functional to the users. In the due course they were also supposed to be ready to address recommendations from other stakeholders to improve on their ideas and in so doing developing their skills and competence in interior designing.

2.2.5 Reflection

The last quality in support of learning to learn philosophy is reflection. According to Aronson (2012), reflection is principally "a cognitive or metacognitive process, it requires engaged examination of both self and situation, and its goals are learning and improved future personal and professional effectiveness" (p.45). Reflective learners are always said to be able to think deeply, pausing to look, listen and consider different perspectives and dimensions. They always consider next steps and set clear targets. Learners respond positively to constructive feedback and advice, review progress and plan ways to improve, either on their

own or after discussion. Reflective learners are capable of describing their progress and discuss their experience, emotions and responses.

This quality is central to interior designers in their trade because, they interact with a wide range of clients with vast ideas and expectations. This call for the students to reflect on what they do and also be ready to take in feedback positively and act on them. This encourages them to be critical thinkers and good listeners as they have to analyze situations and use their skills and knowledge to make sure they satisfy all their clients.

In view of all the 5Rs which support the philosophy of learning to learn, I found it viable to support my study. Bearing in mind the pedagogies employed in the study which are basically student centered, all the five qualities were vital for the success of the implementation processes.

2.3 Examining the teaching and learning processes for the Interior Design program

As a foundation for this study the researcher conducted a situation analysis with the stakeholders to establish the gaps in the teaching and learning processes which might be leading to the production of incompetent interior designers. Findings revealed that teaching and learning materials were inadequate in that, only demonstration materials were available which limits the students' practical learning. Worse still the demonstrations were done on small surfaces which hinders experiential learning responsible for competence development. Dasmani (2011) argues that, inadequate supply of instruction materials, large classes, inadequate training facilities, weak linkages with local industries for hands-on experience for both instructors and trainees lead to ineffective and inefficient training of students.

The limited contact hours where students interact with the instructors as revealed by the situation analysis also impedes competence acquisition. The time table contravenes the 45

contact hours a semester that the program allocates to the courses of soft furnishing and paint effects as the adequate time recommended for effective delivery (Program Document, June 2012). This in turn limits the degree to which the instructors and students use the methods prescribed in the program for teaching – learning in the ID courses. McLaughlin (2014) stresses that, active learning exercises, such as teamwork, debates, self-reflection, and case studies, which prompt students' engagement and reflection encourage them to explore attitudes and values, while fostering their motivation to acquire knowledge and enhance skills D courses.

The participants noted that the department does not have a functional skills lab due to shortage of instructional; tools, materials, equipment and space. . A skills lab gives learners an opportunity to individually apply theoretically acquired knowledge from books and instructors' demonstrations into practice. Weller (2004) states that, students value simulation-based learning highly. In particular, they value the opportunity to apply their theoretical knowledge in a safe and realistic setting, to develop teamwork skills and to develop a systematic approach to a problem.

The absence of the skills lab in the training of a vocational student disregards the vocational didactic model that advocates for the enhancement of practical training through the use of such a facility. This is supported by Skubic (2014), who stresses that knowledge transmitted to the younger generations in a holistic and systematic manner is one of the key means of person's formation, cultivation and self-perfection. In other words, knowledge and the process of its acquiring have formative powers.

2.4 The skills' lab intervention versus students' competency acquisition.

Dewey believed that the ability of a person to learn was dependent on many things, one of which was the environment thus confirming that learning was a situated activity (Hammond, 2001 p. 8). Technical Vocational Education (TVE) is recognized as that aspect of education which leads to the acquisition of practical and applied skills that will enable its recipients to secure employment in a particular occupation. These skills cannot be acquired in a vacuum but rather in a well- established and functional workshop with the right tools, equipment and machines for effective implementation of the program (Rufai, 2013)

The major goal of VET is to prepare students for successful employment in the labor market (Finch & Crunkilton, 1999). This condition can be met through a curriculum that is relevant and comprehensive and a well-equipped workshop with relevant training facilities.

Student's practical projects are an important part of the curriculum in VET, but a supportive school environment is a fundamental requirement for the successful implementation of curriculum (Bybee & Loucks-Horsely, 2000; Penney & Fox, 1997). This aspect of the curriculum can only be implemented where workshop facilities, tools, equipment and machines are adequate and relevant

Availability of appropriate workshop facilities enhances student learning by allowing them to be involved in demonstrations, and practice which will help them to continue to build their skills. High quality skills training requires qualified instructors, appropriate workshop equipment

Due to the fact that the institutions are inadequately resourced, the education and training remain theoretical and the graduates are not considered more skilled than their academic counterparts by the labor market. Uzoagulu (1993) asserted that where equipment

and tools are not functional or adequately provided, technical training programs will suffer and will lead to the production of highly unskilled personnel who are unemployable and unproductive.

Workshop tools and equipment are very important to the successful implementation of any type of TVE program. Uzoagulu (1993) affirmed that poor student performance in TVET is a result of inadequate and non-functional training facilities. Without functional workshop tools and equipment, the technical teacher is handicapped and cannot go far in the use of demonstration method in his teaching,

Interior design experts in the world of work lamented that graduates of ID program lacked competences and confidence. This might have been brought about by the inadequately facilitated kind of training in the department. The inadequate kind of training implies that ID graduates were deficient in practicum hence were unable to satisfy the industrial demands. The major problem therefore in developing competent interior designers in the DAID is the inadequate and non-functional training facilities which includes workshop tools and equipment. This is affirmed by (Barky, 2005, p.76), who reiterated that the availability of instructional resources has a major influence on the selection of teaching methods and materials.

Technical Vocational Education is recognized as that aspect of education which leads to the acquisition of practical and applied skills as well as basic scientific knowledge that will enable an individual to secure employment in a particular occupation for sustainable livelihood. These skills cannot be acquired in a vacuum but rather in a well- established and functional workshop with the right tools, equipment and machines for effective implementation of TVET program. However, the desire to produce competent graduates of

TVET programs can be achieved when the facilities in the workshops are relevant and adequate for the programs as demanded by the curriculum of the programs.

2.5 The Skills lab and Students' Practical learning

According to Reese (2011), practical learning is where students translate their vocational theory into practice. He continues to expound that, "learning by doing" means learning from experiences resulting directly from one's own actions, as contrasted with learning from watching others perform, reading others' instructions or descriptions, or listening to others' instructions or lectures. This enables students to master knowledge and develop the skills needed to perform tasks. Through the practical experience students develop competence as they reflect on the tasks and activities in the practical learning processes. Graffiths (2010) states that, "new curriculum frameworks are needed to allow work in all of its forms to be used as a basis for the development of knowledge, skills and identity" (p.58). Blackwell (2001) claims that, work experience can contribute to higher educational standards in schools and in higher education and contribute to the development of a flexible, highly-skilled and enterprising labor force (p.63).

Today, with the increasing use of information technologies, trends towards internalization and the burgeoning of work practices based on teams and networking has extended the skills needed by professionals Luca (2002). He further stresses that, employers expect not only a strong knowledge base, but also diversified social communication and cooperation skills, flexibility to work in different contexts and the capacity to manage information, self and others. Employers' demands must be met by the providers of higher education, and pedagogies that foster these skills must be adopted by tertiary educators Luca (2002).

Tertiary educators are compelled to consider new delivery Strategies and approaches to developing lifelong learners. Recent discussions of higher
Education would seem to portray a view that the aims of higher education are consistent with the demands of working life (Luca, 2002).

According to Mcloughlin (2000), development of personal transferable skills that are required for the professions includes integration of theoretical and practical knowledge, communication skills, reflection on one's own Knowledge and management of self, others and information. Furthermore, Luca (2002) contends that, in real life contexts, experts work in teams, share knowledge and apply it, revise and transform it through discussion, application and analysis.

During the study, project based learning was employed where the teaching and learning processes were basically hands–on. Learning was through discussion, experimentation and experience. Kennedy (2011) states that, since VET is intended to be practically oriented, fewer theoretical than practical components should be taught.

According to Brunette (2006), technology subjects must include a practical component so as to provide the much needed practical experience. It offers industrial skills for youth who have completed high school and occupational skills for adults (Gardner & Hill, 1999). Fritz (1996) further stresses that, the traditional pedagogy of workshop-type technical subjects was, and still is, in many cases, 'demonstration and follow'. It has been used to good effect in the development of student competencies, particularly in industrial skills.

During the study, students experienced problem based learning through executing their practical projects in real settings. This boosted their morale as they were handling the tools and materials physically and seeing the outcome of their learning process. Through

experimentation they reflected on their work and repeated some parts where it was necessary and thus developing their skills and knowledge. This is supported by (Department of Education, 2003) which highlights that, technology education has been developed as a subject aimed at promoting an individual learner's ability to solve real-world problems by integrating specifically relevant knowledge of structures, materials, technological processes and systems.

The execution of the study was conducted in groups where the group members collaborated in performing the various tasks. This enabled students to experience a variety of skills like leadership, interpersonal relationships, delegation, responsibility, communication skills and being committed to accomplish the tasks. This helped students to experience the feel of workplace environment where one has to relate with various persons. This is supported by the European Centre for the Development of Vocational Training (Cedefop, 2014) which emphasizes that, it is important to ensure that vocational education and training (VET) gives people the opportunity to acquire a mix of skills that combines theory and practice, allowing them to perform a specific occupation.

2.6 Evaluation of the skills lab on skills and competence acquisition

According to Yates (2007), for vocational purposes, in the current Australian Qualification Framework, knowledge is observable competence. Students are assessed as 'competent' or 'not yet competent' - no grading is required (Yates, 2007, pp. 8-9). He further explains that for the certificate that counts for university entry, it is assumed that knowledge is something displayed in writing and language, and as pointing to underlying hierarchy of intelligence, and assessment done through examinations that are scored.

The purpose of the intervention of the skills lab was to assess the students as they execute the study in the skills lab under the supervision of the instructors. Not assessing the

finished product which was done outside the department where the instructor is not certain whether the student did the product him/herself. In this case the competence development of the students was being followed.

In conclusion, the establishment and utilization of a skills lab as an intervention to enhance acquisition of practical competences among students is a critical venture which is supported by most scholars when it comes to vocational education and training. It provides a holistic learning environment which facilitates acquisition of practical competence among interior design students.

CHAPTER THREE: METHODOLOGY

3.1 Introduction

This chapter provides a detailed description of the research methodology and design used in the study to gather both primary and secondary data. This chapter contains the study population, sampling method, methods of data collection, instruments of data collection, procedures of data collection, data presentation, data analysis, validity and reliability of data and ethical consideration.

3.2Action Research

According to O'Brien (1998) Action research is "learning by doing". It aims to contribute both to the practical concerns of people in an immediate problematic situation and to further the goals of social science simultaneously. Therefore there is a dual commitment in action research to study a system and concurrently to collaborate with members of the system in changing it in what is together regarded as a desirable direction. For example; a group of people identify a problem, do something to resolve it, see how successful their efforts were, and if not satisfied, try again.

To achieve this twin goal requires the active collaboration of the researcher and client, which brings out the importance of co- learning as a primary aspect of the research process.

Action research is guided by a set of principles which include the following: Reflexive critique, dialectical critique, collaborative resource, risk, plural structure and theory, practice and transformation.

Reflexive critique according to O, Brien (1998) ensures that, people reflect on issues and process and make explicit the interpretations, biases, assumption and concerns upon

which judgments are made. He goes on to state that, through dialectical critique, phenomena are conceptualized in dialogue, therefore a dialectical critique is required to understand the set of relationships both between the phenomenon and its context, and between the elements constituting the phenomenon.

Participants in an action research study are co- researchers. O'Brien (1998) further stresses that, the principle of collaborative resource presupposes that each person's idea is equally significant as potential resources for creating interpretive categories of analysis, negotiated among the participants.

Risk as a principle guiding action research is experienced in that, the change process potentially threatens all previously established ways of doing things thus, creating psychic fears among the practitioners. So for the researcher to allay others' fears, invitation for participation is made to all and by pointing out that, even themselves (the researchers) will be subjected to the same process, and whatever outcome, learning will take place.

Action research embodies a multiplicity of views, commentaries and critiques, leading to multiple possible actions and interpretations. O'Brien further contends that, because of this multiplicity there will be many accounts made explicit, with commentaries on their contradictions and a range of options for actions presented. A report therefore, acts as a support for ongoing discussions among collaborators, rather than a final conclusion of fact. In this regard in action research, theory informs practice and practice refines theory in a continuous transformation. Therefore, the practical application that follows is subject to further analysis in a transformative cycle that continuously alternates emphasis between theory and practice. So the Action Research cycle is started after identifying a challenge. Intervention strategies are established, implemented, evaluated and outcomes reflected upon

to establish the impact of the interventions. If the required goals are not achieved, and planning is started again.

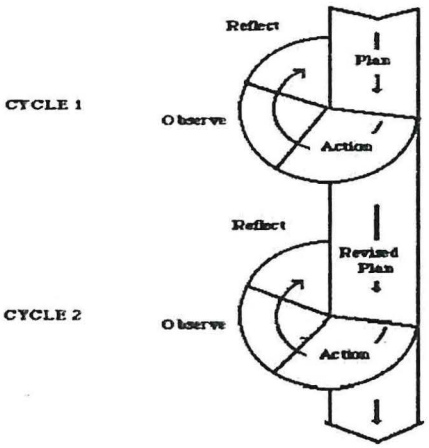

Figure 2: ***Simple Action Research Model***

By Stephen Kemmis

3.3 Research Design

The research design used in the study was a descriptive design that employed the future workshop frame work and qualitative methods of data collection, analysis and interpretation. Qualitative method focuses on exploring and understanding the views of the different participants in relation to the lack of confidence and practical competences of interior design students and graduates. Information was sought from reports of expectations and experiences which could not be expressed numerically. This was viable because the study relied on description and interpretation of the views which could potentially lead to the development of new concepts or to an evaluation of the teaching and learning processes.

Qualitative data was effective in obtaining culturally specific information about the values, opinions, behaviors and social contexts of particular populations. This was so because the open-ended questions used during the interviews and focus group discussions made the participants open up and gave in-depth information. This is supported by Elmusharaf (2012), who argued that "qualitative data can help researchers to interpret and better understand the complex reality of a given situation and use of open- ended questions and probing giving participants the opportunity to respond in their own words, rather than being forced to choose from fixed responses, as quantitative methods do".

3.3.1 Participatory Action Research

This study adopted a participatory action research design approach to enable participants brainstorm and address the challenges they face during the teaching and learning processes of interior design programs. This is supported by Bleach (2012) as quoted by (Manion & Morrison 2000) who stresses that, action research is a powerful tool for change and improvement. In that instance, Action research assisted the participants in the department to review their current practice in regard to the mode of delivery during teaching and learning processes, identify aspects that needed improvement, collaboratively establish interventions, implement them and evaluate their impact on the competence acquisition of interior design students.

Furthermore, Participatory Action Research was used because it was collaborative, democratic and both the researcher and the participants were both stakeholders in the study. They were suitable for addressing the issue of establishing a skills lab in the department which needed the contribution from all the stakeholders. The process of identifying a problem, planning for the intervention, implementing of the intervention and evaluating of the

outcomes allows ownership of both the process and change. This is affirmed by McNiff (2002) who states that, Action research has to be participatory because the practice we are investigating is always in relation with other people. Herr and Anderson (2015) stress that, action research is best done in collaboration with others who have a stake in the problem under investigation, who also involve with relevant skills or resources even though the perceived need for change should come from within the setting (p.44). Unlike traditional research, action research does not aim for final answers but provides a structure that enables the continuous evaluation and improvement of the project.

3.4 Implementation of Action production objective

3.4.1Description of the research cycle

The action production objective of the study was to establish a skills lab to enhance knowledge and skills acquisition for interior design students. According to Koshy (2005), action research is an inquiry, undertaken with rigor and understanding so as to constantly refine practice. Furthermore, according to Senge and Scharmer (2001) action research begins by creating a learning community that works together to nurture and sustain a knowledge – creating system, based on valuing each other and following three interacting domains of activity namely; research, capacity- building and practice. In research there is a disciplined approach to discovery and understanding, with a commitment to share what is learned, while in capacity- building, there is enhancing people's' awareness and capacities, individually and collectively, to produce results they truly care about. Lastly, in practice people work together to achieve practical outcomes and this was core during this study processes.

The study began by meeting all the stakeholders in the futures workshop where the area of concern (which was lack of adequate knowledge, skills, competence and confidence

among interior design students) was critically analyzed. After discussing what was on ground and what changes were needed, areas of improvement were identified and prioritized. Establishment of a skills lab came up as the most pressing gap to be handled immediately. Active participation of all stakeholders was encouraged during the workshop allowing everyone to amicably disagree and comfortably inhabit a position not knowing everything, as stressed by (Frankham & Howes 2006). Open- ended questions allowed space for brainstorming and active solution focused discussions, where everyone had a voice and there were no right or wrong answers. This made everyone engage in the discussions and subsequently took responsibility for the implementation of the agreed action plans.

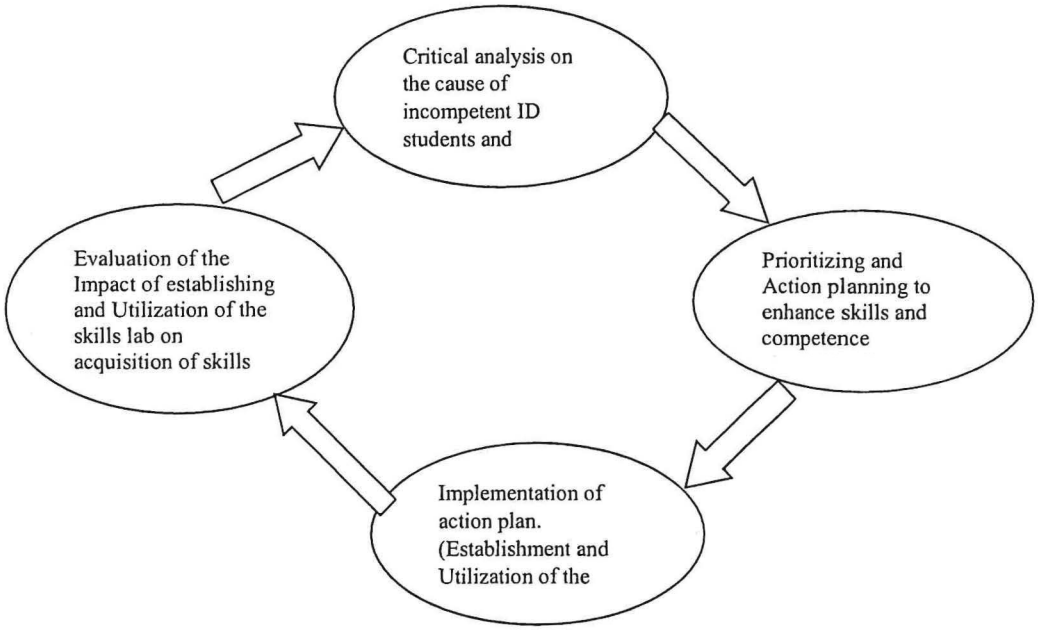

Figure 3: ***Research cycle: Source, Raw Data***

3.5 Study Population

The population for this study consisted of the lead researcher, DID 1(40) and DID 11 (21) students, the interior design instructors (3), head of department and the technicians (1) in the

department of Art and Industrial Design, experts from the world of work (2) and old students (2) which totaled to 70 stakeholders. The Researcher acted as the lead agency in the study and liaised among the various groups of participants and organized meetings and events where participants could meet discuss and plan for action on how to best enhance the skills and competence acquisition of interior design students. This participatory approach led to collaborative development of the departments' approach to students' teaching and learning processes where the expertise and experience of all the stakeholders were acknowledged, respected and utilized. It also encouraged the stakeholders to reflect and improve their own practice.

3.5.1 Sample size selection

The study involved 35 participants selected using purposive and convenience techniques from the study population of about 70 stakeholders. Selection was done according to willingness of individuals in the respective categories of the population to provide the required information needed for the study. (3) Instructors were purposively selected according to those who focused on teaching the interior design course units. The (10) year one and (15) year two students were conveniently selected because they had different information to offer. The first years shared their expectations concerning the teaching and learning processes as they were to offer the two courses the coming semester ,while the second years shared their expectations vis a vis their experiences because they had already studied the two courses the previous semester. However, the Head of department was selected because they was the decision maker and some matters need his clarification. (1) Technician was conveniently selected to provide the information regarding the students' practical learning in the learning processes whereas (2) graduates from the world of work were purposively selected according

to the vast experience and competence in the field of interior designing. Lastly, (2) experts from the world of work were purposively selected to assist evaluate the relevance of the students in the world of work.

The participatory action research design allows the researcher to use study samples that have the required information with respect to the objectives of the study. The method was viable because quality and relevant data was obtained from selected key participants for in-depth analysis of the matter in a minimal time.

3.5.2 Sampling technique/ method

Purposive sampling technique was employed to select sample size of (3) instructors (1) technician (25) students (year 1(10) and year11 (15).Cohen, Manion, and Marrison (2011) argue that, in purposive sampling the researcher deliberately selects particular cases to be included in the sample on the basis of their judgment or possession of the information being sought (p.87). Furthermore, Silverman (2006) stresses that, with purposive sampling, the researcher has to think critically about the parameters of the population he is interested in and base his selection on those parameters (p.77). In this way a small sample that is satisfactory to the study can be attained. (For details on composition of study participants refer to Table 2 Appendix)

3.6 Methods of data collection

Several methods were used in collection of data guided by the objectives. For examining the teaching and learning processes, individual interviews, documentary analysis and participants' observation were employed to acquire the necessary information. For skills lab intervention focus group discussions and future workshop were employed while for utilization of the skills lab and evaluation of the impact of establishing and utilizing the skills

lab on competence acquisition, skills lab experimentation questionnaires, individual interviews participant observation, photos and videos were employed. The study employed participatory action research design using future workshop approach as a tool that enabled the participants to examine the common concern about inadequate skills, knowledge and competence among interior design students. Ideas about the implementation of intended interventions were generated and discussed in regard to how they can be realized.

Skills lab experimentation was a crosscutting feature that is highly intervening in nature as a methodology, which include starting from establishing the condition and refurbishing of the teaching and learning milieu, equipment and infrastructure. The intent was to investigate possibilities of improving students' skills acquisition and knowledge retention through hands-on learning.

3.6.1. Individual Interviews

Individual Interviews were conducted towards gathering relevant primary data from willing participants following the study objectives. One on one interviews were conducted to collect information from different stakeholders in the department. Individual interviews, which can include key informant interviews, are useful for exploring individual's beliefs, values, understandings, feelings, experiences and perspectives of an issue. According to Taylor (2005), Individual interviews allow the researcher to ask into a complex issue, learning more about the contextual factors that govern individual experiences. Furthermore, interviewing is a way of collecting data as well as gaining knowledge from individuals (Kvale, 1996, p. 14). Through individual interviews the researcher was able to gather the views of fellow instructors towards the study and how they can collaborate to execute them.

3.6.2. Focus group discussion

Focus group discussions were used to collect information from the different categories of stakeholders in the department. Semi- structured focus group discussions were used with the purpose of stimulating conversation around a specific topic. Group discussions were conducted while posing open ended questions and the participants gave their thoughts and opinions. In this situation participants opened up and the interaction enriched the quality and quantity of information needed. Focus groups enabled the researcher to generate information on collective views on the topic and the meanings that lie behind those views. Furthermore focus group discussions enabled the researcher to generate a rich understanding of the participants' experiences and beliefs towards interior design as a program. This is affirmed by Gill (2008) who contends that, focus groups share many common features with less structured interviews, but there is more to them than merely collecting similar data from many participants at once.

3.6.3. Future workshop

Future workshop tool was used to critically analyze the lack of practical competences and confidence in the interior design students. This enabled the stakeholders to obtain in-depth information on the gap and collaboratively establish interventions to bridge gap for future improvement. They also checked the progress of implementation of the interventions and finally evaluate the impact of the interventions on practical competence and confidence of the students. This is supported by Lauttamaki who affirms that, Futures workshops are a good tool for tackling complex problems where many, often seemingly contradicting views, have to be fitted together (Lauttamäki, 2014).

3.6.4. Participant observation

Participant observation enabled the researcher to triangulate information from various participants in the study. Through observation the researcher was able to affirm whether the participants had provided genuine information about the study question. It is believed by various scholars that data obtained through participant observation serves as a check against participants' subjective reporting of what they believe and do (international, 2004).

On several intervals during the implementation, observations were made to assess whether the intended outcome had been achieved. The observation processes prompted the researcher to conduct reflective and brainstorming sessions during the various phases of the study as follow-up activities.

3.6.5 Documentary analysis

Secondary data in form of documents that contain important information related to the area of study was analyzed. The documents analyzed included the interior design structure document and the time table. They provided information on how the program was structured and how the knowledge and skills were to be didactically transferred to the students. Time was allocated to the teaching and learning processes and modes of assessment were other aspects shared within the program document. According to Mleontowitsch (2006), this research method involves substantive content and deeper meanings that revealed the participants style and coverage.

3.6.6 Skills lab experimentation process

The Lewinian model of Action research and laboratory training found in Kolb, (1984) states that, Immediate personal experience is the focal point for learning, giving life, texture, and subjective personal meaning to abstract concepts and at the same time providing a

concrete, publically shared reference point for testing the implications and validity of ideas created during the learning process (p.21).

In view of the above, participants in this study were involved in the selection, mixing and application of the selected paint effects and paint hues to establish new aesthetic looks on the interior space of the skills lab. The skills lab process was further seeking to empower the participants in selecting appropriate colour schemes, handling paints and painting tools, observing, analyzing, describing and comprehending the outcomes from the experimentation process in the learning perspectives with the learners. The activities the participants engaged in were guided by the course outline thus enhancing skills and competence acquisition in painting among students.

Soft furnishing and making was another course explored during the establishment of a skills lab. The process sought to empower participants with skills to operate and manage sewing machines, utilize the cutting tables and other tools deemed relevant for the course.

Practically the participants took measurements of windows and calculated the amount of curtain fabric needed for those particular windows using the measurements. They drafted various soft furnishing products like, cushions, table mats, table linen, kitchen gloves. Then they cut them using the cutting tables and sewed them using the sewing machines. This was intended to enable participants develop skills and competence in soft furnishing and making.

Hands-on learning evoked participants to manipulate the materials and develop the ability to understand rather than copying demonstrations from the instructors. Hands-on learning stimulates design thinking and enhances creativity in students. Basing on personal experience as an instructor, hands-on learning, allows learners to touch, look, and feel the

materials and tools, motivates the learners and enhances progressive understanding and manipulation of design components

The learning processes in skills lab practice with DID 11 students commenced with formulating working groups, each group analyzed the situation of the space, suggested colour scheme to be used in painting the space. We brainstormed on the different colour schemes from the different groups to select the most suitable one basing on beauty, functionality and maintenance of the space. Materials and tools needed for the painting work, were listed, then participants went on a pilot visit to outlets selling painting materials and tools to establish the prices and quantities needed for the work. Later they made the bill of quantities, collected the money among ourselves and purchased the materials and tools.

Instructors demonstrated various advanced paint effects on plywood and then individual students practiced the paint effects on plywood and displayed them for appreciation and comparison in order to select the ones to use in the lab space. Painting the space started using the selected paint effects and hues. On completion all stakeholders participated in the evaluation and recommendation for further improvement on the colour scheme and paint effect selection. Refer to visual impression in Figure 4 below.

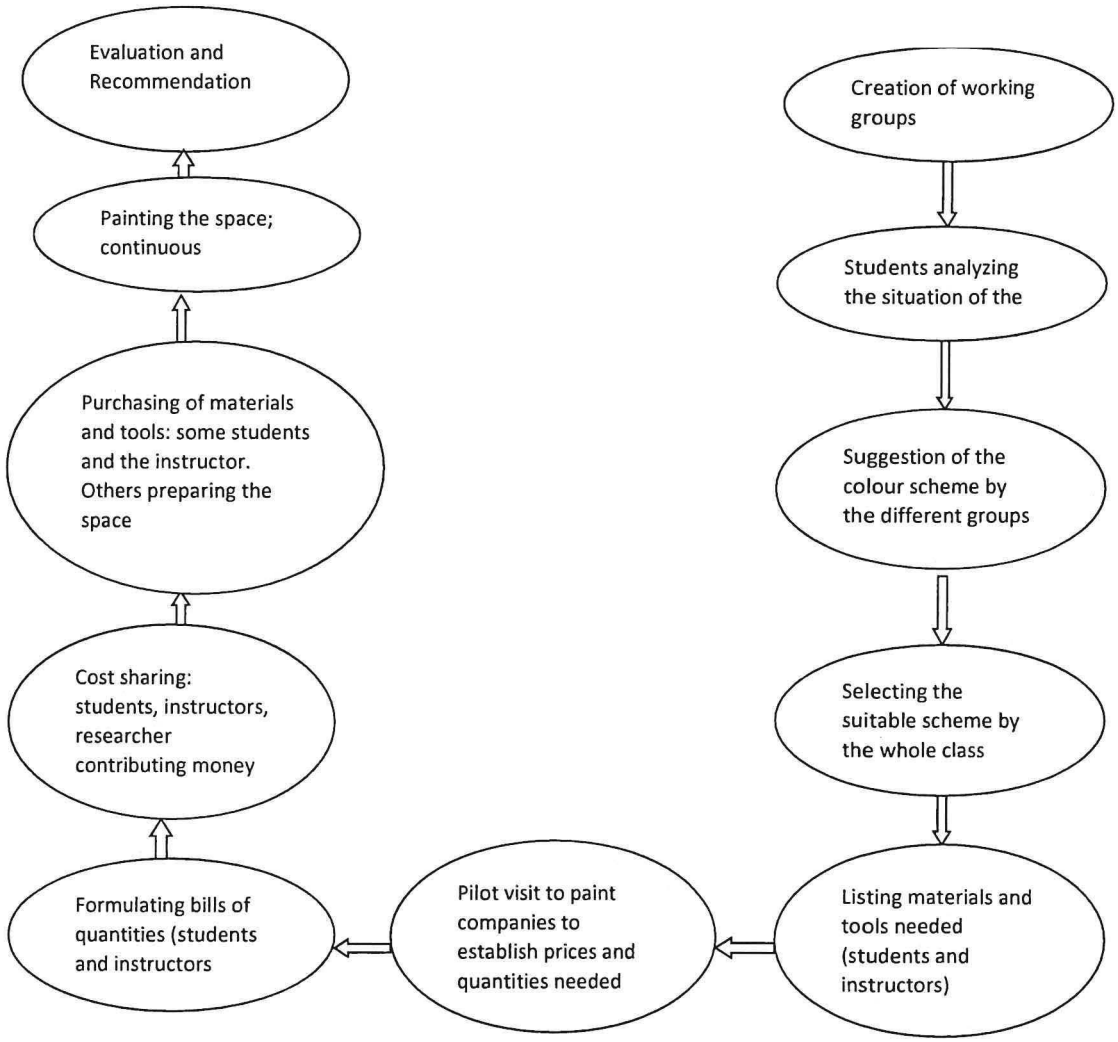

Figure 4: Visual impression of studio working process with DID 11 students

3.6.7 Creation of working groups

Group work approach was selected in this project to facilitate student based learning as a tool to enhance skills and competence. Through interaction with the group mates, students learn from each other because the smaller numbers allow each student to share his/her ideas with others, in this scenario everyone is brought on board thus encouraging collaborative learning. Groups empower discovery, integration, sharing, and effective application of knowledge. This is supported by Durlak (2011), who stresses that, Students typically do not learn alone but rather in collaboration with their teachers, in the company of their peers, and with the encouragement of their families (Durlak, 2011).

In our collaborative meeting with my fellow instructors, it was decided to employ project based learning so as to facilitate student centered learning because it involves hands-on learning and critical thinking and discussion in the process. So we divided the DID 11 class into four groups, each group consisted of 10 to 12 students. Each group was assigned to choose its name in order to differentiate it from the other during skills lab practice and presentations. Again each group was assigned to analyze the skills lab space and suggest colour scheme to use in refurbishing the room.

Gender was considered to ensure that each group contained both male and female participants and work was distributed evenly regardless of gender. Participants in each group had to select their leaders who would preside over the group activities with trust and integrity. This helped them to have organized group discussions and presentations of their ideas internally in their groups as members and to the whole class after.

3.6.8 Suggesting of colour schemes and selection of the best alternative

All learning processes were conducted interactively with the students and we instructors acting as mentors in that we were just guiding the students and letting them to do the researching and discussions about the ideas they have attained. This made the learning process interesting as each one's view was honored, discussed and critiqued in a positive manner. This enabled the students to develop their reasoning capacity and also develop a positive attitude towards positive criticism. The prioritization of the colour schemes was done democratically and at the end of the selection all students collaboratively accepted the chosen colour scheme.

3.7. Instruments of data collection

Instruments used in this study included; individual interview guides, observation checklist, logbooks and focus group discussion guides, Photography/visual-audio recordings

3.7.1 Individual Interview guides

Unstructured interview guides were used, where questions were open-ended and short which led to many other questions thus widening the information. For example, during the situation analysis, one open ended question to a technician could lead to explaining his whole work process as a stakeholder. This helped the researcher to collect more in-depth information which answers many more questions without asking them. This is affirmed by, Barbour and Schostak (2005:p. 43) who justly remark that, the shorter the interviewer's questions, the longer the subject's answers and the better an interview (Alshenqeeti, 2014).

3.7.2 Observation/Observation checklist

Observation checklist as an instrument enabled me to exhaust all the areas I would like to explore in the study and observation was used to triangulate on the information collected

from the different stakeholders and from the documents analyzed. After analyzing the program structure document, I related it with the time-table to establish whether they were in agreement with each other. More so I used the information got from the program structure as a checklist while interviewing the instructors on the teaching and learning processes. Observation was also used for systematic selecting, watching and recording behavior and characteristics of the phenomenon. Focused observation was mainly used to evaluate whether people do what they say. Seeing the place or environment where something takes place can help increase your understanding of the event, activity, or situation you are evaluating, services, (2008).

3.7.3 Log book

Log book as an instrument was used in data recording throughout the study to enable daily evaluation and reflection on the progress of the research. During the study, all tasks, critiques and recommendations received on a daily basis were recorded in the log book. This enabled me to assess the progress of the study and to establish what has not been handled. According to Johnson (2012), a log book is a notebook used to record thoughts and observations related to all parts of your research. It is used to describe each step of your research process.

3.7.4 Photography/visual-audio recordings

With consent from the stakeholders, pictures were taken and video recording of the proceedings of the study in some instances. These enabled the researcher to keep a record and to reflect on the proceedings of the study. Photographs and audio-recording were assumed to have the ability to perform a more multifaceted role in this study. The tools provided multifaceted information about the student's participation in the implementation process of

establishing the skills lab during their teaching and learning processes. It also highlighted their interaction with the available resources in skills lab during training and as evidence to validate my research data, to stimulate discussions, to encourage participation in reflective thinking and as an aide-memoir. Furthermore, Rosenteint and Isreal (2002), stress that, Video observation has provided the researcher with permanent revisable documentation from the field. This documentation can serve both as a source of data collection to be used in research or evaluation or as a Historical record and more so visual images capture the context as well as the action of an event; they can be interpreted by multiple viewers; and the eye of the camera often freezes moments the human eye ignores (Rosenstein, 2002).

3.8 Validity of instruments/ tools

Individual Interview guides were valid in that, they guided the researcher to be focused on the vital questions which could bring out the necessary information for the study. The observation checklists enabled the researcher to exhaust all the areas where information could be attained. They aided triangulation on the information from the individuals and focus groups in relation to what was on ground. And they facilitated reflection and re- planning. Where necessary.

Log books kept all the information noted down during the study and crucial points identified during the study. In this way they also facilitated reflection and re- planning during the study. Photos and visual- audio recordings captured the proceedings during the study and highlighted all the areas which the researcher might have missed to see during the study. They supported the validity of the study and reflection during the evaluation of the impact of the study.

3.9 Procedures of Data Collection

Introduction letter from the coordinator of MVP program was obtained and delivered to the Head of department Art and Industrial Design seeking permission to conduct the study in the department. In addition to that, before proceeding for situational analysis I formulated questionnaires or interview guides for the different stakeholders. Observation checklists were also developed and appointments for meetings were scheduled on agreed dates without interfering with the department's' activities. A situation analysis of the teaching and learning processes was conducted and some gaps were identified. This prompted me to carry the area of concern to a futures workshop for an in-depth analysis of the area of concern. Gaps were identified and solutions brainstormed by all of us the stakeholders in the workshops and a problem statement was formulated basing on the major gaps addressed and objectives of the study for the research proposal entitled "A skills laboratory and enhancement of practical competence among Interior Design students in the department of Art and Industrial Kyambogo University

3.10 Data analysis

Data was collected and systematically coded according to the objectives of the research study, categorized in themes, analyzed and presented.

3.11 Validity and Reliability of Data

According to Mary (2009), valid data is one of the main aspirations of every researcher. To achieve this, triangulation techniques were used in order to gain confirmation or further qualification of data obtained from one source. Getting reliable Data on the same topic confirmed or qualified from other sources strengthened the findings of my study. The rationale for triangulation was to cross check and cross-breed information gathered from

different categories of respondents. This involved the use of different methods of data collection such as in-depth interview, observation and documentary study; and collecting data from different sources. In some cases some of the respondents were interviewed more than once, for example through individual interview and again through focus group discussion for purposes of validating and elaborating the information they had given earlier. This helped to ensure validity and reliability of my findings.

3.12 Ethical consideration

To ensure security and conformability, respondents were interviewed from their places of work and they were given consent forms to sign before participating in the study. These forms explained the purpose and procedure of the study and what was expected from the respondents. Photos and videos were taken after seeking permission and participants' offices are used while addressing them not names.

CHAPTER FOUR: ACTION IMPLEMENTATION RESULTS AND EVALUATION

4.1 Introduction

This chapter presents the findings from collective intervention strategies recommended by the participants during the future workshop. The study was set out to enhance knowledge and skills acquisition of ID students by establishing a skills lab which would be used as a tool to enhance practical learning. Inadequate knowledge and skills acquisition in addition to lack of confidence was established during the situation analysis which was conducted by the researcher in the department of Art and Industrial Design of Kyambogo University and in selected interior design companies in the world of work which included Coral Coatings among others This gap was introduced to the future workshop for the stakeholders to collaboratively carry out an in-depth and critical analysis of the gap, find its root cause and then formulate interventions on how to bridge the gap.

Implementation was done collaboratively with the participants who included; the lead researcher and other key stakeholders from the department of Art and Industrial Design. Data was gathered through participation, observation and reflection interview guide. The study involved year one (DID 1) and year two (DID 2) interior design students, six key Department stakeholders who voluntarily took part in assigned tasks to ensure that the research questions got the intended solutions. The study findings are presented in four main themes which include; collaboration, pedagogical strategies, motivation and contradiction and complexities which were identified in the findings listed down.

These themes are used according to the study objectives which are; examining the state of the learning environment for the ID students, establishment of a skills lab by rehabilitating identified and available resources, utilization of the rehabilitated available skills

lab resources, and evaluation of the outcomes of the utilization of the rehabilitated available skills lab resources to enhance knowledge and skills acquisition for interior design students in the department of Art and Industrial Design of Kyambogo University.

4.2 Establishing of the skills lab

Kolb (1984), states that, learning is the major process of human adaptation and it is broader than that commonly associated with the school classroom. It occurs in all human settings, from schools to workplaces, from the research laboratory to the management boardroom and also in the personal relationships (p.32). The design of the study being an action research, most of the activities were done collaboratively in that working together to accomplish the objectives of the study was one core strategy. Therefore, in response to establishing a skills lab using the available resources, a meeting was held by the key participants in the department to discuss about the availability of space and action implementation plan. The participants during the meeting amicably agreed and pledged to turn the interior design studio into a skills lab as a team. The positive response from participants towards the establishment of a skills lab indicated an immediate intervention that required attention for effective teaching and learning of interior design program.

Figure 5: Meeting with the stakeholders to discuss the Implementation

(2016)

The space was surveyed and the available sewing machines were inspected by a technician in the presence of the participants. This was to acquaint participants with basic operational and maintenance skills. During the inspection process it was established by the technician in the presence of the participants that the sewing machines required a more detailed servicing process than anticipated. The maintenance process was done during which spare parts were replaced and general machine servicing accomplished. Currently six sewing machines have been serviced of which one machine is electronic in nature.

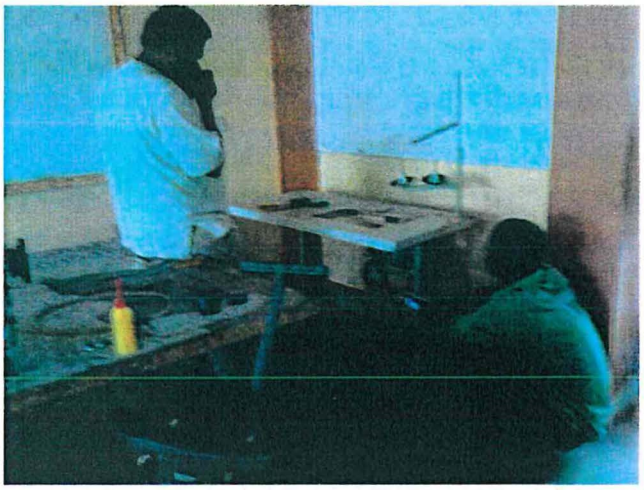

Figure 6: Technician Repairing the Sewing Machines Source; Raw Data 2016

A focus group discussion with two other interior design instructors was held to lay strategies on how we could take advantage of a few course units to be conducted this semester during the establishment of a skills lab at the department. During the discussion participants established that, Interior Design (11) students were to carry out a practical project in real setting that particular semester. They also had a course unit in advanced paint effects. At the same time, interior Design (1) students participated in the study under the soft furnishing course. Curtains, cushions kitchen gloves and table mats were some of the soft furnishing items produced. All these courses were conducted in the skills lab. This created a favorable

environment for learning as the teaching and learning processes were project based thus encouraging hands- on learning, utilizing the renovated equipment and the lab space for practical learning.

4.3 Utilization of the skills lab for competence acquisition

According to Wells (2004), as quoted by Biggs (cited in MAYES 2007, P.1) pedagogical strategies are the effective instructional designs. These designs must ensure that there are absolutely no inconsistencies between the curriculums taught, the teaching methods used, the learning environment chosen, and the assessment procedures adopted. The teaching methods used must be able to lead to acquisition of knowledge and competence in interior design students. Pedagogical strategies employed during the study included; discussion and dialogue, group learning, project-based learning and problem- based learning.

4.3.1 Discussion and Dialogue

Discussion and dialogue was one of the key pedagogical strategy used during the study. It was initiated right from the situation analysis, through the future workshop up to the implementation process. Discussions and dialogues were conducted during interviews and focus group discussions. This motivated the participants to open up and give information which was vital for the study.

On the teaching and learning processes the participants were open and said that, their expectations were mainly practical learning because they perceived that all that is concerned with interior design is practically done.

During the future workshop, discussion and dialogue directed the stakeholders through the root cause of the production of incompetent graduates to laying strategies for the gap and finally formulating an action implementation plan. Furthermore, through discussion and

dialogue the stakeholders were able to decide the space where the skills lab as the intervention for the gap should be established. Among the issues discussed were; a suitable space which can easily be made secure for the equipment, how many programs will be utilizing the skills lab, how was it to be maintained and how to raise funds for the implementation process.

A notable positive outcome of dialoguing is when the instructors interfaced with the participants to select between two methods of conducting learning during the study. One was studying using the limited resources available at the department and the other was adapting project and problem based learning where learning was to be hands-on. This included cost sharing where participants had to contribute to buying tools and materials needed for learning. At the end of the dialogue all the participants were in agreement to use the hands-on learning even though it had a cost implication which was shared among all participants including the instructors.

Figure 7: Condition of the identified space for Skills lab Studio

2016

Again through discussion and dialogue, the participants found it vital to involve the estates department to handle the necessary repairs on the electricity gadgets, plumbing system, missing louvers and burglar proofing in the established skills lab. A requisition was drafted

endorsed by the head of department, taken to the Estates department and technicians were sent to handle repairs and install the burglar proofing.

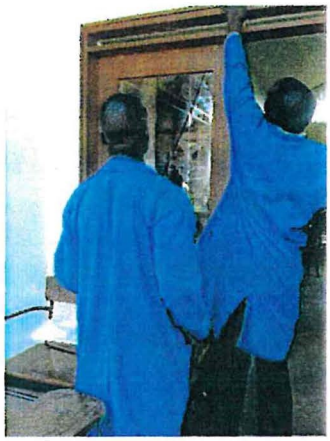

Figure 8: Burglar Proofing Technician Taking Measurements

2017

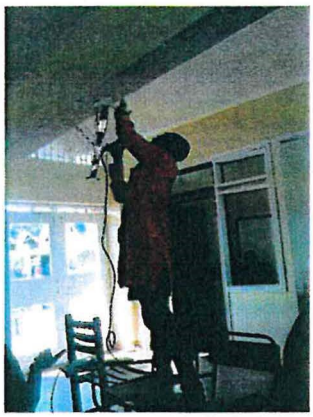

Figure 9: Electrician from the Estates Department Repairing Electricity

2017

Discussion and dialogue was also employed during the teaching and learning processes. It was through this strategy the instructors resolved to involve the students in carrying out the establishment of the skills lab during their learning processes. Focus group discussion with students of both years (D1 and D11) was conducted and discussed how to

carry out the projects in the teaching and learning processes using the four course units in the establishment and utilization of the skills lab and also to divide the class into several groups during the learning sessions.

Figure 10: Focus Group Discussion with DID 11 students (2017)

Participants discussed and dialogued among themselves in their groups on suitable colour schemes and arrived on the agreed selection amicably. These decisions from the different groups were later presented to the instructors brainstormed and discussed with the whole class and the final idea was identified which later was implemented. These dialogues helped participants to evaluate their knowledge in painting and even acquire more knowledge from their peers as highlighted participant MJ who stated:

> *Discussion and dialogue with fellow participants has changed my perception on painting as a trade and colour selection during painting projects. The presentations after discussions have developed my confidence and improved on the way I bring out my ideas.*

This democratic way of handling teaching and learning processes motivated the students and they participated fully in the activities which made the learning interesting and interactive. It

also bridged the gap between the students and the instructors in that students ideas were honored, analyzed and implemented when found suitable. Instructors were not the sole source of knowledge, they acted as fellow researchers and as mentors during the teaching and learning processes. This created a favorable and conducive learning environment and thus making learning interesting. According to Gillies (2017), collaborative learning experiences challenges students thinking and scaffolds their learning to promote critical and creative problem- solving and enhances cognitive understandings.

4.3.2 Group Learning

Democratically the instructors decided to divide the class into four (4) groups and each group had to analyze the condition of the studio and considering the intended function, come up with a colour scheme fit for the purpose. Participants in the groups had to put their knowledge of colour theory into practice. Knowing that colour creates moods, each participant suggested a scheme which was analyzed to establish its suitability. After analyzing all the colour schemes from the group members the best option was selected and this was the one discussed in the whole class. This method of learning was intended to promote student centered learning as it gave room to students to research and discuss among themselves and in the end encouraged them to think critically. This is supported by Gibson and Vetmeulen (2003), who propose that, the presence of subgroups within a team may stimulate learning behavior (Vetmeulen, 2003).In this learning process the instructors acted as mentors just guiding the students as they come up with their ideas and help them to critically analyze them for their suitability for the project. One participant stated that:

> *Group learning has encouraged me to always constantly consult my notes and to research on tasks given to me. This enabled me to participate fully in the*

discussions. I used to use my phone for WhatsApp and face book but now I use it for my research. It has also helped me to have a close relation with the instructors as they give us audience when we bring our ideas so we take them as our mentors.

Mobilization of funds among the students was also done in the formulated groups. Each group selected its coordinator and treasurer and they raised the amounts which were assigned each group. The treasurers managed the spending of the money of the individual groups and were approached by the coordinator of the whole class when there was an item to be purchased. During the study, the students used to come in the morning and leave in the late evening, so lunch was also organized by the treasurers from the funds raised by the group members. This exercise trained the student to be responsible and committed while at work and being resilient amidst challenging conditions.

Group learning facilitated the utilization of the few sewing machines which were available at the moment. Each group was assigned time to use the machines and the smaller numbers in each group could use the few machines adequately. Being that the sewing machines were now in working condition, a class of diploma in textile students was conducted in the lab to test the functionality of the repaired machines. This was in line with the objective of utilizing the available resources in enhancing skills acquisition for interior design students. The machines were perfect and the students enjoyed the practical lecture though most of them were really lacking the skill of operating the sewing machines

Figure 11: Textile Students being introduced to sewing machine operation

2017

4.3.3 Project –based learning / Problem- based learning

Through project based learning the DID 11 participants used the skills lab as their location for the practical project in real setting course. At the same time, through problem based learning, they conducted their learning processes of advanced paint effects in the skills lab by practically applying the effects they leant on the interior walls of the lab. The DID (1) participants contributed to the establishment and utilizing the lab by first renovating the tables to turn them into functional cutting tables in the course of introduction to paint effects. After renovating the tables they used them while designing the other projects which included; cushions and cushion covers, oven gloves, table mats, table linen and even curtains which they designed and made for the skills lab

Before purchasing the materials and tools for the study, the participants with their instructor carried out a pilot visit to different outlets that sell paints, painting tools and materials to establish their costs and estimate the quantities needed for the study. This was meant to expose the participants to the different outlets where they can access the tools and materials in the world of work and also to acquire the knowledge and skills in quantifying the materials and tools thus developing competence in compiling budgets for projects.

Participants were very delighted with this exercise as it expanded their scope of knowledge in organizing painting projects. One participant testified that,

> *I've always been challenged in quantifying the amount of paints and other materials used in painting projects but now it's no longer going to be an issue.*

In their course out line DID 11 participants had another project of laying a mosaic floor, so they combined both projects and compiled one budget. This budget was funded collaboratively by the participants, instructors and the researcher in order to acquire the tools and materials needed for the teaching and learning processes. This was in response to one of the solutions which was established in the future workshop, where cost sharing was suggested as one of the solution to bridge the gap of inadequate funding of the program. The chosen treasurers collected the money and organized how they were to purchase the budgeted materials.

Later, the coordinator for DID 11 participants together with the instructor went to purchase the materials while the rest of the participants remained behind preparing the room for painting. They removed the cobweb, cleared the walls by removing the papers which were glued on and also removed all the furniture and soft boards which were being kept in the room. In this case the participants were being introduced to delegation and collaboration in group dynamics which is the practice in the world of work. This enables the participants to acquire knowledge and skills in working with people. This event was in line of answering objective 2 which necessitated to utilize the skills lab in enhancing knowledge and skills acquisition for interior design students.

Figure 12: Students Preparing the Studio for Painting

2017

Painting of the skills lab went on for three weeks. Variety of techniques were taught and first all the participants participated in filling the damaged areas on the walls using Filler paste. (Filler paste is one of the materials used by painters to repair walls).Then they painted the undercoat on the walls. Undercoat is the first coating painted on the walls before the actual paint is painted. One paint effect at a time was demonstrated by the instructor on a piece of plywood while the participants are watching. Then each participant practiced the effect on the plywood by him/herself. This was done on all the different paint effects which were learnt during the study, these included Italian stucco, stone finish, rough and tough and fresco. Learning was basically hands-on, every participant got a chance of handling the tools (brushes and rollers) and mixing the paints. From these they selected the ones to apply in the lab. This is In line with Vygotsky, Mjelde, (2005, p. 56), who argues that learning is made meaningful by means of one doing something together with an "expert" in such a manner that the learner gradually masters even more difficult parts of the tasks at hand. Gradually the learner becomes more capable of carrying out more complex tasks until he/she no longer requires the assistance of the expert.

Figure 13: Instructor supervising participants practicing paint effects

2017

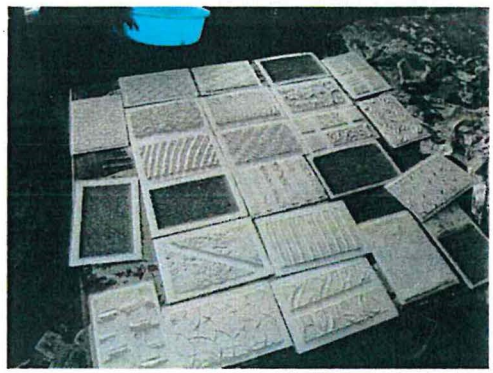

Figure 14; some of the Paint Effects explored by the participants

2017

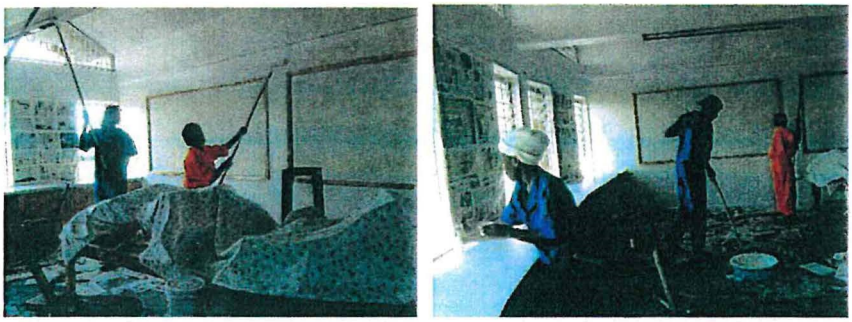

Figure 15; painting undercoat and covering places where the paint should not reach.2017

The hands-on learning experienced by the participants during the demonstrations and practice enabled them to develop skills and competence as they experimented the different paint effects thus gaining confidence in themselves. Furthermore, this helped the participants to handle the painting of the lab with confidence because they were still practicing their painting skills on a wider surface in a real setting. This motivated them and they looked forward to see the outcome of their effort. This motivation made the participants to push on amidst the challenges they were going through. The study exposed the participants to the use and handling of various tools and materials in painting before entering the world of work. This hands on experience was responding to the third objective of the study which tasked the researcher to utilize the skills lab in enhancing skills and competence acquisition of interior design students.

Figure 16; Participants applying the different colour effects in the lab

2017

A practical lesson with the DID 1 participants was conducted introducing them to the use of sewing machines. For most of them, it was their first time to sit on the sewing machine so we had to take them right from training their legs to pedal to stitching straight lines. Each one of them managed to peddle and the session was extended even to the next day. This was in preparation for the hands on learning process for soft furnishing course where the participants were supposed to design and make curtains for the lab.

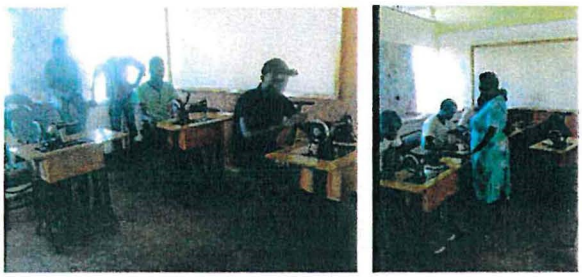

Figure 17; Practical lesson with DID 1 participants on machine operation 2017

Despite the fact that the skills lab was still in the process of being established, it was already being used for practical learning sessions. DID 11 participants used it to prepare their materials for mosaic paint effect? They made use of the cutting table to cut out their design templates which they used to shape the tiles which were used to create their mosaic compositions. Even the cutting machine could not be allowed to be used in any other studio apart from the skills lab because of the noise and dust from the tiles. So in this respect the skills lab had already started serving its purpose before it has even been fully established which makes it clear that it has really been missed in the department.

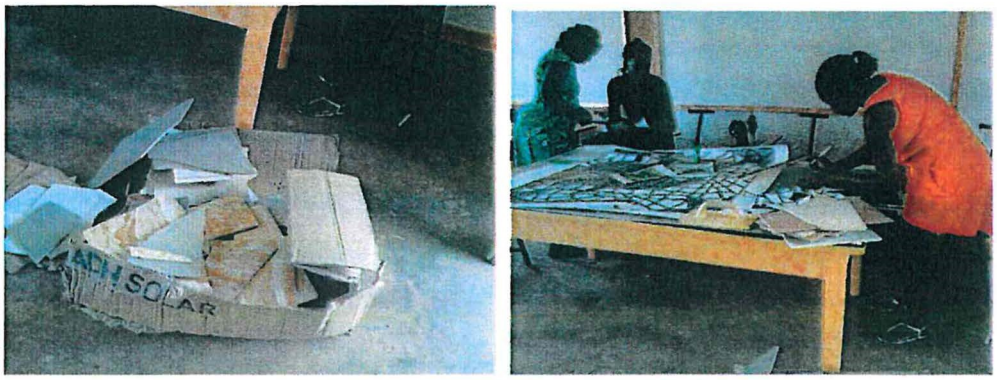

Figure 18; DID 11participants preparing their materials for mosaic paint effect

Data 2017

4.4 Contradictions and complexities

One of the complexities encountered during the implementation process was bringing on board some of the key stakeholders. Most of the time they seemed to be so busy and showed no interest in what was going on. To others, even though the skills lab was a necessity they saw it as unmeasurable intervention at the moment so they were not ready to support its establishment.

Another complexity was that, some of the services which were supposed to be provided by the Estates department took a very long time to be executed which resulted in other challenges propping in for instance, after painting and repairing the lights in the lab, it became so outstanding that it attracted people to always come and see what was going on. This put the machines and the installed gadgets at risk. Unfortunately the skills lab was broken into before the burglar proofing was installed.

Due to the delayed execution of some of the activities the implementation time collided with the examination time, so the students became very busy preparing for the exhibition. Time for the designing and making of curtains was not available. So instead the

students designed and made curtain Marquette for the exhibition and we re-scheduled the designing and making of curtains to next semester.

Due to lack of space, in a meeting held to discuss on the exhibition for the 1st year students which was due, some of the instructors were suggesting that, the skills lab should also be allocated to one program for exhibition. Stakeholders argued against this because, since the space was set aside as a skills lab and was still in the process of being established, It was not right to disorganize the process. Furthermore it was an examination for the researcher which was also going to be assessed at the end of the semester. After a long discussion it was exempted for exhibition but still implementation had to stop for a while because it was packed with chairs and donkeys from the other studios.

Furthermore, one morning in May, I got a call from my fellow instructor who was part of the implementation process of establishing the skills lab. He informed me that, in the meeting which was ongoing at the department that moment, they were requesting to allow the DID 2 students who were one of the key stakeholders in the establishment of the skills lab to exhibit their work in the lab. This time the stakeholders had no option but to agree, but gave them a condition that, they should place the displays strategically and create space where technicians could pass because burglar proofing was scheduled for the coming week. It could not be extended any more as it had already delayed. Even replacement of the missing louvers was to be done while the exhibition was still in the lab as it had to stay there for about two months.

The hands-on learning experience was also a motivation to the students in that, they experienced the feel of actual work environment which they expect to find in the world of work. The practical handling of the tools and materials during the demonstration of different

paint effects was an exciting moment for the **students and they couldn't wait to see the effects** on the walls of the lab.

The collaborative way of interaction between the instructors and the students was a motivation in that, students developed confidence in themselves. They were free to bring out their ideas because they knew they would not be rubbished. This created a conducive environment for learning and most students participated fully in the learning processes.

Furthermore, the teaching and learning processes carried out during the implementation of the study, were mostly hands-on, paint effects were introduced, demonstrations conducted and then students given chance to explore by practicing the effects on plywood using various materials. This motivated the students in that, they were practically learning, handling the materials and tools, in the process they were developing their skills and competence in painting through experiential learning. They also owned their learning because all their ideas were honored and they were included in the decision making. This encouraged the students to participate fully and be responsible in executing their tasks.

Figure 19; Students exploring the different paint effects 2017

The conducive environment created after painting the skills lab motivated other stakeholders and they also started appreciating the study. For instance, in May, the department

staff held a meeting in the lab concerning internship supervision where even the Dean of the faculty attended. Despite the fact that, there were other free studios and even the staff room. As a reflection in this instance, the department staff consider the skills lab environment conducive even for meetings. This reveals that even learning and critical thinking during the teaching and learning processes will be favorably carried out in the lab. This is also affirmed by the fact that, the masters' students, offering masters in Art and Design now prefer carrying out their critique with their instructor in the lab. In summary instructors and students enjoyed conducting their lectures in a conducive environment only that, such environment is rare in the department.

Figure 20; Instructor critiquing masters' students in the lab

2017

4.6 Evaluation of the impact of the skills lab on knowledge and skills acquisition of interior design students

Evaluation was carried out in three ways as follows; through questionnaires (Appendices --which were given to participants both students and instructors to rate their

teaching and learning processes conducted in the skills lab with the previous ones which were conducted in the lecture rooms in relation to competence acquisition.

The second evaluation was done through a workshop which was conducted with all the stakeholders in the presence of the supervisors to highlight their experiences during the implementation of the study and these were categorized in strength and weaknesses.

The last evaluation was done through visiting the companies where the students who participated in the study did their internship training to assess their performance during the training.

4.7 Data from the students' questionnaires

The questionnaires contained thematic questions and they were intended to evaluate the impact of implementation of the skills lab as a tool to enhance skills acquisition for interior design students. The themes included; students' background on paint effects, competences they have in painting, skills in selection of suitable paint effects and colour schemes, skills in selection and purchasing tools and materials for painting, neatness of the painting work and experience in using painting tools. Furthermore, the questionnaire had questions concerning students' interest and motivation for practical learning, students' research initiative and their rating of the previous paint effect lectures with the method of learning used in the study. The retention capacity of the taught skills was also a theme and students were tasked to describe their paint effect learning experience. The positive areas and strength during the exercise and also the negative areas and weaknesses during the project and lastly the general comments about the exercise.

4.7.1 Participants' awareness and competences in paint effects

According to the data collected from the questionnaires it was highlighted that, most of the students' background in painting is at the university level. Out of the 15 students interviewed 8 were introduced to painting effect at university, 3 at A-level and 4 at o-level. This implies that, more in-depth training in paint effects was vital in order to equip the students with the necessary skills.

The students' competence in painting was average because according to the ranking which was in terms of excellent, very good, good and fairly good, majority of the students were just good. Out of the 15 students, 8 were good, 3 fairly good, 4 very good and none was excellent. This calls in for more hands-on training in so that through experimentation and experience students would be able to develop competence in painting.

On skills in selection of suitable paint effects and colour schemes, out of the 15 students 4 students were fairly good, 5 good, 6 very good and none was excellent. This showed that majority of the students lacked skills in selecting suitable colour schemes which calls for more project –based learning where students can learn through experience.

When it came to skills in selection and purchasing tools and materials for painting, still students were average. Out of the 15 students 8 were good, 6 very good and only 2 ranked excellent. Neatness of the painting work which was ranked in terms of very neat, neat, fairly neat and untidy, 9 students ranked neat, 5 fairly neat and only 1 student ranked very neat. Conformability or experience in using painting tools which was ranked in terms of very comfortable, comfortable and not comfortable, 5 students were not comfortable, 6 comfortable and only 4 were very comfortable .All these findings advocated for hands-on learning because it is only through experience these students could acquire the necessary skills

4.7.2 Participants' interest and motivation for practical learning,

On the issue of students' interest and motivation for practical learning, majority of the students showed interest in practical learning. According to the ranking which was in terms of very high, high medium and low, majority of the students had very high interest in practical learning, 10 ranked very high and 5 ranked high, none was medium or low. This implies that majority of the students prefer hands-on learning, therefore pedagogies which foster practical learning should be employed where the skills lab is a vital facility.

Students were tasked to mention any other paint effect reference and resources they have consulted or used during their study apart from their instructors. Majority mentioned painting companies and interior design companies, only one student mentioned internet network. This implies that students should be encouraged to use the internet in searching for knowledge.

On rating the previous paint effect lectures with the method of learning they used during the study, the students highlighted that; the previous lectures were not adventurous, did not encourage research, not interactive and lacked real practice. They went on to say that; lectures were not competitive and interesting as the one during the study where theory was put into practice. Where students even handled painting tools like rollers and floats which they've never handled before. One participant expressed that,

> *"Each day I expect to learn something new and this constrains me not to miss and day of the study"*

Students were asked whether they can recall and apply the painting skills they have learnt so far to solve future problems of inadequate skills and competences of interior designers. Majority testified that, they can apply the skills with confidence because they learnt

them practically which has enabled them to develop more knowledge and competence in painting.

In describing their advanced paint effect learning experience students referred to it as holistic because, it was hands-on and project based .They started from situation analysis, brainstorm on how to solve the problem, lay strategies and them implement the interventions. They were able to appreciate their efforts as they see their final products. They applied the paint effects even on other elements like pots which they sold and got money. Students appreciated teamwork or working in groups, it enhanced their knowledge and skills acquisition as they learn from each other. Enjoyed applying their knowledge practically and learnt to be self-motivated.

On the other hand, they found advanced paint effect very expensive but enjoyable as they did it practically. The way it was taught made it easy to learn. Exposed them to various areas in painting including tools and materials. One student described the learning experience as; organized, collaborative, and selective and that, it needs determination. Another one stated that, (I quote),

> 'So far the advanced paint effect course unit was so interesting. Work was done in groups and there was common sharing of knowledge. In my opinion, practical project in real setting has been my best in knowledge and skills acquisition this semester'.

4.7.3 Participants' positive and negative areas during the implementation

According to the participants, positive areas and strengths during the study included; learning and application of the different advanced paint effects like Italian stucco and stone finish. Learning steps and activities followed in a painting project. Getting to know how to handle the tools used in painting, like steel float and rollers. The way learning was organized,

project based and student centered. Learning by doing in a real setting was interesting and motivating. Learning to work as a team was great and lastly but not least, learning to make quotations for projects, negotiating prices for tools and materials and being able to trace where to find them and also select the different paints and colour was a great experience.

The negative areas and weaknesses during the study included; work was much in a limited time, funding was inadequate and cost sharing from the students came in very slowly. This delayed the execution of tasks. The work was so dusty and the paints messy. Generally the exercise was very expensive, lack of financial contribution from the department was disturbing and the exercise was tiresome and needed a lot of standing.

4.7.4 Participants general comments about the implementation

General comments from the participants about the exercise included the following; The exercise was very educative, it was fun and provided opportunities for interactions with fellow students, instructors and expatriates from the world of work. It introduced the participants to different companies which deals in paints, tools and materials used in painting.

Though it was a costly project, it exposed the participants to various skills and knowledge in painting. It was holistic in that, it introduced the student from the grass root of the project to the finished product, exploring all the steps and activities involved.

It enabled participants to gain experience through practical learning (learning by doing).It also revealed to the participants that teamwork and sharing of ideas is the way to learn. Project based learning brings about satisfaction when completed, so the exercise motivated the participants to see the work completed. The exercise enabled the participants to develop competence and confidence in painting.

4.8 Data from the instructor's 'observation questionnaire

During the implementation process the instructors were tasked to rate their teaching and learning processes conducted in the lab with the previous ones which were conducted in lecture rooms. Three instructors were interviewed and the following were the findings;

4.8.1 Students participation and interest during practical learning

On rating the interest of the students during the teaching and learning processes which was rated in terms of very interested, interested, less interested, 2 instructors rated the interest as interested one rated it very interested. On the learners' participation level in the teaching and learning processes which was rated in terms of high, fair, low, 2 rated it as high while 1 rated it fair. This indicates that majority of the students showed interest in learning the skills and they participated well during the teaching and learning processes.

On the use of teaching aids during demonstrations, they testified that teaching aids were used to demonstrate the topic and real life examples used to relate the topic to the learners' day to day life. On the issue of time used to teach the topics, they testified that, it was between 2 and 3 hours. This reveals that, teaching aids facilitated demonstrations and real practice was executed well as there was enough time for both activities to be carried out.

4.8.2 Instructors' general comments about the implementation

On describing the lecture in their own words, the two described it as interesting, interactive and student centered and the third one described it as participatory. And on their advice on how to make the teaching and learning processes more engaging and enjoyable, one suggested that, time for practical session should be adjusted and assigned more time. Another one suggested that, more methods of work production should be introduced and plans for the final work established, while the last one suggested that, we should introduce videos that

show the topic of study from other settings or even bring in resource persons to talk to the students. This implies that, the conducive learning environment motivates instructors to think of outsourcing pedagogical strategies that enhance skills acquisition for the students

4.9 Data from Evaluation workshop

Secondly, a workshop was conducted with all the stakeholders plus the supervisors to the study to evaluate the impact of the skills lab intervention on skills acquisition of the students. The stakeholders highlighted their experiences during the implementation of the study which were categorized in strength and weaknesses. Most of the strengths came about as a result of the pedagogical strategies employed during the teaching and learning processes of the introduction and advanced paint effect courses which were used in implementing the practical project in real setting course and the soft furnishing course as it was highlighted by the participants. Pedagogies included; group learning, project based learning, problem based learning, hands-on learning and all the learning processes were student centered the instructors acted as mentors and mostly came in for demonstration and guiding the students. Students testified that, groups enabled them to share ideas thus, learning from each other. Learning was student centered in that, during the project based learning, they were tasked to analyze the situation of the location where the project was to be conducted, come up with ideas and strategies on how to refurbish the lab professionally. Their ideas were brainstormed democratically and selection of the best option was done collaboratively. Students went on and affirmed that practical learning was conducted all through and they used to handle the materials and tools (hands-on) themselves. This made the learning process interactive and interesting thus, motivating them to participate fully in the learning processes. (Details in Table 4.2) Appendices

On the other hand, the stakeholders stated that most of the weaknesses came about as a result of funding, time frame, and the inadequate equipment available in the department. Since the project was fully funded by the stakeholders, the funds did not come in at a go, this created some delays in the implementation. Even though the department contributed through the Estates department, they were not convinced that it contributed financially. More so the available equipment was limited considering the number of students. This was in line with the DID 1 who were supposed to design and make curtains. Only six machines were shared among 21 students. Lastly but not least the time available for implementation was inadequate because the process collided with examination time so some of the implementation process were interrupted and some even had to be postponed to next semester.

One of the experience expressed by the participants of being not satisfied with the colour scheme during the evaluation workshop was also expressed by the supervisors when they visited to assess the progress of the implementation processes. So during the workshop, recommendations were given to revisit some of the hues and money was contributed by the supervisors to facilitate the buying of the appropriate hues.

At the beginning of the semester the DID 11 participants under the supervision of the researcher repainted the particular walls and the colour harmony was achieved. Also the DID 1 participants in collaboration with TEX 1 participants under the guidance of the researcher organized themselves designed and made the curtains for the lab. The fabric decoration was done by the TEX 1 participants while the making of the curtains was done by the DID participants. Mounting the curtain rods and dressing the lab was done by both groups, as per now the lab is fully dresses with curtains.

Lastly, the researcher visited two companies where the participants conducted their internship training. One of the companies was Coral Paints in Kireka which manufactures paints and handles painting contracts and the second one was Come Again in Nakasero which deals in selling curtain and upholstery materials and handling curtain making contracts. Findings revealed that, the skills lab intervention had impacted the skills acquisition for the participants positively.

The managing Director of Coral Paints testified that, he has been taking on students from the department for the last four years but this time around the students were exceptional from those of the previous years. I quote,

> "If I am to rate the performance of the students out of 10, those of the
> Previous years would get 4 out of 10 while these current ones will score 7 out of 10"

He went on to say that, what the students are lacking now is experience but for the skills and knowledge, they were well equipped. They were able to handle the tools and materials well and could follow instructions. He recommended more project-based learning and offered to take on the students for workshop learning if a memorandum of understanding is signed between the University and the company.

4.10 Personal Reflective Log

This includes the records on the observations and responses of the participants during the implementation processes. It includes the positive and negative events experienced. These enabled the researcher to derive meaning from the experiences and to consider the impact of the implementation and to align future actions. (Details in Table 4.4 in the Appendices).

Currently, the establishment and the utilization of the skills lab to enhance knowledge and skills acquisition has been achieved, despite a few challenges experienced in the process. The lab has been established and well refurbished to create a conducive environment for

studying. Currently all the electrical fittings and fixtures are working. It was necessary because, being a skills lab electricity points are vital as several equipment to be used need power connecting points. Extra light was needed during the practical sessions so repairing of the lights was necessary, the skills lab is now well lit and looks more spacious.

During the process of establishing the lab, the participants experienced practical learning through painting different types of paint effects thus applying their theoretical knowledge into practice. The sewing machines are in working conditions and participants used them in executing their projects in soft furnishing course. Some the products made using the machines were exhibited at the end of the semester. The conducive learning environment in the lab has motivated other instructors in that, they have also started planning to rehabilitate their studios. In conclusion the establishment of the skills has impacted both the skills acquisition among the participants and the attitudes of other stakeholders towards the learning environment in the department.

During establishment, project based learning was employed and the participants experienced group learning where they executed brainstorming, discussion and hands-on learning. They also experienced interpersonal relationship and delegating duties which enabled them develop responsibility. On the other hand, problem based learning constrained them to think critically and to research which widened their scope of knowledge. This enabled them to own their learning and also motivated them as they strived to see the final product of their interventions. This practical learning which was facilitated by the skills lab enhanced their knowledge and skills acquisition and thus, developing the participants competence and confidence in painting.

Through collaboration, the participants have developed confidence in themselves, this has enabled them to air out their challenges to the instructors. In turn this has helped the instructors to reflect on the pedagogies employed and tried to modify them to suit the needs of the participants. So the instructors now acted as mentors letting the learners to own their learning while for them, they come in to guide and give advice where necessary. This has enabled the participants to develop their reasoning capacity, be able to reflect on their work and also to be ready to address any positive criticism. This resulted in the production of knowledgeable students who have competence and then confidence in painting skills and also ready to take up any painting project without fear.

Furthermore, amidst those successes, challenges were there which have led to failure of some of the tasks we had to address during the study. One of them was delayed facilitation. Because of delayed facilitation, participants were not able to design and make curtains for the lab. By the time the facilitation was availed, it was time for exams and the students were busy preparing for exhibition. The designing and making of curtains was extended to next semester because all the materials and accessories were available.

We were also unable to execute the donation drive due to the limited time and inadequate funding. We were supposed to facilitate the students to go to various design companies and fabric companies to request for old equipment. This would have increased the number of the equipment in the lab and thus facilitating practical learning. This was also extended to next semester.

The bureaucracy in the accounts office has also affected the implementation of some tasks. For example, the burglar proofing of the lab delayed and even led to the breakage of the lab and some equipment was stolen. This threatens the provision of more equipment for the

lab. The missing louvers have not yet been installed and the plumbing system not yet renovated. All these are as a result of the complexity in the accounts department.

Lastly, we were also faced with some contradictions and complexities along the way. Some of the stakeholders thought that the establishment of the lab was impossible due to lack of funding and inadequate equipment. Even though, they knew its importance in vocational education and training, they did not see it as a measurable venture to address. Another complexity was the limited space available at the department. At the moment, the department is overwhelmed with the number of students it accommodates. The number is over and above the optimum for which the department was designed for. This brought about a lot of controversy and even during examination time, there was an exhibition in the lab. But all in all, as a researcher, I insisted that, if we are to produce skilled and competent designers, there is no way we can avoid a skills lab.

CHAPTER FIVE: DISCUSSION, CONCLUSIONS, RECOMMENDATION

5.1 Introduction

This chapter provides a critical reflection on the intervention strategies that were democratically supported by the study participants; conclusion and recommendations for future consideration. The purpose of the study was to rehabilitate the available resources and establish a functional skills lab to enhance practical competence for ID students in soft furnishing and paint effects courses. This was a result of the situation analysis conducted in which stakeholders acknowledged that, the graduates from the department lacked competence and confidence in executing tasks in the world of work.

Findings still established that, the teaching and learning environment was not conducive, there was no skills lab to facilitate practical learning, the materials, tools and equipment were inadequate which led to inadequate teaching and learning processes. Furthermore, the time allocated for the teaching and learning processes was not enough to execute all the teaching methods recommended in the program structure of interior design.

Therefore, strategies were suggested by the stakeholders as interventions to solve the issue of incompetent interior designers and the most pressing one to be handled first was to establish a skills lab by rehabilitating and organizing the available resources to facilitate practical learning hence enhancing competence and confidence among ID students in soft furnishing and paint effects courses.

The discussion from which conclusions and recommendations are derived is guided by themes under which are the objectives drawn from the purpose. The themes include; collaboration, pedagogical strategies, motivation, contradictions and complexities and the objectives therein are as follows: Establish a functional skills lab by rehabilitating the

resources available in the department for equipping it, Utilize the refurbished skills lab for enhancing acquisition of competences in Paint effects and Soft furnishing by ID students trained in the department of Art and Industrial Design and to Evaluate the impact of establishing and utilizing a refurbished Skills lab by ID students for acquiring competences in Paint effects and Soft furnishing.

5.2 Establishing of the skills lab

The first objective was to establish a functional skills lab by renovating and organizing the available resources to enhance competence acquisition for interior design students in the Department of Art and Industrial Design. The action implementation plan was formulated in the futures workshop where the students, instructors, technicians, head of department were part and where the researcher acted as the coordinator of the workshop. Different stakeholders were delegated to perform different tasks in that, the researcher, head of department, technician and two interior design instructors were tasked to brainstormed about the spaces available and allocate space for the skills lab. They perceived a skills lab as an assimilation of a workshop in an institution set up, where students may be introduced to hands- on learning hence, be able to apply their vocational theory into practice and thus, enhancing acquisition of competence and confidence relevant in the world of work. This is supported by Lucas (2012), who stresses that, the effectiveness of all education systems depends critically on the quality of teaching and learning in the classrooms, workshops, laboratories and other spaces in which the education takes place. So the intervention of the skills lab was to provide a more conducive environment for practical learning which was missing in the department.

During the implementation students were involved in every step of planning. For example, before the beginning of the painting project, the instructors met with the students and briefed them on what was supposed to be the done and encouraged them to suggest how the teaching and learning processes would be conducted and requested for their ideas. So whatever activity that took place during implementation was part of their decision and they looked forward to see the outcome of their effort.

This was a unified move because it was not an individual decision which showed that the intervention was for the common good of the department. It brought all the stakeholders on the same level hence making them to have a common goal.

This is supported by Bleach (2010) who states that, action research approach aims at the creation of a learning community that acknowledge, value and use expertise and experience of all involved (Bleach, 2013). In this study all participants contributed to the decisions which were taken, so all were accountable and responsible for all the outcome of the intervention. It was crucial in that, it enabled the stakeholders to make unified decisions and set common goals which they latter strived to accomplish together. Hua, Loftnesss and Kraut (2010), further uphold Bleach's assertion when he states that, the value of effective collaboration has become increasingly critical for organizational performance and agility.

The collaborative way of handling issues enabled the participants to handle issues which might have taken long to be implemented for example, requesting services from the Estates department could take a whole semester to offer the requested services. But during the implementation, the researcher followed up the process and the electricity repairs and installation of new gadgets were done within a short time which facilitated the usage of equipment that needed power and the adequate lighting which was necessary in the skills lab.

Furthermore, through collaboration the establishment and rehabilitation of the lab was quickened as the interior design instructors unanimously decided to conduct four of the course units of the semester in the establishment of the lab. This was in response to the purpose of establishing the lab which was to enable students to practice hands-on or practical learning during teaching and learning processes. They briefed the students on what was supposed to be done and through discussion and dialogue with the students they resolved how the teaching and learning processes will be conducted where it even involved cost sharing in acquiring tools and materials for practical learning. For the students it was a prayer answered because even during the futures workshop their main concern was the absence of practical learning in the teaching and learning processes. In this case, two birds were hit with one stone in that, during the process of establishing the lab, the second objective of utilizing the skills lab to enhance practical competence through practical learning was handled. In this way, the involvement of students in planning their learning impacted the attitude of students towards learning positively in that they were even willing to contribute towards materials and tools needed in the learning processes.

Under the course of advanced paint effects and practical project in real setting the DID 11 students repaired and painted the skills lab as they applied their theory knowledge practically through painting the different paint effects on the walls of the lab. At the same time DID 1 students renovated the tables and painted them under the course of introduction to paint effects and also designed and made curtains for the lab under the course of soft furnishing. In all these projects students were learning through practice hence enhancing their practical competence in painting through utilizing the skills lab. The learning process was interactive and interesting in that, students were handling the materials and tools themselves thus relating

their learning to real life experiences. In a nutshell, the establishment of the skills lab contributed to the enhancing of practical competence for the students. This act of working together as instructors was a result of the democratic and collaborative way of handling issues in action research. It led to discussion and dialogue among the instructors with the aim of fulfilling the common goal of establishing a skills lab through practical learning to foster practical competence for their students. It also created an opportunity for the instructors to conduct a course like practical project in real setting in the department instead of looking for sites outside the university as it used to be. This enabled easy supervision of the project while at the same time utilizing the teaching and learning processes in beautifying the environment of the department.

The collaboration among the students, the instructors and the administrators motivated the students to take up their learning seriously in that, they were even willing to contribute towards making their practical learning possible. This was highlighted in the way they contributed through cost sharing during the painting project of the skills lab.

In conclusion, collaboration among the stakeholders and involving students in the planning of their learning can cause a great impact on their attitude towards learning and their interaction in the teaching and learning processes which later impacts their skills acquisition positively.

5.3 Utilization of the skills lab for competence acquisition

In view of Dewey and Vygotsky (Mjelde, 2006a, p. 97 & 191), if learning is to take place, it is important as educators to adopt pedagogical approaches that help learners to relate the theory to the practice (Mayes, 2007, pp. 2-3). Learning through activity and cooperation is very vital. This will help learners to see the connection between the two learning

environments, just as Jorgensen (2008) observed. The theory learned ought to have been right within the proximity of the practice. According to Mayes (2007) the expected learning outcomes should be able to help determine the pedagogical model adopted by the teacher.

This is exactly what was in the minds of the instructors when they were deciding to conduct the four courses simultaneously. They foresaw that the outcomes of the collaborative venture will result in students developing practical competence through hands-on learning during the project implementation.

5.3.1 Group Learning

Group learning motivated the students in that, they were able to share their ideas with their peers. They were able to learn from each other and even to evaluate themselves. It also helped them to learn how to interact with people and to be responsible and committed on whatever task they were given to handle thus developing the work place dynamics.

The collaborative learning environment challenges learners to express and defend their positions, and generate their own ideas based on reflection. They discuss their ideas with peers, exchange different points of view, question others, seek clarification, and participate in higher-order thinking such as managing, organizing, critical analysis, problem resolution, and the creation of new learning and deeper understanding Scott (2015).

Innovation and creativity are very valuable competences in knowledge societies Sawyer (2006) states that, in today's economy, innovations emerge from improvisation teams. Creativity is deeply social, with most creative insights emerging from collaborative and creative circles.

Discussion and dialogue was another pedagogical strategy employed during the implementation process. This strategy worked favorably in that, it created oneness among all

the participants as their inputs were listened to and considered where they were suitable. Students were motivated because they were considered as stakeholders in planning the teaching and learning processes and even in suggesting interventions where there were gaps in the learning processes. This impacted on their willingness to learn and their participation in the teaching and learning processes. Peer discussion in teaching vocational subjects helps learners to share knowledge and to critique one another during and after activity. Discussion also builds a sense of esteem among the students an aspect of VET that is required by competent workmanship that will be able to defend their own projects outside in the world of work.

Instructors were also positively impacted in that, despite the complexity of the environment they were working in, where there were inadequate teaching aids, tools and equipment, they took initiative and formulated strategies which can enable them to deliver the knowledge to the students in the best way possible. For example, they introduced group learning which encouraged students to brainstorm among themselves thus learning from each other .It also encouraged social skills like interpersonal relationship, delegation, responsibility and communication skills amongst the group members thus promoting student centered learning. In this case in addition to practical skills the students were acquiring social skills which vital in the world of work.

Project-based learning was the other pedagogical strategy used during implementation. Through this strategy the students were given chance to explore all the steps and activities involved in the execution of the painting project which included rehabilitating the resources in the skills lab. Students analyzed the situation of the space and the resources therein, brainstormed on how to rehabilitate them and the colour scheme to use in their different

groups. They critically analyzed the different schemes and democratically selected the best option collaboratively .In all these activities the instructors came in just to guide the students and help them make constructive decisions unanimously. This was in an attempt to encourage the student to own their learning thus develop their competence and skills in painting. This is supported by Wiek (2013), who states that, Students investigate a real-world problem and work on solution options to this problem by engaging in small-group work (ideally in an interdisciplinary team) to which instructors contribute as coaches for the teams. He goes on to stress that students motivation is stimulated in multiple ways in a project-based learning environment, such as formal and informal group discussions, regular supervisor meetings and sharing leadership. Furthermore, factors such as common goals, support of peers and openness stimulate motivation. During the implementation, students fully participated in selection of colour, budgeting the project, and pilot visits to ascertain the quantity and cost of the materials and tools. And even in the cost sharing when contributing funds to purchase the materials and tools for painting.

This enabled the students to develop confidence in executing their tasks during the project. Through hands-on learning they were able to reflect on their works and improve on them where necessary. They were free to experiment several times before they arrive to the right option. Students developed trust in themselves and started asking constructive questions and gained positive attitude towards constructive criticism. In this way students built the competence and confidence and their learning processes became interesting as they were seeing meaning in their learning. In this line, Dewey's argument of learning by doing is helpful to the learners. It helps them to understand better because they see the connections clearly. Wlodkoski (2004) supports the idea of helping learners to see meaning in what they

are learning as vital (p.147). To him meaning draws out intrinsic motivation because it taps into one of our most fundamental reasons for being a purposeful relationship to the world (p. 142)

5.4 Motivation

Motivation as a theme ran through all the implementation process right from the situation analysis. The introduction letter from the MVP program which was directed to the stakeholders in our workplaces was clear that, the research which was being requested to be carried out was action research. In action research both the researcher and the respondents are stakeholders and the research is geared around improving the situation in the premises where it is implemented. In that case both the researcher and the respondents are beneficiaries of the outcomes of the research. O'Brien (1998) contends that, Action research is used in real situations, rather than in contrived, experimental studies, since its primary focus is on solving real problems.

This motivated most of the participants in the situation analysis and they freely gave the information needed for the study. The students and the instructors aired out their expectations and experiences as they were all looking forward for an improved way of carrying on their duties. Even during the futures workshop, the democratic way the discussions were conducted motivated the participants to air out their ideas because despite their status, like students, technicians, instructors, graduates and experts from the world of work, they were all at the same level as stakeholders and all their views were respected and honored.

During the implementation process this motivation was highlighted by the way the different participants conducted themselves. The students' involvement in planning their

learning processes motivated them in a way that, their attitude towards learning was very positive which in turn motivated the instructors and they sought pedagogical strategies which could deliver knowledge to the students in the best way possible.

Pedagogies like group learning motivated the students in that, they were given chance to exploit their potential through discussion and dialogue with their peers. This developed their research skills and their critical thinking skills as they looked for solutions to the tasks given to them. They were able to interact closely and learn from each other which enabled them to own their learning, thus motivating them to participate fully in the learning processes.

Project-based learning also contributed a lot in motivating both the instructors and the students. The steps and activities involved in the implementation of the project were all handled by the students. This enabled them to explore all the activities involved from analyzing the situation of the space to the final painting using the various paint effects learnt in the semester. In so doing students were introduced to a learning environment assimilated to the real working setting. This motivated the student in that, they realized that, the skills they were learning can be applied in real working experiences thus developing trust in what they were learning and more so when their work was appreciated by almost everyone in the department.

The instructors were also motivated by the extraordinary participation of the students during the implementation of the project. The students' attitude towards learning was positive because of hands – on learning which made the teaching and learning processes interesting thus enabling the students to acquire the skills and competence in painting. This was affirmed by statements made by students these included statements like: "At Least this time we have

experienced real learning and it will be difficult to forget what we have learnt". Such statements constrained the instructors to appreciate their effort.

5.5 Contradictions and Complexities

The study uncounted various challenges which were categorized as contradictions and complexities. Due to the fact that the implementation of the study was executed using the teaching and learning processes of particular courses, some stakeholders at the department thought that the researcher was using student's' work as her research. They thought that the researcher was forcing the students to contribute money so that she can carry out the research. This caused a complex environment but since the participants knew that this was caused by their ignorance about action research, where any action taken is a result of a unified decision taken by all the participants in the research and the outcomes should be benefiting all of them. Unlike in conventional research where the researcher owns the research and the respondents just help him/her to implement the study and they may not benefit from the outcomes. So they neglected them and continued with their implementation and later the situation stabilized.

Another contradiction was due to the limited space in the department. The stakeholders who were not participants in the study and did not know how the decision of turning that particular studio into a skills lab came about, so they were not ready to support its establishment even though they knew that it is a vital tool in vocational education and training. Being that the studio was the former interior design studio those stakeholders thought that it was going to be used by only the interior design students. This was solved during the utilization of the lab when textile students conducted their practical learning in lab while designing the fabric which was used to make curtains. They also conducted their fashion design course in the lab because it involved using the sewing machines. Generally the skills is

intended to be used by all the students who offer courses which need to use the equipment in the lab during their learning sessions.

Another complexity was brought about by the conducive learning environment in the lab. Majority of the instructors wanted to conduct their lectures in the lab which contradicts with the regulations governing the skills lab .Even one time during the implementation a department meeting was conducted in the lab despite the fact that the implementation process was still on and the staff room was free. So restricting these other instructors from using the lab causes some friction which makes the situation complex. In this scenario, I am of the view that the department should carry out a sensitization workshop and explain the department staff how the skills lab should be utilized so that, the struggle for who is to use the lab is solved.

5.6 Evaluation of the impact of the skills lab on competence acquisition of interior design students

Findings established that, majority of the students get introduced to paint effects at the university level. This calls for in-depth training in paint effects in order to equip the students with the necessary skills, knowledge and competence. To achieve this more hands-on training other than theory is necessary in that, through experimentation and reflection students will be able to develop competence in painting.

Project- based learning pedagogy was found intrinsically vital in transferring knowledge, skills and competence to students. The process of taking the students through the various steps and activities of painting which included, analyzing the situation of the space to be painted, examining the paint effects and the colour schemes, selecting and purchasing of the materials and tools and lastly budgeting the project practically enables students to acquire experience and competence in handling materials and tools thus mastering painting. Barth and

Stoltenberg (2007) contends that, the development of key competencies is based both on cognitive and non-cognitive dispositions and asks for multiple contexts. Through combining formal and informal learning settings within higher education as part of a new learning culture a variety of contexts can be given and competence development can be enhanced. (Matthias Barth, 2007)

Observation from the instructors established that, hands-on learning motivates the students and impacts positively on their attitude towards learning. This results in full participation in the teaching and learning processes, thus supervised skills and competence acquisition. Therefore, strategies which encourage more practical learning than theory should always be employed and in this instance a skills lab environment is a vital facility.

Instructors went on and testified that, since time was not so much limited the demonstrations and students' practice were carried on adequately which enabled the students to get supervised learning thus mastering the skills taught. This calls for a revision on the time allocated for practical because limited time affects the teaching and learning process hence the students' retention of the skills taught.

Another point established from the instructor's' observation was that, teaching motivated students impacts the performance of the instructors. Since majority of the students showed interest in what they were learning, the instructors also looked around for the best pedagogies to transfer skills to the students. This implies that, conducive learning environment, suitable teaching and learning strategies plus availability of the necessary teaching aids facilitates the teaching and learning processes.

5.7 Evaluation of the impact of the utilization of the skills lab through the workshop held at the end of the implementation process

This workshop was attended by all the participants of the study who included the students, instructors, technicians, head of department and the researcher in the presence of the study supervisors. Majority of the students testified that they have benefited a lot from the implementation process in that they felt they had the confidence to face the world of work with confidence. The instructors were satisfied with the performance of the students and the way the hands-on learning was conducted. They testified that the conducive environment of the skills lab plus the availability of tools and materials to facilitate learning made the teaching and learning processes interactive and interesting. This enhanced competence and skills acquisition for the students.

In this respect, it is evident that the skills lab establishment and utilization performed the purpose of its intervention .It created the conducive environment for the teaching and learning processes, the rehabilitated resources facilitated practical learning, the suggested pedagogical strategies created interactive and practical learning processes and the students participated fully in the learning processes, hence enhancing acquisition of practical competences and confidence among students. Special attention therefore is needed in the maintenance of the lab so as to solve the problem of producing incompetent interior designers.

5.8 Evaluation of the impact of establishment and utilization of the skills through interviewing experts where students conducted the internship training

The positive responses from the experts in the world of work where the students conducted their internship studies depicted the impact of the skills lab intervention on the skills and competence acquisition of the students. The high rating of the current student

internees in relation to that of the past years revealed that, unconducive learning environment and the inadequate materials and tools which were used to facilitate teaching and learning processes used to impact negatively the skills and competence acquisition of the students.

The managing director of coral paints recommended the department for the strategies it implemented in equipping the students with the skills and competences in painting. But in addition he recommended that, on top of those skills and competences students should be taught computer skills. This will enable them to express their ideas well to the clients in the world of work. He offered an opportunity for workshop learning for internees from the department if a memorandum of understanding is signed between the university and the company. This shows how the world of work is willing to collaborate with the institutions in equipping the students with the necessary skills.

5.9 Conclusion

The study sought to enhance acquisition of practical competence and confidence among interior design students. Several strategies were established and the one prioritized to be handled first, was establish a functional skills lab by rehabilitating and organizing the available resources to facilitate practical learning.

Successfully, the skills lab was established and utilized, an impact was caused on the acquisition of skills and competence among interior design students as it was established through the various evaluations conducted. However, to facilitate practical learning in the skills lab required collaborative efforts of various stakeholders in the department who included, administrators, instructors, students, technicians and experts from the world of work to collaboratively facilitate and fund the practical learning processes. And more so, skills and competences are not acquired by one-time experience but over time through constant practice.

Therefore, strategies should be put in place to regularly equip, maintain the skills lab and provide materials and tools to facilitate practical learning. Lastly but not least, workshop learning through collaboration with the world of work, should be considered and timetabled so that students experience it before the end of their study. This will enable the students to experience the working environment and to be introduced to some of the equipment which is missing in the institutions. In the end students will be helpful to the companies during internship as they will be perfecting their skills not learning the skills during internship.

5.10 Recommendations

1. Department of Art and Industrial Design Kyambogo University should endeavor to fully equip the skills lab with the necessary equipment and tools to facilitate practical learning for the various vocational courses offered
2. Apart from cost-sharing, other strategies such as students engaging into income generating projects should be laid to facilitate acquisition of the various tools and materials necessary for practical learning.
3. Pedagogical strategies like project-based learning and problem-based learning that foster hands-on (practical) learning should be employed while teaching because they encourage student-centered learning because they encourage practical learning
4. Kyambogo University should sign a memorandum of understanding with organizations (the ones that take up students for internship) for purposes of workshop learning, placements and supervision of students as this enables the students to experience working environment, thus developing competence and confidence through experiential learning.

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APPENDICES

Appendix 1: Time table

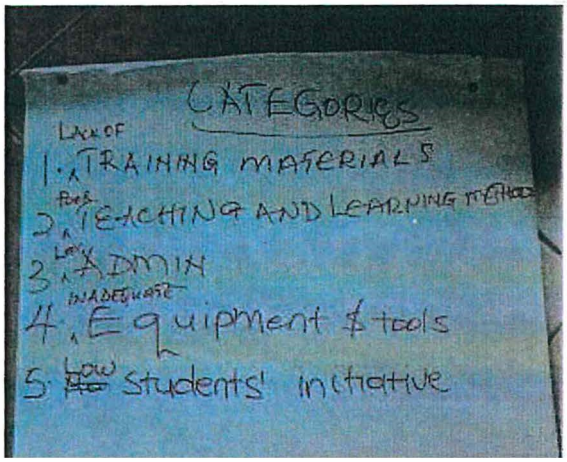
Table 1.1 ***Time table for Soft Furnishing and Paint Effects in a semester***

MONDAY	**4:00pm - 5:00pm | 5:00pm -6:00pm**	**6:00pm-7:00pm | 7:00pm - 8:00pm**
	VDID 1203: SOFT FURNISHING AND MAKING	Self-study
	VDID1204 :INTRODUCTION TO PAINT EFFECTS	Self-study

Table 1.2 ***Time table for Advanced Paint effects and Practical project in real setting***

	4:00pm – 5:00pm | 5:00PM –6:00PM	**6:00pm-7:00pm|7:00pm-8:00pm**
	DID 223: ADVANCED PAINT EFFECTS	Self-study
	DID 222: PRACTICAL PROJECT IN REAL SETTING	Self-study

Appendix 2: Categories

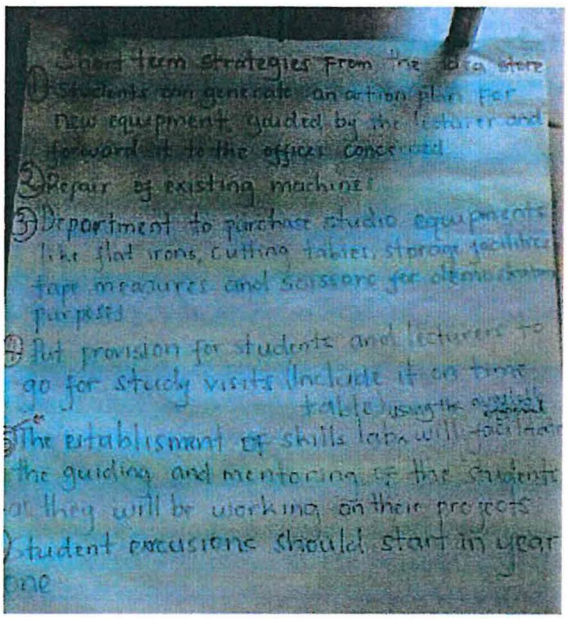


Appendix 3

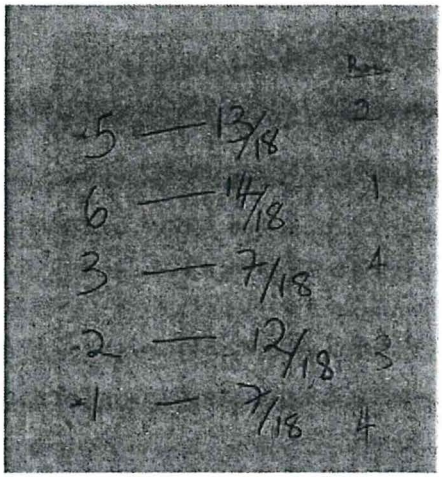
Table 2: Pairwise ranking *of Gaps*

	1	2	3	4	5	Tally total	Ranking
1						0	5
2	2					1	4
3	3	3				4	1
4	4	4	3			3	2
5	5	5	3	4		2	3

Appendix 4: Short term strategies



Appendix 5: Prioritizing the short term idea solutions



Appendix 6

Table 3.1: ***Action Production Plan***

ACTION	KEY PEOPLE	LEAD PERSON	TIME FRAME
Requesting for space where to establish the skills lab	Lead researcher, Lecturers Technicians	Lead researcher	6Feb to 17 Feb
Establishing the state of sewing machines and tables Discussing with HoD About the contribution of the dept. in the establishment of the lab	Technicians Lead researcher	Head Technician	6 Feb to 17 Feb
Establishing the skills lab space and its state	Lead researcher Lecturers HoD Technician	Lead researcher	13th Feb to 17th Feb
Refurbishing the skills lab (wiring, plumbing, burglar proofing and painting	Lead researcher Lecturers Technician students	Interior Design, fulltime lecturer	20th Feb to 28th Feb
Renovating and preparing the tables	Lead researcher Technician Students	Head Technician	1st Mar to 10th Mar
Space planning the skills lab	Lead researcher Lecturers Students	Interior Design fulltime lecturer	13th Mar to 24th Mar
Pilot projects to see the impact of the lab on competence acquisition by the students	Lead researcher Lecturers Technicians Students	Lead researcher	27Mar to 7th April

Appendix 7

Table 4.1: ***Recommendations from the supervisor on painting the skills lab***

RECOMENDATION	ACTIVITY	DONE	NOT DONE	REFLECTION
Brilliant white paint was too white for the walls in relation to the functionality and maintenance of the lab	To put another coating of soft white paint to reduce on the whiteness of the wall		Soft white coating not yet put, still mobilizing funds	
Dark brown in the Italian stucco paint effect was too dark the interior needed smoothening	Add on cream Italian stucco paint to reduce on the intensity of brown	Cream Italian stucco added and finished well		Intensity of brown was reduced and the wall looks brighter increasing on the light in the lab
Soft white paint on the shutters of the lockers will be difficult to maintain needed to be toned a bit	Create a slightly dark tone of soft white by adding either oyster or magnolia and put another coating on the shutters		Not yet done ,still mobilizing funds	
The Oyster paint on the stone finish wall was too dark for the interior; it needed smoothening.	Use rug rolling or sponging paint effect to apply a coating of a lighter paint to reduce on the intensity of oyster paint		Not yet done still mobilizing funds.	

Appendix 8

Table 4.2: ***Experiences of students as stakeholders during the implementation process***

Strengths	**Weaknesses**
Practical learning was enjoyable	Funding was slow as it was through cost sharing, the students had to present genuine explanations to parents to give them the money
Problem based learning enabled the students to experiment application of different paint effects	The department did not make any contribution in monetary terms, so the funding of the painting project was solely on the researcher and the students, this was a bit too much for the students
Project based learning enabled students to apply their knowledge of colour theory which they have learnt the previous semester	The decision of the colour scheme which was used, was democratically selected but some students missed that session ,so they were not satisfied with the colour selection
Practical learning enhanced the students' knowledge and skills acquisition in colour theory through application of colour schemes which are fit for indoor spaces	Time available for the project was not enough, it could not allow reflection on the work done
Practical learning enhanced knowledge and skills acquisition in painting.	Equipment available is not enough compared to the number of students. University should lay strategies for acquiring more machines
Experimental learning enabled students to gain competence and confidence in painting interior spaces	Department to plan to create more time for practical learning. This will enable the students to experience experimental learning which allows reflection thus enhancing skills acquisition
Group learning was interactive and enjoyable thus, motivating to the students	Collaboration with the world of work to be encouraged. This can lead to subsidized prices for materials needed in the time of project based learning

Appendix 9

Table 4.4: ***Personal reflection log***

RESPONSIBLE PERSONEL	ACTIVITY	EXPERIENCE	REFLECTION
Lead researcher Head of Dept. Instructors Technician	Allocation of the space for the skills lab	The key stakeholders were very positive with the idea of the skills lab and the space was easily identified and allocated. Other stakeholders who were not participants in the study were not convinced with the idea due to lack of space in the Dept. though they also needed the lab for their teaching processes	Further sensitization about practical and hands-on learning in VET had to be done in order to avoid conflict. On the other hand, change can be initiated by an individual and then appreciated afterwards
Lead researcher Technician	Repairing and servicing the sewing machines	Repairing and servicing the sewing machines was well done financed and the machines started facilitating practical leaning for the participants and other stakeholders in the department.	Practical learning motivated the learners and made the teaching and learning processes lively
Lead researcher Instructors DID 11 participants Technician	Refurbishing the space, painting, wiring, burglar proofing and plumbing	As part of the contribution from the Dept. the HOD authorized the technician to draft a letter to the estates Dept.to come and carry out repairs on plumbing system, burglar proofing, wiring and replacing the missing louvers. So far, the wiring is done, burglar is half way done, waiting for plumbing and replacement of missing louvers .Painting was done by DID 11 as project based learning, executing the advanced paint effects and	The environment in the skills lad is now conducive for learning. The painting of the lab by the participants responded to two objectives of the study. The establishment of the skills lab through beautifying the space. Then using the skills lab resources to enhance skills and knowledge

		practical project in real setting course units supervised by their instructors and the researcher	acquisition through DID 11 participants practically applying the advanced paint effects while painting the lab
Lead researcher Instructors DID 1 participants	Repairing and renovating the tables	Two tables have been fully repaired and renovated so far and the third one has been upholstered to enhance drafting and finishing touches. They have been beautified by application of paint effects by DID 1 participants. They are already in the lab and they are being used to facilitate learning.	The tables are now functional and beautiful. In the same way, the renovation and repairing of the tables responded to two objectives of the study .Establishment of the lab through beautifying the tables and making them functional. then utilizing the skills lab resources in skills and knowledge acquisition by participants applying the paint effects they have leant practically on the tables
Lead researcher Instructors participants	Pilot projects to evaluate the functionality of the lab	The pilot projects were being conducted during the establishment of the lab. The DID 11 participants did their practical project in real setting in the lab and the DID 1 participants did their introduction to paint effects practical while renovating the tables. The textile participants conducted their introduction to sewing machine operation and maintenance in the lab	The skills lab has really facilitated practical learning this semester. Through the practical learning of DID 11 participants, the environment of the lab has been enhanced. The teaching and learning processes were interesting and interactive hence

		under the course unit of fashion design. By end of the semester almost all of them had mastered machine operation. On the other hand, the interior design participants, in the course unit of soft furnishing also conducted introduction to sewing machine operation and maintenance in the lab. Even some of the products they exhibited were done using the sewing machines in the lab.	enhancing knowledge and skills acquisition. The same applies to the DID 1 and Textile participants. The presence of the lab enabled the instructors to introduce the participants to hands on learning. Participants experienced experimental learning thus enhancing knowledge and skills acquisition.

Appendix 10

Table 4.3: ***Experiences of instructors as stakeholders during the implementation process***

Strengths	**Weaknesses**
Group learning was a great experience among the students. It encouraged full participation, commitment and responsibility	There is need to strengthen collaboration with institutions and companies which the department can partner with in teaching and learning processes
Students' involvement in purchasing the materials and tools, motivated the suppliers to sell the products at subsidized prices. It was a crucial experience for the students	Department involvement in facilitating project based learning is needed. This will motivate the students to participate more in cost sharing.
Project based learning motivated students' participation in the learning processes. At least every student was involved in the project and handled a tool.	
Learning was inclusive and interactive thus, encouraging critical thinking, research and learning from each other.	
Experimental learning was motivating to the students, they shared their different ideas, tried them practically and reached agreement for the best alternative	
Group learning enhanced interpersonal relationship among students, commitment and responsibility.	

KYAMBOGO UNIVERSITY
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FACULTY OF VOCATIONAL STUDIES
DEPARTMENT OF ART & INDUSTRIAL DESIGN
MASTERS IN VOCATIONAL PEDAGOGY PROGRAMME

20th September, 2016

To; THE HEAD OF DEPARTMENT
ART AND INDUSTRIAL DESIGN

RE: INTRODUCTION OF NANSUBUGA LYDIA

This comes to introduce to you **NANSUBUGA Lydia** a student of Masters in Vocational Pedagogy (MVP) Programme at Kyambogo University. This student bears registration no. 15/U/14590/GMV/PE and in her final year. As a requirement for graduation, this student is expected to carry out Action Research through a collaborative process with World of Work.

Any support rendered to her is highly appreciated.

Looking forward to your usual support.

Yours Sincerely,

Chris Serwaniko
Project Coordinator, NORHED MVP Program
Masters in Vocational Pedagogy Program

Consent Form for study Participants

Date----------

Greetings:

I am a masters of vocational pedagogy (MVP) student at Kyambogo University.

I am pleased to invite you to participate in a research study on the establishment of a skills laboratory in the department of Art and Industrial Design as a learning resource.

You were specifically invited to participate in this study because I believe that as a stakeholder, you have, in one way or another, a part to play in enhancing teaching and learning of interior design,(soft furnishing in particular) in the department of Art and Industrial Design of Kyambogo University relevant to the learners.

Background Information of the study

The purpose of this study is to establish skills lab resources that will facilitate the practical learning of interior design students especially in soft furnishing and making, and to evaluate the impact of using skills lab resources on knowledge and skills acquisition in soft furnishing and making. By the end of the study seek to have;

1. Established a skills lab using the available resources with minimal funds
2. Utilize the skills lab resources in the practical learning in soft furnishing
3. Evaluate the impact of utilizing the skills lab resources on knowledge and skills acquisition in soft furnishing and making.

Procedure

If you agree to be in this study, you will be asked to:

- Participate in the preparation of the space in order to transform it into a skills lab.
- Participate in beautifying the space; that is painting the space, replacing the missing fittings like switches, sockets, rovours and strengthening the burglar proofing.
- Participate in the renovation of the tables and padding them so as to make them functional for soft furnishing and making.
- Participate in outsourcing a technician to repair the sewing machines
- Participate in space planning the lab
- Participate in sessions of utilizing the skills lab resources during the teaching and learning processes.
- Participate in Focus Group Discussions (FGD) to evaluate the impact of utilizing the skills lab resources on skills acquisition in soft furnishing.
- Fill in data collection questionnaires at the end of practical sessions
- Give permission to have your responses video- taped and transcribed.
- Give permission for photos taken during the study in which you appear, to be used in the report of the study.
- Take part in the follow- up of the interventions
- Meet with me , the researcher, to review your responses to conform that they were correctly interpreted

Nansubuga Lydia
MVP student, Cohort V
Kyambogo University
30th Nov 2016

TO:

.....

.....

Re: RESEARCH WORKSHOP

In partial fulfillment to the requirements for the master in Vocational Pedagogy, i must carry out an action research which will be a basis of my thesis writing. I have chosen the department of Art and Industrial Design as the basis for this research.

Following the situation analysis that was conducted at the Dept. and with the stakeholders in the world of work, some problems were highlighted. In an attempt to clarify on the many problems identified, a future workshop has been organized to clarify and identify the major pressing problems which might be affecting our work process and collectively lay measurable strategies to solve them.

This workshop is scheduled for Friday 2nd Dec 2016 at 5.00pm in the department. This is to request you to kindly attend.

Thank you for your cooperation.

Yours Truly,

.....

Nansubuga Lydia

Nature of Voluntary the study

Your participation in this study is voluntary. I will respect your contribution during the study and decision of whether to participate or not. There are minimal risks through participation in this study. Your responses to questions during the interviews will be kept confidential. Findings and recommendations from this study may positively impact the teaching and learning processes and thus, enhance knowledge and skills acquisition in soft furnishing and other course units in the department.

Confidentiality

All responses during the study will be kept confidential. I will not use your name, personal information, or your responses for any other purpose outside the study. Data will be kept strictly under the MVP program of Kyambogo University.

Statement of consent

I have read the above information and I feel I understand the study well enough to make a decision about my involvement. By signing below, I am agreeing to the terms of the study described above.

Name and phone number of participant_____

Designation of the participant_____

Date of consent _____ _____

Participant's Signature_____

Researcher's Signature_____

IMPLEMENTATION OF THE SKILLS LAB AS A TOOL TO ENHANCE SKILLS ACQUISTION FOR INTERIOR DESIGN STUDENTS

Student's questionnaire 1

Establishment of the lab data (To be filled by participants only during the establishment process)

1. What is your background in Paint Effects?

   (A) Started doing Paint Effects in 0-level (S1-S4)

   B. Started doing Paint Effects in A-level (S5-S6)

   C. Started doing Paint Effects at the university(Semester 1 of year 1)

2. How do you rank yourself in terms of competences in Painting?

   A. Excellent

   (B) Very Good

   C. Good

   D. Fairly Good

3. How do you rank yourself in terms of selection of suitable paint effects and colour schemes?

   A. Excellent

   B. Very Good

   (C) Good

   D. Fairly Good

4. How do you rank your skills in selection and purchasing of tools and materials for painting?

   A. Excellent

   (B) Very Good

   C. Good

   D. Fairly Good

5. How do rank the neatness of your painting the neatness of your painting work?

   A. Very Neat

   (B) Neat

   C. Fair

   D. Untidy

6. How comfortable are you with using painting tools

   (A) Very comfortable

   B. Comfortable

   C. Not comfortable

7. How do rate your interest and motivation for practical learning?

   (A) Very High

   B. High

   C. Medium

   D. Low

12. What would you point out as your negatives and weaknesses during the exercise?

Inadequate time, tiresome.

13. What are your general comments about the exercise?

Costly in terms of materials

Development through various skills / exposure.

IMPLEMENTATION OF THE SKILLS LAB AS A TOOL TO ENHANCE SKILLS ACQUISTION FOR INTERIOR DESIGN STUDENTS

Lecturer questionnaire

Please pick the most appropriate answer to the question asked

1. Basing to your teaching experience, what time should have been allocated to the practical learning exercise?
   A. 30 – 1hour
   B. 1hour – 2hours
   C. More than 2 hours
2. On the scale of 1 – 10 how do you score the participants' work?
   A. 1 – 3
   B. 4 – 5
   C. 6 – 8
   D. 9 – 10
3. How do rank the neatness of the participants work?
   A. Very Neat
   B. Neat
   C. Fair
   D. Untidy

B. 30 min – 1hour

C. 1hour – 2 hours

D. More than 2 hours

6. How do you describe the lecture in your own words?

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7. What can be done to make the lecture even more engaging and enjoyable?

	PARTICULARS	QUANTITY	TOTAL COST (SHS)
		4kg	
1.	Whiiting	4kg	
2.	Plasterprimer	2x20 ltrs	
3.	Matt	1x20 ltrs	
4.	Super gloss	2x1 ltrs	
5.	Thinner	1x1 ltr	
6.	Weatherguard	1x1 ltr	
7.	Emcoarse	2x30kgs	
8.	Patina	1x4 ltrs	
9.	Plastic float	4 pieces	
10.	Baby rollers	4 pieces	
11.	Steel float	3 pieces	
12.	Stones	15kgs	
13.	Roller Design	1 piece	
14.	Rollers	4pieces	
	ADDITIONAL MATERIALS.		
15.	Sandpaper	120x3m	
		80x3m	18,000/-
16.	Masking tape	6pieces	15,000
17.	Scrapers	Big 2pieces	
		Small 2pieces	16,000
18.	Roller sticks	4pieces	8,000
19.	Basins	2	9,500
20.	Brushes	1inch 4pieces	4,000
		2 inches 5pieces	8,000
21.	Polythen	20m	50,000
22.	Transport		3,500
	TOTAL		132,000

Coatings Ltd
Truly Perfect Paints.

Reciept

No.

TIN No. 1006890643

Head Office: Kireka-kinawataka Rd.
P. O. Box 5794, Kampala-Uganda
Tel: +256-414-695972 / +256-779-146627
Email: coralcoatings2013gmail.com

Date: 3rd/03/2017

RECEIVED with thanks from KYAMBOGO

The sum of Shillings ONE MILLION ONE HUNDRED THIRTY SIX THOUSAND SHILLINGS ONLY

Being payment for PAINT MATERIAL

Cash ✓ /Cheque No.

Shs. 1,136,000

CORAL COATINGS LIMITED
Balance
P. O. BOX 2676 KAMPALA
Tel: 0414 695972
Signed:
For: Coral Coating Limited

Coatings Ltd

Head Office:Kireka,
P.O Box 5794, Kampala, Uganda.
Tel: 0414695972,0779146627
Email: coralcoatings2013@gmail.com

DELIVERY NOTE

Ref: .....

M/S KYAMBOGO STUDENTS

DATE:	4th/3/2017
No.	987

Particulars	Quantity
WHIITING	4 KGS
PLASTER PRIMER	2X20 LTRS
MATT	1X20 LTRS
SUPER GLOSS	2X1 LTRS
THINNER	1X1 LTR
WEATHER GUARD	1X1 LTR
WEATHER GUARD	1X20 LTRS
EMCOARSE	2X30 KGS
STONES	15 KGS
PATINA	1X4 LTRS
TEXTURE	1X 30 KGS(NOT TAKEN)

Delivered by: Michael Masene

Signed by:

CORAL COATINGS LIMITED
P. O. BOX 2676 KAMPALA
TEL: 0414 695972

Received by: MUHUMUZA MARTIN CANARY

Just Perfe

... of Global Paints

RELIABLE PRO...

TEL: 0414 287631
Fax: 0414 287433
Mob: 0772 409887

DELIVERY NOTE

Plot No. 1097 Block No 232
Banda Kireka Off, Jinja Rd
P.O. Box 14367 Mengo - K'la

M/s Customer Name

No.	2790
Date:	08/03/17

PLEASE RECEIVE THE FOLLOWING GOODS:

QTY	Description	
4	Plastic Float	6000
4	Baby Roller	2000
4	Roller	4800
3	Steel	3000
1	Design	3000
		19800 Received
E&O.E		

The above goods are received in good order and condition

Authorised by Sanjay

Signature.....

Received by .....

Signature:.....

SKILLS ROOM

NUMBER	ITEM	QUANTITY	COST UNIT (SHS)	TOTAL COST (SHS)
1.				
1.	Plaster Primer	2 Jericans		220,000
2.	Masking Tape (yellow)	8	3,500	28,000
3.	Rollers	4	10,000	40,000
4.	Roller sticks	4	2,000	8,000
5.	Super gloss	5 Litres		60,000
6.	Thinner	1 Litre		10,000
7.	Weather guard	1 Litre		20,000
8.	Clear vanish	2 Litres		20,000
9.	Baby rollers	4		20,000
10.	Scrapers	8	3,000	24,000
11.	Filler / White Cement	4kg	2,000	8,000
12.	Sand paper	180 & 80 gauges		3,500
13.	Paste			200,000
14.	Textured Paints			300,000
15.	Plastic float			20,000
16.	Steel float			20,000
	TOTAL			1,001,000

Stone finish

SUGGESTED COLOURS.

Magnolia

Prime Rose

Offwhite

Oyster

Brilliant white.