

**MITIGATING LOW MALE STUDENTS' PARTICIPATION IN
FOOD PREPARATION AT BISHOP STUART CORE PRIMARY
TEACHERS' COLLEGE KIBINGO, MBARARA**

BY

NYAMAIZI GLADYS

17/U/14861/GMVP/PE

**A THESIS SUBMITTED TO THE KYAMBOGO UNIVERSITY GRADUATE
SCHOOL IN PARTIAL FULFILLMENT FOR THE DEGREE OF
MASTERS IN VOCATIONAL PEDAGOGY OF
KYAMBOGO UNIVERSITY**

2020

DECLARATION

I do here by declare that this thesis has never been presented for award of a Degree in any other University.

Signature Date

NYAMAIZI GLADYS

17/U/14861/GMVP /PE

APPROVAL

We, as University supervisors confirm that this work was done by the candidate under our supervision.

Signed: _____ Date _____/_____/

Grace Muhoozi (PhD)

Supervisor

Signed: _____ Date _____/_____/

Mr. Ali Katende Kyakulumbye

Supervisor

DEDICATION

I dedicate this Thesis to my family, my sister Dr. Atuhura Dorothy and my mother Jessica Magambo.

ACKNOWLEDGEMENT

My gratitude goes to God Almighty for His supreme guidance, provision of wisdom and health. I am indebted to my dear supervisors Dr. Grace Muhoozi, Mr. Ali Katende Kyakulumbye, and my mentor Mr. Ediedu Moses for their tremendous work done to make sure that my thesis was acceptable. I wish to extend my sincere appreciation to the Prof. Bosco Bua, Dean, Faculty of vocational studies, Dr. Emmanuel Mutungi, the head of department Art and Industrial Design at Kyambogo University for all their parental guidance rendered unto me during my study struggles. I am very grateful to the head of program MVP, Mr. Chris Serwaniko and the in charge of examinations in the department of Art and Industrial Design Mr. Edwin Wathum for all the technical support that they gave me for the success of my thesis.

I wish to thank Miss Tuhaise Lillian, Miss Arinaitwe Dina Vance and Mr. Sande for their psychosocial support during my stay at NOMA. I would like to thank all MVP staff members, my fellow students at Kyambogo University for their co-operation during my study. I would like to thank the Principal, staff and students of Bishop Stuart core PTC for all their professional support given unto me. Finally, I sincerely thank all my family members for their spiritual, psychological, financial support rendered to me during my time of study.

May the Almighty God abundantly bless you!

TABLE OF CONTENT

DECLARATION.....	ii
APPROVAL	iii
DEDICATION.....	iv
ACKNOWLEDGEMENT.....	v
TABLE OF CONTENT.....	vi
LIST OF TABLES	x
LIST OF FIGURES	xi
LIST OF PLATES	xii
LIST OF ACRONYMS/ ABBREVIATIONS.....	xiii
LIST OF APPENDICES	xiv
ABSTRACT.....	xv
CHAPTER ONE: INTRODUCTION.....	1
1.0 Overview.....	1
1.1 Background to the study	1
1.1.1 Origin of cultural gender bias and its negative impact on male students’ participation ...	1
1.1.2 Vocational pedagogy and gender roles in TVET	2
1.1.3 Personal and professional background of the researcher	3
1.1.4 History of Food preparation in Home Economics at BSCK.....	4
1.1.5 Statement of Motivation	5
1.2 Situation analysis at BSCK	6
1.2.1 Work process analysis.....	6
1.2.2 Future workshop	9
1.3 Statement of the problem.....	19
1.4 Purpose of the Study.....	19

1.5 Specific Objectives of the Study.....	20
1.6 Research Questions	20
1.7 Justification of the study	20
1.8 Significance of the study.....	21
1.9 Scope of the Study	21
1.9.1 Geographical scope	21
1.9.2 Content scope.....	22
1.9.3 Time scope	22
1.10 Limitations.....	22
1.11 Definitions of operational terms	23
CHAPTER TWO: LITERATURE REVIEW.....	25
2.0 Introduction	25
2.1 Theoretical Framework.....	25
2.2 Causes of low male students’ participation in food preparation at Bishop Stuart Core PTC	28
2.3 Strategies for increasing male students’ participation in food preparation at BSCK	29
2.3.1 Creating public awareness to increase male students’ participation.	29
2.3.2 Utilization of appropriate instructional resources by male students in food preparation	30
2.3.3. Students’ participation in learning stations during food preparation	33
2.3.4. Utilization of problem-based learning method during food preparation	34
2.4 Examining the change in the participation of male students in food preparation	35
2.4.1 Recording of students’ reflections after utilizing appropriate instructional resources....	35
2.4.2 Display of food prepared and served by students.....	36
CHAPTER THREE: METHODOLOGY	37
3.0 Introduction	37

3.1 Research Design.....	37
3.2 Study area	38
3.3 Population.....	38
3.4 Sampling technique	39
3.5. Sample size.....	39
3.6 Methods and Instruments used in data collection.....	40
3.6.1 Data collection procedure.....	41
3.7 Data analysis.....	45
3.8 Validity and reliability	46
3.9 Ethical considerations	46
CHAPTER FOUR: ACTION IMPLEMENTATION, RESULTS AND EVALUATION	48
4.0 Introduction	48
4.1 Causes of low male participation in food preparation among male students at BSCK.....	48
4.1.1 Gender bias among stakeholders at BSCK	48
4.1.2 Limited use of appropriate instructional materials.....	51
4.2 Strategies for increasing male students’ participation in food preparation at BSCK	52
4.2.1 Male and female students working together in food preparation.....	52
4.2.2 Creating awareness.....	52
4.2.3 Utilizing appropriate instructional resources	53
4.3 Implementation of the strategies to increase male students’ participation in food preparation.....	54
4.3.1 Creating public awareness.....	54
4.3.2 Identification of appropriate instructional resources	55
4.3.3. Utilization of the instructional resources.....	58

4.4.0. Examining the change in the participation of male students in food preparation.....	63
4.4.1 Display of food items.....	63
4.4.2 Recording of students’ reflections.....	63

CHAPTER FIVE: DISCUSSION, CONCLUSION AND RECOMMENDATIONS..... 66

5.0 Introduction	66
5.1 Causes of low male students’ participation in food preparation	66
5.2 Strategies that can increase male students’ participation in the learning process of food preparation.....	67
5.3 Implementation of the strategies-Utilization of appropriate instructional resources.....	68
5.3.1 Identification, planning and preparation.....	68
5.3.2 The action of food preparation for exhibition.....	70
5.4 Examining the change in the participation of male students in food preparation	70
5.4.1 Recording of students’ reflections.....	70
5.2 Conclusion	72
5.6 Recommendations.....	74

LIST OF TABLES

Table 1: Teaching and learning process analysis.....	8
Table 2: Categorization of factors that influence the utilization of instructional resources	10
Table 3: Levels of solving critical issues	11
Table 4: Causes and effect of culture being gender biased as one of the factors why male students at BSCK do not utilize instructional resources	13
Table 5: Pair -wise matrix.....	15
Table 6: Work plan to create public awareness in Bishop Stuart Core PTC	17
Table 7: Budget for the action plan.....	18
Table 8: Population sample and sample technique	39
Table 9: Methods and instruments used in data collection	41
Table 10: Category, number and role of the participants.....	42

LIST OF FIGURES

Figure 1: Theoretical framework	27
Figure 2: Opinion of the respondents on existence of cultural gender bias.....	49
Figure 3: Opinions on the relevance and teaching Home Economics to only females.....	50
Figure 4: Loss of male students' value or manhood in society if trained in home economics.	50
Figure 5: Respondents' reaction on limited resources as a hindrance to male students' participation of Food preparation.....	51
Figure 6: Strategies to increase male students' participation in food preparation.....	53
Figure 7: Utilizing appropriate instructional resources to increase interest and participation among males	54

LIST OF PLATES

Plate 1: Collaboration with MVP colleague in the future workshop	12
Plate 2:Stakeholders observing the merged themes	16
Plate 3:Stakeholders making a work plan	18
Plate 4: Stakeholders in a future workshop at BSCK	43
Plate 5: Students in learning stations	45
Plate 6: A local charcoal oven	56
Plate 7:An electric mini oven.....	56
Plate 8: Some kitchen utensils	57
Plate 9: A male student with female students arguing over lighting a charcoal stove.....	57
Plate 10: Ingredients used to make cakes and daddies	58
Plate 11: Some of the male Students making Daddies	59
Plate 12: Students in learning stations during competition in cake making	60
Plate 13: Female students filling queen cake mixture into baking tins.....	61
Plate 14 : Male students preparing chapatti and cake mixtures respectively.....	62
Plate 15: Male students lighting the charcoal stove.....	62
Plate 16: Display of a Cake made by male students	63
Plate 17: Male student washing utensil basin	65

LIST OF ACRONYMS/ ABBREVIATIONS

BCK	Bishop Stuart Core Primary Teacher's College Kibingo
CEDE FOP	Centre for the Development of Vocational Training
COT VET	Council for Technical and Vocational Education and Training
GIL	Gender Innovation Lab
HIV/AIDS	Human Immune Virus/Acquired Immune Deficiency Syndrome
ICT	Information Communication Technology
ILO	International Labour Organization
IPS	Integrated Production Skills
MOES	Ministry Of Education And Sports
NGO	Non-Governmental Organizations
NOMA	Norwegian Masters Abroad
PTC	Primary Teachers' College
TVET	Technical Vocational Education and Training
UNESCO	United Nations Education Service and Cultural Organization
VET	Vocational Education and Training

LIST OF APPENDICES

APPENDIX I: GENERAL QUESTIONNAIRE	84
APPENDIX II: INTERVIEW GUIDE	89
APPENDIX III: LESSON PLAN	90
APPENDIX IV: FUTURE WORKSHOP GUIDE	95
APPENDIX V: OBSERVATION CHECKLIST.....	98
APPENDIX VI: A COPY OF REQUISITION FORM	100

ABSTRACT

Males just like females need to engage in food preparation especially in knowing how to prepare food just because they are part of the family (Ozioma, 2012). The inadequate knowledge on the value of food preparation at BSCK, has led to gender bias and this contributes to imbalanced social economic development. Therefore, purpose of the study was to determine ways of overcoming cultural gender bias in order to increase male students' participation in the learning process of food preparation at BSCK.

The study was directed by three research questions as follows; what were the causes of low male students' participation of male students in learning process of food preparation at BSCK, which strategies could increase male students' participation of male students in learning process of food preparation at BSCK, and will there be change in the participation of male students in learning process of food preparation at BSCK after using the identified strategies? The study was based on qualitative (Nicodemus, 2018) Vocational Participatory Action Research (VPAR) research design. Purposive sampling technique was used to select 20 stakeholders from the target population as a sample. The methods used in data collection included focus group discussion and interviews, survey and documentary analysis; future workshop and work process analysis. The techniques that were employed in collecting data included questioning, observation, reflection, journalism and photo voice.

The findings indicated that gender bias existed among the stakeholders at BSCK, which led to the wrong perception that food preparation was for female students causing low participation of male students in food preparation.

In conclusion, the results of this research further indicated that by creating public awareness through utilization of appropriate instructional resources in food preparation increased male students' participation in the learning process of food preparation at BSCK. As a recommendation, BSCK needs to be equipped with modern food preparation laboratory by the Government.

CHAPTER ONE: INTRODUCTION

1.0 Overview

This section presents the background of the study; the situation analysis and future workshop at Bishop Stuart Core Primary Teachers College, the problem statement, the purpose of the study, the specific objectives of the study, the research questions, justification and significance of the study, the scope of the study, the limitations of the study and definition of operational terms.

1.1 Background to the study

1.1.1 Origin of cultural gender bias and its negative impact on male students' participation

My grandparents used to say that “Boys do not cook; do not enter the kitchen because they were boys and Girls cook because they were girls who will get married and have to do the cooking for the family”. Almost everyone would try to justify these statements because cultural gender bias starts at home. Males just like females need to engage in food production especially in knowing how to prepare food just as females do because they are part of the family (Ozioma, 2012). Often men and women are portrayed in stereotypical roles and professions which do not reflect the actual roles of men and women in society (Levtov, 2014) thus, creating a cultural gender bias in regard to acquisition of skills for social economic development.

The men face challenges in handling key activities such as family nutrition, hygiene and the management of family resources, the development and care for children, the care of the sick plus the everyday social relationships. This has led to increased domestic violence, moral degradation among the youth, marriage break ups, poverty, and unemployment among male youths, low levels of girls' education, gender discrimination and low women empowerment

among others. “When both boys and girls have had training in family relationships which involves helping in food preparation, they will have a similarity of ideals for home life that will smooth over many necessary adjustments” (Schaffer, 2017). Through the development of practical skills such as cooking, which lead to creation self-employment and self-enterprises, exploration and use of environment, boys and girls are able to identify economic opportunities and meet life challenges (MOES, 2012). However, the inadequate knowledge on the value of food preparation has led to gender bias in BSCK where by male students regard it to be an activity for only women who will end up in their husbands’ kitchens, thus not having any contribution to the social economic development of society.

The male students therefore, develop low interest in learning food preparation those who study it do not participate fully in some practical class lessons. At the end of the course, there is an imbalance in skills acquisition for employment among males and females and this has a long-term effect of creating a social economic gap.

1.1.2 Vocational pedagogy and gender roles in TVET

Technical vocational education is a key for paid or self-employment and therefore a necessity to every student. TVET institutions ensure that both men and women have equal access to new technologies, skills, and opportunities being introduced in the world of work. (Ilo, 2014). Vocational pedagogy is a learning principle which connects learner competencies to the needs of the world of work (Widiaty, 2018). Learner’s competency in the work industry is of great achievement in education and economic development. Therefore, teacher trainers of food preparation need to adopt the pedagogies that address gender bias thus preparing men and women for different roles beyond schooling (Taylor, 2017).

Vocational pedagogies are the sum total of the many decisions which vocational teachers take as they teach, adjusting their approaches to meet the needs of learners and to match the

context in which they find themselves (Lucas, 2014). Particular learner-centered or active learning methods such as group work, learning stations, demonstrations, and problem-based learning, authentic and interactive learning tasks linked to the future occupation, the use of authentic learning resources and support from teachers help students to plan for their own world of work. All these methods positively correlate with high levels of perceived achievement, progression, motivation, interest and participation (Cedefop, 2015).

In the teaching and learning process of food preparation, learners need to participate actively and interact with each other in order to extract meaningful, essential practical skills required after school for competitive survival in the world of work. All learners in colleges should be given the same opportunity of practice in Food preparation regardless of their social, physical, cultural, economic, intellectual, political and geographical backgrounds (Gamawa, 2015).

1.1.3 Personal and professional background of the researcher

I am student of masters in vocational pedagogy program cohort VII, at Kyambogo University. I joined this program to build on the skills, knowledge and attitude of teaching a vocational subject, in this case home economics. I hold a bachelor's degree in Education majoring in Home Economics, a Diploma in Teacher Education with Home Economics of the Institute of Teacher Education Kyambogo. I started my teaching career as a Grade III primary school teacher. I am currently, a tutor for Home Economics at BSCK, Mbarara.

During my several practical food preparation lessons with students in home economics at the college, I observed that the participation of male students was low. Male students were not participating in certain activities like peeling matooke and lighting charcoal stoves. These activities were left for female students. The male students argued that holding a knife to peel food was not meant for them because of the existing gender bias, yet graduates of home

economics possess skills in the production of many marketable consumer food products and the entrepreneurial ability in making a livelihood out of these production skills (**Gabriel, 2018**). I realized that there was need to motivate the male students to fully participate in all food preparation activities for balanced skill acquisition to all students. Therefore, this research was essential to identify the origin of low male participation in food preparation and possible solutions in order to overcome gender bias.

1.1.4 History of Food preparation in Home Economics at BSCK

Bishop Stuart Core Primary Teachers College, Kibingo –Mbarara is a Grade III Primary Teacher College. It was founded by Anglican Community in Kakoba, Mbarara. BSCK is funded and supervised by the Ministry of Education and Sports (MoES). The college admits male and female students holding the Uganda certificate of education (UCE). In Uganda, the students' study for two years to become Grade III teachers for primary schools. Among the many subjects taught at the college, is Integrated Production Skills (IPS). It is one of the TVET fields in Professional and Vocational Education (PVE) which were introduced with the aim of professionalizing the vocational education in Primary Teachers' Colleges (UNESCO-UNEVOC, 2006). It is composed of art, crafts, design, technology, home economics, entrepreneurship, health, metal and woodwork, engineering and education (MOES, 2012). Home Economics has several courses such as Home management, Clothing and Textiles and Food preparation.

Home Economics at Bishop Stuart core –Kibingo (BSCK), was introduced in 2013 as part of the IPS. It is mainly a practical subject and aims at training students in skills for sustainable economic development and value for market. The topics for first year class in IPS include; entrepreneurship and personal awareness, water and sanitation, fiber and fabrics, food and nutrition, methods of food preparation, making simple garments, personal hygiene, safety at

home and school, planning and care of a home, organizing an enterprise. While in the second year, class topics which are mostly practical include food hygiene, food preservation, meal planning, food preparation, fabric decoration, the family, mother and child care, business management skills, HIV/AIDS, the family and the community and lastly ethical issues as laid out in the integrated production skills syllabus (MOES, 2012).

Home economics is compulsory for all the year I students and optional to the year II students at BSCK, PTC. It is one of the optional subjects mostly taken up by female students.

Home economics having broadened from a domestic science to a course, it still faces a challenge of gender bias. Gender is defined as “Sex” and bias is defined as “Preference or inclination that inhabits impartiality; prejudice”. Thus, gender bias is separation of gender in a way that prefers one sex to the other. Gender bias in Home Economics refers to preference for or favoring of one sex, over the other in study of Home Economics (Ozioma, 2012). According to Ozioma (2012) there is a misconception that Home Economics is a woman’s subject/course creating a gender gap and gender bias between males and females in the study of Home Economics. This is because gender starts at home where the child is provided with first experiences. The children quickly learn that the roles of men in the family are different from those of women. This differential of roles of boys and girls constitute a serious problem to Home Economics as it affects the male students in the way they view the subject.

1.1.5 Statement of Motivation

My motivation was drawn from the quest to equip male and female students with skills and knowledge that develop their cognitive, affective and the psychomotor domains that is, the training of the mind, heart and hands to help them become innovative and self-reliant for sustainable social economic development. The cultivation of the innovative skills of the teaching and learning process in food preparation satisfies demand of production,

construction, management and service, and contributes to the development of local economy and society (Dongmei, 2015). The development of innovative skills requires the proper planning for effective utilization of appropriate instructional resources in food preparation

Food preparation lesson being a practical lesson in home economics, equips students with knowledge and innovative skills relevant for self-reliance (Silva, 2018). I enjoy teaching especially when students are interacting with instructional resources such as kitchen tools that include whisks, hand mixers, creaming bowls, wooden spoons, ladles and equipment such as cookers and ovens, in the food and nutrition laboratory. They then use them to produce different types of cakes, samosas, scones, chapattis and bread which they can sell and get money for the sustainability of the subject and earning from what they do. In addition, both the teachers and students participate actively and effectively in lesson sessions (Olayinka, 2016). The use of instructional resources makes lessons more interesting, practical, realistic and attractive. However, these instructional resources need to be free from gender bias so that all students actively get involved and benefit from using them in the learning process. I was motivated to undertake this study, so as to be that tutor who is effective in teaching the practical aspects and create interest especially among the male students and to increase their participation in food preparation.

1.2 Situation analysis at BSCK

1.2.1 Work process analysis

During several lessons and other activities concerning food preparation, I observed that the male students in second year class shunned some activities that had a cultural feminine attachment such as peeling matooke, washing utensils, lighting fire for cooking. I also observed that in the teaching and learning process, male students did not utilize some the instructional resources such as knives, saucepans and brooms, because they linked them to

the feminine roles back home. The students confessed that they thought the subject was for girls only and that some resources and activities were meant to be utilized by females only. Examples given were like kitchen knives to peel matooke, lighting fire for cooking and washing up dishes, were all attributed to being feminine roles. I also noticed that during food preparation practical lessons, the boys would engage quickly in chopping meat than peeling Irish potatoes or matooke. I was prompted to inquire from other students who were not part of the IPS class and administrators “Why male students did not participate in all food preparation activities?” The common feedback rotated on “culture back home dictated that home economics was for female students and not male students”. In addition, lack of appropriate instructional resources was another factor cited most frequently by both students and administrators as a hindrance to male students’ participation.

Through the situation analysis process, key factors that directly or indirectly contributed to the existing gaps in the teaching and learning process of food preparation were identified, categorized and analyzed to find appropriate solutions (Dadang, 2013). The work process analysis involved diagnosing how the teaching and learning process of food preparation was carried out done at BSCK. I sought opinions of Administrators, tutors and students as stakeholders who were directly involved in the teaching and learning of food preparation at BSCK. These stake holders brainstormed on the various activities carried out in specific steps of the work process analysis. The steps of work process included preparation, delivery, and assessment. Through group discussion, it was discovered that; Instructional materials were not being utilized appropriately by male students during the food preparation lessons. I used a work process analysis tool to identify the gaps as shown in table 1.

Table 1: Teaching and learning process analysis

Process	Preparation	Delivery	assessment	Gaps identified
Quality requirements	Current curriculum guide Scheme of work Lesson plan ICT	Approved scheme of work and lesson plan Standard instructional materials	Theory exams Practical exams Continuous Assessment Projects	NONE
Teaching and learning process	Interpreting syllabus Research Making scheme of work Making lesson plan Identification of instructional resources Making instructional resources Distribution of instructional resources	Review of previous lesson, Implementing the stated objectives Utilization of instructional materials Assessment of the lesson Conducting practical lessons	Setting exams Administering exams Marking exams Reviewing exams	instructional resources not utilized appropriately in practical lessons like food preparation especially by male students
Materials	ICT, papers, pens, manilas	Stated instructional materials, chalk, charts, markers	Papers, pens, Items for practical exams,	None
Tools	Text books, syllabus, instructional materials, library	Black board, white boards	past question papers tools for practical exams assessment tools	None
Equipment	Computer	Projector, cookers, sewing machines, refrigerators	cookers, sewing machine	none, teacher always improvise
Competence	Academic mastery	Manage learning,	assess learning	None

Together with the stakeholders, we identified a gap in the teaching and learning process of food preparation within the delivery step as instructional resources not being utilized appropriately especially by male students. This was noted by the director of studies who reported a case where he found male students hiding behind the kitchen after being asked to peel matooke and light fire during food preparation. Not only hiding but also male students looked uninterested in participating in food preparation practical lessons. In order to eliminate the identified gap, the situation analysis was followed by a future workshop.

1.2.2 Future workshop

The Future Workshop was used as a tool in solving the identified gap from the situation analysis. The stakeholders were the same people who participated in the situation analysis. The future workshop had preparation phase, the critique phase, the fantasy phase, the implementation phase (Lautamaki, 2014)

Phase I: Preparation phase

The preparation phase involved the organization, planning and management of the workshop. Activities included: a) Organization of the venue, b) Collecting and arrangement of the materials like flip charts, markers, pens, and papers, strips, tools and equipment such as ICT-Projector, computer, white board, pointer, stand board, chairs, tables, table cloths, c) Settlement of the participants in a conference form and d) Presentation of the workshop program.

The workshop started with prayer, followed by self-introductions, election of helping hands, opening remarks from the researcher and setting of ground rules. The methods employed in the future workshop included; Group discussion, Audio & video recordings, and

Brainstorming. The participants were served breakfast and lunch and workshop ended with the closing remarks by the College Principal.

Phase II: The critique phase

The critique phase started by discussing about the reasons why instructional resources were not being appropriately utilized by male students in food preparation at Bishop Stuart Core PTC. This was the fuzzy question developed in the situation analysis. The stake holders developed critical ideas as follows; a failed change of negative attitude towards the utilization of instructional resources, the training not being supportive, costly materials, lack of creativity, materials not readily available, lack of storage and care facility for the materials, more theory than practical lesson in curriculum, lack of a special room, culture which is gender biased, lack of interest and poor parenting skills. The critical ideas were then categorized into factors of influence as shown in table 2.

Table 2: Categorization of factors that influence the utilization of instructional resources

Social	economic	institutional	political	cultural	environmental
Failed change of attitude The training not being supportive	Costly materials	Lack of storage and care No special room	More theory than practical lessons in the curriculum	Culture is gender biased	Materials not readily available Lack of creativity

The critical ideas were then grouped into long -term, medium -term and short-term issues as shown in the table 3. This was done to enable the stake holders come up with one issue that could be immediately solved.

Table 3: Levels of solving critical issues

Long term	Medium term	Short term
Failed change of negative attitude Training Lack of storage and care More theory than practical No special room	Costly materials Materials not readily available	Lack of creativity Culture which is gender biased

The short-term level was limited to three months according to the college term system. The stake holders were taken through a consensus by voting which one issue from short term could be solved quickly and easily. Culture which is gender biased had more votes than lack of creativity. Thereafter, the stakeholders brainstormed on the causes of culture being gender biased as an influence of the utilization of instructional resources especially by male students, in food preparation at BSCK. Together with the stakeholders, we discovered that because of culture being gender biased, this influenced the way in which male students viewed and utilized instructional resources. They linked some of the resources to feminine roles in food preparation.



Plate 1: Collaboration with MVP colleague in the future workshop

Table 4: Causes and effect of culture being gender biased as one of the factors why male students at BSCK do not utilize instructional resources

Issue/problem	Cause	Effect
Culture is gender biased	Poor parenting skills	Survival skills are missed
	Negative attitude	Low uptake of the subject, low quality products on market
	Cultural/societal norms	No choice, no development, social misfit
	Nature of training not supportive	Lack of interest, neglect of subject, no production, no succession
	Knowledge gap	Half-baked students, less informed, low quality products on market
	Lack of role model	Low uptake, no skill acquisition, less values
	Inadequate trained personnel of home economics	Inadequate skills, curriculum not covered, bulky work load, low quality students

The critical ideas were structured and grouped into main sub themes namely; Supportive training, Good parenting skills, Positive attitude, Interest, Public awareness, Culture not Gender bias and Role modeling.

The problem was critically and thoroughly discussed and investigated. Brainstorming was the preferred creative technique followed up by a structuring and grouping of ideas in some main sub-themes in the fantasy phase (Lauttamaki, 2014).

Phase III: The fantasy (Utopian) phase

In the Fantasy phase, the stakeholders created a utopia, by drawing an exaggerated picture of future possibilities, which consisted of ideas they need to visualize taking place in food preparation at Bishop Stuart Core PTC. Stakeholders suggested solutions by turning the causes of culture gender bias into positive ideas or social fantasies (Lauttamaki, 2014). The ideas and solutions found were collected and put in a bank of ideas, regardless of their practicability (Rene, 2005). The following ideas were created as an idea store at a solution stage; good parenting skills, positive attitude, supportive cultural /societal norms, supportive training, public awareness, availability of role models, having adequately trained personnel, being patient with male learners, and creating interest in learners. All these ideas if implemented would lead into proper utilization of instructional resources at Bishop, Stuart Core PTC. However, not all ideas could be implemented at the same time. Therefore, the participants had to select one idea for implementation as point of action. As Rene (2005), suggests that “most promising ideas have to be transformed, that is they must be reduced to a possible and realizable core”. This was done by merging these ideas in the idea store into five specific themes. The themes included Positive attitude, Good cultural norms, Public awareness, Adequate and supportive training of personnel, Role models.

The themes were further subjected to a pair wise matrix by analyzing their strength, weaknesses in relation to the time and requirements for implementation.

Merged themes included the following:

1. Positive attitude

2. Good cultural norms
3. Public awareness
4. Adequate and supportive training of personnel 5. Role models

Table 5: Pair -wise matrix

pair -wise matrix

Theme	1	2	3	4	5	frequency	Rank
1		1	3	1	5	2	3
2			3	4	5	0	5
3				3	3	4	1
4					5	1	4
5						3	2

Public awareness was the theme that had the highest frequency when compared with other themes after analysis. This was public awareness to dispel the gender bias and appropriate utilization of instructional resources within the College. It would be carried out within the period of three months as intended by the researcher. The stakeholders were in agreement that by making the public aware of utilization appropriate instructional resources by male students, gender bias would be overcome in order to increase male students' participation in food preparation.



Plate 2:Stakeholders observing the merged themes

Source; Primary data

The stakeholders decided to create public awareness among administrators, tutors, students, and support staff in the college would probably be the best way of overcoming cultural gender bias in order to increase male students' participation in food preparation at Bishop Stuart Core PTC.

Phase IV: Implementation (Reality) phase

During the implementation phase, the ideas generated were checked and evaluated in what concerns their practicability (Rene, 2005). Together, with the stakeholders; the work plan was drafted and implemented. I identified instructional resources that would be utilized in food preparation. I carried out demonstration of the practical lesson using the available resources. Then both male and female students were given instructions on what to do in the lesson and they were allowed to carry out the practical. I observed the students as they carried out

practical activities in food preparation. Both male and female displayed their products and recorded their experiences, reflections and any impact towards participation in food preparation.

The work plan was in line with the second, third, and fourth objectives of the study.

Table 6: Work plan to create public awareness in Bishop Stuart Core PTC

Objectives	Activity	Process	Responsible person	Time frame	Indicators
2	Identification of instructional Resources	Research Consultations Documentation Make them Available (Design, buy)	Administration Researcher Students	Feb 28 th - 4 th march 2019	List of Instructional resources Real instructional resources available
3	Implementation	Both female and male students interact with resources in learning stations, utilization of problem-based learning methods to produce food items Record the experiences Display products for accountability	Administration Students Researcher	March 4 th -15 th 2019	Photos of students in action Reports of their recordings and experiences. \Exhibition of products made by boys and girls Monitor change in bias
4	Reflections	Make observations and report, share experiences	Researcher	15 th - 18 th march 2019	Reflection report on reduced gender bias.

Table 7: Budget for the action plan

Item	Quantity	Unit cost	Amount
Communication(internet)	months	30000	90000/=
Transport	3 months	100000	300000/=
Stationary	variety	300000	300000/=
Food	15 plates	15000	225000/=
Instructional Resources	330000	330000	330000/=
		Total	1,245,000/=



Plate 3: Stakeholders making a work plan

Source; Primary data

1.3 Statement of the problem

The teaching and learning process of Food preparation requires equal participation of students in order to develop a better understanding and development of practical skills in problem solving, critical thinking and creativity. This was supported by the Government policy of Uganda, which provides for equal opportunities in education and other sectors for both sexes (Education, 2015). It was also very important to encourage both the female and male students to participate with interest especially during food preparation at BSCK. This can be achieved through the use of appropriate instructional resources so as to promote balanced social economic development in future.

During the five years I spent teaching food preparation at BSCK from 2014 to 2019 the male students' participation was low, in some practical activities.

From stakeholders in a future workshop, it emerged that, male students did not participate in some practical activities because instructional resources utilized are presumably linked to the female roles in their homes. In addition, while a lot of work has been done by government and non-governmental organizations to encourage the girl child to participate for school as well as courses that were predominantly male dominated, little or no work/research has been done for the male counterparts. It was against this background that I felt the need to perform an action research to increase male participation in the learning process of food preparation at BSCK.

1.4 Purpose of the Study

The purpose of the study was to determine ways of overcoming cultural gender bias in order to increase male students' participation in the learning process of food preparation at BSCK.

1.5 Specific Objectives of the Study

The specific objectives of the study were to:

- i. Identify the causes of low male participation in food preparation among male students at BSCK.
- ii. Examine the strategies for increasing male students' participation in food preparation at BSCK.
- iii. Implement the strategies to increase male students' participation in food preparation at BSCK.
- iv. Evaluate the effects of implementing the strategies to increase male students' participation in food preparation at BSCK.

1.6 Research Questions

The study was guided by the following questions:

- i.** What are the causes of low male students' participation in food preparation and at Bishop Stuart Core PTC?
- ii.** Which strategies can increase male students' participation in the learning process of food preparation Bishop Stuart Core PTC?
- iii.** Will there be change in the participation of male students in food preparation at BSCK after using the identified strategies?

1.7 Justification of the study

Both males and females are free to develop their personal abilities and make choices without the implications set by stereotypes and prejudices about gender roles. What a man can do, a woman can do. It just needs training and passion. Increasing male students' participation in the teaching and learning of food preparation at BSCK, leads to eliminating gender bias in homes and the community. It also means that the different behavior, aspirations and needs of

women and men are considered, valued and favored equally (Tuladhar, 2012); thus, promotion of balanced social economic development.

1.8 Significance of the study

The research aimed at determining ways of increasing male students' participation in food preparation through utilization of instructional resources at Bishop Stuart Core PTC. The results of the study would be utilized by TVET institutions, education policy makers, and curriculum developers, the personnel in the ministry of Gender and Ministry of Education in Uganda and Worldwide who are responsible for promoting gender equality. This study provides literature to educationists, teachers and instructors on how instructional resources can be utilized to increase male students' participation in the learning process of home economics, or any other subject. The research findings may also be used to form a basis for further research involving planning for increasing interest and participation of learners in learning situations in schools and institutions.

1.9 Scope of the Study

1.9.1 Geographical scope

The research was conducted at Bishop Stuart Core PTC in Mbarara District, Western Uganda, and a place where I was working. This would be convenient for me in the implementation and follow up processes of the study. The study was conducted on year two students of the 2019 academic year since food preparation course was optional to second year students. The awareness was limited to staff teaching and non- teaching and students of Bishop Stuart Core Primary Teachers College because of limited time and funds. This action research was carried out within six months of year 2019.

1.9.2 Content scope

The study sought to determine ways of overcoming gender bias in order increase male students' participation in food preparation at BSCK. The study was conducted in four parts: Together with the stake holders, we identified the causes of low male participation in food preparation among male students and examined the strategies for increasing male students' participation in food preparation. I had to implement the resource utilization as strategy to create public awareness. Lastly, together with stake holders evaluated the effect of utilizing instructional resources to increase male students' participation food preparation at Bishop Stuart Core Primary Teachers

1.9.3 Time scope

The Action Research process at Bishop Stuart Core Primary Teachers College started on 25th February, 2019 and ended on 18th march2019. This was because of unforeseen country lockdown due to Covid-19 outbreak. Fortunately, the researcher and stakeholders worked hard to ensure that the work plan was implemented within that short period of time before lockdown. During that time, the researcher and stakeholders participated in situation analysis, future workshops, implementation, evaluation and follow up.

1.10 Limitations

The study was influenced by three factors

1. Time; the research was carried out in the College that uses term system. It happens that both year one and year two students are always in college at the same time in only term two. There was a Covid-19 outbreak which made me narrow down my study to two months only instead of three months. The college closed when I had implemented all the activities in the work plan.

2. Funds; Vocational Action research requires a lot of funds because it involves practical activities. At the time of this research the funds available would not to facilitate the study beyond the college level.

3. Literature; little literature was openly available on internet for this particular research topic.

1.11 Definitions of operational terms

Boys are male sex people who are not yet married, also mean male students.

BSCK is a primary teacher's college where the research was carried out

Demonstration is the process of teaching someone how to make or do something in a systematic process (showing how, you "tell" what you are doing)

Didactics – teaching and learning processes

Food – anything liquid or solid that can be eaten raw or cooked to treat, preserve and nourish our bodies.

Food preparation - (also referred to as cooking) is the process of changing the state of food from unpalatable state to a palatable state and presenting it artistically on the table of the consumer.

Future workshop is an instrument for collaborative problem solving, collecting and refining data, it is also responsible in bringing about the desired change (Lauttamaki, 2014).

Girls are female sex people who are not yet married, also mean female students

Home economics is a skill-oriented field of study, which equips learners with survival skills for self-reliance/ employment and paid employment.

Instructional resources refer to facilities, equipment, tools and materials utilized in teaching and learning process of food preparation

Instruments refer the general term for resources utilized in data collection which included tools

IPS is defined as the creative use of material, tools, processes and conditions in the environment to produce items and services that promote people's welfare.

Methods; Ways in which data was collected

Research and study are used co-currently – is the study carried out in quest of finding a solution to increasing male students' interest and participation in the teaching and learning process of food preparation.

Researcher and or 'I' were used interchangeably to mean the same person doing research

Strategy – a way of solving to the solution

Stakeholders – these included the administrators, tutors and students who participated in the situation analysis and future workshop.

Students – these are male and females involved in food preparation at BSCK.

Tutor – a person teaching home economics at Bishop Stuart Core Primary teachers' college

TVET- is Technical Vocational Education and Training (TVET) as the study of technologies, practical skills, attitudes and, knowledge for economic life.

Vocational pedagogy- This encompasses the science, art and craft of teaching and learning vocational education (Lucas, 2016).

CHAPTER TWO: LITERATURE REVIEW

2.0 Introduction

This chapter presents the scholarly data reviewed according to the first two objectives of the study, the theory underpinning the study, the conceptualization of the theoretical framework of the theory of participation. The objective three and four of the research were purely practical and were covered in chapter four and chapter five of this research report.

2.1 Theoretical Framework

The study was guided by the theory of participation. The theory was developed by Greg Wang and Jia Wang in 2005. For any learning to take place, students have to participate. Participation refers to a process of being actively engaged in any given activity (Reed, 2017). According to Wang and Wang, 2005, participation is influenced by three clusters which include: The Individual, learning process and organization. Individual cluster is constructed on factors such as Motivation, self-efficacy, personal characteristics, and individual cultural orientation. Motivation refers to the desire, attention and effort required to complete a learning task. Self-efficacy refers to learner's belief and confidence in performing a task in learning. Personal characteristics; these include age, gender, education, background, ethnic group and cultural orientation/ differences may all influence individual cognitive process or the learning process (Wang, 2005). Learning process cluster consist of instructional design such as methods, delivery platform in this case a classroom or a food and nutrition laboratory, technology-based learning environment and teacher. Organization cluster refers to organization of the learning environment like an institution, classroom or instructional material and this can have a significant impact on participation. There are two environmental factors that may affect participation. These are; economic related conditions such as lack of appropriate instructional resources and uncontrolled disasters like covid-19. For any learning process to take place, factors of needs assessment, interactivity, learning delivery platform

and instructor has to be considered; otherwise, they can negatively affect individual participation in a classroom (Wang, 2005).

When learners are motivated self-confident, grouped in same age and gender without cultural bias in a supportive institution, participation in learning automatically takes place. The institution such as BSCK setting has a great impact on learners' participation in any learning process. That is why the institution has to be supportive by providing favorable learning environment. The institution has a role of solving the needs of the learners in their learning process such as provision of appropriate instructional resources. Therefore, participation depends entirely on the nature of learners' learning process and organization of the institution. The environment in this case the food and nutrition laboratory when well equipped with required tools, materials and equipment required supports the learner's learning process to allow him /her achieve the intended learning goal in that institution. If the learner recognizes that the learning activities fits well to his /her cultural background or personal learning needs he/she would be more likely to participate in that learning. (Wang, 2005). The framework of factors that affect an individual's participation is shown in fig.1

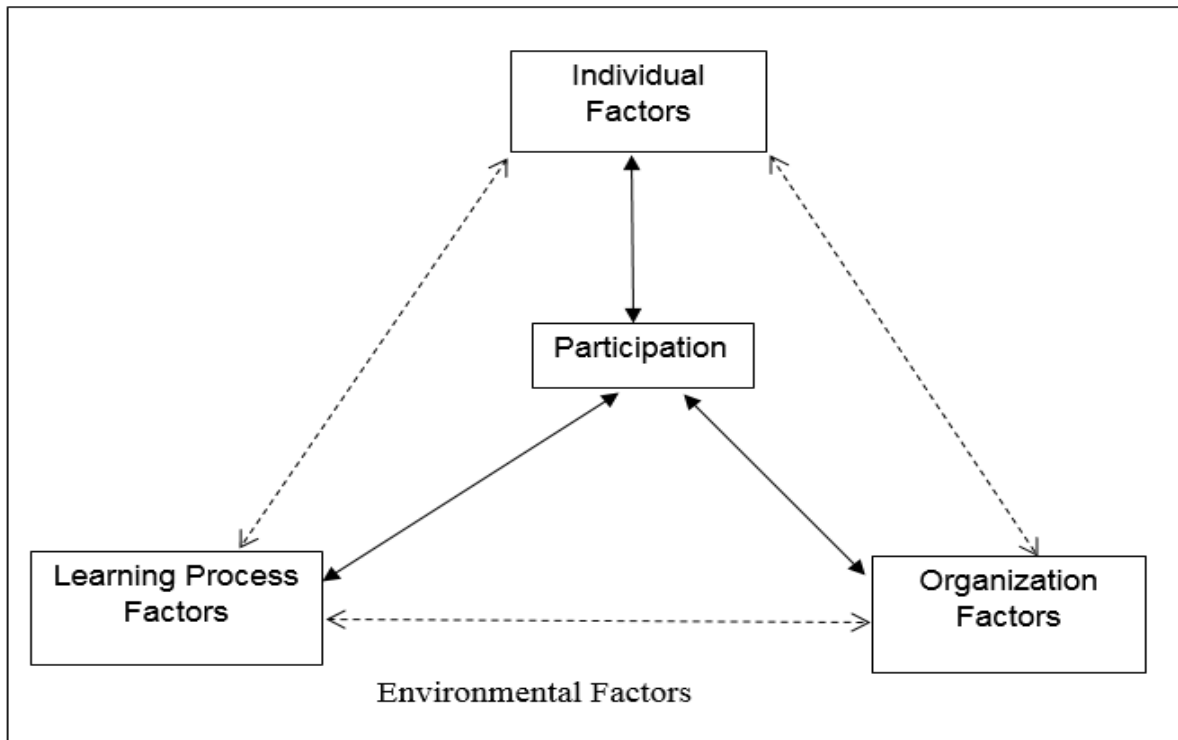


Figure 1: Theoretical framework

Source; Wang, 2005

There is a relationship among the food preparation lesson, instructional resources and participation. Instructional resources can be manipulated to give a change in how learners participate. Secondly; food preparation lesson will always available, despite the absence of active participation in learning by male students. Learners can learn by force, however if we need to fully engage learners into real learning and understanding of the content that will create a balanced social economic change, then we will need to increase their participation by using external motivators such as the appropriate instructional resources in a well-equipped laboratory forming the boarder lines in the figure 1 above. We also need to appreciate that the three variables depend on each other if there is no utilization of appropriate instructional resources, then there will be no transferable learning process and therefore the participation will be questioned. At the end of the process, we will remain with few male students actively

participating food preparation lesson. We need the collaboration of all the three variables mentioned above.

2.2 Causes of low male students' participation in food preparation at Bishop Stuart

Core PTC

According to Laursen (2012), male and female students differ in the way they behave in the classroom. Male students are often more competitive in their behavior. They like to be challenged in the right way. Therefore, it is important to understand the differences in student behavior and, for instance, to try to direct boys' energy into learning activities rather than crushing their enthusiasm. Students' stereotypical ideas concerning gender start to form at a very early age (Laursen, 2012). Sex- stereotyped occupation of girls over boys is a tradition which has socialized males into believing that it is a ridicule of manliness to venture into an occupation that is traditionally female reserved. It is the teacher's ability to recognize and understand local social and gender dynamics by giving voice to boys' and girls' experiences that teachers can create more gender-inclusive learning environments in some of the most gender-exclusive contexts (Bever, 2017).The lack of strong male role model is believed by some experts to be yet another reason for the gender gap in the study of Home economics between males and females (Kimotho, 2019).Male students in single-sex schools do not have access to food preparation programmes of study. This set-up deprives a large number of male students from acquiring knowledge that would help them in future (Adomako, 2001).The cultural construction of masculinity and femininity in society are founded on a belief in fundamental biological distinctions between male and female human natures and corresponding behavioral prescriptions typically expressed in societal norms and values (Janhoren, 2017)Other barriers that stop males from preparing meals at home include lack of cooking skills and food preparation knowledge. (Stang, 2014), as well as lack of knowledge

and low level of education on food preparation can cause low participation in cooking (Muhammad, 2017).

Teachers need to pay immediate attention to both male and female students as they participate in any classroom activity. They should both be given equal opportunities of playing a more active part in learning process.

2.3 Strategies for increasing male students' participation in food preparation at BSCK

2.3.1 Creating public awareness to increase male students' participation.

Public awareness is an activity that aims at increasing understanding and knowledge that male and female students are capable of utilizing available resources to produce same results in food preparation. It plays a role in eliminating gender bias by providing information aimed at changing attitudes, behaviors and beliefs of the communities and other beneficiaries (Catarina, 2018). This can be done by exhibitions of food prepared by male students, selling the products so that they can earn income and see the value attached to the subject. A Paradigm shift is needed in socially constructed gender biased courses like food preparation. Since women can physically construct houses, repair motor vehicles, males too can prepare and present food. The participation of females and male students in food preparation is paramount for equal opportunities in skills development. Teachers have the ability to sensitize the society against gender bias in education by promoting learning techniques that work for all students. According to Browne, college classrooms are an arena perfect for harvesting a societal change because they already serve as a place for learning and developing one's identity that is carried out throughout life (Browne, 2007).

2.3.2 Utilization of appropriate instructional resources by male students in food preparation

Instructional resources refer to facilities, equipment, tools and materials utilized in the teaching and learning process. Instructional resources should be provided in a variety of formats that are appropriate, timely, and essential to the attainment of specified educational objectives and should be free of gender bias (Miami-Dade, 2011). Instructional material comprise all available and accessible, theoretical, practical and skill oriented resources, which facilitate the learning acquisition and evaluation of vocational technical skills (Beatrice, 2015). The role of instructional resources is to glue information into learner's mind as what is seen is understood more than what is heard. A rich leaning environment that is filled with a variety of instructional resources tends to widen mastery of concepts and foster faster acquisition of requisite skills for sustained learning and development (Wambui, 2013). Therefore, instructional resources enable learners to take active involvement in learning activity and offer a greater variety of dissemination of ideas and knowledge. Further, they offer concrete conceptual thinking thereby reducing the meaningless word responses of learners. Thus, the applications of instructional resources pave way for creative student participation and fill the classroom with evidence of learner accomplishments (Koech, 2017). Teachers need to be more innovative and creative when planning, preparing and utilizing the required instructional resources. The term 'innovation' is similar, in its literal meaning, to that of adjustment, improvement, development, study/pilot project, experiment, or even modernization, reform or renewal. (Walder, 2014). Innovation is primarily associated to mean adding value to existing instructional resources by use of new technology. These technologies include use of videos, photos from internet. Use of information technology can provide a convenient platform for learning resources such as recipes, photos, videos of different cooking process. By using right technologies in food preparation and service lessons, student participation can be aroused. It allows students to conduct peer assessment

and free interaction hence increase in participation (Yiu-Chi Lai, 2012). Thus, the availability, adequacy, distribution, and interaction of students with instructional resources can lead to higher participation of both male and female students in home economics. Instructional resources aid active learning where students engage with the material, participate in the class, and collaborate with each other (Profost, 2019).

The instructional resources make lessons exciting, captivating, and motivating, leading to students' increased participation. The use of instructional resources increases confidence and practicability, leading to improved cooking expertise and interest among male students. Males need to be supported to know how to cook so that they become confident. The utilization of instructional resources becomes vital in building males' confidence in food preparation (Rosenthal, 2015). Instructional resources in real-life situations convey intended messages to learners and they quickly understand what is taught. They arouse interest, provide mental pictures, help in memory retention, and create social awareness (Kenobi, 2015).

Students are motivated into self-directed learning when left alone with appropriate instructional resources. Increased enjoyment in cooking by men could also have contributed to increased cooking levels, as enjoyment of cooking has been linked to new advancements in time-saving technology in the kitchen such as microwaves, food processors, and dishwashers over recent years compared to the late twentieth century (Taillie, 2018). Therefore, instructional resources offer a reality of experience which stimulates self-activity on the part of the students (Amadloah, 2018) and promotes excellence in performance of food preparation. Instructional materials enhance effective learning and better performance of students (Abdu-Raheem, 2016) and this is because they arouse students' interest by linking learning to real-life situations. The students understand better what they learn and the hands-on practical skills enable them to become competitive in the world of work.

The perspectives of gender roles should not at any point affect the utilization of instructional resources in the teaching and learning process. No matter who uses the instructional resources, the end result should be promotion of skills needed for the world of work. All individuals are equal as human beings, and by virtue of the inherent dignity of each person, are entitled to their rights without discrimination of any kind. Every person and all peoples are entitled to active, free and meaningful participation in, contribution to and enjoyment of civil, economic, social, cultural and political development, through which Human rights and fundamental freedoms can be, enjoyed (Unesco, 2007).

The utilization of appropriate instructional resources combined with engaging students actively in hands-on activities and experiential learning events during the learning process increases their attention and focus, motivates them to practice higher-level critical thinking skills and promotes meaningful learning experiences. Instructional resources motivate male students by keeping them engaged in the lesson (Bukoye, 2019).

The utilization of instructional resources in learning process serves as a strong vessel through which learners easily acquire and permanently retain knowledge and skills learnt. The utilization of instructional resources assists the learners to recall all the activities learnt and how they were done. Learners become more engaged and participate actively especially when they are allowed to manipulate instructional resources in the learning process (Arop, 2015).

Therefore, availability of quality and adequate instructional resources students can learn without teachers. When teachers utilize the available resources effectively, the objectives of the learning process are efficiently achieved. Teachers can improvise instructional resources by using locally available materials from the environment. Amadioha asserts that in using instructional materials teachers and students do not only extend the range of sense organs we use but also extend the range of materials used for conveying the same message through the

same organ. For instance, in teaching a topic a teacher can manipulate real objects or use their stimulators. Instructional materials therefore constitute the media of exchange through which a message transaction is facilitated between a source and a receiver (Amadioha, 2009). The use of instructional resources was found to make information stick firmly to the memory of students. Instructional resources have been found to have a significant positive relationship with the attainment of entrepreneurial skills (Ndifon, 2017). Where appropriate instructional resources are available, learners engage in practical activities that give them the opportunity to experiment, solve problems, discuss with each other, thereby stimulating curiosity, critical thinking and innovativeness (Atwebembeire, 2018).

2.3.3. Students' participation in learning stations during food preparation

Learning stations method requires setting up a number of “learning stations” or “corners” or “activity centers” around the training room at designated tables or spaces where small groups of learners will do specific learning tasks for a specific amount of time (Project, 2018). According to Hurst, Wallace and Nixon (2013), Learners interaction with each other improves comprehension, makes the classroom a learning environment, helps students become comfortable and confident, prepares students for the real world, teaches students how to work together, makes students want to come to class, helps students develop social skills, helps students improve their communication skills, makes it so that students are the ones working in the classroom, helps teachers get to know students better, provides for more ownership of learning, prepares well rounded students, helps time pass and breaks monotony, builds group mentality, and promotes self-assigned roles in groups (Nixon, 2013).

Learning stations involve a set of different tasks or activities that small groups of students rotate through. The tutor interacts with students and providing extra guidance to struggling groups or asking enrichment questions to advanced learners. Learning stations can enhance learning in ways that other methods cannot do. In the stations, students work as a group under

their teacher's guidance, are responsible for their own learning experiences, encounter research and exploration opportunities, have rich learning experiences, do different activities and use different materials to learn, and experience reinforcement of what they have learned (Senturk, 2019). The learning stations technique is a modern technique that enables students to work independently, use plenty of tools and materials, not experience passive listening monotony, be actively incorporated into the learning process, (Şentürk, 2019). A learning station is a Centre where students have activities to gain mandatory or voluntary skills. Learning stations are more effective than the conventional methods in helping students acquire the knowledge in a unit (Ocak, 2010).

Students' experiences in using several learning stations during educational activities lead them to discover information, and associate them with their knowledge, leading to integration of information in their minds which increases the improvement in the collection of knowledge to acquire the technological concepts (Haboush, 2017).

2.3.4. Utilization of problem-based learning method during food preparation

Problem based learning (PBL) is a teaching-learning method that uses the problem as starting point for the acquisition and integration of new knowledge. PBL focuses on the student, working in small groups where the teacher becomes a guide and support a learning process that motivates, encourages active participation of students in food laboratory. It is a method that simultaneously develops both problem-solving strategies and disciplinary knowledge bases and skills by placing learners in the active role of problem-solvers (Grossman, 2013). The PBL method encourages active learning process that characterizes students with having personal participation in their learning, making decisions about learning outcome, plan and design their own experiences, discuss and interact actively in groups. Lastly reflect on the activity the students have done (Harrison, 2018). PBL involve learning activities that

are designed and selected to adequately fit the planned objectives in food preparation and service, which can finally impact students' attitudes and practices. Learning activities function as preparatory, input, practice or revision activities that fit into a generic formula, for example: Demonstrations help to show students, how to prepare a nutritious snack, and even table manners. Observations and enquiries are other activities that enable students to learn by themselves. Household games can also serve as a starting point for discussion; have students Reflect and document their learning process to recognize patterns in their performance and decision making; and allow students to take on different points of view in a non-threatening way, Brainstorming can contribute to sharing ideas, opinions and experiences within the classroom and beyond (FAO, 2016).

2.4 Examining the change in the participation of male students in food preparation

2.4.1 Recording of students' reflections after utilizing appropriate instructional resources

Record keeping is an effective tool for tracking participative reflections made by individual students in food preparation, (Cora, 2019). Reflection in learning is necessary for students to revisit what they have learned for improvement and for in-depth learning. It gives students an opportunity to record their learning progress and provide references and suggestions for future students. The process of reflection includes debriefing and reframing to expand students' beliefs and understanding and using record keeping as a form of reflection to help students develop conscious awareness. Reflection is a good way for students to look back on their work to evaluate and identify what should be done next in food presentation (Chang, 2019). Relating with other individuals during the period of reflection enables students to get used to coping with the complexities, challenges and uncertainties which are essential in personal and professional development. Relating to other students and personal interests are also relevant as they promote reflection processes. Individual analysis of thoughts and

feelings, sharing life experiences with other students are considered to be the basis for reflection and change. Dialogue between students helps the learner to discover individual meaning of learning (Bubnys, 2019). This sheds light not only on the power of reflection as an academic learning tool, but on the transformative power of its ability to fundamentally change the way students think and perceive their effort, motivation, and ability to complete novel and familiar tasks. In addition to supporting students' abilities to think about their thinking, the basic principle of reflection also allows students affective outlets that can reduce stress and frustration in food preparation. Reflection activities have the potential to improve students' participation in food preparation as well as allow teachers to "evaluate the quality of thinking" demonstrated by individual students by "gaining access to their internal thought processes about the activities (Cavilla, 2017).

2.4.2 Display of food prepared and served by students

Display of food - Refers to any exhibition of food in an institution served to the consumer. Food displays include but are not limited to displays of food found at Cafeterias buffet and self-serve retail food dispensers. Food display- Means a food service display like buffets, set up using portable equipment that is moved as needed to different locations within an institution. Such a food service line is characteristically set up at a particular location for single meal or special occasion, or variety of snacks, then disassembled or stored at another location until needed again. A food service display operation is considered temporary if it provides regular service on two or less days in a seven-day period (Wisconsin Department of Agriculture, 2019). Food display at Bishop Stuart core PTC included snacks.

CHAPTER THREE: METHODOLOGY

3.0 Introduction

This chapter presents information on the research design, study approach, study population, sample size, sampling techniques and procedure, data collection methods, tools, analysis, ethical consideration, validity and reliability of the study.

3.1 Research Design

The study employed qualitative (Nicodemus, 2018) Vocational Participatory Action Research (VPAR) research design. This design involves equal participation from a researcher and stakeholders in the research process. At the same time the findings are used as strategies that can address a problem (Restall, 2010). It is a type of research on social systems in which the researcher actively engaged in the process under investigation (Grover, 2015). I included the word vocational because research in TVET also needs to be conducted according to general social norms of how learners and people in general are to be treated by institutions (Lauglo, 2006).

The research engaged active participation as a principle (Mugimu, 2017) to make sure all stakeholders participated fully in executing solutions to the stated problem. The stakeholders such as administrators, tutors and students of BSCK were empowered to participate through collaboration for a social change (Janice, 2011). The collaborative activities included situation analysis and making an action plan in solving a problem. These Collaborative activities in VPAR process permit for learning from real and authentic workplace situations. The outcome of the collaborative activities leads to improvement in work practices of food preparation (Sannerud, 2019). The approach employed three cyclic phases namely the situation analysis, future workshop as an intervention and evaluation (Wahat, 2018). Each phase included steps of identifying, planning, implementing and evaluating the developed

strategies to solve the problem (Libraries, 2016). The tool used in the situation analysis was work process analysis of the garage model. The work process analysis was linked to a future workshop where a matrix to array gaps against topics discussed and observations made and Thematized as described in chapter one.

A situation analysis (Ronny, 2015) was carried out in teaching and learning process of food preparation. After the analysis, I discovered that instructional resources were not utilized by male students because of cultural gender biased. Therefore, creating public awareness among the community of Bishop Stuart Core PTC would be the best solution. Descriptive study helps in generating more rich data for research that lead to important recommendations in practice (De Vaus, 20016). This research aimed at determining the ways to overcome gender bias in order to increase male students' participation in food preparation

3.2 Study area

The study was carried out from Bishop Stuart Core Primary Teachers College (BSCK). The college is in Kibingo cell, Nyakayojo municipality, and Mbarara city in the western part of Uganda. It is about 272 km from Kampala city in central Uganda. BSCK was chosen as a convenient area of study since it is where I worked as a tutor for food preparation. This gave me an opportunity of having good collaboration with the stakeholders thus very sure of sufficient information for this Vocational Participatory Action Research (VPAR).

3.3 Population

The target population of the study involved four categories of people who were directly responsible for teaching and learning process at BSCK. These categories included four administrators, forty-one tutors, two hundred- second year students and one hundred fifty first year students giving a total target population of three hundred ninety- five people. These formed the sampling frame from which a sample size would be determined (Hamed, 2016). In

my VPAR, I needed only few numbers as stakeholders in order to get quality information about food preparation at BSCK.

3.4 Sampling technique

Sampling is the process of selecting a sample from the population. I selected a sample which was representative of the total population basing on my own experience as a tutor at BSCK (Showkat, 2018). Purposive sampling technique was used to deliberately select limited number of stakeholders from the target population as a sample. The stakeholders provided important information that could not be obtained from other choices of sampling methods because of their expertise (Celano, 2010). They had the potential to analyze and take decisions for a positive change in food preparation at BSCK. The method is applied when the researcher is capable of making personal judgment that participants in the sample warrant inclusion (Tarherdoost, 2016). The method required little funding and it was so convenient to apply when getting the sample needed for this research. It did not consume a lot of my time.

3.5. Sample size

The sample size and category of participants are shown in table 8.

Table 8: Population sample and sample technique

Category	Population	Sample Size	Sampling Technique
Administrators	4	4	Purposive
Tutors	41	3	Purposive
2 nd year students	200	10	Purposive
1 st year students	150	3	Purposive
Total	395	20	Purposive

I needed limited number of 20 stakeholders as a sample size, therefore the all the samples were purposively (Sara, 2009) selected because I believed they had in-depth knowledge on how to increase male participation in food preparation.

The administrators included the college Principal, the Deputy Principal pre-service, the Director of Studies and the school practice co-coordinator. They were purposively selected to give administrative support and advice during the research process.

One tutor taught art and design technology, the second tutor taught ICT, lastly the tutor of food preparation. They were purposively involved in giving technical information and guidance.

Ten students offered IPS as their elective subject in the second year. Four out of ten students were males. They were directly involved in food preparation lessons in home economics at Bishop Stuart Core PTC-Kibingo. The first-year class representatives were purposively selected as participants who would spread awareness to defuse gender bias to their fellow year one students, since they were leaders in their respective classes.

3.6 Methods and Instruments used in data collection

The methods that were utilized to collect data included focus group discussion and interviews, survey and documentary analysis; future workshop and work process analysis. These are recommended for qualitative data which is descriptive in nature (Sajjad, 2018).

The techniques that were employed included questioning, observation, reflection, journalism and photo voice. The instruments which I used along with methods and techniques are shown in Table 9.

Table 9: Methods and Tools used in data collection

METHODS	TOOLS
Individual interviews	Interview guide
Questioning technique	Questionnaire guide
Learning stations	Observation, guide and checklist
Reflection journalism	Reflective journals
Focus group discussion	Note books, flip charts
Demonstration and display	Recipe books
Situation analysis	Work process analysis model, flip charts and markers, Projector
future workshop and focus group	Future workshop guide, flipcharts, markers, projector
Photo voice	Cameras

3.6.1 Data collection procedure

Situation analysis

Reference made to section 1.2; the data collection process started at the point of situation analysis whereby the didactic situation analysis model was used to identifying the area of concern. This was followed by the future workshop, implementation of the plan.

A closed and open questionnaire (Appendix I) was administered to students, tutors and administrators. This enabled me gather data on underlying gaps in food preparation before analysis of work process. The analysis was done to get more detailed and specific information (JohnBaptist, 2018) about the teaching and learning process as well as planning appropriate learning activities for all the students. Situation analysis serves to identify potential obstacles and factors that are needed for successful implementation of a program (Nabaggala, 2019). The methods used to carry out the situation analysis included guided group discussion and, brainstorming, discussion.

Future workshop

The Future Workshop was held on 25th February 2019 in the main hall of Bishop Stuart Core PTC, Kibingo starting at 9:00 a.m. The future workshop aimed at finding democratic opinions of the stake holders in determining ways of overcoming the problem of instructional resources not being utilized appropriately especially by male students in food preparation. The choice of stakeholders was based on the knowledge, experience, and role they held to achieve the above stated purpose, as shown in table 10

Table 10: Category, number and role of the participants

CATEGORY	NUMBER	ROLE
IPS TUTORS	02	Technical support
Students	03	Year one representatives
	10	Year two students
Administrators	04	Technical and administrative advice.
Support staff	01	Technical Support service (ICT)
Total	20	Participants

The participants were invited through physical approach and phone contact, written invitation letters, WhatsApp messages and e-mails. The workshop was one full working day in order to produce the best results (Lauttamäki, 2014). Part of the college main hall was chosen and arranged in a conference form.

The future workshop was used as a tool to create a solution to the identified problem from the situation analysis (Vidal, 2005). Future workshop guide enabled the participants to come out with a specific and democratically selected critical issue to solve. The information was gathered by recording on video camera and written on flipcharts using markers.



Plate 4: Stakeholders in a future workshop at BSCK

Group discussion

In a group discussion, the stakeholders were invited to talk about their views, attitudes and beliefs in relation to food preparation. The fuzzy question in a future workshop guide assisted the stakeholders in talking about aspects to be considered. The stakeholders identified the tendencies and changes in students' behavior and achievement in food preparation (Garin, 2019). The type of data that was obtained included opinions, assertions about beliefs, expressions of agreement or disagreement with stake holders, and processes in which individual or group ideas to solve a problem were built (Laia, 2017). Gathered information about combined perspectives and opinions from discussions were recorded and analyzed to enrich the required data. Responses were coded into categories and analyzed thematically.

Structured interviews

After seeking for a verbal permission, instruments such as questionnaires, interview guide were administered to get information from tutors and administrators concerning food preparation at BSCK. Each participant was approached separately. This was done to ensure that I get first-hand primary data (Sajjad, 2018). I had a face-to-face conversation with the tutors and administrators. Information on what administrators, tutors and students had to say on the low participation of food preparation by male students and the views on utilization of instructional resources were obtained using an interview guide.

Observation of students at learning stations

Participatory observation offered the researcher an opportunity to gather live data from students working at their learning stations which had been set up around the learning room. The stations included designated tables or spaces where small groups of learners did specific learning tasks for a specific amount of time. Through interaction and observation at the learning stations, data on real behavior of students was gathered while they participated in food preparation. Brainstorming and demonstration methods were applied during the practical activities in the teaching and learning process of food preparation. Observation checklist, cameras and notebooks, were utilized to capture evidences on student's participation during food preparation activities. The reflective journals were used to record observations, reflections, feelings and experiences during and after practical sessions of preparation implementation.

Display method was applied in the evaluation phase where products made by students were made available to the BSCK community to create public awareness to show that boys can participate equally well as girls in the teaching and learning process of food preparation.



Plate 5: Students in learning stations

3.7 Data analysis

The descriptive data from the questionnaire, interview guide and focus group discussion were analyzed using the frame work analysis approach (Lee, 2018). This approach reflects the purpose and objectives of the study. The approach enabled me to examine the findings of the study basing on the first two research questions. Data on the last two objectives was in narrative form. The data was triangulated (Yardley, 2004) and dividing the text data into meaningful categories that formed themes. The themes were coded from verbally, visually and aurally collected data and interpreted (Pope, 2014). The quantitative data obtained was manually tabulated with frequencies and percentages which were used in the decision making, comprehensive interpretations and other related inferences. From the qualitative data, the emerging ideas, opinions and beliefs were critically analyzed and synthesized with what other writers have said in the literature review in order to make them more meaningful interpretations. This was done in order to fill the literature gaps.

The data was presented, interpreted and discussed in qualitative form following the objectives of the study.

3.8 Validity and reliability

Validity is about the accuracy and reliability is about consistency of the research (Middleton, 2020). The research results corresponded to the theory that directed the research. The consistencies of results were cross checked time to time by supervisors. The triangulation of data was done by collecting data through various resources (Creswell, 2014). The researcher interpreted the data to ensure the truth value of the data.

3.9 Ethical considerations

To address the ethical issues, the researcher sought permission from the Principal of BSKC having presented an introductory letter from the faculty of Vocational Studies, department of Art and Industrial Design of Kyambogo University. Permission was fully granted.

The principles and ethics of conducting research were purely taken into consideration in the course of the study. Respondents were left to retain the independence of their minds and free decision- making process.

Confidentiality: The participants were guaranteed that the identified information would not be available to anyone who was not involved in the study and it would remain confidential for the purposes it was intended for.

Informed consent: The prospective research participants were fully informed about the procedures involved in the research and they gave verbal consent to participate.

Anonymity: The participants remained anonymous throughout the study and even to the researchers themselves to guarantee privacy.

The researcher also ensured privacy of the information given since it was for academic purpose and therefore the privacy of the participants was guaranteed. The issue of anonymity

was considered, that is to say the information provided by the respondents was in no way revealing their identity and lastly the researcher ensured maximum accuracy of the information.

Recording responses during the interviews and focus group discussions was done with the permission of the participants to avoid fear and suspicions.

Permission of the participants was sought for recording responses and photography purposes during the interviews and focus group discussions to eliminate fears and doubts.

During future workshop, participation was based on informed consent: participants received information about the type of research, the future workshop, their role in it and the benefits to them personally, both directly as a learning experience and indirectly by contributing to a better understanding of the teaching and learning of food preparation at BSCK.

During the interviews, the interactions among participants and the researcher was based on mutual respect and trust. The stakeholders were informed that their names would not appear in the research report thus remain confidential.

CHAPTER FOUR: ACTION IMPLEMENTATION, RESULTS AND EVALUATION

4.0 Introduction

This chapter presents the action implementation, findings and evaluation of the implementation from the study entitled “Mitigating low participation of Male students’ in food preparation at BSCK”. The findings have been presented in accordance with the objectives of the study. The objectives of the study were as follows; identify the causes of low participation, examining the strategy for increasing participation, implementing the strategy and evaluating the effect of implemented strategies on increasing male participation in food preparation at BSCK.

4.1 Causes of low male participation in food preparation among male students at BSCK

4.1.1 Gender bias among stakeholders at BSCK

By the help of a questionnaire, respondents were asked to give their opinion on whether stakeholders at BSCK were culturally gender biased about the male students’ participation in food preparation. Figure 2 presents the results which showed that slightly more than a third (35%) of the respondents agreed that there existed cultural gender bias among stakeholders on male students’ participation in food preparation. About the same proportion (30%) strongly disagreed while 15% of respondents strongly agreed. The proportion of respondents who were neutral was 15% and only 5% of respondents disagreed. This implied that even the stakeholders at the college had a cultural bias which could be effectively transferred to the males who would be interested in participating in food preparation.

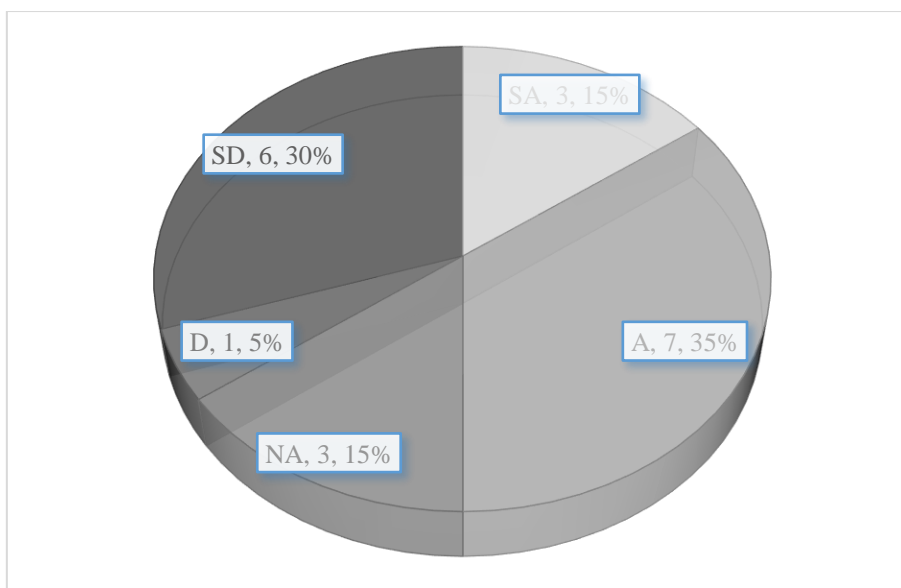


Figure 2: Opinion of the respondents on existence of cultural gender bias.

Key: SA= Strongly Agree, A= Agree, NA= Not Agree (neutral), DA= Disagree. SD= Strongly Disagree.

In another opinion statement, “Home Economics should be taught to only girls and it is irrelevant to the boys”. Majority (83%) of the respondents were of the view that the low participation of male students in food preparation at BSCK was because the male students thought that the subject was for only girls. Their general perception was that this gender bias originated from home. They further explained that as children grow in most communities, their parents emphasize on what a boy or girl should and/or should not do. One respondent however, noted that the male students’ participation in food preparation at BSCK was high compared to other colleges and this was attributed to a more positive attitude at Bishop Stuart Core PTC.

Interestingly, majority of the respondents 16 (80%) strongly disagreed while 3(15%) disagreed and 1(5%) were neutral to the idea of teaching food preparation to only girls. They were of the view that the subject was relevant to both males and females and therefore, it should be taught to all, as shown in the figure 3 below.

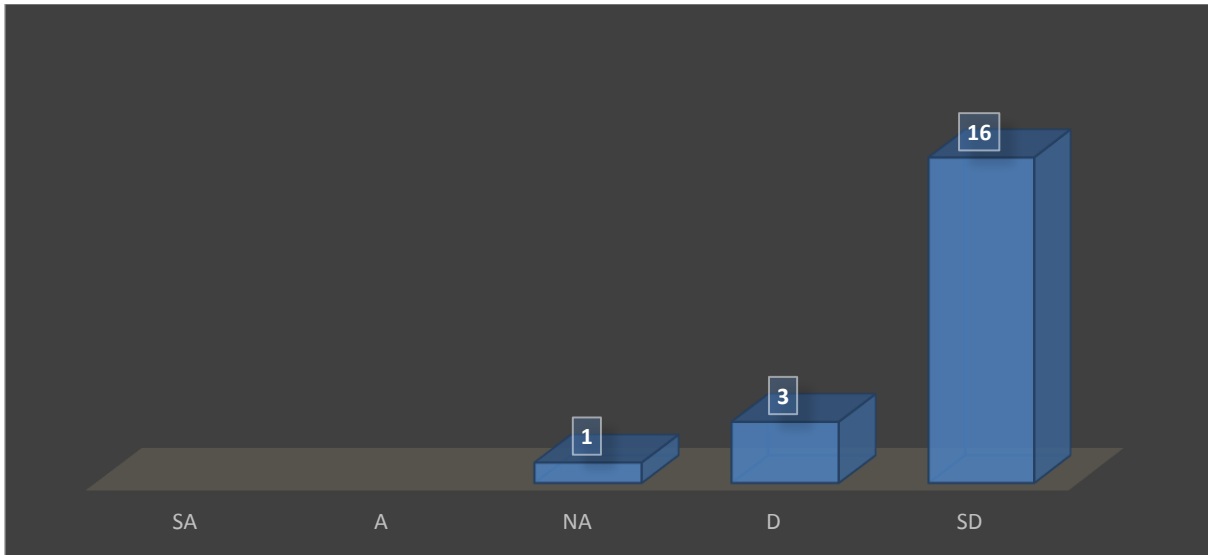


Figure 3: Opinions on the relevance and teaching Home Economics to only females

This indicates that Home Economics (food preparation) is relevant to boys as well and therefore, should be taught to both boys and girls.

Respondents were asked their opinion on “Boys lose **No** value or their manhood in the society when trained in home economics”; Figure 4 below shows their responses.

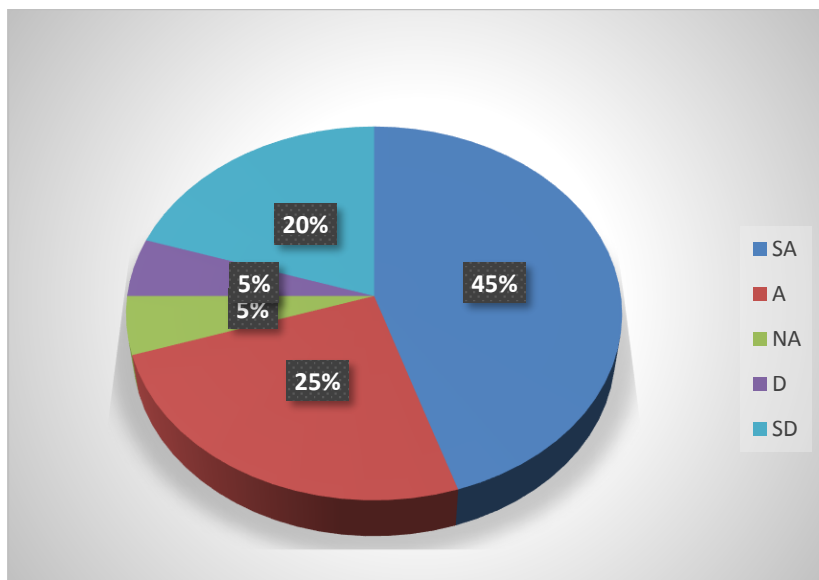


Figure 4: Loss of male students' value or manhood in society if trained in home economics.

Majority of the respondents 9 (45%) strongly agreed, 5 (25%) agreed, that boys do not lose any value or manhood in society when trained in food preparation. On the other hand, 4 (20%) strongly disagreed, 1 (5%) disagreed and 1 (5%) was neutral to the opinion that boys actually lose their value or manhood in society when trained in food preparation. This is also an indication of cultural bias that, a section of the stakeholders at BSCK had about males' participation in food preparation.

It was noted that there were no efforts to attract the male students to take up food preparation by the administrators much as they had some positive attitude towards the subject.

4.1.2 Limited use of appropriate instructional materials

Limited use of appropriate instructional resources was also identified as another cause of low participation of the food preparation by male students as shown in figure 5 below.

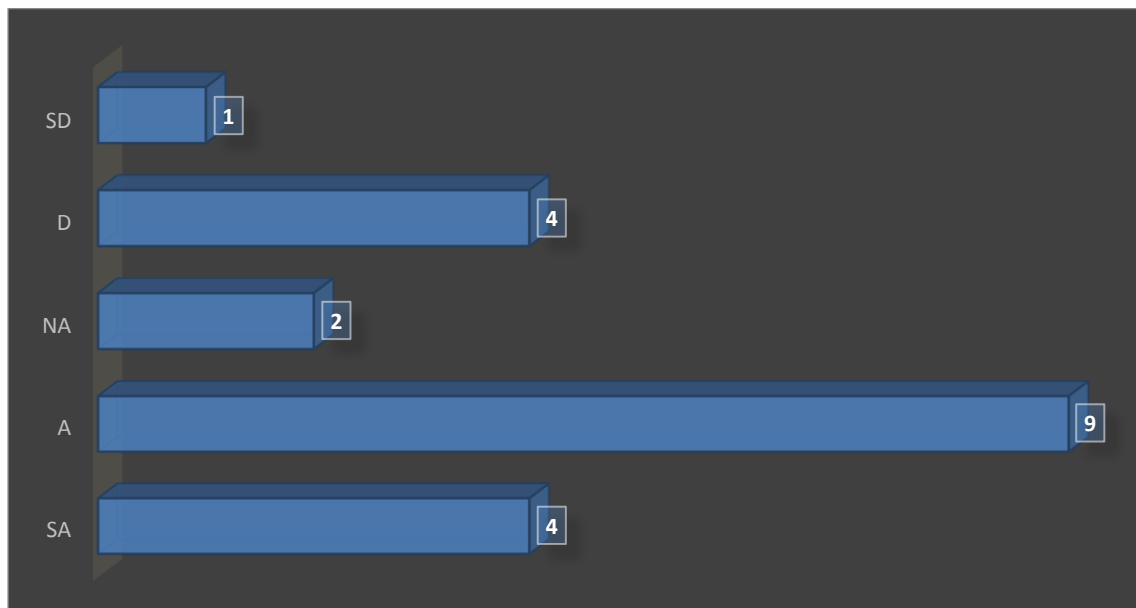


Figure 5: Respondents' reaction on limited resources as a hindrance to male students' participation of Food preparation

Majority of the respondents (9 out of 20) agreed that limited use of appropriate instructional materials leads to the decrease in the number of boys with interest and actively participating in the learning processes of Home Economics while 4 respondents strongly agreed. Those

who disagreed were also 4. This result is supported by theory of participation (Wang, 2005). The use of appropriate instructional materials increases students; participation and creates interest in what they do.

4.2 Strategies for increasing male students' participation in food preparation at BSCK

4.2.1 Male and female students working together in food preparation

Opinion on, "Both boys and girls who are interested should be trained and participate in the learning of home economics without discrimination since the subject was relevant to male students too"; all respondents were in agreement that both boys and girls should be taught together and compete favorably. From the 20 respondents, 17 (85%) strongly agreed while 3 (15%) agreed that both girls and boys if interested in food preparation should be taught together without discrimination. Mixing male and female students while doing practical activities in food preparation was observed as a strategy that would help increase the numbers of boys taking on the subject through competitiveness. Other opinions included; rewarding best performing male students to increase their interest in participation; displaying products made by male students to serve as an encouragement to others; to replace the local resources with modern technology such as replacing local stoves and ovens with Electric cookers and ovens which are easier and interesting to use and increasing the number of male tutors in Home Economics in all colleges to serve as role models who would encourage male students to take up the subject.

4.2.2 Creating awareness

From the future workshop, majority of the stakeholders suggested that creating awareness among administrators, tutors, students, and support staff in the college would probably reduce the cultural bias and increase male students' interest and participation in food preparation class at Bishop Stuart Core PTC. Responses are as shown in the figure 6. The other

suggestion was that the College should provide adequate training materials and resources including personnel.

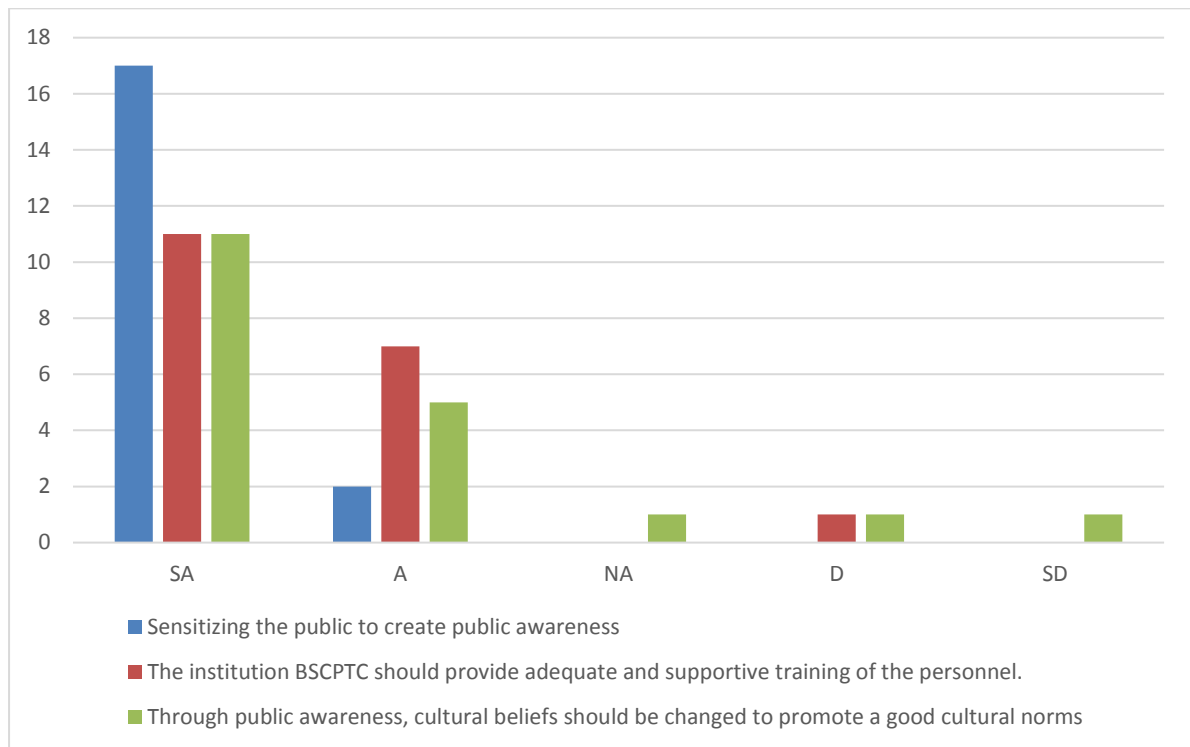


Figure 6: Strategies to increase male students’ participation in food preparation

4.2.3 Utilizing appropriate instructional resources

The gap identified in the situation analysis was ‘limited utilization appropriate instructional resources. In support of this 11(55%) of respondents strongly agreed, 30% agreed while 10% did not agree, only 1(5%) of the respondents strongly disagreed that use of instructional resources would increase on the number of boys with interest and active participation in the learning process of food preparation at Bishop Stuart Core Primary Teachers’ College.

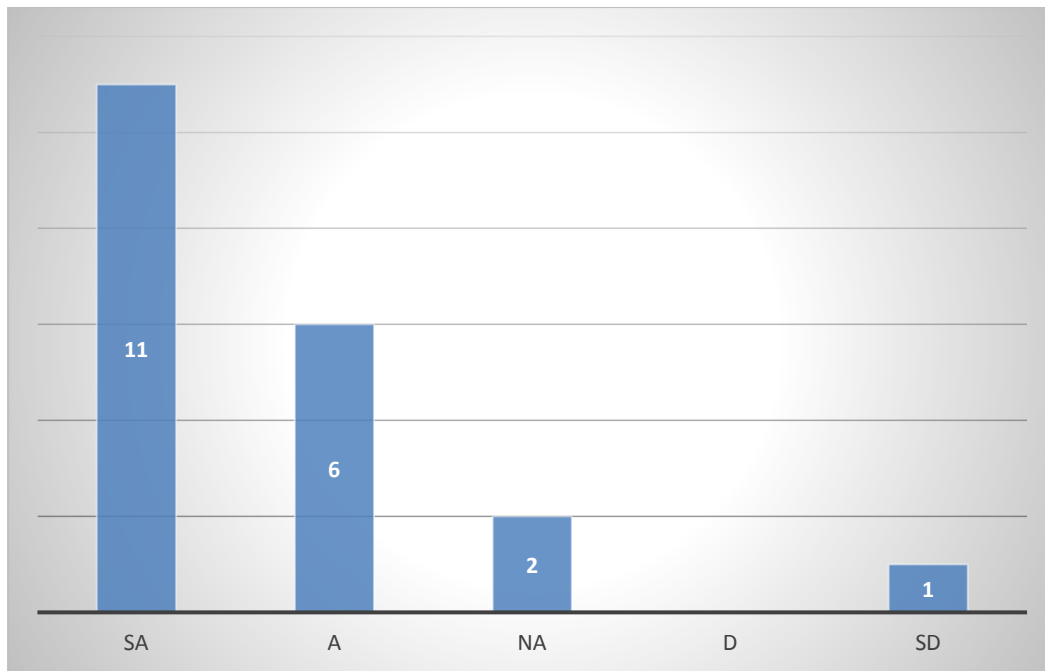


Figure 7: Utilizing appropriate instructional resources to increase interest and participation among males

Some of the instructional resources suggested included: Electric or gas cookers to replace using the local stoves, using Electric or gas ovens instead of local ovens, electric mixer and electric blenders instead of using hands to cream cake mixtures.

4.3 Implementation of the strategies to increase male students' participation in food preparation

4.3.1 Creating public awareness

Reference is made to table 5 in chapter one where during the fantasy phase of the future workshop, the participants found that public awareness could be the immediate and possible strategy of increasing male students' participation. Thereafter, the participants drafted an action plan on how the creation of public awareness as a strategy would be implemented to increase male students' participation in the learning process of food preparation at Bishop Stuart Core PTC (Rene, 2005). The results of the activities in the work plan are presented in this section.

4.3.2 Identification of appropriate instructional resources

Text books

The students were encouraged to borrow text books such as food and nutrition textbooks, recipe guides, cookery textbooks and IPS modules from the library. The text books enabled them identify various food dishes that they would prepare and serve. However, the text books were inadequate and they had to share the little which was discouraging to the students.

Food and nutrition laboratory

A practical teaching and learning facility were identified to be an important resource and, in this case, a classroom had to be turned into a temporary food and nutrition laboratory. I learnt that where a modern and suitable laboratory was absent, it was the duty of the teachers to improvise. Lack of an appropriate laboratory had a very negative impact on the teaching and learning process because it was hard to demonstrate to learners, and a lot of creativity was needed in setting up a proper arrangement of the laboratory. The arrangement was new to the learners and as a result, the flow of activities was delayed and distorted. As observed, students develop a positive perception of their learning environment and become interested in participating when their laboratory is functional or equipped with complete, appropriate tools, equipment and utensils (Asela, 2018).

Kitchen equipment

Due to limited funds at the college, we used local ovens and local charcoal stoves as the cooking facilities instead of electric or gas cooker. We used a heavy material sauce pans (sand fabricated source pans) a third filled with sand and ash then pre-heated them to work as ovens. There was also a metallic local oven that was often used. In all these cases, the boys found difficulties in lighting the local charcoal stoves, but when the researcher introduced a mini electric oven, the boys quickly and positively moved in with interest and participated in

baking cakes. This means that boys can participate in food preparation lessons if given modern cooking facilities like Gas or Electric cookers as observed by Rosenthal (2015).



Plate 6: A local charcoal oven



Plate 7: An electric mini oven

Kitchen utensils

Kitchen utensils included sauce pans, frying pans, cutlery, baking tins and measuring cups. Kitchen linen like tea towels dish clothes and hand towels are part of utensils. The utensils were inadequate and students had to share them. Some male students were not interested in cleaning the working areas or utensils and also lighting a charcoal stove. One male student was quoted saying “the girls are the ones always in the kitchen not us boys. Therefore, they can clean it.” This means gender stereotyping existed long before even joining the college.



Plate 8: Some kitchen utensils



Plate 9: A male student with female students arguing over lighting a charcoal stove

Ingredients

The students were provided with the instructional materials such as baking flour, baking powder, sugar, margarine, eggs, lemons and mixed spices to use in the lesson. The tutor (researcher) carried out demonstration of the practical lesson. Both males and females were

given instructions on what to do in the lesson. The tutor divided up students into two groups. The male students participated separately from female students. The two groups had the same food items to prepare.



Plate 10: Ingredients used to make cakes and daddies

4.3.3. Utilization of the instructional resources

Planning and Preparation

This stage of action plan implementation involved taking students through the food preparation practical lesson. It involved second year students who opted to take IPS as an elective subject. It also involved filling a requisition form for the resources required in the practical lesson. The Principal of the College provided funds for everything indicated on the requisition form in Appendix number iv. The materials (ingredients) bought included baking flour, baking powder, sugar, eggs, margarine, milk, vanilla essence, lemon, cooking oil and mixed spices. These were used to make the following food items: cakes, chapatti and daddies. The tutor guided the students by demonstrating how to prepare the chosen dishes. The tutor made a lesson plan appendix number i and the lesson was taught with an innovative approach

through variations in the experiment process. The students performed the activities as the Tutor observed them. Through guided observation and discussion students wrote out their reflections and experiences from the practical cooking of food. Tutor used checklist and observation list to assess learning. Students used 'YOUTUBE' to get skills of presenting their food products. The tutor of home economics used the scheduled lesson on the time table to handle the practical lesson of food preparation. The male students recorded their experiences, reflections and any impact towards their interest and participation. To avoid bias, for this practical experience, students were not told that they were involved in the research.



Plate 11: Some of the male Students making Daddies

Students in each of their groups identified the basic method to use in cooking food, drafted activity plans for preparation, cooking of food. They also made aprons, head gears and menu cards. Students organized the classroom by rearranging it into a food and nutrition laboratory where food preparation was to take place. Each student was assigned two tables as working stations. The equipment to use included improved charcoal stoves, local oven, electric oven,

heavy material source pans and baking tins. The tools to use included the rolling boards and mixing bowls, ladles, and sieves, hand mixer chopping boards, knives, spoons and forks. The other materials included soap, salt and chalk for writing on chalkboard.



Plate 12: Students in learning stations during competition in cake making

Actual food preparation

Food preparation practical activity was carried out in two days. This was arranged in such a way that students could be given more time to practice and perfect their cooking skills. The students were divided into groups of four and of mixed gender to work in four working stations guided by problem-based method. On first day, Tuesday 26th February 2020 students made chapattis and daddies. On the second day, Wednesday 27th February 2020, students made queen cakes and plain cakes. The other activities involved washing utensils before and after use, cleaning the laboratory environment, collecting the equipment's, tools and materials, measuring the materials and setting the working stations; following the recipe guides and work plans to prepare and serve food. On day one, the male students left the dirty utensils for the girls to clean.



Plate 13: Female students filling queen cake mixture into baking tins

On the second day, the tutor separated the students to allow the male students to work alone. It was observed that male students became more competitive with girls. They did all that was required during the practical lesson. They also did the cleaning and their products were of better quality and nice looking compared to those of female students. The researcher observed the students as they carried out practical activities in food preparation lessons.



Plate 14 : Male students preparing chapatti and cake mixtures respectively



Plate 15: Male students lighting the charcoal stove

4.4.0. Examining the change in the participation of male students in food preparation

4.4.1 Display of food items

While display of the products is source of stimulation and motivation to students and can lead to increased interest among students (Smawfield, 2006), it was also used as a method to evaluate the strategies as well as the products made by the students. The students had watched *YouTube* videos and observed ways of displaying their products. It was an exciting moment for the students.



Plate 16: Display of a Cake made by male students

4.4.2 Recording of students' reflections

This stage included the recording of students' experiences and here below, I have presented mostly male students' reflections during the utilization of instructional resources and all the learning sessions. The researcher followed up boys' participation in the food and preparation lesson by observing for signs of increase in interest. The instructional resources to use in the teaching and learning process of food preparation were made available. Both male and female students utilized them. However male students enjoyed utilizing electric oven than charcoal oven. The following were the reflections from the male students:

- *“I am able to make my own snacks; I have passion for cooking”*
- *“After going through this lesson, I am able to start my own business enterprise”.*
- *“Engagement in in cooking made me become competitive”*
- *“Boys back home should be encouraged to cook.*
- *“If it was not poverty, I would not engage myself in this”*
- *“Now I can cook better than my mother”*
- *“I rather use electric oven than local charcoal stove”*

The student’s interaction with instructional resources during the last practical activity of food preparation was observed. The male students were assigned a task of identifying one dish and its recipe; proceed with preparing the chosen dish. Only four, second-year male students were involved in the evaluation. These were the only boys in food preparation class, the rest were females.

Two boys chose to make daddies and other two made chapattis. After preparing and presenting the made items, they expressed their reflections. When asked why they preferred the chosen food items, they had this to say:

- *“they are easy and interesting to make, said one student”*

The first male students said;

- *“My mum at home prepares nice food but now I can prepare food better than her, my passion in cookery has increased. Before I went through the practical session, I thought it was very difficult to prepare anything but after observing my tutor, I developed the interest in preparing food without shame”.*

The second male students said;

- *“Being a male or a female makes no difference as long as the interest is there, I can do what girls do. In our family, people do not encourage boys to cook but now culture is changing. Both girls and boys should be encouraged to cook”.*

The third male student had this to say

- *“Cooking is fun”*
- *“It is not gendered”*
- *“It is enjoyable”*
- *“I feel it”*
- *“Something I have prepared by my self is much blessed”*

The fourth male student stated his reflection as follows:

- *“My future wife will not suffer in cooking”*
- *“From my cooking skills developed here at college, I am able to fight poverty”*
- *“My passion for cooking has greatly improved”*

All the reflection statements recorded by male students revealed a positive change towards their participation in food preparation.



Plate 17: Male student washing utensil basin

CHAPTER FIVE: DISCUSSION, CONCLUSION AND RECOMMENDATIONS

5.0 Introduction

This chapter, presents the research findings and recommendations based on the set Objectives as presented in Chapter four of the report.

5.1 Causes of low male students' participation in food preparation

The results in section 4.2.1 show that low participation in food preparation at BSCK was associated to gender bias which starts at home but also existed among the stakeholders at BSCK. The results also indicated that male students did not participate because they thought food preparation was meant for female students only as noted by Levtoy, 2014. This is a form of sex-stereotyping was observed by Bever, (2017), when he argued that sex-stereotyped roles according to tradition socialize males to believe that it is ridiculous for them to venture in female roles. Therefore, when male students grow up with such cultural belief and attitude, they do not get encouragement to venture into areas such as food preparation even if it was to their benefit.

Results also indicated that another cause of low participation in food preparation at BSCK was limited use of appropriate instructional resources. Instructional resources are known to keep students engaged in the lesson (Bukoye, 2019) and since they were lacking at BSCK, it is possible that the male students would find the learning of theoretical food preparation boring and thus not motivated to participate effectively. It is possible that the male students at BSCK shunned activities related to food preparation due to lack of appropriate instructional resources.

5.2 Strategies that can increase male students' participation in the learning process of food preparation

Results showed that involving both male and female students in food preparation without discrimination would increase male students' participation. The findings of a proportion of stakeholders (though small) who believed that male students would lose their value or manhood in society if they engaged in food preparation was an eye opener that cultural bias is real and requires affirmative action in terms of creating awareness. It was observed in the future workshop that stakeholders would take up roles to sensitize the boys about the advantages of home economics and regular guidance and counseling sessions were to be used to help in changing the attitudes of the male students towards food preparation. This was in line with results from interview guide, where respondents suggested that male students could be mixed with female students while doing practical activities in food preparation. UNESCO, 2017, alluded to this when they emphasized that all individuals were equal human beings who were entitled to their rights without discrimination and that were entitled to active participation.

The study also found that utilization of appropriate instructional resources like modern equipment and tools would increase male students' participation in food preparation. This was shown in section 4.3 of this study where respondents in an interview suggested that there was need to replace the use of the local resources with modern technology such as electric cookers and ovens as local ones were tiresome. This is in line with the observations made that the use of appropriate instructional resources makes learners engage more in practical activities which gives them the opportunity to experiment, solve problems, discuss with each other, thereby stimulating curiosity, critical thinking and innovativeness (Atwebembeire, 2018).

Therefore, the use of appropriate instructional resources was the best strategy to increase male students' participation in food presentation and preparation.

5.3 Implementation of the strategies-Utilization of appropriate instructional resources

Introduction

The findings of the existence of cultural gender bias among 35% of the stakeholders and the realization that BSCK as an institution had no deliberate plan of overcoming the problem, together with the stakeholders in the FW, we drafted a work plan. The work plan involved three activities namely identification of instructional resources, secondly the action of preparing food. The third activity involved displaying the prepared food items and making reflections on the outcome from the second activity.

5.3.1 Identification, planning and preparation

This was an important step in the implementation since practical learning requires setting up a number of "learning stations" or "activity centers" around the training room; at designated tables or spaces where small groups of learners do specific learning tasks for a specific amount of time (Project, 2018). These learning corners enable learners to freely interact with one another, improve comprehension and the learning environment becomes more conducive to teaching and learning (Nixon, 2013). Learning stations also enable the tutor navigate the room interacting with students and providing extra guidance to struggling groups or asking enrichment questions to advanced learners.

It was also during this period that in the absence of a true suitable laboratory in the college, a room was set aside as an improvised laboratory for food preparation. However, it was quite hard to come up with a perfect design of a food preparation laboratory. As a result, the flow of activities was delayed. Despite all these negative impacts, the results indicated that students developed a positive perception after designing a temporary laboratory. They also

became interested in participating in food preparation. Asela, 2018 suggested that the laboratory should be functional or equipped with complete sets of appropriate tools, equipment and utensils. I also suggest that for students to participate actively a modern laboratory should be availed. In BSCK, this was still a problem.

Kitchen equipment was not available, so they were borrowed from the staff members. Results indicated that these could be improvised.

Findings that male students found a lot of difficulties in lighting local charcoal stoves was an indication that they actually did not engage in using them from their homes and this again shows how culture had greatly influence them. Some of them reasoned that the stoves were dangerous to health which is true. “After all they are very dangerous to our health”. This was in agreement with one of the strategies that had been earlier suggested –the need to replace the local stoves and ovens with modern ones.

Results further confirm that when an electric oven was introduced by the tutor, male students quickly and actively participated. Rosenthal 2015 also notes that male students can participate actively if modern cooking facilities are provided. This means that the learning environment had to be enriched to allow students interact with instructional resources. Wambui, 2013 also noted that a rich learning environment tends to foster faster acquisition of requisite skills for sustainable learning development. Thus, modern cooking facilities are a necessity in improving male students’ participation.

5.3.2 The action of food preparation for exhibition

The students were gender mixed in the food preparation session and this was to implement what the respondents had agreed on as one way of overcoming gender bias to increase male students' participation in food preparation at BSCK. The results that when males were left to work with female students, they left dirty utensils for their female counterparts to clean indicated that gender bias still existed. Literature indicates that the perspectives of gender roles should not at any point affect the utilization of instructional resources. There is need for promoting skills for world of work (UNESCO, 2017). Therefore, gender bias should be diffused early so that it does not hinder appropriate learning. Shunning away from certain activities like washing plates deprive the male gender from acquiring some important organizational skills needed for future use.

However, it was interesting to note that competition was exhibited as they worked and this made the male students participate more actively. Laursen, 2012 acknowledged that male students were often competitive in behavior. They liked being challenged. Therefore, providing male students with modern resources, and working together with their female counterparts, developed in them a spirit of competitiveness and as a result increased their participation.

5.4 Examining the change in the participation of male students in food preparation

5.4.1 Recording of students' reflections

Looking at the reflections of the learners, confirms the necessity for reflection in all learning because students revisit what they have learned for improvement and for in-depth learning (Chang, 2019). Some of their reflections depicted that they had learnt something which they had all along been missing; such as "I am able to make my own snacks..., now I can cook better than my mother"; while others made them discover new talent, passion and

opportunities for business enterprises. Reflection helped the students to look back on their work to evaluate and identify what should be done in the next sessions for improvement purposes.

The students were able to relate with each other during the period of reflection which enables them to get used to coping with the complexities, challenges and uncertainties which are essential in personal and professional development. This was seen in some of the statements by one student, thus: “Cooking is fun, it is not gendered, it is enjoyable, I feel it, and something I have prepared by my self is much blessed”.

Students were able make self-analysis of their thoughts and feelings, sharing life experiences with other students and these are considered to be the basis for reflection and change. Accordingly, dialogue between students helps the learner to discover individual meaning of learning (Bubnys, 2019). Reflection is a powerful academic learning tool, but also has a transformative power to fundamentally change the way students think and perceive their effort, motivation, and ability to complete novel and familiar learning tasks (Cavilla, 2017). In this case, the unfamiliar task was the food preparation. In addition to supporting students’ abilities to think about their thinking, the basic principle of reflection also allows students affective outlets that can reduce stress and frustration in such tasks as food preparation. One such reflection was made thus: “My mum at home prepares nice food but now I can prepare food better than her, my passion in cookery has increased. Before I went through the practical session, I thought it was very difficult to prepare anything but after observing my tutor, I developed the interest in preparing food without shame”

The display of food by the male students was another form of creating awareness further in the college especially to those stakeholders who were still skeptical about males engaging in food preparation. Smawfield, 2006 describes display of the products as a source of

stimulation and motivation to students and can lead to increased interest among student (Smawfield, 2006). The requirement that the students would display their work made them search for information on about food display on YOUTUBE on their own and this created further learning and this time using technology.

5.2 Conclusion

The research was purposely carried out to determine ways of overcoming gender bias in order to increase male students' participation in food preparation at BSCK. This research was guided by three questions as follows; what were the causes of low male students' participation, which strategies could increase male students' participation, in food preparation at BSCK? And will there be a change in the participation of male students in food preparation at BSCK after using the identified strategies?

The findings revealed that the causes of low male students' participation in food preparation at BSCK were mainly cultural gender bias and limited use of appropriate instructional resources. The results from the questionnaire indicated that cultural gender bias existed among stakeholders at BSCK. This was transferred to the students' perception towards food preparation. The results revealed that students had low participation because they felt food preparation was meant for female students. Limited use of appropriate instructional resources led to male students shunning away from participating in some food preparation activities. The results indicated that male students felt bored participating in food preparation. This calls for teachers to provide or improvise the appropriate instructional resources that increase learners' interest to participate actively in food preparation lessons.

On the second research question about which strategies could increase male students' participation in food preparation; the results indicated that introduction of challenging activities which included competition between male students and female students led to

increasing male students' participation. This, concedes with the literature review that males like activities that challenge them (Laursen, 2012).

The results also revealed that utilization of appropriate instructional resources could arouse male students' participation in food preparation. However, at BSCK, there was still a need to avail appropriate instructional resources. Despite the need, the tutor improvised the resources and male students enjoyed participating in food preparation. The third and last research question was about examining the change in the participation of male students in food preparation at BSCK after using the identified strategies. Looking at the reflections of male students, results confirm that truly there was positive change in the participation of male students in food preparation. Reflections play a great role in examining changes in attitudes towards participation of students. It is necessary for a teacher to allow students to make reflections every after practical lesson such as food preparation. Reflections are powerful tools to create fundamental change in the perception towards participation in food preparation learning tasks.

Therefore, while culture may dictate what a male or female can do, it is not absolute. What a man can do, a woman can do. This research has shown that with availability of appropriate instructional resources such as improved technology in a well-equipped environment like food nutrition laboratory learners are able to perform equally well. Both male and female are capable of competing with each other producing same good results. This kind of change is what is required in all TVET institutions. Students should change their mindset about culture settings and utilize home economics instructional resources equally and fairly without discrimination in gender roles so that they extract their full potential of being economically productive for sustainable development.

5.6 Recommendations

In order to overcome gender bias in learning process of food preparation, community mobilizing officers should raise awareness in the communities (where students come from) about the universality of roles especially cooking. This will enable parents engage all children in all household chores including cooking. Since it is observed in this research that when students especially males are trained or encouraged to prepare and present food can come up with perfect work.

The utilization of appropriate instructional resources was discovered as one of the best strategies to increase male students' participation in learning process of food preparation. Therefore, the College administrators should make sure that food and nutrition laboratory is made available, well equipped and organized to reduce on the energy and spent in food preparation hence encourages male students to participate with interest.

In order to create positive change in male students' participation, there is need for the Home Economics tutor to expose male students to challenging food preparation activities in order to encourage the spirit of competition with females since non challenging activities demotivate males. Males can do anything females do in the kitchen.

The education service commission and ministry of education should recruit male tutors to act as role models that male students look up to help them develop interest in participation during food preparation.

REFERENCES

- Abdu-Raheem, B. (2016). Effects of Instructional Materials on Secondary Schools Students' Academic Achievement in Social Studies in Ekiti State, Nigeria. *Journal of Education*, 8.
- Adomako, A. A. (2001). *When men speak women listen*"; *Gender Socialisation* . Ghana: African Journal of reproductive health .
- Amadioha. (2009). The importance of instructional materials in our schools, an overview. *Researchgate*, 4.
- Amadloah. (2018). The importance of instructional materials in our schools. *Research Gate*.
- Arop, U. (2015). Effect of instructional materials on the teaching and learning of Basic science in junior secondary schools in Cross River State ,Nigeria. *Global Journal of education Research*, 10.
- Asela, S. (2018). importance of a well -maintained Home Economics Laboratory. *B.E Uwameiye, Literacy and information and competence*, 4.
- Atwebembeire, P. N. (2018). Instructional Resources and Teacher Effectiveness in Government-aided Secondary Schools in Uganda. *International Conference on Multidisciplinary Research* (p. 18). Kampala: <https://www.researchgate.net/publication/326507125>.
- Beatrice, A. U. (2015). Effect of instructional materials on the Teaching and Learning of Basic Science in Junior Secondary Schools in Cross River State Nigeria. *Global Journal of Educational Research* , 7.

- Bever, C. K. (2017, November Thursday). How can teachers be more gender inclusive in the classroom? *Education plus Development*, p. 2.
- Browne, R. E. (2007). *Gender awareness and preparation in california teaching credential programs*. Brigham: brigham young university,.
- Bubnys, R. (2019, January second). A Journey of Self-Reflection in Students' Perception of practice and roles in the profession. *Sustainability*, p. 17.
- Bukoye. (2019). Utilization of Instruction Materials as Tools for. *2nd Innovative and Creative Education and Teaching International Conference* (p. 7). Badajoz: Department of Counselling Psychology, Faculty of Education and Arts, P.M.B. 11, Lapai 911001, Niger State,.
- Catarina, D. . (2018). Gender awareness raising. *European Institute for Gender Equality*, 10.
- Cavilla, D. (2017). The Effects of Student Reflection on academic performance and motivation. *SAGE*, 13.
- Cedefop. (2015). *Vocational pedagogies and benefits for learners: practices and challenges in Europe*. Luxembourg: Publications Office of the European Union.
- Celano, L. (2010). 6 Methods of data collection and analysis. *Save the children*, 30.
- Chang, B. (2019). *Reflection in Learning*. Bal State: Ball State University.
- Cora, L. D. (2019). *Classroom Practices That Monitor and Inform Learning*. U.S.A: National Council of Teachers of English.
- Creswell, J. W. (2014). *Research design: Qualitative, quantitative, and mixed methods approaches/*. London: SAGE Publications Ltd.

- Dadang, J. (2013). *Occupational Competence Needs Analysis as Basis for TVET Teacher Curriculum Development*. Indonesia: Regional cooperation platform.
- De Vaus, D. (20016). *Organizing Your Social Sciences Research Paper: Types of Research Desi*. Southern California: University of Southern California Libraries.
- Dongmei, S. (2015). *Research on Innovative Talent Training Pattern of Home Economics*. Jilin: International Conference on Management Science and Innovative Education.
- Education. (2015). *importance of gender to education*. Kampala: MOES.
- FAO. (2016). Learning activities in food and nutrition education. *Global child Nutrition forum*, 8.
- Gabriel, F. (2018). *The role and contribution of home economics to national development1*. Phillipines: The UP Journal of Home Economics.
- Gamawa, A. (2015). The Role of Home Economics Education in Alleviating. *Journal of Emerging Trends in educational research and policy studies*, 6.
- Garin, E. (2019). Action Research. *Center for Excellence in Teaching and Learning*, 10.
- Grossman, S, A. (2013). Empathy,Self-Reflection, AND Curriculum Choice. *Interdisciplinary Journal of Problem-based Learning* .8(2), 5.
- Grover, V. (2015). Research approach: an overview. *International Multidisciplinary Research Journal*, 8.
- Haboush, M. S. (2017). *The Impact of Learning Stations Strategy on Developing Technology Concepts among Sixth Grade Female Students*. Gaza: International Journal of Academic Research in Progressive Education and Development.

- Hamed, T. (2016). Sampling Methods in Research Methodology; How to Choose a Sampling Techniques for research. *International Journal of Academic Research in Management*, 11.
- Harrison, S. C. (2018). *Active teaching and learning approaches in science: towards a model for*. Asia: journal of science and mathematics education.
- Ilo. (2014). Skills for employment. *ILO*, 20.
- Janhoren, H. (2017). *Towards contextual understanding of gender: Student teachers' views on*. Ghana and Finland: <https://www.researchgate.net/publication/318583699>.
- Janice, C. (2011). A short guide to community based participatory action research. *A community Research Lab Guide*, 16.
- JohnBaptist, M. (2018). Work/Production Analysis and Future Workshop as Research vocational Action Research. 77. Kampala, Uganda.
- Kenobi, K. (2015). Effects of instructional materials on students academic performance in selected schools in Nigeria. *Grin*.
- Kimotho, J. (2019, October). Fighting teaching practices that reinforce gender bias in school. *Forum for Africa Women Educationalists Regional Secretariat*, 4.
- Koech, F. (2017). Instructional Resources Used In Teaching and Learning in Pre- Schools in Kenya. *IOSR Journal Of Humanities And Social Science (IOSR-JHSS)*, 9.
- Laia, C. (2017). *Instruments for gathering data*. Barcelona: Research-publishing.net.
- Lauglo, J. (2006). Research for TVET policy development. *International Centre for Technology and Vocational Educational and Training*, 26.

- Laursen, S. (2012). *Enhancing gender awareness in teaching*. Denmark: European Union.
- Lautamaki, V. (2014). Practical guide for facilitating a future workshop. *Finland futures research centre*, 11.
- Lauttamaki, V. (2014). *Facilitating a future workshop*. Finland: Finland future research.
- Lauttamäki, V. (2014). *Practical guide for facilitating a futures workshop*. Turku: Finland Futures research centre.
- Lee, C. (2018). 6 Methods of data. *Save the children*, 30.
- Levtov. (2014). Addressing Gender Inequalities in Curriculum and Education: Review of Literature and Promising Practices to Inform Education Reform Initiatives in Thailand. *Women's Voice and Agency Research Series 2014 No.9*, 40.
- Libraries, U. o. (2016). Types of Research Designs. <http://libguides.usc.edu/content.php?pid=83009&sid=818072>, 8.
- Lucas, B. (2014). Vocational Pedagogy. *City & Guilds*, 7.
- Miami-Dade, T. S. (2011). 2510 - instructional materials and resources. <http://www.neola.com/miamidade-fl/search/policies/po2510.htm>.
- Middleton, F. (2020). Reliability vs validity: what's the difference. *Scribbr*, 1.
- MOES. (2012). *Integrated production skills syllabus*. Kampala: Kyambogo University.
- Mugimu, C. B. (2017). Strategies for Action Research and Development Work in VET. 22.

- Muhammad, Z. (2017). A Questionnaire-Based Survey on Food Safety Knowledge during Food-Handling and Food Preparation Practices among University Students. *Journal of Clinical Nutrition & Dietetics*, 28.
- Nabaggala, J. (2019, september 7). Situation Analysis and Action Research Proposal. Kampala, uganda.
- Ndifon, K. &. (2017). instructional resources and teachers facilitation of skill based subjects on attainment of entrepreneurial skills by junior secondary students in Rivers East Educational Zone, Nigeria. *Direct Research Journal of social science and educational studies*, 9.
- Nicodemus, B. (2018). Action Research. *Researching translation and interpreting.*, 16.
- Nixon, B. H. (2013, 4 Sept/Oct 2013). The Impact of Social Interaction on Student Learning. *A journal of literacy and language arts*, 25.
- Ocak, G. (2010). *The Effect of Learning Stations on the level of academic success and retention of Elementary School Students*. Turkey: Researchgate.
- Olayinka, A. (2016). *Effects of Instructional Materials on Secondary Schools Students' Academic Achievement in Social Studies in Ekiti State, Nigeria*. Nigeria: World Journal of Education.
- Ozioma, A. (2012). Societal and Gender Issues in the Study of Home Economics. *Journal of Educational and Social Research*, 10.
- Pope, C. Z. (2014). 6 Methods of data. *British Medical*, 30.
- Profost. (2019). Promoting active teaching and learning. *Stanford teaching commons*, 33.

- Project, T. T. (2018). Active Learning Methods. *http://www.studentshandouts*, 001.
- Reed, M. (2017). *A theory of participation:What makes stakeholder and public engagement in environmental management work*. United Kingdom: Researchgate.
- Rene, V. (2005). The future workshop;The democratic problem solving. *Researchgate*, 22.
- Restall, J. W. (2010). *Participatory Action Research:An educational tool for citezen_users of community mental healthy Services*. Manitoba: University of Manitoba.
- Ronny, S. (2015, January). Work/ production process in a garage. Norway, Norway.
- Rosenthal, R. (2015). The Top 6 Reasons 'Real' Men Don't Cook. *HuffPost Contributor platform*, 8.
- Sajjad, K. S. (2018). Methods of data collection. *Researchgate*, 10.
- Sannerud, D. A. (2019). *Analysing the Interplay Between Institutional-Based and Workplace Learning*. Scandinavia: Scandinavian Journal of Vocations in Development.
- Sara, E. (2009). *Sampling methodology*. Geneva: International Labour Organisation.
- Schaffer, R. E. (2017). Home Economics for Boys. *THESA Journal*, 3 (1), 28-34., 4.
- Senturk, M. (2019). The effect of learning stations technique on academic achievement: A meta -Analytic study. *Research in Pedagogy*, 15.
- Showkat, W. (2018). *Research Methodology/Sampling*. Nairobi: Kenya Univeraity.
- Silva, V. (2018). Importance of a well mantained home economics laboratory. *B.E.Uwameiye,Literacy and information and competence education journal* , 1.

- Smawfield, D. (2006). *Classroom and school display;a guide for teachers and teacher training*. Turkey: European Union support basic education project.
- Stang, M. A. (2014). Impact of cooking and home food preparation interventions among adults: outcomes and implications for future programs. *Journal HHS Author Manuscripts*, 22.
- Taillie, S. (2018). Who's cooking? Trends in US home food preparation by gender, education, and race/ethnicity from 2003 to 2016. *Nutrition Journal*.
- Taylor, V. (2017). *Female enrollment in male-dominated vocational training course*. Washington: World bank.
- Tuladhar, J. (2012). *Resource Guide on Gender Mainstreaming into Technical and Vocational Education and Training (TVET) in Bangladesh*. Bangladesh: ilo-tvet reform project, dhaka, bangladesh.
- Unesco. (2007). A framework for the realization. *unicef*, 164.
- Vidal, V. V. (2005). The future workshop:Democratic problem solving. *Researchgate*, 22.
- Wahat, M. I. (2018). *Action research,a strategy in community education*. Serdang: Universiti Putra Malaysia.
- Walder, A. (2014). *The concept of pedagogical innovation in higher*. California: Education Journa.
- Wang, G. W. (2005). *Toward a Theory of Human Resource Deveolpment learning particcipation*. James Madison University: Researchgate.

- Widiaty. (2018). Vocational Pedagogy in Perspective Vocational High School Curriculum. *The 3rd UPI International Conference on Technical and Vocational Education and Training (TVET)*, 4.
- Wisconsin Department of Agriculture, T. (2019). Guidelines for Construction and Operation of. *Division of Public Health*, 15.
- Yardley, H. J. (2004). Content and thematic analysis. *Sage*, 9.
- Yiu-Chi Lai, E.-L. L. (2012). Enhancing teaching and learning of Home Economics in secondary schools with wikis: An action research study. *Themes in Science & Technology Education*, 16.

APPENDICES

APPENDIX I: GENERAL QUESTIONNAIRE

I am Nyamaizi Gladys a student from Kyambogo University pursuing a Master's Degree in Vocational Pedagogy. I am required to conduct research as part of my academic requirements. The research study is about Increasing boys' interest and participation in the teaching/ learning process of Home Economics at Bishop Stuart Core Primary Teachers College Kibingo, Mbarara. You have been randomly selected as one of the respondents to answer this questionnaire. Kindly spare some of your precious time and answer the questionnaire. Your responses are for academic purposes only and it will be treated with confidentiality.

(Tick the appropriate)

SECTION: A Demographic characteristic of respondents

1. What is your sex?

A. Male

B. B. Female

2. In which age bracket do you fall?

A. 20- 24 years

B. 25 – 30 years

C. 30 – and above

3. What is your academic year?

A. First year

B. Second year

B. Finalist

D. Others

For questions provided in box below please indicate

1. Strongly agree 2. Agree 3. Not agree 4. Disagree 5. Strongly disagree.

OBJECTIVE TWO: To create awareness defusing cultural gender bias among all stakeholders at BSCK to increase the number of male students offering Home Economics

STATEMENT	1 S A	2 A	3 N A	4 I	5 S D
Majority of the stakeholders at BSCK are biased culturally about the boys' uptake of Home Economics.					
Home Economics should be taught to only girls and it is irrelevant to the boys.					
Both boys and girls who are interested should be trained and participate in the teaching and learning processes of home economics without discrimination.					
Boys lose no value nor their manhood in the society when trained in home economics					

OBJECTIVE FIVE: To determine the relationship between the use of instructional resources and the change in number of boys with interest and actively participating in the learning processes of IPS at Bishop Stuart Core Primary teachers College.

STATEMENT	1	2	3	4	5
	S	A	N	I	S
	A		A		D
Limited use of instructional materials has led to the decrease in the number of boys with interest and actively participating in the learning processes of IPS at Bishop Stuart Core Primary Teachers' College.					
Use the use of instructional materials will increase on the number of boys with in interest and active participation in the learning process of IPS at Bishop Stuart Core Primary Teachers' College					

Finding out the gaps in the teaching and learning processes of Home Economics at Bishop Stuart Core Primary Teachers College Kibingo, Mbarara that are discouraging the boys to take on the Home Economics course.

STATEMENT	1	2	3	4	5
	S	A	N	D	S
	A		A		D
Cultural/societal norms which are gender biased that influences the utilization of instructional resources especially by boy and they are not supportive.					

Lack of instructional resources like limited space, lack of tools for the trainings and among others.					
Attitude and perception among the boys and some other members that home economics is meant for girls/ women.					
Nature of training not supportive like the materials is not usually readily available.					
The training is more theoretical than practical.					
Training being more costly					

Please mention the other various gaps in the teaching and learning processes of Home Economics at Bishop Stuart Core Primary Teachers College Kibingo, Mbarara that are discouraging the boys to take on the Home Economics course.

.....

.....

.....

.....

.....

.....

To address the gaps in the teaching and learning processes of Home Economics at Bishop Stuart Core Primary Teachers College Kibingo, Mbarara to increase boys' interest and participation

STATEMENT	1	2	3	4	5
	S	A	N	I	S
	A		A		D
Sensitizing the public to create public awareness about the advantages of studying Home Economics.					
The institution BSCK PTC should provide adequate and supportive training of the personnel.					
Through public awareness, cultural beliefs should be changed to promote good cultural norms that are supportive to the uptake of Home Economics by both boys and girls.					

What instructional resources do you think can be utilized to increase boys' participation in the learning processes of IPS at Bishop Stuart Core Primary teacher's college?

Thank you for taking part in answering this questionnaire

APPENDIX II: INTERVIEW GUIDE

Key Informant Interview Guide

Interview Date: _____

Interviewer Name: _____

Respondent Category (Administrator/ student/ Tutors)

Age: _____ Sex _____

Title _____

- 1) What do you understand by the term Home Economics?
- 2) What do you have to say about the Boys' uptake of Home Economics at Bishop Stuart Core Primary Teachers College Kibingo, Mbarara? (If low why do you think it is low?)
- 3) Do you think the uptake of Home Economics is by the boys is the same with other institutions?
- 4) What factors do you think have led to the low uptake of Home Economics by the Boys at Bishop Stuart Core Primary Teachers College Kibingo, Mbarara?
- 5) In your view what instructional resources can be utilized to increase boys' participation in the learning processes of IPS at Bishop Stuart Core Primary teachers' college?
- 6) Do you think the use instructional resources in teaching Home Economics will increase boys' participation in the learning processes of IPS at Bishop Stuart Core Primary teachers College?
- 7) What else do you think should be done to increase on the increasing boys' interest and participation in the teaching/ learning process of home economics at Bishop Stuart Core Primary Teachers College Kibingo, Mbarara?
- 8) Is there anything currently being done by the institution to ensure increase the uptake of Home Economics by the boys? (What is being done and how has it impacted on the increase of the boys' interest and participation in the teaching/ learning processes of Home Economics at Bishop Stuart Core Primary Teachers' College Kibingo, Mbarara).

Thank you so much

APPENDIX III: LESSON PLAN

PRACTICAL LESSON PLAN TO SHOW THE UTILIZATION OF IDENTIFIED INSTRUCTIONAL RESOURCES

TUTOR'S NAME: Nyamaizi

DATE

Gladys

Course: Grade 111 Teachers certificate

DURATION

GRADE THREE TEACHERS

3 hrs

CERTIFICATE

Subject/Unit:

LEVEL

Home Economics/providing for our needs

Year one

Topic : Methods of food preparation , cooking and serving(practical lesson by students)

Aim of the lesson:

Utilize food to improve health of students and of the community

Student competences

Demonstrate different methods of cooking of food

Exhibit methods of food presentation and service of the prepared food.

Assumed prior knowledge:

Students may have knowledge on different methods of cooking. They may have ability to come with their own ways of preparing, cooking and serving food

Resources:

Home economics laboratory, Kitchen equipment and tools, source pans, stoves, oven, food items, source of fuel, firewood, recipes, task sheets, food, serving utensils, costumes, prepared

and ready to eat food, mats, chairs, table clothes, menu cards, serving utensils

Approach

Use of laboratory teaching by variation in the experimental process approach

Innovative experimental processes when conducting laboratory work can be conceived by using alternative experimental strategies. Students can be asked to perform the experiment (Practical activity) using one method and make comparisons with the results obtained using another method. Different methods can be selected for different groups of students.

Assessment (how learning will be recognized)

Students identify the basic methods each group is going to use in cooking food

Students draft activity plans for preparation, cooking, presentation and service of food.

Students in groups prepare dishes using both dry and moist methods. Tutor observes the students' activities. Through guided observation and discussion students write out their reflections and experiences from cooking of food. Tutor uses checklist, observation list student progress portrait and student process portfolios to assess learning.

Differentiation (addressing all learners' needs)

Targeted questioning on the different methods of cooking, Guided discussion on experiences from cooking, observations and check listing on cooking processes, presentation and demonstration food service, students work in groups in cooking food in different learning station. Students use ICT to identify various ways food presentation, plating and service. Use student's progress portrait to get a broad picture of strength and weakness of students' competences in the lesson and student process portfolios to depict students' activities,

accomplishments and achievements in the lesson.

Skills for Life / Key Skills to be addressed

Team work, creative thinking, presentation, effective communication.

VALUES: Cooperation, patience. respect, appreciation

Number/ numeracy-

Information Technology

Students use ICT to identify various ways of food preparation, presentation, plating and service

T ime	Content & tutor's Activity	Student Activity	Resource
AM			
9:00	Reviews the methods of cooking,	Identify and Explain methods of cooking various dishes.	Text books, recipe books, ICT Activity working plans/ task sheets
9:15	Observes students activity working plans.	Present activity working plans	
9:25	Sets learners into various learning stations. Distributes the equipment, tools and	Sets the learning stations Collects, arrange, the equipment, tools and materials to use.	Home economics laboratory, kitchen tools and

10:00	materials to use in cooking.	Students start cooking process	materials
	Asks students to start the practical lesson on	Working in three groups such as boys alone, girls alone, and mixed groups	Kitchen equipment and tools, source
11:30	methods of preparation, cooking and serving food	Feedback	pans, stoves, oven, food items, source of fuel, firewood, recipes, task sheets
1:00	Tutor uses a checklist and observation list on the progress of the practical activities.	Doing practical activities	
		Students exhibits food prepared cooked and served	
1:20	Tutor asks student process portfolios & progress portraits analyze the strengths & areas for improvement in food preparation and service practical lesson.	Feedback, ask questions	Recipes, task sheets, food, serving utensils, costumes, prepared and ready to eat food, mats, chairs, table clothes, menu cards, serving utensils
	Feedback – any questions/issues	Watch & listen Watch & listen & ask questions	
		Listen Offer answers	
	Tutor checks, observes & tastes	Feed back	

food prepared, cooked and

served

Sum up & review Competences

of the lesson

Tutor guides students to write

their feelings, reflections,

challenges and solutions about

the practical lesson.

Recap of today's session- ask

each one, 1 thing they have

learnt today

Tutor asks students to write

down comments or views on

boys' participation in home

economics lesson.

Write comments and

views

Papers, pens,

books

Ready cooked

dishes

Homework/assignments set:

Use recipe books to create one dish

Hand in date:

Food items,

kitchen equipment

and tools

APPENDIX IV: FUTURE WORKSHOP GUIDE

TOPIC; How to improve the teaching and learning process of Home Economics at Bishop Stuart Core Primary Teachers College – Kibingo, Mbarara

Background of Home Economics

Home economics is the scientific field of study that deals with the relationship between individuals, families, communities and the environment in which they live. It was the first education program in the whole world that valued the education for girl child. It also advocates for inclusive education where all learners are given the same opportunity of practice regardless of their social, physical, cultural, economic, intellectual, political, geographical backgrounds. It is a purely practical subject that deals with students acquisition of practical skills and scientifically based understanding of the household work technology like Nutrition, laundry, use of and repair of appliances, farming disassembling and reassembling of home machinery, repair of equipment, calling for a basic background of physics, engineering, chemistry and biology (Lilha, 2014). It exists as an academic paper for scholars, researchers, educators, innovators, in the society.

Home economics in primary teachers' college is taught under integrated production skills (a creative use of materials, tools, processes and conditions in the environment to produce items and services that promote welfare). It was first designed in 1997 as an attempt to implement the ministry of education reform program project (PERP) No-617-0313. The goal was to improve the quality of education of the primary teachers and pupils in primary schools. It is purely a practical subject to train students in skills for sustainable economic development (Value for market). However, the subject has not yet achieved its intended goal due to prevailing issues mostly in the teaching and learning process. At first point the issue was raised during an evaluation staff meeting at the college. The students commented that “we

find a problem in understanding home economics lessons which results into boredom “. The second incidence was during my interaction (situation analysis process) at one time with the intended stakeholders for this workshop at my college. The following key issues were identified as factors affecting the teaching and learning process of home economics;

1. Inadequate funding
2. Lack of home economics back ground at lower levels
3. Too much theory than practical
4. Students not using skills to extract value out of them
5. Lack of creativity
6. Lack of interest
7. Low quality of products for market
8. Lack of all-round trained personnel to teach all areas of IPS
9. Lack of instructional materials
10. Lack of reference books

It is from this basis that I picked courage to invite you dear participants, to be part of this workshop because of your highly regarded expertise in creating a solution to these issues.

Guiding question: In order to improve on the quality of teaching / learning process of Home economics at Bishop Stuart core PTC, there should be utilization of instructional materials in the innovative laboratory teaching of the subject. Why is it not so?

MODE OF PARTICIPATION;

The participants are requested to interact freely, respect and Co-operate with one another.

1. Refer to your own experience
2. Inform but do not teach as the one who has all the truth

3. Listen to others
4. Do not judge too early
5. Do not use too long detailed stories
6. Do not advise but make proposals
7. Do not generalize be concrete

TASKS

Task .1 why are instructional materials not used for innovative laboratory teaching of the subject?

Task 2. Identify the most crucial issues and cluster them into themes.

Task 4. Basing on the short-term issues only, choose the most immediate, solvable issue. (Consensus)

Task 5. Identify the causes and effects of that chosen issue

Task 6. Creation of the idea store (solution stage)

Task 7. Choosing the most realistic idea to solve the issue

Task 8. Making an action plan

APPENDIX V: OBSERVATION CHECKLIST

Name of student Observation No.....

Tutor's name..... Date.....

Response Scale

1= Not observed 2= More emphasis recommended 3= Accomplished very

well

Observed Area	Score		
	1	2	3
<p>Organization</p> <p>Presented work plan</p> <p>Paced practical activity appropriately</p> <p>Followed work plan sequentially</p> <p>Economically utilized resources</p> <p>Used tools, equipment and materials appropriately</p> <p>Cleaned, organized place after each activity</p> <p>PRESENTATION</p> <p>Food attractively displayed</p> <p>Explained procedure correctly</p> <p>Maintained cleanliness and orderliness</p>			

<p>INTERACTION</p> <p>Actively participated in practical activity</p> <p>Worked as a team</p> <p>Confidently answered questions correctly</p> <p>Co-operated with fellow students</p> <p>Showed high level of interest in participation</p> <p>CONTENT, KNOWLEDGE AND RELEVANCY</p> <p>Presented appropriate skills in practically</p> <p>Demonstrated high level of understanding of procedure to the public</p>			

