

**STUDENT TEACHERS' COMPETENCE ACQUISITION  
THROUGH PRACTICAL INSTRUCTIONS IN HOME  
ECONOMICS AT PAIDHA PTC, ZOMBO DISTRICT**

**OMIRAMBE KILLION  
(B.ED KYU, DTE ITEK, G.III ITEK)  
REG NO: 20/U/GMVP/14253/PD**

**A DISSERTATION SUBMITTED TO THE DIRECTORATE OF  
RESEARCH AND GRADUATE TRAINING IN PARTIAL  
FULFILLMENT OF THE REQUIREMENTS FOR THE  
AWARD OF THE MASTER DEGREE IN  
VOCATIONAL PEDAGOGY OF  
KYAMBOGO UNIVERSITY**

**MAY, 2024**

## **DECLARATION**

I, **OMIRAMBE KILLION**, declare that the work presented in this dissertation is my original work and has not been submitted to any University or Institution of Higher Learning for any academic award. All works from other authors have been fully and properly acknowledged and cited.

Signed:.....

Date:.....

## APPROVAL

This is to certify that this dissertation titled: *“Student teachers’ competence acquisition through practical instructions in Home Economics at Paidha PTC, Zombo district”* has been carried out under our supervision and is now ready for submission to the Examinations Board of Kyambogo University.

Signature..... Date.....

**Dr. Wycliff Edwin Tusiime (PhD)**

(Principal Supervisor)

Signature..... Date.....

**Dr. Grace Muhoozi (PhD)**

(Second Supervisor)

## **ACKNOWLEDGEMENT**

Special thanks to the Almighty God for guiding and giving me the wisdom to accomplish this dissertation.

I wish to acknowledge and appreciate the assistance of all those who willingly contributed to the completion of this dissertation.

Special thanks to my Principal Supervisor, Dr. Wycliff Edwin Tusiime and Second Supervisor, Dr. Grace Muhoozi who have been patient and guided me during the entire research process.

## TABLE OF CONTENTS

<b>DECLARATION</b> .....	i
<b>APPROVAL</b> .....	ii
<b>ACKNOWLEDGEMENT</b> .....	iii
<b>LIST OF TABLES</b> .....	vii
<b>LIST OF FIGURES</b> .....	viii
<b>LIST OF ACRONYMS</b> .....	ix
<b>ABSTRACT</b> .....	x
<b>CHAPTER ONE</b> .....	1
<b>INTRODUCTION</b> .....	1
1.0 Overview .....	1
1.1 Background to the study.....	1
1.1.1 Vocational education, and training.....	1
1.1.2 Personal background .....	2
1.1.3 Statement of motivation .....	3
1.2 Situation analysis.....	3
1.2.1 Work processes analysis.....	3
1.2.2 Future workshop (FW) .....	4
1.2.3 The reality or implementation phase.....	11
1.3 Problem statement .....	13
1.4 Purpose of the study .....	14
1.5 Objectives of the study .....	14
1.5.2 Research questions .....	14
1.6 Justification of the study .....	14
1.7 Significance of the study .....	15
1.8 Scope of the study .....	15
1.8.1 Geographical scope .....	15

1.8.2 Content scope .....	15
1.8.3 Time scope .....	15
1.9 Definition of terms .....	15
<b>CHAPTER TWO.....</b>	<b>17</b>
<b>LITERATURE REVIEW.....</b>	<b>17</b>
2.0 Introduction .....	17
2.1 Theoretical framework .....	17
2.2 Conceptual background.....	17
2.3 Conceptual framework of competence.....	18
2.4 Classroom setting as a means for practical .....	20
2.5 Resources and materials for practical.....	21
2.6 Assessment of competence acquisition .....	22
2.7 Influence for extra-time on timetable.....	24
<b>CHAPTER THREE .....</b>	<b>26</b>
<b>METHODOLOGY.....</b>	<b>26</b>
3.0 Introduction .....	26
3.1 Action research processes .....	26
3.2 Study population .....	30
3.3 Quality control.....	30
3.4 Ethical consideration .....	31
3.5 Study limitation .....	31
3.6 Reliability and validity .....	31
3.7 Dissemination.....	31
<b>CHAPTER FOUR.....</b>	<b>33</b>
<b>PRESENTATIONS AND DISCUSSION OF RESULTS .....</b>	<b>33</b>
4.0 Introduction .....	33
4.1 Classroom setting as a means for practical .....	33

4.2 Use of resources and materials for practical .....	37
4.3 Assessment of competency acquisition.....	39
4.3.1 Starch making activity.....	47
4.3.2 Chapati making activity .....	52
4.4 Influence for more extra-time on timetable.....	55
<b>CHAPTER FIVE.....</b>	<b>57</b>
<b>SUMMARY, CONCLUSION AND RECOMMENDATIONS.....</b>	<b>57</b>
5.0 Introduction .....	57
5.2 Summary .....	57
5.3 Conclusion.....	58
5.4 Reccommendations .....	59
5.5 Areas for further study .....	59
<b>REFERENCES .....</b>	<b>60</b>
<b>APPENDICES .....</b>	<b>64</b>
I: Interview guide for student teachers.....	64
II: Work plan for the research and budget.....	77
III: Table showing the budget .....	78
IV: Introductory letter .....	79
V: Attendance sheet for future workshop .....	80
VI: Acceptance letter.....	81
VII: Introductory letter .....	82

## LIST OF TABLES

Table 1: Participants ideas arranged according to their priorities.....	7
Table 2: Pairwise results tabulation .....	11
Table 3: Work plan for implementation.....	12
Table 4: A sample scoring rubric for baking cake.....	24
Table 5: Shows a choice for methods, tools and analysis.....	28
Table 6: Rubric guides on assessments for cake making.....	43
Table 7: Assessed rubric results on starch making .....	49
Table 8: Results of an assessed rubric based on chapatti making.....	52
Table 9: Describes summary of the study.....	57

## LIST OF FIGURES

Figure 1: Participants in an organized workshop room .....	5
Figure 2: Participants seeking guidance .....	6
Figure 3: Responses generated in the fantasy phase .....	8
Figure 4: The researcher with a group leader arranging challenges .....	10
Figure 5: The final results of pairwise or ranking.....	10
Figure 6: Responses from participants in the reality phase .....	12
Figure 7: Different stages of competence acquisitions .....	19
Figure 8: Action Research Cyclic formation (Morales, 2016) .....	26
Figure 9: Morales (2016) Illustration of action research works .....	27
Figure 10: Participants washing their hands at Paidah PTC 2022 .....	34
Figure 11: IPS-Home Economics class creaming cake .....	35
Figure 13: Paidah PTC IPS 2022 explaining what she learnt .....	36
Figure 14: Researcher and participants with instructional materials .....	38
Figure 15: Researcher and participants on social constructivism .....	41
Figure 16: Cake made being evaluated and assessed.....	42
Figure 17: shows the start of making starch processes .....	48
Figure 18: Other products glazed using eggs; cassava & egg roll.....	55

## LIST OF ACRONYMS

<b>FIG:</b>	Figure
<b>H.E:</b>	Home Economics
<b>IMS:</b>	Instructional Management Systems
<b>IPS:</b>	Integrated Production Skills
<b>M. O. E&amp;S:</b>	Ministry of Education and Sports
<b>MVP:</b>	Master of Vocational Pedagogy
<b>PTC:</b>	Primary Teachers' College
<b>STD:</b>	Student Teachers
<b>TVET:</b>	Technical Vocational Education and Training
<b>UNESCO:</b>	United Nations Education Scientific and Cultural Organization
<b>VET:</b>	Vocational Education Training
<b>VP:</b>	Vocational Pedagogy

## **ABSTRACT**

This study investigated student teachers' competence acquisition through practical instructions in teaching and learning processes. It was intended to improve their competence in cookery, baking and sewing skills in order to teach primary school children on some productive practical skills. The study was carried out in a classroom setting to find out how practical instructions develop learners competence with support of resources and materials, and the assessment of the development of competence acquisition in student teachers. The study employed an Action Research Approach with qualitative research methods such as reflecting, planning and acting observing. Observation method was used to assess practical instructions while reflecting on a cyclic format until learners acquired intended competencies. Other methods included; demonstration, hands-on, experimentation, display, project work, collaboration and group work. Tools included interview guide, observation checklist and camera to record activities. Feedback was based on what was being studied and planned in relation to the study objectives. The findings demonstrated that practical instructions in Home Economics teaching and learning processes laid a better ground for competence acquisition, enabled participant's experiential learning acquired hands-on skills and experience an authentic learning linking theories to practices. The findings further revealed that, conducting effective practical instructions geared towards competence acquisitions, the college administration needed to allocate Home Economics practical instructions on the timetable, provide a workshop or room, and purchase some tools and equipment such as kitchen scales and other tools to enable practicing competence.

# **CHAPTER ONE**

## **INTRODUCTION**

### **1.0 Overview**

This chapter presents the background to the study through a focus on: Vocational Education and Training and personal background. The chapter further highlights the statement of motivation, situation analysis, problem statement, the purpose of the study, objectives of the study, research questions, justification, significance of the study, scope of the study, and definition of terms.

### **1.1 Background to the study**

#### **1.1.1 Vocational education, and training**

Silin & Belonozhko (2021) explained that TVET aims to provide skills to a person related to his or her profession in order for that person get a job and provide a livelihood. It offers a path that imparts the skills, and knowledge needed to work in a given occupation, coordinated with the requirements of the labor market, and this is an integral part of the education system.

Bosch & Charest (2009) argued that many highly industrialized economies have a strong remark about the importance of a skilled workforce as a key response to the modest changes fostered by economic globalization. This has drawn its challenges to attracting people into the vocational training system while continuing to train workers already in employment. Vocational Education and Training is seen globally as an old institution and not easily adapted to the realities of the 21<sup>st</sup> Century.

Kopsen (2020) explained that the social standing of Vocational Education is often apparent below average, compared with other education sectors and more so in some countries with both developed and emerging economies. Some of these consequences are perceived to be results of how governments, industries, enterprises and communities view and sponsor vocational education that constitute its purposes, form, and its administration. These perspectives also shape how both young and older people elected to engage with preferred, and non-preferred perceived results, and participate in

vocational education provisions. Its standing also shapes how parents advise about it and empowers willingness to engage with its provisions.

Katja and Anne (2021) argued that Local Vocational Education and Training (LVET) within firms and schools were critical to generate the specific skills required by employers and industries. The choices you make are specifically relevant for the maintenance and enhancement of economically appreciated skills within the communities. This, however, varies according to the space in terms of its local training and career opportunities.

According to Okumu and Bbadle (2019), TVET policy in Uganda supported the creation of needed employable skills and competencies relevant to the national transformational labor market as opposed to just acquisitions of education certificates, targeting all Ugandans in need of skills for employment. The TVET policy emphasizes a flexible workplace-oriented (practical) delivery with the theoretical knowledge acquisition under the current General Education system and it shifts to TVET management from the Government led to public-private partnerships delivery.

Haapaniemi (2022) described that Home Economics involves Academic Education and Research, Education in the schools, everyday living and social practice that make the dimension intertwined and constituted a multifaceted entirety. However, Paidha PTC included Home Economics (in Intergrated Production Skills) as a Vocational subject that teaches student teachers practical skills and knowledge in food and nutrition, sewing clothes, health and hygiene practices, cooking, catering services through practical instructions and direct contact (hands-on experiences). A practical education that teaches skills-based learning rather than ideas and theories. These trainings are necessary for the functioning of society and enable the students to get prepared for hands-on experience in skill-based careers.

### **1.1.2 Personal background**

I am a senior tutor who has been working in Paidha Primary Teachers' college, Zombo District (Uganda) teaching and enhancing the learning of Home Economics, a component of Integrated Production Skills (IPS) as included in the curriculum of Primary Teachers' Colleges. I feel motivated to

explore more theories and to acquire adequate instruction practices in equipping student teachers with the necessary competencies in the field. Upon this background, I was inspired to venture into understanding how adequate instruction practices could improve competence acquisition of student teachers in Home Economics.

### **1.1.3 Statement of motivation**

I am a student of MVP (Cohort 10) at Kyambogo University. The training on the module “Teaching and learning processes in Vocational Pedagogy (VP 611)” and “Vocational Didactics (VP 612)” enabled me to learn work-based learning and vocational didactics. I learned experiential and situational learning in VET where learners develop knowledge through observation methods, reflection, and apply the knowledge and concepts to practice actively. The experiences through such course at the MVP programme motivated me as a teacher educator in the field of home economics to conduct research on competence acquisition in vocational area of home economics pedagogy in order to deepen my understanding in the field.

## **1.2 Situation analysis**

### **1.2.1 Work processes analysis**

White (2021) described work processes analysis as a procedure and steps which one follows systematically to perform a given activity. A description of the ways work is done in an organization to enhance the understanding and redesigning of the workflows, is simply a tool to maintain and improve the business processes. It involves identifying the goals, and processes to be analyzed, collecting information (knowledge and skills), mapping out the processes for example the steps or stages needed and identifying potential for the business process improvement.

In this study, the work processes analysis was conducted in the college in an effort to carry out some practical instructions in one of the competency-based learning. A lesson was planned to teach for example, sewing a collar and patch work fabrics in Garment Construction. The researcher discovered a number of challenges arising from lack of time and instructional materials to facilitate

teaching and learning processes in the subject lessons. Details of such challenges were Identified and noted through the future workshop.

### **1.2.2 Future workshop (FW)**

Harrison (2020) observed that a future workshop was a participatory problem-solving method that provided a way for people to express their ideas, discuss future objectives and address ways to pursue a certain purpose (Robert Junk et al, 1970).

This method was initiated to clearly identify the challenges in the teaching and learning of Home Economics. The stakeholders were engaged in an in-depth knowledge and information sharing activity in practice and interventions to improve the future were established.

Vidal et al ( 2006) explained that future workshop has the following phases: preparation phase, critical phase, fantasy phase and reality/implementation phase. Each phase has its own items discussed and lead to other processes as explained below;

**Preparatory phase** is a beginning point where one is acquainted with methods, topic of basic discussion, conditions for participants in establishing the workshop and giving out question to participants. The discussion question in the Future workshop (FW) was:

*“What affects the acquisition of competencies in Home Economics during the teaching and learning processes at Paidha PTC?”*

**The critique phase** concerns itself in actual conditions relating to key problems. In this phase, participants begin to critically examine the question and identify ideas that constitute challenges affecting acquisition of competencies in teaching and learning of Home Economics.

**Fantasy or utopia phase:** This is where participants generate ideal situations of the identified challenges or focusing on what a desirable future the participants wish to be.

**Implementation phase** links to interventions practice in relation to dream requirements and projects targeting the realistic conditions with capacity to change the situations. This is done with the help of action plan to realize the project. However, this method is done by collaborating with several participants.

**The preparation phase:** In this phase, the resource room was cleaned and seats for participants were arranged for the activity. I ensured that the room was well lit and provided drinking water and other refreshments. Participants were informed on workshop processes, guiding rules and regulations according to its different phases in place. All the activities (presentations) projected on the screen. The program scheduled in place, was read to the participants at the start of the workshop and it was followed.

During the future workshop, participants embraced the core values such as democracy, transparency, equity among others, a sign that they own their views in respect to situation analysis and ensured to generate more challenging issues in workplace learning in relationship to the discussion question.



**Figure 1: Participants in an organized workshop room**

## **Critique phase**

This was the real starting point of the workshop where participants began to think of the responses inline of the critique question above. The method used was brainstorming and this enabled the participants to feel free while expressing their views. Several challenges were raised.



**Figure 2: Participants seeking guidance**

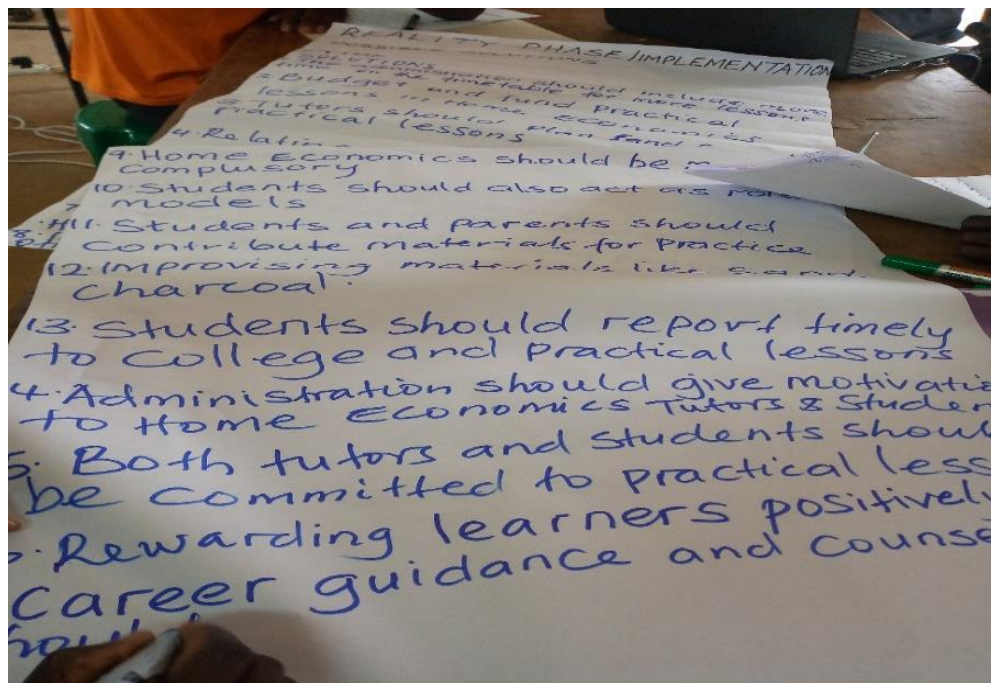
The challenges were identified and grouped as short term, mid-short term and long term as in the table below:

**Table 1: Participants ideas arranged according to their priorities**

Short Term	Mid-Short Term	Long Term
<ul style="list-style-type: none"> <li>• Lack of career guidance in Home Economics.</li> <li>• Negative attitudes of the learners in Home Economics.</li> <li>• Most lessons lack practical instructions.</li> <li>• Discouragement made by peers about the subject.</li> <li>• Absenteeism from lessons by learners.</li> <li>• Inadequate time, limited financing, and lack of a room for practical instructions.</li> <li>• Negative attitude about entrepreneurship in the subject.</li> <li>• It requires a lot of time for preparation.</li> </ul>	<ul style="list-style-type: none"> <li>• Lack of concentration in the studies by learners.</li> <li>• Lack of self-esteem to learn.</li> <li>• Learners lack consultation skills.</li> <li>• Limited time to practice skills.</li> <li>• It is gender bias-meant for females.</li> <li>• Inadequate support from college administration</li> <li>• Lack of cooperation from other staff members during practical instructions.</li> <li>• Limited role models of Home Economics practitioners in the community.</li> <li>• Lack of support from stakeholders such as parents, etc.</li> <li>• It is time-consuming for practical instructions.</li> </ul>	<ul style="list-style-type: none"> <li>• It is expensive to buy materials.</li> <li>• Limited knowledge of the tutor to handle all integrated Production skills.</li> <li>• Understaffing of IPS Tutors in the college.</li> <li>• Limited time given for IPS on timetable.</li> <li>• Lack of Home Economics background from “O” LEVEL.</li> <li>• Lack of laboratory in the college.</li> <li>• An elective subject in the PTC curr.&amp; thus given less time on timetable.</li> <li>• Equipment &amp;tools need funding.</li> <li>• Lack of canteen to enhance the practical skills and production from the cookery.</li> <li>• Purchase of tools &amp; equipment for an individual is expensive.</li> <li>• Crowded subjects in the curr. of PTC does not give chance for practical lessons.</li> <li>• Education policy support theory lessons.</li> <li>• Lack of IPS facilities/stores for maintaining tools &amp; equipment.</li> </ul>

## Fantasy phase

The participants at this session generated creative ideas (responses), in an attempt to overcome the challenges of the critique phase with some desirable future imaginations while considering turning the bad existing situation into a good ones as below;



**Figure 3: Responses generated in the fantasy phase**

- There should be enough time allocated for practical lessons.
- Need for enough money to buy materials, tools and equipment for practical lessons.
- More tutors be deployed to handle Home Economics.
- Need for a Home Economics laboratory or workshop for practical instructions.
- A canteen be put in place to facilitate the sales of products.
- Sewing equipment be bought to promote Garment constructions and designs.
- Home Economics be made compulsory at Primary Teachers' college.
- Students should act as role models to other communities.
- Students and parents should contribute materials, tools and equipment for practice.

- Improvisation of sands, charcoals, stones, etc be promoted to support practical lessons.
- Students to report early enough after each holiday to allow practical lessons to be carried out.
- College administration should give motivation to Home Economics tutors and students.
- Both tutors and students be committed to practical lessons.
- Rewards be given positively to the best-performing students.
- Career guidance and counseling be provided to learners.
- There should be a good tutor-student relationship.
- Both the tutor and the students should benefit from the products made.
- Department of Home Economics should write a project proposal to solicit funding for practical activities from Government and donor agencies.
- College administration should supervise practical activities.
- The college administration should support the work plan and budget of Home Economics to empower practical lessons.
- Government should lobby Donor agencies for tools and equipment in support of Home Economics.

### **Pairwise or Ranking**

Challenges were compared in a pairwise matrix in order to come up with the most constraining challenge which is communicated as a priority that informs decisions (Abel, 2020) . This was done with the help of core values of democracy, transparency, equity among others as witnessed below:



Figure 4: The researcher with a group leader arranging challenges



Figure 5: The final results of pairwise or ranking

The priority issue that was identified and the one to research on was “no.2” which had a score of 10 as shown in the matrix shown in Table 2.

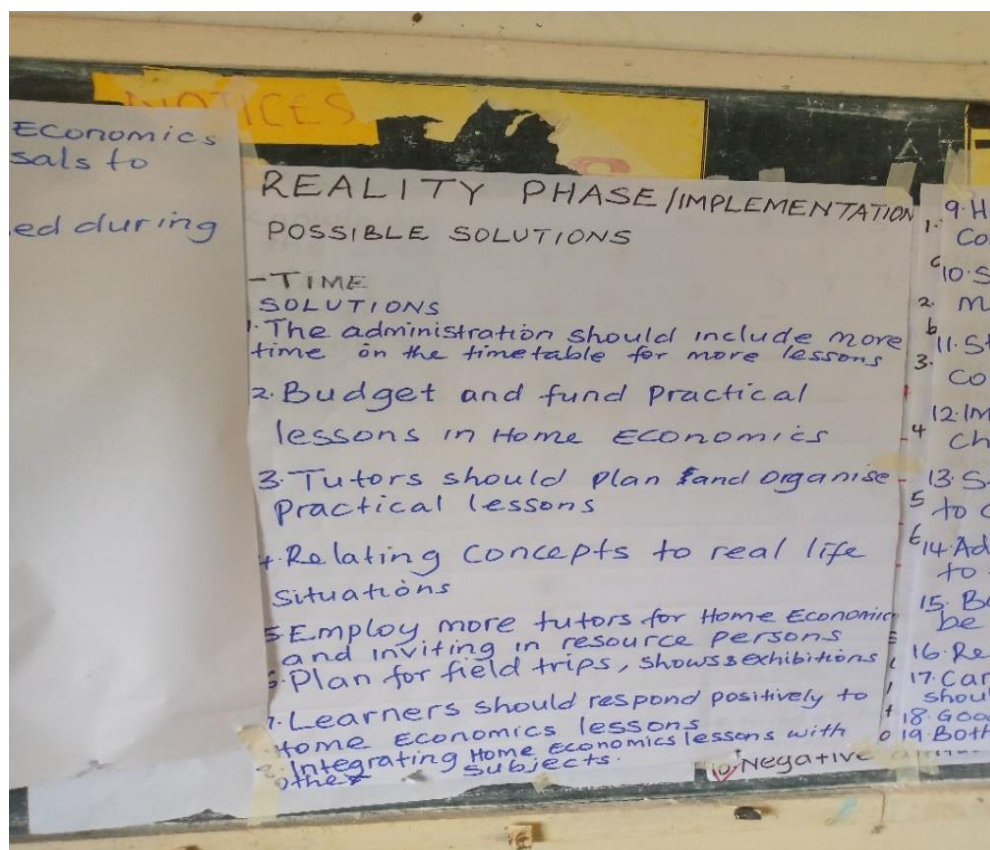
**Table 2: Pairwise results tabulation**

	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>	<b>7</b>	<b>8</b>	<b>9</b>	<b>Score</b>
1	----	2	3	1	1	1	1	8	1	5
2	2	2	2	2	2	2	2	2	2	10
3	----	----	----	4	3	6	3	8	3	4
4	----	----	----	----	4	4	4	8	4	5
5	---	----	----	----	----	5	7	5	5	3
6	---	----	----	----	----	----	6	8	6	3
7	---	----	----	----	----	----	----	8	7	2
8	---	----	----	----	----	----	----	----	8	6
9	---	----	----	----	----	----	----	---	9	1

Table 2 presents the outcome from pairwise ranking by the participants upon which the conclusion on the issue of concern that was addressed in this study was derived. The process was democratic and outcome 10 from the column “Total” spelt it that “limited financing, inadequate time, and lack of a room affects practical instructions in acquiring competencies in the teaching and learning processes of Home Economics”.

### **1.2.3 The reality or implementation phase**

This was the last phase of the future workshop in which participants came up with the following solutions as an Action Plan viable for implementation. Allocating more time on timetable, financing practical instructions, allocating Home Economics a laboratory room, and purchase of some tools and equipment/ materials for practical instructions.



**Figure 6: Responses from participants in the reality phase**

**Table 3: Work plan for implementation**

No.	Item	Deputy/DOS	Std Teachers	IPS Tutors	Time
1	More time for practicals on timetable.	Needed	-----	Needed	Immediate
2	Financing practical instructions	Coll. Admin & parents	-----	-----	Immediate
3	Allocating HEC Lab. Room.	Coll. Admin. Gave resource room.	-----	-----	As instructed
4	Purchase tools, and equipment, materials for practical instructions.	Govt/Coll, Admin	----	----	Ongoing process.

### **1.3 Problem statement**

Preparation to equip teachers could be a problem because training in VET Institutions and Schools require enormous financial resources to purchase facilities and materials. There is also psychological nature where Colonial masters in their periods portrayed VET Institutions as a sub-standard type training which could only exposed one to the “lesser beings” or” less educated people,” and that made it negatively in perspectives (Mse, 2015) for one to pick interest in acquiring the competence.

Paidha Primary Teachers’ College trains student teachers in Home Economics to develop knowledge and skills that are applicable for the future opportunities. In the course of training, learners learn to acquire various competencies basing on the different areas of Home Economics: food and nutrition, garment construction, home management, textile science, and others for both educational purpose and survivals. Home Economics as a vocational subject, requires one to be well knowledgeable in all the courses so that they are able to facilitate in various competencies, and serve as trainers with up-to-date skills and competencies.

However, according to the future workshop conducted and with the help of the feedback from the critique phase, it was found that Paidha PTC had some challenges such as limited financing in home economics subject, lack of workshop room, and inadequate time for practical instructions on timetable. This has impacted so much on the teaching and learning process of many teachers who graduated from the college could not competently train primary school children in the said skills (Moses, 2019) since many teachers could have abandon these skills targeting academic excellence while others might think it is preserved for those less educated yet these could help learners with life skills that sustain them. This was evident from the fact that some of the learners who dropped-out of school in most cases were unable to apply the knowledge and skills in bakery, cookery, sewing among others in doing something to earn income for themselves and their households. This indicates that there is a gap in competence acquisition which is supposed to link the college and community but it is also a sign of unskilled manpower for any employable demands.

#### **1.4 Purpose of the study**

The purpose of the study was to improve student teachers' competence acquisition through practical instructions in teaching and learning in Home Economics at Paidha PTC, Zombo District-Uganda.

#### **1.5 Objectives of the study**

- i. To use classroom setting as a means for practical instructions in developing competence acquisition in the processes of teaching and learning home economics lessons.
- ii. To identify available instructional materials for practical instructions during the teaching and learning processes of home economics.
- iii. To assess the development of competence acquisition in the processes of teaching and learning of home economics lessons.
- iv. To influence for extra-time on the timetable outside the college timetable for further development of competencies in home economics

#### **1.5.2 Research questions**

- i. How does a classroom setting help in practical instructions while developing competence acquisition in the teaching and learning processes of home economics lessons?
- ii. What are some of the resources and materials necessary for practical instructions during teaching and learning processes of home economics?
- iii. What are some of the indicators of the impact of development of competence acquisitions in the processes of teaching and learning home economics lessons?
- iv. What can be done to allocate extra-time on the timetable outside the college timetable for further development of competencies in home economics?

#### **1.6 Justification of the study**

The study is addressing the need for competence acquisition in vocational skills such as bakery, cooking, sewing among others to add values to their profession enhancing knowledge and skills when teaching primary school children.

It is an awakening call of information to equip the student teachers with the required skills and knowledge during the study as their employer would need that in the labor market.

### **1.7 Significance of the study**

This study will make the student teacher competent and effective, demonstrate content mastery of the subject, spend time and resources on learning in producing learning outcomes that are effective and efficient. The learners will also experience more equitable learning environment, since there is more room for authentic learning and assessment, and students will have autonomy over their learning.

### **1.8 Scope of the study**

#### **1.8.1 Geographical scope**

This study was carried out at Paidha Primary Teachers' College, Zombo District, West Nile, Uganda.

#### **1.8.2 Content scope**

This study focused on enhancing and improving competence acquisition of student teachers as a means of solving challenges of inadequate time for practical instructions in the teaching and learning processes of home economics.

#### **1.8.3 Time scope**

This Action Research process ran from September to mid-October, 2022. This was the proposed duration planned to conduct the research according to researcher MVP study schedule.

### **1.9 Definition of terms**

**Activities:** The condition in which competence acquisition was happening or being practiced.

**Assessment:** This means getting the information about students learning, and evaluating their competencies.

**Collaboration:** Act of working with someone to produce something.

**Competence acquisition:** Actions that attempted to acquire or implement in a way that serves productive purposes in the firm.

**Group:** Several individuals or things that were located, gathered, or classified together, a set of elements occupying a column in the periodic table having similar properties.

**Home Economics:** Refers to Home Management, Healthy Eating, Home and Family Life, and Independent Living

**Manifest:** Clear or obvious to the eye, and mind, and show appearance and demonstration of action.

**Material:** The matter (ingredients) from which a product is made such as baking flour, sugar, margarine, among other to make products like cakes.

**Participatory learning:** An educational strategy that provides students and researcher jointly on hands-on in action learning with the opportunity to put theory into practice in real-life experiences.

**Practical instructions:** Training through action or direct contact with a patron or model.

**Resource or Supply or Reserve:** A stock or supply of money, materials, staff, and other assets that can be drawn by a person or organization to function effectively.

## **CHAPTER TWO**

### **LITERATURE REVIEW**

#### **2.0 Introduction**

This chapter presents the theoretical framework underlying the study, conceptual background, conceptual framework of competencies acquisition, and review of related literature related to the specific objectives of the study which linked more to other researchers and their findings about student teachers' competencies acquisition by practical instructions in Home Economics Vocational Education while conducting teaching and learning processes.

#### **2.1 Theoretical framework**

Akella (2010) experiential learning that explains that concrete experience, reflective observation, active experimentation and abstract conceptualization are critical for learners to reflect on their theoretical knowledge as they get actively engaged in practical instructions to acquire the needed competence. This theory is of importance to expose learners in real life situation through hands-on in an authentic learning environment to practice intended competence.

This has been chosen to connect the researcher to the existing knowledge guided by relevant theory in giving senses of the overall structures of a research paper explaining the subject matter and its contents.

Munna (2021) a constructivist explained that active engagement and reflection are critical in learning processes to acquire the needed competencies through hands-on during practical instructions' activity. This means that for one to acquire knowledge and skills, he or she must be exposed to an organized practical instruction enabling him or her to actively learn the intended competencies as they engage in knowledge construction discussions while reflecting critically on the knowledge, skills and incorporating the new ideas with the prior knowledge.

#### **2.2 Conceptual background**

The sole purpose of this conceptual framework Identify and clarify what is known, cared for, and valued as central aspects in the study like learning and

enhancing competencies from practical instructions while connecting them with the various other aspects influencing the study.

Home Economics a Vocational Education involves practice-based and effective method of causing a change in an individual acquiring competence. The students of Home Economics with time learn to experiment and practice many skills and knowledge in food and nutrition, textile science, fabric decorations, home management, principal of economy, backyard farming among others hence improving their economic status of the family and the community at large. It is believed that these hands-on training as teachers of Home Economics will support the needed learners they teach towards acquiring knowledge and skills to use available resources.

### **2.3 Conceptual framework of competence**

Dhanapanno (2022) outlined the 21<sup>st</sup> Century skills to support the acquisition of competencies which included critical thinking, problem solving, reasoning, analysis, interpretations, synthesizing information, innovation, research skills and practices, creativities, self-direction, personal expression, self-discipline, adaptability, initiative, perseverance, curiosity and imagination.

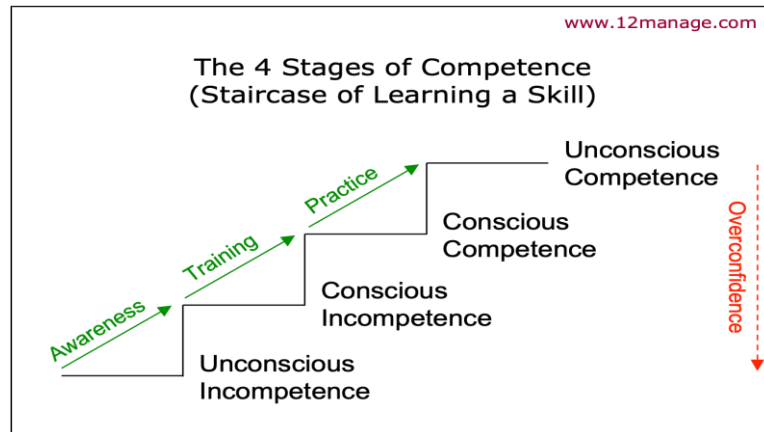
Rattawati (2022) argued that the 21<sup>st</sup> Century skills all involve students doing something to signify the “how” to do something particularly on the skills needed to navigate a situation. For a teacher, these ideas represent ”why” we teach students using certain strategies. And for the curriculum, it is the application of ”what” we teach. However, many of our student teachers who graduate yearly from the College lacked skills and knowledge in cookery, bakery, sewing of fabrics among others.

In order for student teacher develop the skills that make them fruitful in life beyond school, they need to have a deep understanding of what, how, and why. They must demonstrate understanding and mastery of important skills that better prepare them for life.

Their competency works should provide a reference to a working definition of high-quality competence-based education which could help to guide educators and educational leaders with evidences where students develop and demonstrate mastery of explicit competencies, measureable learning

objectives that empower them with skills and knowledge such as grilling of meat, bakery products like cakes, bread among others, cooking food by methods such as steaming, boiling, frying and so on.

However, this should bridge the ideas of academic content, skills, and competence together with 21<sup>st</sup> Century skills, and workplace competence to enhance a school system's ability creating successful students to succeed.



**Figure 7: Different stages of competence acquisitions**

Shtaltovna (2021) explains the 4 stages of competence above as people learn to acquire competence.

Ghasemi (2021) argued that people learn competencies in 4 stages as introduced by (Shtaltovna, 2021) as shown in Figure 6 above:

These stages of competence acquisition describe the different levels of learners acquiring competencies in learning processes. Some individual learners show that they do not understand how to do something which is referred to as unconscious incompetence. Others recognize their deficit as well as the value of a new skill and knowledge also known as conscious incompetence. Some learners may reach a level of understanding how to do things while demonstrating knowledge and skills, exhibiting concentration in various steps and stages which is referred to as conscious competence. The last group of individual learners are those, who with abundant practices, can perform demonstration of knowledge and skills easily while executing another task at hand described as unconscious competence.

## **2.4 Classroom setting as a means for practical**

Speelman (2014) argued that though most of our traditional classroom pays insufficient attention to all resources that support learning, learners should be made to practice what they have learnt while using the efficient knowledge and skills to foster their performances.

Malmstron (2013) explained that competence acquisition was an action that attempts towards acquiring and implementing individual abilities to handle situations in a way that serves a productive purpose in the firm, schools, colleges, institutions, training, and workplaces. It means the ability to do something well, where one is capable of performing a task or job effectively. This includes the knowledge and skills needed to solve problems or challenges.

Devonshire (2009) viewed competence as a series of desirable attributes including knowledge of appropriate sorts, skills, and abilities such as problem-solving, analysis, communication, pattern recognition, and attitudes of appropriate kinds. In short, it was the ability to do “something” or “the ability for a task”.

Ravi (2018) said competence remains the ability to acquire practical knowledge in new conditions based on the abilities, and experiences a person had previously. It is the process of making skills characterized by applying them in particular situations. Home Economics gives learners valuable insight into areas of food, nutrition, health, family, finance, and sustainable management of resources. It delivers vital skills that enable learners to lead effective lifelong health behaviors. This stress is placed on active learning through problem-solving and decision-making. Furthermore, the learners develop practical abilities through hands-on experiences, both individually and collaboratively. This pedagogy puts learning by doing through the development of a range of practical skills which meet the different needs and abilities of learners.

According to Janhonen (2018), scholars learn important life skills in Home Economics which creates practical outcomes applied outside the school. It is a vocational education that encourages experimental learning theories which

focus on learning by doing, and through experiences one can retain information and recall facts (Kolb,1984). Other influencers included John Dewey, Kurt Lewin, and Jean Piaget who promoted experiential learning theory. They emphasized in inquiry and integration of real world activities while focusing on the needs of an organism.. Learners learn to build upon previous experiences and understand how to construct a new understanding with the help of a collaborative learning processes with those whose proficiency level is higher than their own (Fairbanks, 2021).

According to Nakelet (2018), the ways that influence competence acquisition include field attachment such as an internship in manufacturing industry, industrial training, service learning (learning on-job) workplace learning (work-based learning, work integrated learning. All these have importances such as building students' competencies, joining real-life experiential learning into training curricula. They enable students to acquire interdisciplinary competencies and positively influence real development processes. Home Economics lessons deliver energetic skills that enable learners to lead effective lifelong health behaviors. This stress is placed on active learning (problem-solving and decision-making) through which learners develop practical abilities through hands-on experiences, both individually and collaboratively. This pedagogy puts learning by doing through the development of a range of practical skills to meet the different needs and abilities.

## **2.5 Resources and materials for practical**

Collins et al (2007) explained that resource are the materials available in our environment which are technologically accessible, economically feasible, and culturally sustainable and help us to satisfy our needs and wants when making production. The examples include money, , learners' textbooks, hands-out, charts, journals, magazines, newspapers, tools and equipment (e.g fridges, ovens, stoves), and charcoal, among others. Materials, on the other hand are substances or mixtures that constitute an object ( cakes, bread, biscuits, omelet), and that can be a living or non-living matter which can be classified based on the physical and chemical properties or their biological functions. Examples of materials includes baking flour, eggs, wheat, meat, chicken, milk, fruits, water, salts, vinegar, chocolate, spices, wine, baking powder, margarine,

sugar, among others. The instructional materials enable teaching and learning processes.

Muraina (2015) explained that instructional materials are tools used in educational lessons enabling active learning and assessment; it means also any resource a teacher uses to help him or her teach the students; a resource that organizes and packages, and supports instruction including textbooks, 3Ds, charts, textbooks, worksheets. Chan (2019) outlined the equipment and tools as; sewing machine, needles, shredders, silverware, spoons, stove, strainers, tape measures, tea bottle, teacher's table, thermo jug, trays, towel (hand & face), kitchen cooking tools such as ovens, among others. Mupfumira (2011) described Home Economics as technical and vocational field, concerned with areas where learning takes place by combining theory and practice. Home Economics requires equipment, materials, and workshop or laboratory room for effective teaching and learning. The methods to be used during the teaching of Home Economics should include learner-centred such as experimentation, field trip, simulation, project, problem-solving, work-based learning, collaboration, group work, and discovery to enhanced the competencies.

## **2.6 Assessment of competence acquisition**

Home Economics teaches the following competence in our Education curriculum; grilling, bakery, making starch and its application on fabrics, decoration of fabrics with dye stuff, health and sanitation, knitting and weaving, crotcheting, cookery skills such as steaming, boiling, swimmering, sewing and stiching clothes in garment construction among others.

Perez, (2021) identified other areas of competence in Home Economics for developments and include cooking where people are taught what to do in the kitchen for example setting the table for baking cookies and cakes, learning food nutrition values, following recipes to make a dish, measuring ingredients using tablespoons, cups, and weighing scales; meal planning, proper etiquette, and ways of handling kitchen equipment.

Nutrition is learning out how to plan meals including necessary nutrients based on proteins, carbohydrates, vitamins, and dairy products while

considering vegetarians, young babies and children while child rearing is how to raise lives of young people from birth to early adolescence, learning about the development and care of children, taking learners for a field trip to a daycare center while giving them some hands-on experience. And also causing community awareness and education to guide the basic knowledge of how to live in a community. For example, making healthy choices for foods in a grocery store and also train learners or young people to young people to receive lessons on interior design, as well as learn to take care of the homes.

It has a component of Textiles scienc and Garment Constuction which teach embroidery skills, sewing skills, crotchet skills, and all kinds of fabrics decoration. Student teachers learn how to sew their clothes for example sewing curtains straight online, making pillows, among others.

However, it practices Economics and budgeting activities in teaching young people how to spend money wisely and how to get the best out of their financial situation. For example, providing a shopping list and setting budgets for different groups of people. Not only that it train learners on health and sanitation.

Velasco et al (2017) argued that the evaluation model of competencies acquisition is associated with the concept of formative assessment that fosters a competency-based approach. This context involved evaluation rubrics among useful tools to obtain evidence on competency acquisition.

Evers (2015) defined a rubric as a title for scoring tool that lists the criteria for a piece of work or what counts. A set of guidelines used to promote the consistent application of learning expectations, learning objectives, or learning standards in the classroom and to measure their attainment against a set of createria. In instructional settings, rubrics clearly define academic expectations for students and help to ensure consistency in the evaluation of academic effort from student to student, assignment to assignment, or course work to course work.

Rubrics are important because they tells and identify what the work will be judged on; such as purpose, organization, details, voice, and mechanics. Rubric designates levels of quality for each of the criteria, the level of

performance that may be written with different ratings such as Excellent, Good, Needs Improvement, or numeral scores, for example, 1,2,3,4. Rubrics help to define quality. Students accept more responsibility for the finished products, reduce the time teachers spend grading students' work, it becomes easy to explain to students why they got the grade and what they can do to improve, and it is also easy for parents to understand especially when homework is given.

In table 4 below (King et al., 2019) described the source of the information on how to score baking cake.

**Table 4: A sample scoring rubric for baking cake**

Cake Competition				Powered by iRubric
	Good 20 pts	Basic 10 pts	Needs Improvement 5 pts	Comments: 0 pts
<b>Effort</b>	Good Used a difficult recipe with high skill level involved. Used difficult techniques in decorating.	Basic Used a difficult recipe with easier skills involved. Used easier techniques in decorating.	Needs Improvement Recipe used was not as difficult. Used easy and simple decorating techniques.	Comments:
<b>Taste</b>	Good Texture is appealing, uses unique flavors	Basic Texture is somewhat appealing, uses common flavors	Needs Improvement Texture is lacking - too dry or crumbly	Comments:
<b>Creativity</b>	Good An original idea that pays attention to detail. Designed to attract audience attention.	Basic Cake looks ordinary. Seems to be a common theme or idea.	Needs Improvement Pays little or no attention to planning in detail. Cake idea needs more thought.	Comments:
<b>Appearance</b>	Good Neat appearance. Even cake layers. Decorations well balanced and shaped	Basic Neat appearance. Even cake layers. Well balanced, but uneven shape of decorations.	Needs Improvement Neat appearance. Uneven cake layers. Uneven balance and shape of cake decorations.	Comments:
<b>Overall Appeal</b>	Good Eye-pleasing with great taste	Basic Eye-pleasing with good taste	Needs Improvement Eye-pleasing with fair taste	Comments:

According to Olsson and Krysiak, (2021) the above rubric tool helps to guide some areas of competence for an effective assessment of student learning and program quality.

## 2.7 Influence for extra-time on timetable

Grose (2022) explained influencing others was related to individuals or group of individuals who try to convince another individual, group or organization's action through some form of written or verbal communication for example in policy making, funding or law amending. For an institution, it may mean rearranging planned programmes on timetable scheduled within the calendar

periods. It may also mean advocating, promoting, pushing, urging, petitioning and politicization. However, the main purpose is to influence action, and allowing voices to be heard on the chosen issues. It is an activity which involve carrying out intervention directly or indirectly on any processes of elaboration, application or interpretation of standards, any action or decision taken by the leading public authority. For the case of Paidha PTC, lobbying for extra time requires that the tutor in-charge Home Economics as a corporate affairs staff talks to the Director of Studies who then discusses with, Deputy Principal and the Principal of the college. The Principal of the college then has to negotiate with Board of Governors of the institution or college concerning the aspects. The corporate communication within staffing and management aims to create an understanding, a good will and a knowledge of the products and services.

Influence is also necessary when it involves the processes of study groups in promoting tutorials with student teachers building up, abrogating, creating an awareness and introducing new skills and knowledge through practical instructions in perfecting competencies. To succeed, one must employ timely analysis of what you want; For example, creating time for practical instructions outside the the college timetable especially during late evening and morning as preps, on weekends and lobbying for free periods from other subject Heads. Here you must identify key players such as college staff, Heads of Departments among others to ensure that they have the necessary information and the understanding of the need to have the extra time.

## CHAPTER THREE

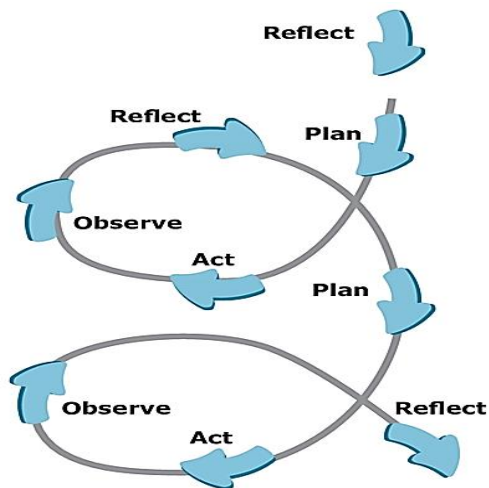
### METHODOLOGY

#### 3.0 Introduction

This chapter presents action research, study design, work plan and budget, study population, sample proportions, sampling procedures, data collection methods, instruments and procedures, quality control, data analysis, ethical considerations, study limitations, reliability and validity, dissemination of the study and appendices.

#### 3.1 Action research processes

Lawrence (2011) explains that this study involved the action research processes of reflecting, planning, acting, observing, implementing, and evaluating the strategies for the best practices, methods, resources, and materials needed to achieve the intended outcome. This is illustrated in Figure 8 below.



**Figure 8: Action Research Cyclic formation (Morales, 2016)**

This study was typically participatory that led to a self-reflective inquiry undertaken by participants and researcher in their social situations to improve their rationality and justice of their understanding of practical instructions in Home Economics teaching and learning processes.

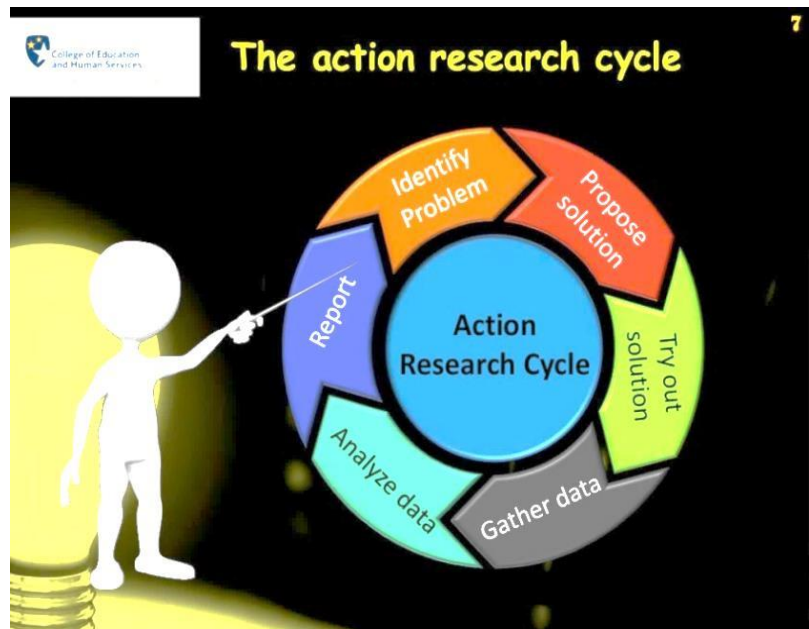
This however, encouraged collaboration and action learning within the context where a participant came to resolve issues on challenges, saw how successful their efforts achieved and if they did not get it well, the trial had to continue

for the improvement of one after the other through trial and failing until mastery of the skills and knowledge which was intended to be achieved.

The purpose was to provide skills and knowledge related to learners' profession in order to get job and provide livelihood, offer a path that imparts the skills and knowledge needed to work in a given occupation.

Therefore, this action research was of importance where learners were actively engaged, motivated due to authentic learning situation hence increased their attention and efficiencies, enabled them own their work or practices, comprehended the context-ideology, instructional materials used, methods employed, and that brought changes in terms of behaviors, skills, and knowledge, attitudes, values, and encouragement and collaborations as a way of learning in social settings.

**The below demonstrates how competence has been achieved through repeated practical instructions**



**Figure 9: Morales (2016) Illustration of action research works**

**Table 5: Shows a choice for methods, tools and analysis**

<b>Specific objectives</b>	<b>Methods For practical instructions</b>	<b>Tools</b>	<b>Analysis</b>
<p>Classroom as a means for practical instructions to develop competence acquisition of Home Economics lessons.</p>	<ul style="list-style-type: none"> <li>• Demonstrating mixing and creaming of sugar and fat when making a cake.</li> <li>• Hands-on touch activity processes to bring out product.</li> <li>• Experiment with the available ingredients at hand.</li> <li>• Observation in Identifying light and white fluffy substances evidence of creamed sugar and fat.</li> <li>• Display of the products (baked cake).</li> </ul>	<ul style="list-style-type: none"> <li>• Interview guide to confirm the knowledge of methods, work processes ingredients, etc.</li> <li>• Photographing activities on permission.</li> <li>• Observation checklist to monitor ingredients in use, particular tools in use for their rightful purpose, and systematically watch, select, and record behaviors and characteristics in relation to competence acquisition.</li> </ul>	<ul style="list-style-type: none"> <li>• Compiling responses in tabular form inform of rubrics.</li> <li>• Recording and typing work important to keep the informations in practicing practical instructions.</li> <li>• Prioritize &amp; organize data collected in the period.</li> <li>• Interpreting &amp; understanding the data collected for quality work.</li> <li>• Brainstorm more ways to practice competency-acquisitions.</li> </ul>

<p>Resources, and Materials that are necessary for practical instructions in teaching and learning Home Economics vocational education.</p>	<ul style="list-style-type: none"> <li>• Display materials, and resources on a table for ease of use.</li> <li>• Observing and arranging them in their correct positioning, employing hands-on when demonstrating</li> </ul>	<ul style="list-style-type: none"> <li>• Paper bags, mixing bowls, spoons, baking tins in place, detergents and water for health and sanitation, dust bins to collect gabbages, etc.</li> </ul>	<ul style="list-style-type: none"> <li>• Observation checklist to take note of materials and resources.</li> <li>• Confirming the items to enabling the practical instructions activities.</li> </ul>
	<p>competency.</p> <ul style="list-style-type: none"> <li>• Collaborating with other group members for any inquiries to improve learning.</li> </ul>		
<p>Assessment of competence acquisition in the processes of teaching and learning home economic lessons.</p>	<ul style="list-style-type: none"> <li>• Discussion to reflect on prior knowledge inline with work processes in different activities.</li> <li>• Questions, and answer to attention and understanding.</li> <li>• Discovery in using local</li> </ul>	<ul style="list-style-type: none"> <li>• Improvisation of tools and kits such as charcoal stove, charcoal for baking the products, work plans to guide on activities planned and budgetted.</li> <li>• Interview guide to Identify any other competence required.</li> </ul>	<ul style="list-style-type: none"> <li>• Using rubrics to guide from workprocesse.</li> <li>• Seeking consent to take photos where practical instructions are in progress.</li> <li>• Using rubrics to rate and</li> </ul>

	<p>materials.</p> <ul style="list-style-type: none"> <li>• Experimentation by employing the skills and knowledge in practice.</li> </ul>		<p>grade the participants</p> <ul style="list-style-type: none"> <li>• Interpreting findings to draw conclusions.</li> <li>• Report making of the finding.</li> </ul>
<p>Influence for extra-time on timetable to teach Home Economics outside college timetable.</p>	<ul style="list-style-type: none"> <li>• Both verbal and written communications presented to the authority &amp; staff.</li> </ul>	<ul style="list-style-type: none"> <li>• Verbal explanation and presenting written letter.</li> </ul>	<ul style="list-style-type: none"> <li>• Writing down the feedback in a piece of paper, note book.</li> </ul>

### 3.2 Study population

It was a subset of the target population selected to enable the investigations on which data was based. But when you look at the situation analysis of Paidha Primary Teachers' College, the learners for IPS in general were five (5) and all chose Home Economics as their elective subject, and that meant it was **Self-determining and systematic Sampling in nature** to use the same population with no ideas of correlation existing. Therefore, the few students automatically represented the population systematically (Nkoula, 2023).

### 3.3 Quality control

The researcher used classroom setting as work room, got grounded to both action and make some inquiry processes as he teaches the learners through practical instructions, observe the work processes, take note of important information for further critical thinking and reflection, checking the products on display and provided feedback assessment reports to participants as well to enable ongoing enhancements towards competence acquisition.

### **3.4 Ethical consideration**

The researcher had an introductory letter from KYU that introduced him to the College in which the permission was granted to carry on with exercise or study. Consent letter signed by participants to take photographs was not taken care off but orally the participants and the College Administration allowed the recording via camera.

Bhandari (2021) explained certain set of procedures and principles that guided the designs and practices such as washing hands before start of any activities, dressing in an apron, presenting clean hands and nails, and possibly covering hairs with hat. Observing teachers' code of conduct during practical instruction to demonstrate professionalism, especially in seeking consent though orally to take their photographs for some other reasons to enhance research validity, and maintain scientific truth.

### **3.5 Study limitation**

The researcher improvised a classroom setting as a work room with some instructional materials such as washing hands facility, detergents, water, cookery apparatus such as charcoal stoves, baking tins, saucepans, laptop for ICT information, among others. Measurements at times estimated by use of cups, spoons since there was no weighing scale.

### **3.6 Reliability and validity**

The researcher relied majorly on repeated practical instructions of intended knowledge and skills in making cake, starch, chapati, doughnuts, egg roll among others while investigating work processes in enhancing competence acquisition through practical instructions. The use of rubrics was in place with some guidelines or criteria to test, re-test and try the different approaches, methods, and techniques especially the use of hands-on to improve the skills and knowledge intended.

### **3.7 Dissemination**

This study is important to The Ministry of Education and Sports, PTCs, TVET institutions, Paidha PTC, District Education Office - Zombo District Local Government, colleague staff of Integrated Production Skills, and the Nation at large. It can be disseminated through publishing an article after

collaborating with my supervisors, getting involved in promoting community awareness through talk shows, working with participants to initiate community project and implement strategies in making the products, and finally making submission of final thesis to graduate school for inclusion among the reference textbooks in KYU Library.

## CHAPTER FOUR

### PRESENTATIONS AND DISCUSSION OF RESULTS

#### 4.0 Introduction

This section presents information collected from a set objectives such as use of classroom setting as a laboratory or work room for practical instructions, use of instructional materials in teaching and learning processes, and assessment of competence acquisition during practical instructions.

This research study was in the subject “Home Economics” taught at Paidha PTC among the curriculum content outlines of Education (Uganda), on the topic: *“Improving student teachers competence acquisition through practical instructions in Home Economics at Paidha PTC, Zombo District”*.

The practical instructions enhanced competence practices in making cake as well as baking them, starch making and its application on fabrics, and chappati, doughnuts, egg roll, frying glaze cassava, among others, and assessment were done with the help of rubrics tools, data analyzed and records taken. Methods employed to enhance competence acquisition in practices were demonstration, hands-on, display of products and instructional materials, demonstration, collaborations, experimentation, group work among others.

The study showed that learners presented cases of conscious complete competencies (Fisher-An,2020) demonstrating that they understood how to do something, participated and demonstrated skills and knowledge learnt with concentration, a sign of active commitment to learn more when guided. One of the learners demonstrated that he could not understand what was going on during practical instructions, and that took him time to respond to a given instruction in learning. Another learner showed that he did not understand how others could do things well but was able to recognize his weaknesses and later took heart to learn the skills with the help of guidance and counselling.

#### 4.1 Classroom setting as a means for practical

The practice of knowledge and skills in classroom setting was quite convenient to the extent that participants got themselves in active engagement with different competence activities that enable them learn and improve on their performances. Such similar practical instructions could be carried out at

schools or place of work, or at homes while doing it as an enterprise. It can also be done during training at (College or Institution) as micro-teaching, peer teaching, on school practices, during practical examinations, and also in hotel business environment within the community. All these were supported by practices of professional ethics to promote skills and knowledge in intended for competence acquisition.



**Figure 10: Participants washing their hands at Paidah PTC 2022**

This practice agrees with Rattawati (2022) that the 21<sup>st</sup> Century skills can be achieved if learners lead their learning, practice an inquiry- based classroom environment, ensure collaboration in learning, develop critical thinking skills and creativity. A hands-on method would do them well to represent the “how” to do something particularly on the skills needed to navigate the situation. For a researcher, these ideas represented the “why” we teach students or participants and “what” mean what the curriculum wants us to do. Ravi, (2018) noted that learners acquire practical skills in a new conditions based on the abilities and experiences.

As the competence activities continued, the researcher was closely at hand observing to get experiences on what was being done and was available when learners needed help. Guidance was given to help participants move from conscious incompetence to conscious competence for example, when they failed to use the knife to grate cassava tubers effectively and failing to adapt to creaming skill especially airating in one direction to allow sugar dissolved in fat correctly. This however, put the participants to unconscious competence to gain confidence' experience. Take for example, removing any dirt that had fallen into mixture being prepared or creamed, controlling an overflow of creamed mixture from a glass bowl during working processes among others. Such can be observed as below:



**Figure 11: IPS-Home Economics class creaming cake**

The study confirmed that competence can be acquired in a classroom settings as you may witness from the figures above. Learners practiced what they have learnt and really use their knowledge and skills in product making. Such practices and development of competence can further, be practiced at home to support and encourage children learn routine activities such as interactions to

practice making breakfast, snacks, meals, dinner, washing clothes, utensils, which can be attributed to family background and variables of socioeconomic status (Niklas, 2021).

Secundo (2018) described that workplace can be a home-based entrepreneurship, an hotel, workshop place, an established stall for business among others that you can practice and develop competence to promote and provide learning experiences as part of everyday work activities. Having peer teaching also enables single student to instruct other students in substantial manner in which the first learner becomes an expert and others as novice. This can be characterised by cooperative learning strategy which divides classmates into smaller groups, with each person in the group responsible for teaching others, and each contributing a unique piece of knowledge and skills to the group performance on a task. One-on-one tutoring where by student who is slightly ahead of other students successfully demonstrate proficiency with the materials (Simon, 2013).



**Figure 12: Paidah PTC IPS 2022 explaining what she learnt**

Peer teaching provides more time for individual learning, a direct interactions in the practice promotes active learning, allows greater understanding,

students feel comfortable and open to one another while micro-teaching improving communication skills- the voice becomes loud and clear, helps the participants to master basic teaching skills such as explaining facts, constructing questioning, illustrating with examples, learning classroom management, and reinforcement among others.

To master the competence acquired for a meaningful purpose in life one has to expose himself or herself to enterprise practices, learning through collaboration, active engagement in productive activities in cake making, egg rolling, starch making, cooking, grilling, frying food, doughnuts, chapati making, among others. However, community involvement can be an option to practice through making use of the skills and knowledge acquired from the learners. Registering them in Home enterprise activities in the competence they so wish to train and learn, for example by allowing family members to observe and immitate the skills and knowledge learnt, open-up some projects such as restaurants and display products, an out let to sell the products as an entrepreneurship within the environment for example, in a kiosk or shop among others.

#### **4.2 Use of resources and materials for practical**

The resources that were at hand to enable competence practices included the sun to dry starch made, textbooks, internet for surfing, laptop, wooden spoon for mixing sugar and margarine, Glassbowl, big saucepan that worked as an oven, sands to support the principal of heat transfer (conduction, convection, and radiation) when baking cake, knife, Grater, a sieve, basin, dish, aluminum foil, plastic bottles, charcoal stove and its charcoals, match box, table, cardboard, washing hands facility, among others. While the materials that helped to make products during the competence enhancements were lemon (juice), baking flour, baking powder, sugar and margarine, eggs, vanilla, vinegar, chocolate cream, mixed spices, water, cooking oil, salt, onions, tomatoes, irish potatoes, were available.



**Figure 13: Researcher and participants with instructional materials**

Many of the resources and materials identified as in picture above stood the test of time in line with Collin et al (2007) explanation that available materials in our environments, help us to satisfy our needs and wants when making products. All in all, the resources were available for practical instructions, but the study lacked weighing instrument, serated knife and even a grater to grate cassava tubers during the production of starch. At some intervals the study employed assumption theory as a skill to determine the size and quantity of ingredients as an estimation to allow practical instructions to go on and that somehow affected the quality products.

Carlisle et al (2022) pointed and guided that weighing ingredients for quality compliance should be done to fulfill the product recipe specifications and quality supplies ensuring equal distribution so that the product tastes the same in every batch. This reduce and out-of- spec product that affects the health of consumers. This is because the product taste, consistency and density can all be negatively impacted to humans for example, there mighty be too much of one nutrient such as carbohydrate or protein which may result into obesity or diabetes. Therefore, there is need to invest in accurate high quality household weighing scales. Most materials were available within the environments,

markets and cheaply purchased which enabled the participants acquire the knowledge and skills that were deemed essential for competence acquisition, success in schools, higher education, careers and adult life. Cuyacot, (2022) explains that materials enable the participants concentrate in practice what they are to learn and how they learnt it which contribute to part of what they should grow to become successfully as adults. The principles of competence-based education such as equity, transparency, accountability and among others were emphasized to allow learning take place.

### **4.3 Assessment of competency acquisition**

All activities intended to enhance competencies were evaluated and assessed using a scoring guide in each activity: cake, chapati and starch making. Others included application of starch on fabrics (cotton yarns or fibres), making of eggroll, doughnut (Velasco et al, 2017) to foster a competency-based approach. The use of scoring guide gave rise to evaluation in determining evidence of competence acquired. The rubric tools or guides were meant to make learning a standard during the study and to measure their attainment against set createria.

Dhanapanno (2021) explanation agreed with these practical instructions that enabled acquiring valuable productive skills for one to succeed in his or her current position and carry on with future roles such as a parent, teacher, processor, an entrepreneur among others. One can develop a specific skill set at higher levels, making them creative in developing new abilities and advancing career. This is done through practice and commitment and by seeking an apprenticeship or pursuing on-the-job training, reading related books and taking classes. The competencies acquired by the participants in this study benefited them much especially in building their confidences and senses of achievement, developing growth and mindset, diversifying jobs responsibilities, increasing learning speed, and creating a possibility for promotion. Participants also developed and learnt to improve sales career by having active and polite behaviors to customers, branding of products, developed collaboration skills, negotiation skill, networking for business, learning to speak in public, practiced persuasion skills, learning to retain clients in the business and also developed emotional intellegence in the

enterprise. Putting ethics in practice during the practical instructions instilled values that promoted goals and beliefs in establishing a behavior which was a basis for decision making. It created standards for action that are or were preferred by experts and professional groups and establishing frameworks for evaluating behaviors that were demonstrated in ethical codes, for example teachers' code of conducts, the Dos and Dont's in workshop or laboratory.

Learning from practical instructions as the case in Paidha PTC was in line with the observations of De Corte (2007) and supported the following arguments which states that; Learning is self-regulated meaning that achieving excellency requires practice which takes in account planning, effort and persistence overtime. And these allow students become autonomous learners to pursue their own interest. The individuals or participants get motivated and behavior demonstrates active participations in their own learning processes. Learning is contextual or situated. The availability of active participants during practical instructions demonstrated that learning and thinking occur in the Head, Heart and the Hand which were seen essentially during the social interaction and participation in the activities shown below



**Figure 14: Researcher and participants on social constructivism**

Learning is collaborative. The participants had varieties of educational approaches while engaging critical thinking, researching and reflecting with one another to discuss about the reality of practicals leading to competency acquisition, and those involved teachers, students all working together. Each partner in the learning environment and the resources (technologies) including tools that were available The practices conducted were in social process referring to as socioconstructivism. Participants acquired shared concepts and skills .

AL-GNBRI (2022) observed that Education was the foundation of a strong economy that increases human capital, drives productivity and boosts economic output. For individuals, it paves the way to acquire new skills, develop critical thinking, enhanced analytical knowledge, develop sense of purpose in shaping one's career as stated in 21<sup>st</sup> Century skills making change in one's life and developing economy. Education impacts on individuals, societies, governments and the world.



**Figure 15: Cake made being evaluated and assessed**

**Table 6: Rubric guides on assessments for cake making**

Activity area	Rating	Comments
<p><b>Personal hygiene&amp;sanitation</b></p> <ul style="list-style-type: none"> <li>• Presence of water/detergent</li> <li>• Clean facilities, tools&amp;equipment</li> <li>• No littered and wet floor presence of dustbins.</li> <li>• Protective gears such as apron, caps, gloves, handkerchief.</li> </ul>	<ul style="list-style-type: none"> <li>• Excellent work demonstrated in these 3 areas</li> <li>• 2 learners put on aprons, caps use was not in place.</li> </ul>	<ul style="list-style-type: none"> <li>• However, only 2 participants had put on aprons and non put on head gears- which is a sign of risk to food contaminations in case of hairs falling onto food products.</li> </ul>
<p><b>Tools and equipment</b></p> <ul style="list-style-type: none"> <li>• Use of tools, equipment, and knowledge.</li> <li>• Safety precautions during work processes.</li> </ul>	<ul style="list-style-type: none"> <li>• Participants applied knowledge and skills very well to use the tools and equipment and facilities.</li> </ul>	<ul style="list-style-type: none"> <li>• Lack of weighing scale promoted the application of gesture in measurements of some ingredients, and that affected the quality outcomes of the products.</li> </ul>
<p><b>Measurements of ingredients</b></p> <ul style="list-style-type: none"> <li>• Rightful measurements for intended competency.</li> <li>• Necessary ingredients for better products.</li> <li>• Identifying the basic ingredients and equal</li> </ul>	<ul style="list-style-type: none"> <li>• The correct ingredients were identified, knowledge of basic ingredients and their equal measurements were demonstrated.</li> </ul>	<ul style="list-style-type: none"> <li>• Absence of weighing scale did not allow accurate practice to measurements' skills.</li> </ul>

measurements.		
<p><b>Methods/Approaches</b></p> <p><b>Mixture of margarine and sugar in a bowl</b></p> <ul style="list-style-type: none"> <li>• Uniform mixture with wooden spoon.</li> <li>• Mixing bowl placed on tea cloth while working.</li> </ul> <p><b>Creaming the mixture</b></p> <ul style="list-style-type: none"> <li>• Exerting efforts with wooden spoon in one direction allowing proper aeration to dissolve sugar and margarine effectively.</li> <li>• Providing constant and vigorous efforts to create results on creaming thus lessening the work.</li> </ul> <p><b>Checking consistency</b></p> <ul style="list-style-type: none"> <li>• Light fluffy, white in color.</li> <li>• Flows when the wooden spoon raised up showing no sign of a drop in lumps.</li> </ul> <p><b>Adding liquid ingredients first</b></p> <ul style="list-style-type: none"> <li>• Milk, egg whisk, vanilla essence, lemon juice among others to</li> </ul>	<ul style="list-style-type: none"> <li>• A very good work demonstrated and seen.</li> <li>• A very good efforts were shown to improve for the better.</li> <li>• Excellently demonstrated, a good sign of instruction taken.</li> <li>• It was well done and incorporated.</li> <li>• It was well practiced and taken by participants to demonstrate the skills and knowledge at hand.</li> <li>• Excellently</li> </ul>	<ul style="list-style-type: none"> <li>• For a starter (novice), more and closely monitoring to provide authentic guidance were considered vital in developing confidence and capacity building in skills being learnt.</li> <li>• A close monitoring and supervisions gave chance to provide the rightful guidance on how to move in one direction, aerating the creaming mixture in work processes.</li> <li>• Learners demonstrated active participations and much attention were given to master the competencies..</li> </ul>

<p>soften.</p> <p><b>Adding dry ingredients</b></p> <ul style="list-style-type: none"> <li>• Observing flour mixture (wheat, baking powder, and mixed spices).</li> <li>• Sieving the dry ingredients.</li> <li>• Folding in dry ingredients with metallic spoon by slow movement efforts to turn in a regular direction.</li> </ul> <p><b>Adding the last bit of liquid and dry ingredients</b></p> <ul style="list-style-type: none"> <li>• Continuous use of metallic spoon to integrate the mixture.</li> <li>• Feeling of the texture using clean fingers showing softness and air uniformly incorporated.</li> </ul>	<p>enhanced to feel what the quality could be.</p>	<ul style="list-style-type: none"> <li>• It was a sign of mastery of the content and workprocesses in cake making.</li> <li>• Atleast every participants has to feel the texture of the creamed substance in make of the final touch before baking.</li> </ul>
<p><b>Baking processes</b></p> <ul style="list-style-type: none"> <li>• Greasing tin/use of paper liner emphasized to put creamed products into tin for baking.</li> <li>• Organizing charcoal stove, charcoal, sands,</li> </ul>	<ul style="list-style-type: none"> <li>• The attention to organize in achieving the intended outcomes was perfectly done.</li> <li>• Not well done. This</li> </ul>	<ul style="list-style-type: none"> <li>• The size of charcoal stove and top iron sheet gave challenges to</li> </ul>

<p>big saucepan, putting a well leveled ground for the baking tin and placements of stone to support the background.</p> <ul style="list-style-type: none"> <li>• Matchbox to light the charcoal.</li> <li>• Equal quantity of charcoal set both on top and bottom in providing heat calories evenly.</li> </ul>	<p>is because some improved charcoal stove occupies few charcoals as oppose to iron sheet also containing heated charcoal on top.</p>	<p>determine heat calories when baking hence chance for food products to burn was high.</p>
<p><b>Assessing baking products</b></p> <ul style="list-style-type: none"> <li>• Considering central placing of muffin tin on baking.</li> <li>• Paying attention to monitoring and supervising baking processes.</li> <li>• Use of clean knife/toothpick to confirm indentedness to proof cooked or not.</li> </ul>	<ul style="list-style-type: none"> <li>• Clean good knife was used to check its indentedness on baking.</li> </ul>	<ul style="list-style-type: none"> <li>• Partly the product got burn due to challenge in control of heat calories.</li> </ul>
<p><b>Removal from the oven</b></p> <ul style="list-style-type: none"> <li>• Use of non-conductor of heat application in avoiding accident-burning.</li> <li>• Careful picking of the products to place on the table.</li> <li>• Improving its</li> </ul>	<ul style="list-style-type: none"> <li>• Excellently demonstrated and learners practiced the skills correctly.</li> </ul>	<ul style="list-style-type: none"> <li>• Trimming was emphasized to improve on its burnt surfaces, a sign of challenge in using local oven.</li> </ul>

cleanliness, removing the burnt surfaces if any		
<b>Packaging and presenting</b> <ul style="list-style-type: none"> <li>• Use of cut board for any big size product to place on table while small sizes can be put in a clean dish.</li> <li>• Aluminum foil usage to wrap cut board.</li> <li>• Its storage in a box/cupboard</li> </ul>	<ul style="list-style-type: none"> <li>• Demonstration to support knowledge and skills made easy and learners practice the skills.</li> </ul>	<ul style="list-style-type: none"> <li>• Basic knowledge to make cake were achieved with evidence of the products presented finally.</li> <li>• Evidence of aluminum foil enabled wrapping of the cake on presentation.</li> </ul>

### Challenges Encountered

Practicing cake making in Paidha PTC registered challenges of resources like tools and equipment such as weighing scale, apron, lack of caps to wear as head gears, challenges of using local oven and its skills in baking.

#### 4.3.1 Starch making activity

The study learnt from participants that food crops rich in, and contain starch includes maize, yams, sorghum, cassava tubes, sweet potatoes, and millet among others.

However, tools and equipment that facilitated the move to make starch included table, knife, glass bowl, plate, iron sheet for drying, box to collect rubbish as bins, grater to grate or shred the cassava and other material like water and sunlight (warmth). However, the starch were applied on an old cotton fabric fading off its color in order to rejuvenate its strength and resilience in improving its shelf life.



**Figure 16: shows the start of making starch processes**

**Table 7: Assessed rubric results on starch making**

Activity area	Rating	Comments
<p><b>Personal hygiene/sanitation</b></p> <ul style="list-style-type: none"> <li>• Clean water/detergent for washing.</li> <li>• Dustbin in place.</li> <li>• Putting on apron, presence of handkerchief, sign of clean nails and putting on head gears.</li> </ul>	<ul style="list-style-type: none"> <li>• A very good health and sanitation practices put in place.</li> </ul>	<ul style="list-style-type: none"> <li>• Only two participants had apron put on, non put on caps.</li> <li>• There is need to acquire such gargets to promote professional ethics in a workshop.</li> </ul>
<p><b>Tools and equipment, facility</b></p> <ul style="list-style-type: none"> <li>• Presence of knife, basin, plates, glass bowl, table, water, washing hand facility among others.</li> </ul>	<ul style="list-style-type: none"> <li>• The necessary resources were in place to promote the competency intended in learning.</li> </ul>	<ul style="list-style-type: none"> <li>• Lack of a grater at that moment to grate effectively gave rise for a knife to be improvised in shredding the peeled cassava.</li> </ul>
<p><b>Materials selection/sorting.</b></p> <ul style="list-style-type: none"> <li>• Selection of a healthy roots, clean cassava tubers.</li> <li>• Use of clean water for washing.</li> </ul>	<ul style="list-style-type: none"> <li>• A good cassava tubers were available to enhance the competency practices.</li> </ul>	<ul style="list-style-type: none"> <li>• All workprocesses followed as planned.</li> </ul>
<p><b>Peeling cassava.</b></p> <ul style="list-style-type: none"> <li>• Peeling wholesome roots properly.</li> <li>• Use of non-rusting knife to peel.</li> </ul>	<ul style="list-style-type: none"> <li>• All were followed and implemented correctly.</li> </ul>	<ul style="list-style-type: none"> <li>• Participants followed the instructions and guidance given them.</li> </ul>
<p><b>Washing</b></p>	<ul style="list-style-type: none"> <li>• Evidence of clean</li> </ul>	<ul style="list-style-type: none"> <li>• Active</li> </ul>

<ul style="list-style-type: none"> <li>• Washing peeled cassava roots properly until white in color.</li> </ul>	<p>water used to improve its whiteness on washing.</p>	<p>participation of learners during the study witnessed.</p>
<p><b>Grating</b></p> <ul style="list-style-type: none"> <li>• Grating/shredding cassava tubers properly with stainless steel grater.</li> <li>• Grating uniformly smooth without lumps.</li> <li>• Grated cassava put in a glass bowl, added little clean water, squeeze thoroughly, lumps removed leaving dissolved starch solution to settle in the basin.</li> </ul>	<ul style="list-style-type: none"> <li>• A knife was improvised to grate/shred since there were lack of grater/serated knife for the best implementation.</li> <li>• Squeezing of starch emphasized to allow it dissolve in water.</li> </ul>	<ul style="list-style-type: none"> <li>• There is need to acquire serated knife/grater for a better results.</li> <li>• Skills on squeezing comprehended correctly with participants that made it work out.</li> </ul>
<p><b>Decanting</b></p> <ul style="list-style-type: none"> <li>• Grated cassava mixed with clean water left to settle after dissolving.</li> <li>• Glass bowl with starch put to bend slightly to allow water remain on top while starch settle down.</li> <li>• Carefully water led out to flow leaving starch paste behind</li> </ul>	<ul style="list-style-type: none"> <li>• Excellent adding sizeable water according to starch grated.</li> </ul>	<ul style="list-style-type: none"> <li>• A demonstration of well followed instructions for a better production shown by participants in the study.</li> <li>• Starch paste was spread in a plate to dry.</li> </ul>

<p><b>Drying starch</b></p> <ul style="list-style-type: none"> <li>• Spreading the milky starch paste substances put in a plate to dry.</li> </ul>	<ul style="list-style-type: none"> <li>• The competency to spread it for drying was done correctly.</li> </ul>	<ul style="list-style-type: none"> <li>• Drying requires complete sunlight for its efficiency but its drying was disturbed due to heavy rainfall through out the day which later dried under room temperature.</li> </ul>
<p><b>Cake breaking and sieving</b></p> <ul style="list-style-type: none"> <li>• Breaking cake starch using hands, sieve the broken parts well, aerating/sieving in a bowl or a dish.</li> </ul>	<ul style="list-style-type: none"> <li>• Drying took a longer period(3 days) since it was under room temperature and the whole week was disturbed by rainfall weather.</li> </ul>	<ul style="list-style-type: none"> <li>• The competence to realize starch made was achieved, powdered starch was bottled.</li> </ul>
<p><b>Pakaging.</b></p> <ul style="list-style-type: none"> <li>• Put in bottle(plastic).</li> </ul>	<ul style="list-style-type: none"> <li>• Instruction well followed in the workprocess analysis</li> </ul>	<ul style="list-style-type: none"> <li>• Packaged starch stored in a box.</li> </ul>

While in the teaching and learning processes, some challenges were encountered and those included interference by rain to dry processed starch. You can make a better starch when during clearly fine weather in order to maximize the use of sunlight. A good starch production requires freshly uprooted cassava tubers obtainable either from the garden or market. There was need for rightful use of tool such as grater or serated knife vital to give good results on starch production and also good amount of sunshine to dry the starch

### 4.3.2 Chapati making activity

The resources which was vital to learn competence acquisition on chapatti making included human labor, money to purchase the ingredients, frying pans, charcoal stove, matchbox, charcoal, table, saucepans, rolling pin and its board among others. All those were available and enabled the facilitation of instructions.

However, the materials included baking flour, warm water, salt, cooking oil, onions, carrots, tomatoes or any spice helped in creativities to improve its tastes and flavors.

**Table 8: Results of an assessed rubric based on chapatti making**

Activity Area	Rating	Comments
<p><b>Personal hygiene/sanitation</b></p> <ul style="list-style-type: none"> <li>• Presence of clean water/detergent.</li> <li>• Clean finger nails and hands.</li> <li>• Cover hairs, use of handkerchief, caps and putting on apron.</li> <li>• Presence of dustbins to collect rubbishes.</li> </ul>	<ul style="list-style-type: none"> <li>• There was good effort realized towards this achievement.</li> </ul>	<ul style="list-style-type: none"> <li>• Non- of the participants put on the caps. Only two participants had aprons.</li> <li>• This however, poised a risk to food contaminations, a sign that professionalism was not embraced well.</li> </ul>
<p><b>Relevant tools/equipment</b></p> <ul style="list-style-type: none"> <li>• Rolling pin, board, table, basin/bowl, charcoal stove, match box, knife, grater</li> </ul>	<ul style="list-style-type: none"> <li>• All were available in good shape accept weighing scale for proper measurements.</li> </ul>	<ul style="list-style-type: none"> <li>• Presence of weighing scale did not enable quality products.</li> </ul>
<p><b>Materials</b></p> <ul style="list-style-type: none"> <li>• Ingredients such as flour, salt, cooking</li> </ul>	<ul style="list-style-type: none"> <li>• A very good choice selected by participants for</li> </ul>	<ul style="list-style-type: none"> <li>• Good guidance taken by participants to select quality</li> </ul>

oil, water, onions, carrot.	better productions.	ingredients while considering good prices in the market.
<p><b>Mixing</b></p> <ul style="list-style-type: none"> <li>• Integrating baking flour plus salt.</li> <li>• Adding little warm water at a time to mix the dough.</li> <li>• Grating onions, carrot to mix at later time.</li> <li>• With time, adding above and cooking oil while in the process to knead together.</li> </ul>	<ul style="list-style-type: none"> <li>• The process carried in the glass bowl while mixing.</li> </ul>	<ul style="list-style-type: none"> <li>• The researcher demonstrated the skills to the participants which they practiced thereafter. Some guidance were given for any incorrect practices identified.</li> </ul>
<p><b>Kneading</b></p> <ul style="list-style-type: none"> <li>• Kneading with hands-on placed on clean surface (table) properly.</li> <li>• Reinforcing kneading with a rolling pin on board.</li> <li>• Incorporating some little flour while kneading to make it soft and firm.</li> <li>• Adding some cooking oil to control sticking on rolling pin and</li> </ul>	<ul style="list-style-type: none"> <li>• Presence of rolling pin and its board enabled effective practices on the competency intended in learning.</li> </ul>	<ul style="list-style-type: none"> <li>• Constant demonstrations by researcher to guide the competency in practice enable quality production.</li> </ul>

hands.		
<p><b>Cutting</b></p> <ul style="list-style-type: none"> <li>• Cutting into sizeable shapes.</li> <li>• Incorporating cooking oil plus flour to knead evenly well.</li> </ul>	<ul style="list-style-type: none"> <li>• There were good skills practiced by participants after demonstration.</li> </ul>	<ul style="list-style-type: none"> <li>• Each shape cut, kneaded and rolled differently. Individual approach was emphasized to enable every practiced skill.</li> </ul>
<p><b>Baking</b></p> <ul style="list-style-type: none"> <li>• Using clean pan to bake. Place on charcoal stove to get hot, put some clean water and drag to remove dirt. Later use a bit of cooking oil and later rinsing it with water.</li> <li>• Spread out cut shape, stretch, and keep turning from side to side until ready.</li> </ul>	<ul style="list-style-type: none"> <li>• Use of folded paper to stretch baking chapatti in a pan while controlling burning of hand.</li> </ul>	<ul style="list-style-type: none"> <li>• Everyone was involved individually to practice the skill.</li> </ul>
<p><b>Packaging</b></p> <ul style="list-style-type: none"> <li>• Arranging baked ones as display on a clean table.</li> <li>• Providing takeaway materials (envelops, pills, papers) to serve customers.</li> </ul>	<ul style="list-style-type: none"> <li>• Well done as in entrepreneurship, putting some price tag and leveling.</li> </ul>	<ul style="list-style-type: none"> <li>• Demonstration to make finishing products was illustrated such writing name of the production and its quality among others which later was practiced individually by learners.</li> </ul>



**Figure 17: Other products glazed using eggs; cassava & egg roll**

The main challenge encountered included lack of tools which was solved by borrowing some of them from the neighboring community College-Paidha PTC.

#### **4.4 Influence for more extra-time on timetable**

It is or was done to create time for practical instructions and perhaps have convenient time for the practical activities register a success. The challenge has been that one (1) hour period scheduled could not allow ample practices of practical instructions in a class. Therefore, there is or was need to advocate for more time outside timetable period scheduled. For example, during evening and morning preps, weekends or borrow a lift from any other Heads of subjects where there could be some extra-time. This was presented to the college authority in order to influence action, and allowing voices to be heard on the identified issue of lack of time for practical instructions.

For the case of Paidha PTC, Zombo District concerning teaching and learning of home economics, the tutor in-charge Home Economics as corporate affairs staff in line of duty linked with the Director of Study, Deputy Principal and the Principal who informed the Board of

Governors of the Institution or College concerning the lobbyist aspects. The corporate communication within staffing and management gave three hours(3 Hours) especially on a Saturday to add on the normal periods within week days to enable ample practical instructions done with the participants.

The influence aspects was discussed and accepted as one of the ways to allow teaching and learning conducted in the Institution and it also discovered that this may involve the processes of study groups in promoting tutorials with student teachers building up, abrogating, creating an awareness and introducing new skills and knowledge through practical instructions in perfecting their competencies. The key players to this lobbyist were college staff, Heads of Departments, student teachers among others interacted with the informations and the understanding of their practices and also learnt about public opinions on the competence they so wish to employ in their livelihood.

However, this was discussed and resolved that “preps” both evening and morning hours be used to solve the problem of lack of time for practical instructions. That the in-charge of home economics should get the consent of the learners about weekends periods (especially Saturdays) if possible and also lobby from other Heads of subject for any free periods on normal timetable during week days to allow teaching and learning of home economics practical lessons.

## CHAPTER FIVE

### SUMMARY, CONCLUSION AND RECOMMENDATIONS

#### 5.0 Introduction

This chapter presents summary on the following areas: competence achieved during the studies, use of classroom setting in competence acquisition, use instructional materials for practical instructions, assessments of competence acquisition during practical instructions, conclusions recommendation, and areas for further study.

#### 5.2 Summary

**Table 9: Describes summary of the study**

Objective	Emperical Data	Findings Summarized
<ul style="list-style-type: none"><li>➤ To use classroom setting as a means for practical instructions in developing competence acquisition in the processes of teaching and learning Home Economics.</li></ul>	<ul style="list-style-type: none"><li>➤ Measured by Speelman, (2014) that learners be made to practice what they have learnt while using effient knowledge and skills to foster their performance.</li></ul>	<ul style="list-style-type: none"><li>➤ There was classroom set for practical instruction.</li><li>➤ There was group work, collaboration and communication, critical thinking as they were reflecting on theoretical knowledge linking to abstract conceptualization during the experiment.</li></ul>
<ul style="list-style-type: none"><li>➤ To identify and use Resource and Materials for practical instruction in Home Economics.</li></ul>	<ul style="list-style-type: none"><li>➤ Confirmed by Collin et al (2007) which included saucepans, eggs, cooking oil, charcoal stoves, water among others.</li></ul>	<ul style="list-style-type: none"><li>➤ Active engagement through hands-on enhancing competence during practices in authentic situation.</li><li>➤ Materials, tools and</li></ul>

		<p>equipment were improvised.</p> <ul style="list-style-type: none"> <li>➤ Experiences of experiential learning took place and the made products displayed.</li> </ul>
<p>To influence for extra-time on the timetable outside the College TimeTable for the development of Competence in Home Economics.</p>	<p>Measured by ( Alexandra,2022) in which there was a written letter and oral request presented to the College Administration.</p>	<p>Negotiation allowed with other departments and learners to influence other periods.</p> <p>Permission for week ends like Saturday and preps periods granted.</p>
<ul style="list-style-type: none"> <li>➤ To assess Copetence acquisition in Home Economics lessons.</li> </ul>	<ul style="list-style-type: none"> <li>➤ Measured by (Perez,2021) on different cooking skills such as baking, frying, starching fabrics, health and sanitation practices among others.</li> </ul>	<ul style="list-style-type: none"> <li>➤ Practices of personal hygiene through washing hands enhanced.</li> <li>➤ Rubrics developed to check the areas of competence.</li> <li>➤ Repeated practices on some skills and knowledge to enhance competence done.</li> </ul>

### 5.3 Conclusion

In whatever facility settings, so long as the resources and materials are available, the participants will feel motivated to learn by following the instructions to get intended knowledge and skills to enhance competence

acquisition. This caused a paradigm shift in their behaviors because it was in an authentic situation.

Secondly, the available resources and materials in place made them to accept to look for any adequate time left for their practical activity in support to their enhancement on skills and knowledge drawing confidence to acquire competence.

#### **5.4 Recommendations**

The college administration-Paidha PTC should support and provide tutors and learners with classroom as a workshop room, facilities like sinks, hand washing tools, garbage bins among others to enable practice of competence acquisition while conducting the teaching and learning processes.

The tutor(s) as technical person should be involved to Identify tools and equipment such as weighing instrument that suits the proper use and practice of product specification and quality.

To support practical instructions in achieving its competence acquisitions, the tutor in-charge of Home Economics needs to promote growing of fruits and vegetables within the college premises (backyard garden) to ease access to practical instructional materials, and encourage creativity on local materials like making and designing moulds of different shapes needed for bakery.

Practical instructions should be given time on timetable in addition to the existing theory lessons for Home Economics. Otherwise, it goes beyond to cheat the instructor's free time to plan teaching practical over the weekends.

#### **5.5 Areas for further study**

Based on the findings in this study, there is need to carry out research on the technology that can be used to easily extract local flours accessed (e.g. mixed millet with cassava) in the study area i.e. Alur community (Nebbi) in processing foods like bakery and pastry..

Secondly, there is also need to lobby for collaboration and engagement from partners to train community members in food and nutrition, and sewing of fabrics

## REFERENCES

- Abel, E., Galpin, I., Paton, N. W., & Keane, J. A. (2022). Pairwise comparisons or constrained optimization? A usability evaluation of techniques for eliciting decision priorities. *International Transactions in Operational Research*, 29(5), 3190-3206.
- Akella, D. (2010). Learning together: Kolb's experiential theory and its application. *Journal of Management & Organization*, 16(1), 100-112.
- AL-GNBRI, M. K. (2022). Accounting and auditing in the metaverse world from a virtual reality perspective: A future research. *Journal of Metaverse*, 2(1), 29-41.
- Bosch, G., & Charest, J. (Eds.). (2009). *Vocational training: international perspectives*. Routledge.
- Cake, M., King, L., Bell, M., Cobb, K., Feakes, A., & Hamood, W. (2019). VetSet2Go: a collaborative outcomes and assessment framework building employability, resilience and veterinary graduate success. *Canberra, ACT: Department of Education and Training, Canberra, Australian Capital Territory*.
- Carlisle, S., Ayling, K., Jia, R., Buchanan, H., & Vedhara, K. (2022). The effect of choice interventions on retention-related, behavioural and mood outcomes: a systematic review with meta-analysis. *Health psychology review*, 16(2), 220-256.
- Chan, S. W., Schilizzi, S., Iftekhhar, M. S., & Rosa, R. D. S. (2019). Web-based experimental economics software: How do they compare to desirable features?. *Journal of Behavioral and Experimental Finance*, 23, 138-160.
- Collins, N., Bisset, L., McPoil, T., & Vicenzino, B. (2007). Foot orthoses in lower limb overuse conditions: a systematic review and meta-analysis. *Foot & ankle international*, 28(3), 396-412.
- Cuyacot, E. P., & Cuyacot, M. T. (2022). Competency-based education: Learner's new process for success. *International Journal of Research*, 11(4), 89-101.
- De Corte, E. (2007). Learning from instruction: the case of mathematics. *Learning Inquiry*, 1, 19-30.
- Devonshire, E., & Nicholas, M. K. (2018). Continuing education in pain management: using a competency framework to guide professional development. *Pain reports*, 3(5).
- Dhanapañño, P. A., & Sutheejariyawattana, P. (2022). An online program to empower teachers' knowledge to develop students' collaborative skills. *Education Quarterly Reviews*, 5(2).
- Evers, J., & Kneyber, R. (Eds.). (2015). *Flip the system: Changing education from the ground up*. Routledge.

- Faircloth, B. S. (2012). "Wearing a mask" vs. connecting identity with learning. *Contemporary Educational Psychology*, 37(3), 186-194.
- Fisher-Ari, T. R., Speights, R., Veazie, M., Haile, H., Tennes, E., & Ngo, H. (2020). Organizational cultural competence in PDS networks and teacher certification programs. *Exploring cultural competence in professional development schools*, 1-25.
- Ghasemi, F. (2023). Revisiting the effects of hypnotic suggestion on reading comprehension: The role of emotional intelligence and hypnotic suggestibility. *Current Psychology*, 42(14), 11759-11770.
- Grose, C. R., Lopez, P., Sadhwani, S., & Yoshinaka, A. (2022). Social lobbying. *The Journal of Politics*, 84(1), 367-382.
- Haapaniemi, J., Palojoki, P., & Taar, J. (2022). Future Directions of Home Economics Education: Nordic-Baltic Perspectives. *Journal of Home Economics Education Research*, 34(12), 71-86.
- Harrison, M. S., Frye, C. C., & Puri, V. (2020). Commentary: outcomes and transferability of ex vivo lung perfusion. *The Journal of Thoracic and Cardiovascular Surgery*, 159(1), 356-357.
- Hong, C. E., & Lawrence, S. A. (2011). Action research in teacher education: Classroom inquiry, reflection, and data-driven decision making. *Journal of Inquiry and Action in Education*, 4(2), 1-17.
- Janhonen, K., Torkkeli, K., & Mäkelä, J. (2018). Informal learning and food sense in home cooking. *Appetite*, 130, 190-198.
- Katja, S., & Anne, M. (2021). Vocational training choice from a regional perspective. *Empirical Research in Vocational Education and Training*, 13(1).
- Köpsén, J. (2020). Demands-based and employer-driven curricula: defining knowledge in higher vocational education and training. *Studies in Continuing Education*, 42(3), 349-364.
- Malmström, M., Wincent, J., & Johansson, J. (2013). Managing competence acquisition and financial performance: An empirical study of how small firms use competence acquisition strategies. *Journal of Engineering and Technology Management*, 30(4), 327-349.
- Masabanda Manotoa, V. E. (2022). *Peer Assessment for Developing Speaking Skills in EFL Students Facilitated by a Video Discussion Website* (Master's thesis, Universidad Casa Grande. Departamento de Posgrado).
- Morales, M. P. E. (2016). Participatory action research (PAR) cum action research (AR) in teacher professional development: A literature review. *International Journal of Research in Education and Science*, 2(1), 156-165.
- Moses, K. M. (2019). Increasing Public Awareness on TVET Roles as A Government Strategy for Reducing Youth Unemployment. *Jurnal Pendidikan Sains*, 7(1), 1-8.

- Mse, G. S. (1998). *A STUDY OF THE PRESERVICE TRAINING OF PRIMARY SCHOOL TEACHERS FOR VOCATIONAL EDUCATION IN KENYA* (Doctoral dissertation, KENYATTA UNIVERSITY).
- Munna, A. S., & Kalam, M. A. (2021). Impact of Active Learning Strategy on the Student Engagement. *GNOSI: an interdisciplinary journal of human theory and praxis*, 4(2), 96-114.
- Mupfumira, I. (2011). The Hands-on Approach in teaching and Learning of Home Economics in Primary School. *International Journal of Education*.
- Muraina, M. B. (2015). Relevance of the use of instructional materials in teaching and pedagogical delivery: An overview. *Handbook of Research on Enhancing Teacher Education with Advanced Instructional Technologies*, 145-165.
- Nakelet, O. H., Prossy, I., Bernard, O. B., & Peter, E. (2018). Factors influencing competence acquisition through field attachment among Makerere University undergraduate students of agriculture in Uganda. *International Journal of Agricultural Extension and Rural Development Studies*, 5(1), 1-19.
- Niklas, F., Cohrsen, C., Lehl, S., & Napoli, A. R. (2021). Children's competencies development in the home learning environment. *Frontiers in psychology*, 12, 706360.
- Nkoula, S. N., Velez-Aguilera, G., Ossareh-Nazari, B., Van Hove, L., Ayuso, C., Legros, V., ... & Pintard, L. (2023). Mechanisms of nuclear pore complex disassembly by the mitotic polo-like kinase 1 (PLK-1) in *C. elegans* embryos. *Science Advances*, 9(29).
- Okumu, I. M., & Bbaale, E. (2019). Technical and vocational education and training in Uganda: A critical analysis. *Development Policy Review*, 37(6), 735-749.
- Pérez-Navío, E., Ocaña-Moral, M. T., & Martínez-Serrano, M. D. C. (2021). University graduate students and digital competence: Are future secondary school teachers digitally competent?. *Sustainability*, 13(15), 8519.
- Ratnawati Susanto, N. A., Anwar, N., & Rachbini, W. (2022). A New Paradigm of Basic Teaching Skills: Learner Organizational Culture and Self-Leadership Constructions. *Journal of Positive School Psychology*, 10452-10462.
- Ravi, D. K., Taylor, W. R., Singh, N. B., Poston, B., Mickel, C., & Coco, M. (2018). The “Journal of Functional Morphology and Kinesiology” Journal Club series: Highlights on recent papers in motor control and learning. *Journal of Functional Morphology and Kinesiology*, 3(1), 16.
- Secundo, G., Lombardi, R., & Dumay, J. (2018). Intellectual capital in education. *Journal of Intellectual Capital*, 19(1), 2-9.

- Shtaltovna, Y. (2021). Can a skill be measured or assessed? 6-level skills development approach to skill assessment. *GiLE Journal of Skills Development*, 1(1), 12-24.
- Silin, A. N., & Belonozhko, M. (2021). Factors of Human Health Capital Development in the Arctic. *Health Education and Health Promotion*, 9(5), 501-512.
- Simon, B., Parris, J., & Spacco, J. (2013, March). How we teach impacts student learning: Peer instruction vs. lecture in CS0. In *Proceeding of the 44th ACM technical symposium on Computer science education* (pp. 41-46).
- Speelman, C. P. (2014). The acquisition of expertise in the classroom: are current models of education appropriate?. *Frontiers in Psychology*, 5, 580.
- Velasco-Martínez, L. C., Díaz-Barriga, F., & Tójar-Hurtado, J. C. (2017). Acquisition and evaluation of competencies by the use of rubrics. Qualitative study on university faculty perceptions in Mexico. *Procedia-Social and Behavioral Sciences*, 237, 869-874
- Vidal, Rene Victor Valqui. "The future workshop: Democratic problem solving." *Economic analysis working papers* 5.4 (2006): 21.
- White, S. (2021). What is Business Process Analysis? A Methodology for Improving Process. <https://www.cio.com/article/3608753/what-is-business-process-analysis-a-methodology-for-improving-process.html>.

## APPENDICES

### I: Interview guide for student teachers

**Dear respondent(s)**

I am a student of Kyambogo University pursuing a Master's Degree in Vocational Pedagogy.

I am carrying out a study as referenced above and kindly request you to provide the necessary information that will help in the Master's study program and also help me explore Vocational Education and Training in Uganda.

The information given will be treated with the most confidentiality required.

Thank you for your cooperation, please.

#### **Demographic Information**

1. Name of the student teacher.....
2. Name of the Institution.....
3. Number of students enrolled for this elective course.....;.....  
Male student..... Female student.....
4. Name of the subject being researched.....
5. Suggest anyone competency you would wish to learn and acquire  
needed skills and knowledge from.....

#### **SECTION A: RESOURCES AND MATERIALS FOR PRACTICAL INSTRUCTIONS**

6. Write down some examples of instructional resources and materials to practice competency acquisition identified above.
  - a) Resources.....
  - b) Materials.....
7. Mention one use of each of the following;
  - a) **Resources:**
    - i. Wooden spoon.....

- ii. Glass bowl.....
- iii. Big saucepan with sand in it.....

**b) Materials:**

- i. Lemon (juice).....
- ii. Baking powder.....
- iii. Sugar and Margarine.....

**SECTION B: WAYS OF IMPROVING COMPETENCE ACQUISITION**

8. Identify some possible situations that can permit the practice and development of competence acquisition during the teaching and learning processes.

.....  
 .....  
 .....

9. Suggest some good conduct you would wish to practice while learning the intended competence outcome.

.....  
 .....  
 .....

10. In which way can you master the competency acquired for meaningful purpose in life?

.....  
 .....  
 .....

11. Explain how your community can make use of the skills and knowledge acquired from you to earn a living.....

.....  
 .....

**12. Rubric score to confirm the level of competence learned**

<b>Activity</b>	<b>V Good</b>	<b>Good</b>	<b>Needs imp.</b>	<b>No. of STD</b>	<b>Comment</b>
<b>Score</b>	<b>4</b>	<b>3</b>	<b>2</b>		
<b>Awareness/incomplete competence</b> <ul style="list-style-type: none"> <li>• Can't understand what to do</li> <li>• Take time to respond in learning.</li> </ul>					
<b>Complete incomplete</b> <ul style="list-style-type: none"> <li>• Does not understand to do things.</li> <li>• Recognizes weaknesses made.</li> <li>• Take heart to learn new skills</li> </ul>					
<b>Conscious Complete</b> <ul style="list-style-type: none"> <li>• Understand how to do something.</li> <li>• Demonstrate skills and knowledge with concentration.</li> </ul>					
<b>Unconscious Complete</b> <ul style="list-style-type: none"> <li>• Committed to practicing skills.</li> <li>• Guide others to improve.</li> <li>• Demonstrate collaborative skills to learn more.</li> </ul>					

**SECTION C: EVALUATION AND ASSESSMENT OF COMPETENCY ACQUIRED DURING PRACTICAL INSTRUCTIONS.**

13. Name of the competency in the practice.....

.....

14. What are the challenges encountered through this training and provide solutions where necessary.....

.....

.....

## RUBRIC II: CAKE MAKING

A student who chose to learn and practice the competency in making a cake can be assessed alongside the following parameters.

**The table shows assessment rubrics**

Activity Area	Fair	Good	Very Good	Excellent	Comments
Rubrics	1	2	3	4	
<b>1. Personal hygiene/sanitation</b> <ul style="list-style-type: none"> <li>• Presence of water and detergents,</li> <li>• Protective gears (apron, caps, gloves, handkerchief, etc.</li> <li>• Clean facilities, tools, &amp; equipment.</li> <li>• No littered floor with water, presence of dustbins.</li> </ul>					
<b>2. Tools, equipment, and facilities</b> <ul style="list-style-type: none"> <li>• Use of tools, and equipment, knowledge use.</li> <li>• Safety precautions during work processes.</li> </ul>					
<b>3. Measurements of ingredients</b> <ul style="list-style-type: none"> <li>• Rightful measurements for intended competency.</li> <li>• Necessary ingredients for better products.</li> <li>• Identifying the basic ingredients and equal measurements.</li> </ul>					

<p><b>4. Methods/approaches</b></p> <p><b>i. The mixture of margarine and sugar in a bowl.</b></p> <ul style="list-style-type: none"> <li>• Uniform mixture with a wooden spoon.</li> <li>• Mixing bowl place on tea clothes while working.</li> </ul> <p><b>ii. Creaming the mixture</b></p> <ul style="list-style-type: none"> <li>• Exert efforts with the wooden spoon in one direction to allow proper aeration for it to dissolve effectively.</li> <li>• Efforts are vigorous and constant to create efforts on creaming thus lessening the work.</li> </ul> <p><b>iii. Checking consistency.</b></p> <ul style="list-style-type: none"> <li>• Light and fluffy, white in color.</li> <li>• It flows when the wooden spoon is raised up showing no sign of a drop in lumps.</li> </ul> <p><b>iv. Adding liquid ingredients first.</b></p> <ul style="list-style-type: none"> <li>• Milk, egg whisk, vanilla essence, lemon juice, etc. to soften.</li> </ul> <p><b>v. Adding dry ingredients.</b></p> <ul style="list-style-type: none"> <li>• Examine flour mixture (baking flour, cocoa, etc.)</li> <li>• Folding of dry ingredients with a metallic spoon.</li> <li>• Slow movement/effort to turn it in the regular direction.</li> </ul>					
--	--	--	--	--	--

<p><b>vi. Adding the last bit of liquid and dry ingredients.</b></p> <ul style="list-style-type: none"> <li>• Continuous use of a metallic spoon to integrate the mixture.</li> <li>• Feeling of the texture using clean fingers showing softness, smoothness, and air uniformly incorporated.</li> </ul>					
<p><b>5. Baking processes</b></p> <ul style="list-style-type: none"> <li>• Greasing of muffin tins/use of paper liners ready to put creamed products into tins.</li> <li>• Preparation of charcoal stove, sands, pans, and stones ensuring the ground level for the stove.</li> <li>• Cover the saucepan.</li> <li>• Matchbox to light the charcoal.</li> <li>• Equal quantity of charcoal both on top and bottom to provide equal heat calories.</li> </ul>					
<p><b>6. Assessing baking products</b></p> <ul style="list-style-type: none"> <li>• The central placing of the muffin tins on baking.</li> <li>• Sign of monitoring and supervising baking processes.</li> <li>• Use of clean knife or toothpick to pier through to confirm the indented sign or not.</li> </ul>					
<p><b>7. Removal from the oven</b></p> <ul style="list-style-type: none"> <li>• Use of a non-conductor of heat to</li> </ul>					

<p>open the oven to avoid an accident.</p> <ul style="list-style-type: none"> <li>• Careful picking of the products to place on the table.</li> <li>• Improving its cleanliness, removing the burnt parts if any.</li> </ul>					
<p><b>8. Packaging and presenting</b></p> <ul style="list-style-type: none"> <li>• Use of cut board for any big-size product to place on while small sizes can be put in a clean dish.</li> <li>• Aluminum foil used to wrap if need be.</li> <li>• It's stored in a box/cupboard for safety.</li> </ul>					

**Comments:**.....  
.....  
.....  
.....  
.....

### RUBRIC III: SCORING STARCH MAKING

#### SECTION A

1. Identify food crops that contain starch in them.

.....  
 .....  
 .....

2. Suggest tools for the following

- a. Suggest tools and equipment for starch making.

.....  
 .....  
 .....

- b. What are the best raw materials for starch making?

.....  
 .....  
 .....

3. Apart from being as a food, how else can starch be used?

.....  
 .....  
 .....

#### SECTION B: THE TABLE SHOWING THE SCORING RUBRIC OF STARCH MAKING

Activity	V Good	Good	Needs imp	Comment
<b>Score</b>	<b>4</b>	<b>3</b>		
<b>Personal hygiene and Health</b> <ul style="list-style-type: none"> <li>• Clean water and detergent for washing.</li> <li>• Dustbins/bucket/box for rubbishes.</li> <li>• Putting on the apron, presence of handkerchief, clean nails, wear head gears, caps/cover clothe.</li> </ul>				
<b>Tools and Equipment</b> <ul style="list-style-type: none"> <li>• Knife, Grater, black polythene, basin, small iron sheet, bowl.</li> </ul>				
<b>Material selection/sorting</b> <ul style="list-style-type: none"> <li>• Select healthy roots, clean cassava tubers</li> </ul>				

<ul style="list-style-type: none"> <li>• Use clean water for washing.</li> </ul>				
<b>Peeling</b> <ul style="list-style-type: none"> <li>• Peel wholesome roots properly.</li> <li>• Use of a non-rusting knife to peel.</li> </ul>				
<b>Washing</b> <ul style="list-style-type: none"> <li>• Wash peeled roots properly until white in color.</li> </ul>				
<b>Grating</b> <ul style="list-style-type: none"> <li>• Grate/shreds cassava tubes properly with stainless steel grater.</li> <li>• Grate uniformly smooth without lumps.</li> </ul>				
<b>Decanting</b> <ul style="list-style-type: none"> <li>• Clean water in the basin.</li> <li>• Mixed grated cassava incorporated with water to dissolve.</li> <li>• Squeeze to reduce and remove lumps, and sieve/sift liquid substances.</li> <li>• Allow the solvent to settle under the bowl and water on top.</li> <li>• Later, let water out of the bowl slowly while bending.</li> </ul>				
<b>Drying</b> <ul style="list-style-type: none"> <li>• Spread the milky substance in the basin/bowl/iron sheet to dry in the sunlight.</li> </ul>				
<b>Cake breaking/Sifting/Sieving</b> <ul style="list-style-type: none"> <li>• Use hands to hold the sieve while aerating in a clean bowl.</li> </ul>				
<b>Packaging</b> <ul style="list-style-type: none"> <li>• Put in bottles (Glass/Plastics).</li> </ul>				
<b>Storage</b> <ul style="list-style-type: none"> <li>• Store in cupboard/boxes.</li> </ul>				

4. Suggest some challenges encountered in the learning of starch competency making and provide solutions where necessary.....
- .....
- .....
- .....
- .....
- .....

## RUBRIC IV: A SAMPLE RUBRIC FOR MAKING CHAPATTI

### SECTION A

1. a) Identify some resources vital for the learning of competency acquisition.

.....  
 .....  
 .....

1. b) What are the materials that support chapatti-making practices during the teaching and learning processes?

.....  
 .....  
 .....

2. What other ingredients can be used to improve the taste of chapatti intake at your service delivery?

.....  
 .....  
 .....

### Section B: Rubric table with parameters to score chapatti-making

Activity	V Good	Good	Needs imp	Comment
Score	4	3		
<b>Personal hygiene and sanitation</b> <ul style="list-style-type: none"> <li>• Presence of clean water and detergent.</li> <li>• Clean fingernails and hands.</li> <li>• Cover hairs, use the handkerchief, and apron caps.</li> <li>• Presence of dustbins to collect rubbishes.</li> </ul>				
<b>Relevant tools/equipment</b> <ul style="list-style-type: none"> <li>• Rolling pin, board, table, basin/bowl, charcoal stove, charcoal, matchbox.</li> </ul>				

<p><b>Materials</b></p> <ul style="list-style-type: none"> <li>• Ingredients such as flour, salt, cooking oil, water, onions, and carrots.</li> </ul>				
<p><b>Mixing</b></p> <ul style="list-style-type: none"> <li>• Integrate baking flour plus salt.</li> <li>• Grate onions, and carrots to mix later.</li> <li>• Add little warm water and mix the dough.</li> </ul>				
<p><b>Kneading</b></p> <ul style="list-style-type: none"> <li>• Knead with a hands-on clean surface (table) properly.</li> <li>• Reinforce kneading with a rolling pin on board.</li> <li>• Incorporate some little flour while kneading to make it soft and firm.</li> </ul>				
<p><b>Cutting</b></p> <ul style="list-style-type: none"> <li>• Cut into sizeable shapes.</li> <li>• Incorporate cooking oil plus flour and knead evenly.</li> </ul>				
<p><b>Baking</b></p> <ul style="list-style-type: none"> <li>• Use a clean pan. Place it on fire and drag it with water. Later use a bit of cooking oil and rinse with water.</li> <li>• Spread cut to shape, stretch, and keep turning from side to side until ready.</li> </ul>				
<p><b>Packing</b></p> <ul style="list-style-type: none"> <li>• Arrange baked ones as a display on a clean table.</li> </ul>				

<ul style="list-style-type: none"> <li>• Provide takeaway materials (envelopes, pills, papers) to serve customers.</li> </ul>				
---	--	--	--	--

3. Suggest some challenges in acquiring competencies while processing chapatti through practical instructions and provide solutions where necessary.

.....

.....

.....

.....

***God Bless You!!!***

## II: Work plan for the research and budget

Below is a Gantt chart representing and illustrating my project schedules from the research proposal to the final submission of the research reports.

**Table 6: Months in schedules**

No.	Items	July/August	September	October	November
1	Future workshop	24/07/2022 - 26/07/2022	-----	-----	-----
2	Preparation & approval of proposals.	18/07/2022 -	13/09/2022	-----	-----
3	Preparation of questionnaires	-----	14/09/2022 - 16/09/2022	-----	-----
4	Data collection/Implementation	-----	.....	01/10/2022 - 14/10/2022	-----
5	Data processing	-----	-----	01/10/2022 - 15/10/2022	-----
6	Draft report writing submission	-----	.....	16/10/2022 - 26/10/2022	-----
7	Review of draft reports	-----	.....	24/10/2022	03/11/2022
8	Final report submission	-----	-----	-----	15/11/2022

### III: Table showing the budget

No.	Items	Costs
1.	Stationaries/photocopies	200000=
2. a)	Future workshop &transport including feeding.	400000=
2. b)	Transport for researcher, data collection/ implementation, (to &fro) including feeding.	400000=
3.	Data processing &analysis is	300000=
4.	Spiral binding, etc.	400000=
	<b>Total</b>	<b>1,700,000=</b>

The approximate total sum of money is one million seven hundred thousand shillings only.



V: Attendance sheet for future workshop

# KYAMBOGO UNIVERSITY

FACULTY OF VOCATIONAL STUDIES

SCHOOL OF ARTS AND INDUSTRIAL DESIGNS

FUTURE WORKSHOP, PAIDHA PTC, ZOMBO DISTRICT, (U).

ATTENDANCE SHEET

26/07/2022

Serial No.	Surname	Other name	Title	Signature
1.	MUNGUJAKISA	FERDINAND	STUDENT	
2.	FRANCIS JAMES		TUTOR	
3.	EGESSA	EMANUEL O	TUTOR	
4.	DIENA	FABBY LOUIS	TUTOR	
5.	CHURKLOTH	DENIS	STUDENT	
6.	OCIRABIDE	ADISON	STUDENT	
7.	OYIRWOTH	FRANKLINE	STUDENT	
8.	ABIDOKOMITH	JOWLING	STUDENT	
9.	KUMISA	JACQUELINE	TUTOR	
10.	EGITU	DENIS	TUTOR	
11.	INRIKU	ROBERT PAX	DEPUTY PRINCIPAL	
12.	OMIRAMBE	KILLION	Researcher	

13. ANDURU GRACE CONSULTANT

14. REV. WARIVENO WILFRED CO-RESEARCHER

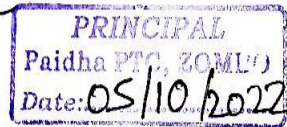
**VI: Acceptance letter**

KYAMBOGO UNIVERSITY

27/09/2022

THE PRINCIPAL,  
PAIDHA PTC,  
BOX 133, PAIDHA,  
ZOMBO DIST. LOCAL GOV'T.

*Request granted*  
*sh*



Dear Madam,

**RE: REQUEST FOR CONSENT LETTER.**

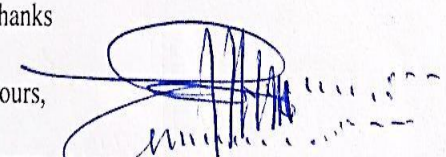
I am a student of Kyambogo University pursuing a Master's Degree in Vocational Pedagogy. I would wish to seek permission on some methods of data collection to support my research areas in the study like taking photographs and recording among others.

This is because in the processes of interacting with learners during teaching and learning, some of the participative activities will require such consent permission in order to get evidence through photographing and recording in support of the variables.

I hope you will consider my request.

Thanks

Yours,

  
OMIRAMBE KILLION

MVP STUDENT,

KYAMBOGO UNIVERSITY

VII: Introductory letter

**KYAMBOGO UNIVERSITY**  
P. O. BOX 1 KYAMBOGO  
Tel: 041 - 4286792 Fax: 256-41-220464  
Website :www.kyu.ac.ug, Email: drgt@kyu.ac.ug  
**Directorate of Research and Graduate Training**  
Office of the Director

Date: 27/09/2022

TO WHOM IT MAY CONCERN

RE: OMIRAMBE KILLION.....

↓ acknowledge receipt  
#sh

PRINCIPAL  
Paid to (20ML)  
Date: 05/10/2022

Dear Sir/Madam,

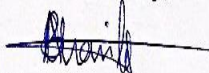
This is to introduce to you the above named student Reg: No 2014/LMVP/1425/PP pursuing Masters in Vocational pedagogy Department of Visual communication, Kyambogo University.

She/he intends to carry out research on Student Teachers' Competence in partial fulfillment of the requirements for the award of a Masters degree.

The purpose of this letter therefore is to request you to grant him/her permission to carry out his/her study in your institution.

Any assistance rendered to him/her will be highly appreciated.

Yours sincerely,



PP Prof. Bosco Bua  
AG. DIRECTOR