

**AN INVESTIGATION OF TEACHERS' AND STUDENTS' BELIEFS AND
PRACTICES ON USE OF PARTICIPATORY TEACHING METHODS IN
SECONDARY SCHOOLS IN MOSHI MUNICIPALITY**

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**A DISSERTATION SUBMITTED IN PARTIAL FULFILLMENT OF THE
REQUIREMENTS FOR THE DEGREE OF MASTER OF EDUCATION IN
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CERTIFICATION

The undersigned certifies that he has read and hereby recommends for acceptance by the Open University of Tanzania a dissertation titled “*An investigation of teachers’ and Students’ Beliefs and Practices on use of Participatory Teaching Methods in Secondary Schools in Moshi Municipality*”, in partial fulfillment of the requirements for the degree of Master of Education in Administration, Planning and Policy Studies of the Open University of Tanzania.

.....

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.....

Date

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DECLARATION

I, **Esco Nzogela**, do hereby declare that this dissertation report is my own original work and that has not been submitted by anyone for a master degree or its equivalent in any higher learning institution.

.....

Signature

.....

Date

DEDICATION

This dissertation is dedicated to my beloved parents, the late Zabron Nzogela and Mrs Rose Kikoti who brought me up, without forgetting my beloved brother Aloyce Z.Nzogela for giving me education to make my dream come true. I also make a special dedication to my young brothers as well as my sister. Their prayers, devotion wishes, material and moral support, encouragements as well as understanding the importance of education, have facilitated the accomplishment of my postgraduate studies. Dedication is extended also to all who value education.

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ABSTRACT

The study aimed at investigating teachers' and students' beliefs and practices on use of participatory teaching methods in secondary schools in Moshi Municipality. Data for this study was collected from five secondary schools in Moshi Municipality in Kilimanjaro Region. The study involved 100 respondents of these 30 were teachers and 70 were secondary school students. The study employed mainly qualitative approach in which data were collected using interview schedules, observation and documentary reviews and analyzed using content analysis. The study revealed that on the whole research participants agree effective application of participatory teaching methods could help to improve the quality of secondary education in Tanzania as in all five secondary schools teachers had wide knowledge about the concept participatory teaching methods; both teachers and students had positive attitudes towards participatory teaching methods; and that most of the secondary school teachers used group discussion as the only participatory teaching method. However, use of participatory teaching methods faced challenges related to inadequate teaching and learning materials, poor classrooms environment, lack of in-service training, lack of support from the heads of schools, lack of well constructed and equipped laboratories and libraries, and large numbers of students in the classrooms. There is a need for to have regular in-service training pertaining to pedagogical skills, increase supply of teaching resources, construct more classrooms and schools to have well equipped laboratories and libraries for effective application of participatory teaching methods.

TABLE OF CONTENTS

CERTIFICATION	ii
COPYRIGHT	iii
DECLARATION.....	iv
DEDICATION.....	v
ACKNOWLEDGEMENT.....	vi
ABSTRACT	vii
LIST OF TABLES	xiii
LIST OF FIGURES	xiv
LIST OF APPENDICES	xv
LIST OF ABBREVIATIONS	xvi
CHAPTER ONE	1
INTRODUCTION.....	1
1.1 Introduction	1
1.2 Background of the Study.....	1
1.3 Statement of the Research Problem	6
1.4 Purpose of the study	7
1.5 Research Objectives	7
1.6 Research Questions	7
1.7 Significance of the Study	8
1.8 The Scope of the Study	9
1.9 Delimitation of the study.....	9
1.10 Limitation of the Study	9

1.11	Conceptual Framework	10
1.12	Operational Definitions of Key Terms	12
CHAPTER TWO		15
LITERATURE REVIEW		15
2.1	Introduction	15
2.2	Participatory Methods	15
2.3	The Concept of Teaching and Participatory Teaching Methods	18
2.4	Perceptions on Participatory Teaching Methods	20
2.5	Comparison between Participatory and Traditional Methods of Teaching	28
2.6	Challenges for implementing Learner Centered Education in Schools	28
2.6.1	The use of Traditional Teaching Methods	28
2.6.2	In-service Ttraining	29
2.6.3	Physics Required Teaching Lower Secondary School Science Pupils	29
2.6.4	Teaching and Learning Materials	30
2.6.5	Class Size and Teaching Methods	31
2.6.6	Time and Teaching Strategy	32
2.6.7	The Heads of Schools Support to Teachers	32
2.6.8	Large Classrooms in Teaching Environment	32
2.8	Empirical Studies on Participatory Teaching Methods	33
2.9	Demonstration of the Gap of Knowledge	34
CHAPTER THREE		36
RESEARCH METHODOLOGY		36
3.1	Introduction	36
3.2	Research Design	36

3.3	Area of the Study.....	37
3.4	Target Population and Sampling.....	38
3.4.1	Sample and Sampling Techniques.....	38
3.4.2	Sample Size.....	38
3.4.3	Sampling Techniques.....	39
3.4.4	Simple Random Sampling.....	39
3.4.5	Purposive Sampling.....	39
3.5	Data collection methods, tools and Procedure.....	40
3.5.1	Interview Schedule.....	41
3.5.2	Teachers' Interview Schedule.....	43
3.5.3	Student Interview Schedule.....	44
3.5.4	Observation.....	45
3.5.5	Documentary Review.....	45
3.6	Validity and Reliability of the Instruments.....	46
3.6.1	Validity.....	46
3.6.2	Reliability.....	47
3.7	Data Analysis Plan.....	47
3.7.1	Data Analysis Plan.....	48
3.8	Ethical Issues and Considerations.....	49
	CHAPTER FOUR.....	50
	FINDINGS AND DISCUSSION.....	50
4.1	Introduction.....	50
4.2	Respondents Characteristics.....	50
4.2.1	Teachers' Educational level.....	50

4.2.2	Teachers' Professional Experiences.....	51
4.2.3	School Type.....	52
4.3	Understanding of the Concept Participatory Teaching Methods	53
4.4	Teachers' and Students' Views on use of Participatory Teaching Methods.....	55
4.4.1	Teachers' Views on use of Participatory Teaching Methods.....	55
4.4.2	Measuring Students' Prior Knowledge	56
4.4.3	Teachers' Interests on using Participatory Methods of Teaching	57
4.4.4	The Effectiveness of Participatory Teaching Methods	59
4.4.5	The Mostly Preferred Teaching Methods.....	60
4.4.6	Students' Views on use of Participatory Teaching Methods	63
4.4.7	The Mostly used Teaching Approach	63
4.4.8	The Mostly used Teaching Method.....	65
4.4.9	Number of Students Per Each Group	66
4.4.10	The Need to Learn Through Participatory Methods	67
4.4.10	Participatory Methods and Quality Education	71
4.5	Comparison between Participatory and Traditional Methods of Teaching.....	73
5.5.1	Students Views on Participatory and Non-Participatory Teaching Methods.....	75
4.6	Teachers' and Students' Views on Challenges in Using Participatory Methods	76
4.6.1	Teachers' Challenges in Using Participatory Methods of Teaching.....	76
4.6.1.1	Numbers of Students Per each Class.....	76
4.6.1.2	The Class Size	78
4.6.1.3	Classrooms Environment	79
4.6.4	Availability of Chairs and Tables (Desks).....	80
4.6.5	Availability of Teaching and Learning Materials	80

4.6.5	Support from the Heads of Schools.....	82
4.6.6	In-service Training	84
4.6.7	Time Spent Per each Lesson	86
4.8	Challenges Facing Students when Taught Through Participatory Teaching Methods.....	89
4.8.1	Availability of Enough Learning Materials	89
4.8.2	Classroom Environment.....	90
4.8.3	Sufficient Chairs and Tables (Desks) in the Classrooms	91
4.8.4	Lessons Class Hours.....	92
4.8.5	Improving Teaching and Learning by Participatory Methods of Teaching	94
CHAPTER FIVE.....		97
SUMMARY, CONCLUSION AND RECOMMENDATIONS.....		97
5.1	Introduction	97
5.2	Summary of the Major Findings	97
5.3	Conclusion.....	100
5.4	Recommendations	101
5.5	Recommendations for Further Studies.....	102
REFERENCES.....		104
APPENDICES		119

LIST OF TABLES

Table 3.1: Distribution of Respondents by Category	39
Table 4.1: Field Data on Teachers' Characteristics.....	52
Table 4.2: Students' Characteristics	53
Table 4.3: Teachers' Understanding of Participatory Teaching Methods.....	55
Table 4.4: Measuring Students' Prior Knowledge Before Teaching New Topic.....	56
Table 4.5: Teachers' Interests on Using Participatory Methods of Teaching	57
Table 4.6: Participatory Teaching Methods in Improving Quality of Secondary Education.....	60
Table 4.7: Teachers' Mostly used Teaching Methods.....	62
Table 4.8: The Mostly used Teaching Approach	64
Table 4.9: Students' Interests on Participatory Methods of Teaching	70
Table 4.10: Participatory Methods and Quality Education.....	73
Table 4.11: Teachers use of Participatory and Non-Participatory Teaching Methods ...	74
Table 4.12: Student Views On Participatory and Non-Participatory Teaching Methods.....	75
Table 4.13: Number of Students Per each Class	78
Table 4.14: Availability of Teaching and Learning Materials.....	81
Table 4.15: Teachers In-service Training	86
Table 4.16: Time Spent and Proposed time for Effective Teaching.....	88
Table 4.17: Lessons Class Hours	93
Table 4.18: Students' Opinions on Improving Participatory Methods	95

LIST OF FIGURES

Figure 1.1: Conceptual Framework..... 12

Figure 3.1: A Sketch Map showing Districts of Kilimanjaro Region..... 37

LIST OF APPENDICES

Appendix I: Students' Interview Schedule..... 119

Appendix II: Teachers' Interview Schedule..... 122

Appendix III: A Guide for Documentary Reviews..... 127

Appendix IV: Observation Check List..... 128

LIST OF ABBREVIATIONS

CBC	Competent based curriculum
CPL	Continuous Professional Development
DED	District Executive Director
E.C.M.L.L	European Commission for Memorandum of a Life Long
MoEC	Ministry of Education and culture
MoEVT	Ministry of education and vocational training
NGOs	Non-Governmental Organizations
ODL	Open Distant Learning
PID	Participatory and Integrated Development Participatory
PLA	Learning and Action
RRA	Rapid Rural Appraisal
SEDP	Secondary education development program
UNAIDS	United Nations Aids Programme
UNESCO	United Nations educational, scientific and Cultural Organization
UNICEF	United Nations Children's' Fund
URT	The United Republic of Tanzania

CHAPTER ONE

INTRODUCTION

1.1 Introduction

This chapter presents the background information of the study. It is organized into sub-sections as follows: - background to the study, statement of the research problem, research objectives, research questions, significance of the study and the last section is scope of the study.

1.2 Background of the Study

Participatory teaching methods initiatives in Tanzania have been developed using different names; inspirational teaching and learning, active learning, change of paradigm, learner centered Education, competent based curriculum and so forth. However, they are all participatory methods of teaching (Chediell, 2009). Historically participatory teaching methods in Tanzania began to be implemented in 2005 when the Government of United Republic of Tanzania reviewed her curriculum from traditional methods of teaching to competent based curriculum or learner centered Education (URT;2010). Competence-based Curriculum encourages the use of participatory teaching methods. Participatory teaching methods encourage interaction among teacher, students, the content and the environment in which learning occurs (Mulder & Ndabi, 2004).

According to secondary Education development program (SEDP) focus on attracting, training, and retaining adequate numbers of high quality teachers through incentive systems and rationalization of ratios between natural science and social sciences/arts

subjects, diploma and degree holders. The focus on the teaching process on improving pupil/teacher interaction in classrooms, improving the continuous assessment process of students so that the learning is not solely based on one final examination result and ensuring that child centered methodologies/pedagogy are reinforced in the classroom (MoeVT,2005).

In improving teaching and learning environment in Tanzania since 1990s the main emphasis is on the use of participatory teaching methods. According to Mulder& Ndabi (2004) participatory teaching approach is a shift from traditional teacher centered pedagogy to learner-centered teaching methods where learners create meaning of what they learn through active participation in the teaching and learning process (Meena,2014). This thinking is based on the constructivist learning theories developed by Piaget (1970), Vygotsky (1978) and Bruner (1996). Most of the teachers in the primary schools have been oriented to teaching practices based on traditional teaching approaches where learners' participation is very limited.

The use of traditional methods where the one who gets get and the one who misses miss is triggered by a number of factors, for example large class sizes, instructional materials, teacher qualification, quality of the learner, school management, environment surrounding the school and school cultureGibbs, & Simpson, (2004).Since constructivism implies that knowledge is constructed by the individual, it has prompted the development of teaching/learning situations which stress and encourage participation of learners in the teaching and learning process. From traditional point of view Teaching is a process of imparting and transmitting knowledge, skills, values, and experiences from one who knows to one who does

not(Mulder &Ndabi, 2004). It is an art and science that involves specific strategies, which facilitates for every individual student to learn better. It is essentially aiming at delivering instructional content in a smooth and sequential manner (Jambo, 2012). According to Mhando (2001) learning is defined as “any change in mental behavior that is lasting and the product of experience”. On the other hand, he defined teaching as “the coordinated set of activities that require measuring student behavior reflecting instructional intent”; (Haladyna, &Beardsley, 2012).

In order to create learners who are competent, in Tanzania, since 2005, the Government of the United Republic of Tanzania has been implementing a competence based curriculum in secondary Education, which emphasizes the development of certain specified key competences. Competence based curriculum emphasizes a learner centered approach with a focus on multiple teaching and learning methods (URT, 2005). The main objective of the competence based curriculum was to improve teaching, performance and quality of education in general in order to meet the recent challenges related to globalization and employment.

According to Peterson (2007) teaching Methods are ways of managing the group of students in order to achieve designed educational goals. Further, teaching methods can be defined as the application of several teaching techniques and expanding teachers’ repertoire in order to maximize students' understanding. This means that lecturers, teachers and instructors integrate different sets of teaching approaches that not only facilitate learning but also simplify the instructional content being delivered to the students.

According to Beinomugisha, Jagero & Rwashema (2012) teaching methods can be categorized into two major categories namely; participatory and non-participatory ways of teaching. Participatory teaching strategy is that method by which students are to the fullest engaged in teaching activities within their preferably learning styles. Commenting on this strategy, Peterson (2007) supported that it creates learning whereby students are not passive members of teaching and learning process. This type of teaching strategy is comprised of various teaching styles. These include; group-discussion, academic controversy (debating), role-play, problem-based learning, mind mapping, concept attainment, inductive learning.

Hammer (2014) revealed that the participatory teaching strategy may employ cooperative learning. In this mode, students are encouraged to work together in their small groups for the achievement of common goals. Teachers use small groups frequently to generate ideas for classroom discussion. In this strategy, students are in an established and sustained learning groups or teams. The strategy fosters individual accountability in a context of group interdependence in which students discover information and teach that material to their group and, perhaps, to the class as a whole.

Woodson (2003) denoted that participatory teaching methods could take a pyramid system whereby the student works alone, then in pairs, and later in larger groups. He argued that this strategy, encourages interaction among students especially students who are reluctant to speak out in class, because they feel that, others in class have the same thoughts, although they may have reached the solution in different ways. This strategy increase students' ability to manage difficult learning tasks. Heward (2003)

advocated that role-play learning used in the participatory teaching strategy helps students to gain greater insight into a person or situation. The researcher urged lecturers to make sure that the "players" take their roles seriously and have defined the characteristics of their roles. The lecturer guides the whole exercise of role-playing while the rest of the class observe and comments upon the action.

However, Educators have been trying to provide a better education to the youth for a better future. A better education lies in motivating students and involving them in the process of learning. Developing individual creativity at the heart of continuous innovation, and encouraging students to use this skill in shaping their lives should be defined as the foremost goals of today's education Chevalier&Buckles (2013).The UNESCO report (2013).States that none of the talents which are hidden like buried treasure in every person must be left untapped. This triggers the question of what education can do towards this aim and how school can provide instruction that will best develop the potential of each individual. This is a key challenge for teachers, school managers, teacher trainers and policy makers at all levels alike.The use of participatory methods in teaching and learning is becoming a common agenda in education, Tanzania's education inclusive, since there is a shift of paradigm from being content based to competence based. Competence based curriculum practice is opposed to content based practice. This new curriculum practice is intended to build knowledge, skills, the right attitudes and competencies in the learners so that they can use them to solve problems in daily life.

Secondary education occupies a pivotal role in the functioning of the economy and the education system itself. Experience shows that, the majority of the people in both

the private and public sectors are expected to be secondary education leavers. The whole primary education system relies on teachers who are a product of the secondary education system. Some of the participatory and non participatory methodologies recently used are a small group discussion, study tour, role play, debate, Socratic and jig-saw approaches, guest speaker, Lecture method and demonstration (Ciupek-Reed, 2012).

The integration of participatory teaching and learning methods in Tanzanian education system has been an issue of grave concern. Many teachers and educationists largely depend on long-established habits (Nara, 2011). In fact, some recent studies found that teachers in primary, secondary schools, teacher education colleges, as well as universities still dominant use lecture-citation methods. Where participatory methods have been deployed, they were poorly utilized by many teachers, as students have been encouraged to work in groups of five to six, largely discussing questions without proper direction (Tilya & Mafumiko, 2010).

1.3 Statement of the Research Problem

Participatory teaching approach obliges teachers and students to create an active learning environment (Kirk and Wall, 2010). Factors facilitating active engagement of learners include teachers teaching approach, school infrastructure, class size, initial teacher preparation, the curriculum content, availability of curriculum materials, teachers' knowledge and skills in different teaching approach, and the teachers support. Provided Tanzania is implementing a competence based curriculum the questions that arise include: what are the factors facilitating teachers in adopting participatory teaching approach? Teachers do work in partnership with learners, and

that teacher are pivotal in the teaching and learning process, the questions is what are the teachers' and students' views in adopting and using participatory methods? The other questions worthwhile asking might be what the outcomes are when teachers and students use participatory methods in the teaching and learning process. This study therefore attempted to explore teachers' and students' beliefs and practices on use of participatory teaching methods in Secondary schools in Tanzania.

1.4 Purpose of the study

The study aimed at investigating the teachers' and students' beliefs and practices on use of participatory teaching methods in secondary schools in Moshi Municipality.

1.5 Research Objectives

Specific objectives of this study were as follows:

- (i) To explore teachers' understanding about participatory teaching methods
- (ii) To investigate teachers' and students' views on the use of participatory teaching methods.
- (iii) To make comparison between participatory and traditional methods of teaching
- (iv) To assess challenges that teachers and students face when using participatory methods in classroom environment.

1.6 Research Questions

- (i) What do teachers understand the meaning of participatory teaching methods?
- (ii) What are the teachers' and students' perceptions' towards participatory teaching methods?

- (iii) What is the comparison between participatory and non-participatory teaching methods?
- (iv) What challenges do teachers get when using participatory teaching and learning methods?

1.7 Significance of the Study

The findings of this study was expected to reveals the proper information for educational planners and administrators for further investigation and information about the Teachers' and students' perceptions on participatory teaching methods adopted in teaching process in Moshi Municipality secondary schools. The study was expected also to help on maintaining good conduct and make the required reforms in relation to both curricula coverage and students acquisition of life skills to improve the quality of education. The development partners, especially educational partners, may use the findings of the study to design interventions that will improve the quality of education in secondary schools. Policy makers will also be enriched with data information as they will be able to design appropriate policy based into Teachers' and students' perceptions on participatory approach adopted in teaching process in Moshi Municipality secondary schools.

Finally this research will help the curriculum developers to adjust to the system so as to overcome the constraints that might arise and restrict the provision of quality education in secondary schools. Also it will adds the body of knowledge available about the Teachers' and students' perceptions on participatory teaching methods adopted in teaching process in Moshi Municipality secondary schools.

1.8 The Scope of the Study

The study focused directly on the areas where a researcher was conducting the study without any barrier such as financial, transport and communication as well as time barrier. Hence the consideration of appropriate geographical area was very important. The study based in Kilimanjaro region particularly in secondary schools of Moshi Municipality. Three public and two private secondary schools were involved in the study. Few schools were chosen due to the time factor and financial constrains. The coverage content generally was based on investigating the teaching style/technique used in these secondary schools chosen in Moshi Municipal where the content of the study was accurately found.

1.9 Delimitation of the study

The study was conducted in Kilimanjaro region in Tanzania, based on five secondary schools in Moshi Municipality. Of these schools, three are public owned secondary schools and therest two are private owned secondary schools. The study focused on the teachers' and students' perceptions on participatory teaching methods in secondary schools only.

1.10 Limitation of the Study

The study is qualitative in nature which was conducted for an in-depth understanding of the phenomenon under investigation. Therefore, the information obtained cannot be generalized to all the Tanzanian schools since the sample used was small and purposively selected, hence not representative of the norm. The time allocated to carry out research was not enough. This is due to the fact that, research in education issue is complex and needs time to collect data.

The researcher was supposed to attend his duty at his working station and at the same time concentrating on study. The researcher used working days to collect data from teaching staff and students. Due to limitation of time, only 30 teachers and 70 students were involved in the study about the teachers' and students' perceptions on participatory teaching methods.

This study lacks triangulation which is an important limitation for a study. Although interviewees were requested to tell what they really thought or what the real situation was, there might have been interviewees who didn't expose reality. Absence of classroom observations might be regarded as another limitation of this study. Some respondents did not show-up for interview on date and on time as arranged: hence the researcher had to rearrange appointments and tirelessly make follow-ups. Anyway, it should be mentioned that this study offers important insights into the way of improving the quality of education in Tanzania.

1.11 Conceptual Framework

The study adopted constructivist learning theory of Bruner based on constructivists' views as an underpinning guide of this study. A major theme in the theoretical framework of Bruner is that learning is an active process in which learners construct new ideas or concepts based upon their current/past knowledge. The learner selects and transforms information, constructs hypotheses, and makes decisions, relying on a cognitive structure to do so. Cognitive structure (i.e., schema, mental models) provides meaning and organization to experiences and allows the individual to "go beyond the information given".

As far as instruction is concerned, the instructor should try and encourage students to discover principles by themselves. The instructor and student should engage in an active dialog (i.e., socratic learning). The task of the instructor is to translate information to be learned into a format appropriate to the learner's current state of understanding. Curriculum should be organized in a spiral manner so that the student continually builds upon what they have already learned.

Bruner (1966) states that a theory of instruction should address four major aspects: (1) predisposition towards learning, (2) the ways in which a body of knowledge can be structured so that it can be most readily grasped by the learner, (3) the most effective sequences in which to present material, and (4) the nature and pacing of rewards and punishments. Good methods for structuring knowledge should result in simplifying, generating new propositions, and increasing the manipulation of information. The other application of this study can be that; instruction must be concerned with the experiences and contexts that make the student willing and able to learn (readiness), instruction must be structured so that it can be easily grasped by the student (spiral organization) and instruction should be designed to facilitate extrapolation and or fill in the gaps (going beyond the information given). The model below aims to show various factors which lead to the efficiency of participatory methods of teaching in the classroom situation.

According to the Figure 1.1 shows that the participatory approach to teaching is an influencing factor between teachers and children interactions. These interactions can be influenced by factors related to good preparation to the teacher, availability of teaching and learning materials, good learning environment, availability of enough

teachers, enough training to the teachers, presence of enough capital to sustain the training and good number of the students in the class.

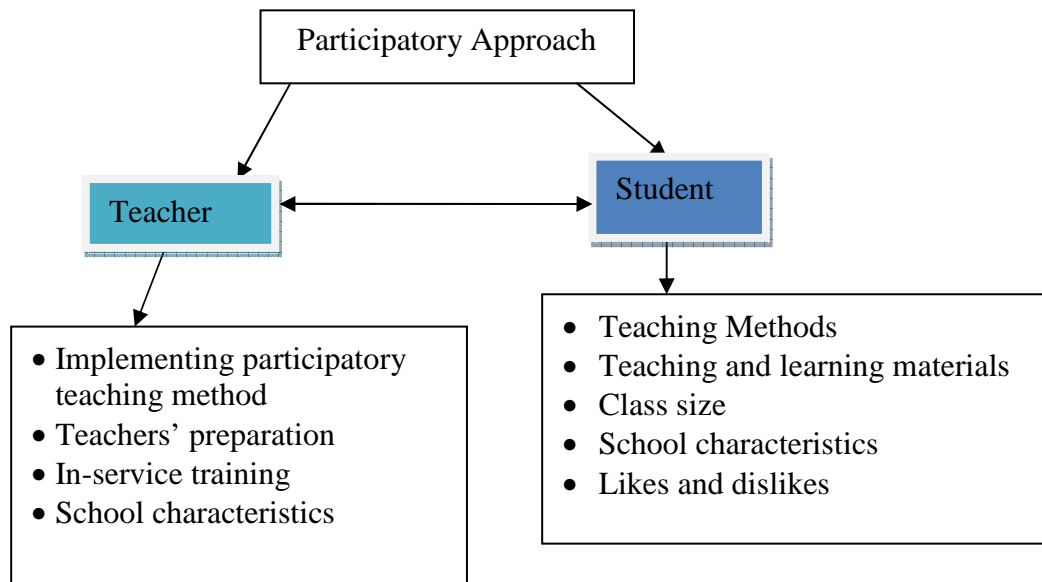


Figure 1.1: Conceptual Framework

Source: Researchers construction

Participatory approaches in the teaching and learning process can facilitate the better understanding of the learners. So the educational stakeholder such as teachers, head of schools, students and ministry of education, each part should fulfill its responsibilities in order to facilitate the whole process of teaching and learning accordingly as it was planned.

1.12 Operational Definitions of Key Terms

The study has many terminologies as key terms which will be used in different parts of the study. These terms have their meaning and can be shown as follows:

Education: It can be defined as the transmission of knowledge, skills, values and attitudes to the learners. Also according to Pestalozzi; Education is the harmonious

and progressive development of all the innate powers and faculties of man- physical, intellectual and moral. Education also is the process of initiating and preparing man through training in his environment, to play active roles in society (MoEC, 1995).

Participatory method: Participatory method is a form of reflective teaching approach which is sometimes turned as interactive teaching method or learner – centered approach. Under this method students have an ability to contribute their ideas during learning process and therefore the teacher is not a sole source of everything in academic endeavor therefore there must be interaction between teachers and students. It can also be defined Participatory teaching strategy is that method by which students are to the fullest engaged in teaching activities within their preferably learning styles (Beinomugisha, Jagero & Rwashema 2012).

Learner-Centered Education is defined by (McCombs & Whisler 2003) as the perspective that couples a focus on individual learners (their heredity, experiences, perspectives, backgrounds, talents, interests, capacities, and needs) with a focus on learning the best available knowledge about learning and how it occurs and about teaching practices that are most effective in promoting the highest levels of motivation, learning, and achievement for all learners.

Secondary school: Secondary education is the education a person gets after completing primary education. According to UNAIDS, (2000) define secondary education as a critical entry-point for the provision of appropriate health education necessary for young people to protect themselves from diseases since this age group demonstrates the greatest capacity to change behavior.

Teaching: Teaching can be referred as the range of professional duties performed by teachers in and outside a classroom environment. Teaching can be defined as a process of imparting and transmitting knowledge, skills, values, and experiences from one who knows to one who does not. It is an art and science that involves specific strategies, which facilitates for every individual student to learn better. It is essentially aiming at delivering instructional content in a smooth and sequential manner Jambo (2012). On the other hand, teaching can be defined as “the coordinated set of activities that require measuring student behavior reflecting instructional intent” (Haladyna, 2007).

Traditional teaching: Traditional teaching it is the teacher centered approach concerned with the teachers being a controller of the learning environment and learners are being recipients of what is being taught. “The traditional teaching approaches are generally teacher-directed and follow cookbook steps of activities and demonstrations. Traditional teaching approach is likely not providing students with valuable skills or even with a body of knowledge that lasts much beyond the end of the term” (Udovic, Morris, Dickman, Postlethwait & Wetherwax, 2002).

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

The proceeding chapter has provided the background to the study. In this chapter, the review of the related literature on the teachers' and students perceptions on participatory teaching methods is discussed accordingly. The chapter is divided into pertinent sections each describing a component part on teachers' and students' perceptions on participatory teaching methods for the purpose of identifying the knowledge gap.

2.2 Participatory Methods

Participatory teaching methods are important in secondary education because secondary education occupies a pivotal role in the functioning of the economy and the education system itself (URT, 2010). Experience shows that, the majority of the people in both the private and public sectors are expected to be secondary education leavers. The whole primary education system relies on teachers who are a product of the secondary education system. Candidates of higher and tertiary education and training are products of the secondary education system.

This is the essence of being pivotal, or the lynch pin. Important externalities of secondary education are increasingly being recognized in family planning, education of the off-springs, political participation and health. Good quality secondary education is a prerequisite for good quality human life, labor skills and economic productivity (URT, 2010).

This study adopts the theory into practice as an underpinning guide of this study. This theory propose that, as with a live, interactive performance a successful coaching experience occurs through an interactive dialog in which the student and the instructor take turns in leading the classroom conversation towards predictions, further questions, summarizing and self-appraising (Wirth, 2009). The main assumptions of this theory are as follows:First, the first is to understand that the atmosphere in the classroom is better served if it fosters the creation of a sense of play, an element common and central to successful interactive media, video games, and interactive theater.

The basis for a successful interactive learning experience, is one in which the concept of 'knowledge' becomes an inherent property of the learner who emotionally invests in the process and who is willing to make mistakes in order to learn. The second assumption is that the instructor needs to be committed to creating a classroom environment in which lessons involve the co-creation of knowledge, knowing full well that the constructivist approach is less economical in terms of the amount or time it takes to implement. Constructivist strategies take considerable more time but are worth-while if they are applied properly. Even though it takes a little longer to begin with, the time investment pays big dividends because it establishes an inquiry atmosphere and culture of learning in the classroom.

It is important to realize that behavioral change is what is being managed and encouraged. Like in a good story, change is best accomplished when there is a disruption to the norm. (Piaget Wadsworth: 1978) describes this concept as a 'dis-equilibration' in which the norm is interrupted to stimulate the cognitive powers of

individuals due to their desire for consistency. Participatory methods of teaching are a product of long lasting interaction between researchers, development workers, government agents and local populations. The history of participatory methods in development co-operation began in the late 1970s with the introduction of a new research approach called "Rapid Rural Appraisal" (RRA), which immediately became popular with decision-makers in development agencies. Building on close collaboration with local populations RRAs were designed to collect first-hand data from the local people about their perceptions of their local environments and living conditions in rural areas (Beckmann, 2004).

RRAs were usually conducted as 1 to 3 days workshops with villagers in the field and facilitated by small teams of RRA specialists or researchers. RRA methods were specifically adapted to respond to local conditions. Thus communication processes with illiterate persons not used to communication in abstract terms were carefully considered. Visualization using locally comprehensible symbols, and tools like mapping, diagramming and ranking were introduced. A limitation of RRA, however, was that it was extractive; the role of the local people was limited to providing information, while the power of decision-making about the use of this information remained in the hands of others (Beckmann, 2004).

During the 1980's NGOs (Non Governmental Organizations) operating at grass-roots level used RRA to come up with further fine-tuned approaches called Participatory Rural Appraisals. PRAs use similar methods and tools as RRA, but the underlying philosophy and purpose changed. While RRAs aim at extracting information, often in a single event, PRAs were designed to follow more the peoples' own concerns and

interests; PRA workshops were usually facilitated by a team of trained persons and could take several days 3 to 6 days. One of the most important principles in PRA was the sharing of results of analysis, decisions and planning efforts among the community members by open and public presentation during meetings. PRAs strongly supported and facilitated the introduction of more demand-responsive ways of managing development interaction, and process-oriented thinking (Chambers, 2008).

The latter led to sequential applications of PRA events and assisted follow-up. Thus it built up rural people's own capacities for analyzing their circumstances of living, their potentials and their problems in order to actively decide on changes. PRA facilitators accepted more and more the role of learners. These shifts towards interactive mutual learning was then reflected in the new terminology of Participatory Learning and Action in the early 1990s. Since the beginning of the 1990s extended concepts of participatory processes and interaction have been developed, and summarized under the name Participatory and Integrated Development (PID) (Beckmann, 2004).

2.3 The Concept of Teaching and Participatory Teaching Methods

According to Peterson (2007), teaching Methods are ways of managing the group of students in order to achieve designed educational goals. Further, teaching methods can be defined as the application of several teaching techniques and expanding teachers' repertoire in order to maximize students' understanding. This means that lecturers, teachers and instructors integrate different sets of teaching approaches that not only facilitate learning but also simplify the instructional content being delivered

to the students. According to Beinomugisha, Jagero & Rwashema (2012) teaching methods can be categorized into two major categories namely; participatory and non-participatory ways of teaching. Participatory teaching strategy is that method by which students are to the fullest engaged in teaching activities within their preferably learning styles. Commenting on this strategy, Peterson, (2007), purported that it creates Learning whereby students are not passive members of teaching and learning process. This type of teaching strategy is comprised of various teaching styles. These include; group-discussion, academic controversy (debating), role-play, problem-based learning, mind mapping, concept attainment, inductive learning. McKeachie (1999) revealed that the participatory teaching strategy may employ cooperative learning. In this mode, students are encouraged to work together in their small groups for the achievement of common goals. Teachers use small groups frequently to generate ideas for classroom discussion. In this strategy, students are in an established and sustained learning groups or teams. The strategy fosters individual accountability in a context of group interdependence in which students discover information and teach that material to their group and, perhaps, to the class as a whole.

Learner-Centered Education is defined by (McCombs & Whisler, 2003) as; “The perspective that couples a focus on individual learners (their heredity, experiences, perspectives, backgrounds, talents, interests, capacities, and needs) with a focus on learning the best available knowledge about learning and how it occurs and about teaching practices that are most effective in promoting the highest levels of motivation, learning, and achievement for all learners.

2.4 Perceptions on Participatory Teaching Methods

Ahmed and Aziz (2009) note that some teachers believe that classes should be teacher -centered, where the teacher is the expert and the authority in presenting information while other take a learner centered approach in which learners take much roles in their learning. Koross, Indoshi and Okwachi (2013) notes that inappropriate classroom. Skills such as the use of teacher -centered methods sabotage the achievements and goals of even the meticulously designed curriculum. Eken (2000) noted that in a student centered class, teachers are more of facilitators and students take on the discussion role; students are seen as being able to assume a more active and participatory role vis-a-vis traditional approaches. This teaching method promotes active participation of students in classroom activities.

The normal life of children to solve problems is essentially a scientific way of working. School experiences need, therefore, to build on what children do naturally. Scientific enquiry is valuable because it helps children learn about their surroundings in a way which is natural and acceptable to them, through practical exploration relying heavily on sensory experience. Involvement and discovery help the child to communicate. Activity-based curricula can allow children to gain concrete experience of the world (Mnyanyi, Ngonge & Ngenzi, 2008).

Since 2005 the curriculum in use at all levels of education in Tanzania is based on Competence-Based Curriculum (URT, 2010). Competence-based Curriculum encourages the use of participatory teaching methods. Participatory teaching methods encourage interaction among teacher, students, the content and the environment in which learning occurs (Mulder&Ndabi,2004). Indeed, the method provides

opportunities for students to share concepts and skills with their teacher as well as their colleagues. Participatory teaching methods include questions-and-answers, brainstorming, role play, field trips, experimentation, group discussions, concept map, jig-saw puzzles and value clarification (Ndabi and mulder, 2004). Thus, in participatory teaching and learning classroom, teachers act as facilitators, or coaches, with students treated as junior-colleagues. As such, the teaching and learning process is capable of explaining to learners how knowledge and skills learned are applied in real life situation.

Rita(2008) posited that discussion as a teaching strategy can take any style depending on the teaching objectives. For instance, the lecturer may pose issues to the class and request students in their groups to brainstorm. Then students in their groups discuss, and report their work to the class. After that, lecturer and students respond to the presentations. Authors insist that, this is an excellent way to generate various ideas about the discussed topic and encourage creative thinking as well as building self-confidence among students. Another type of discussion is debating. In this strategy, the lecturer forwards a motion that is controversial. Students are grouped into two groups, those who accept the motion one side and those who oppose another side. The role of the lecturer is to ensure that the discussion remains objective and that each side is given equal time.

Successful teachers were found to use many kinds of teaching strategies and interaction styles rather than a single approach. Effective teachers try to meet the needs of different students and demands of curricular goals, topics, and methods (Savage,&Savage, 2009). Different strategies are included in active teaching and this

active teaching responds to both students' needs and curriculum goals (Good, & Brophy, 2008). The child's growth must proceed in an organic manner. In other words, learning must be nurtured and guided, but not forced. Words such as foster, rear, nurse, guide, counsel, and encourage abound. Through the process of nurturance, the students become aware of their identity and abilities, and they are empowered to take on the responsibility for their personal transformation (Bahá, 2014).

One's active involvement in the life of the community, identification with its aspirations and undertakings, willingness to assume one's share of responsibility and fulfil one's unique role are essential elements in personal growth and development. Such an attitude of participation, rather than one of isolation and alienation, is a "source of power and vitality" and therefore a cornerstone in the advancement of a group or a community (Bahá, 2014). Participation by all engenders unit of thought purpose, and action, and makes possible attainment of the common goals. It enables all to work together, to encourage and support one another, and to coordinate efforts for the good of all. As it is an attitude that needs to be learned, it must also, somehow, be included in the school's instructional program (Bahá, 2014).

In keeping with the principle of universal participation, everyone should be associated with the school and be encouraged to participate in its manifold activities. Obviously, this calls for openness in the communication and decision-making processes. This openness can, for example, be achieved through frequent staff and parent meetings as well as through the students' increasing involvement in the planning and execution of various class and school projects. The twin objectives of

cooperative education are expressed in the phrase “learning to cooperate, cooperating to learn.” The former is concerned with the development of pro social values, skills, and behaviours; the latter with the use of cooperation to enhance the learning process. These objectives are achieved by creating classroom conditions in which the use of cooperation and social skills becomes a necessity. The promotion of cooperative education was vigorously renewed in the early 1970s (Johnson, 2001).

In the early half of this century John Dewey argued that “if humans are to learn to live cooperatively, they must experience the living process of cooperation in schools” (Schmuck, “Learning to Cooperate”, Lynch, Multicultural Education. Since then, cooperative education has grown into a strong movement, with an increasing emphasis on the development of attitudes of cooperation in students rather than simply using cooperation as a learning strategy. A survey of the latest literature reveals a growing agreement that especially at the pre-school and primary school levels, more time and attention needs to be dedicated to the social development of students, even at the expense of the academic curriculum. With the diminishing role that families and home play in the education of Children, schools must pick up the job of socializing the students in the values of caring and sharing (Kagan, 2002).

In a cooperative learning situation, these skills are typically taught parallel with the academic skills, by structuring learning tasks in such a way as to necessitate cooperation. The desired attitudes are further developed through an environment that is conducive to cooperation, example classroom arrangement and management; cooperative games; explicit teaching of prosaically behaviours and skills; group discussions and exercises in group-decision making and interpersonal problem-

solving; and home-based cooperative activities. Throughout the process, the emphasis is on the students' orientation toward each other rather than toward the teacher Slavin (1990). It is, however, argued that heavy reliance on extrinsic rewards encourages competitive attitudes, as it leads to social comparison and thus to "intergroup versus out group biases," as well as undermines intrinsic motivation and "voluntarism." It is therefore far preferable to emphasize intrinsic rewards that are derived from the enjoyment of working together, making progress, achieving goals (Battistich, 2003).

In the above discussion, the term "cooperative education" has been used to cover a wide range of cooperative concepts, with particular emphasis on the concern for the social development of students. The term "cooperative learning" is often used in a more restricted sense, referring to the distinctive instructional methods and techniques that form an integral part of the movement. Over the last two decades, a dozen or so structured and systematic cooperative-learning strategies have been developed and thoroughly tested and researched (Kagan, 2002).

The members are accountable not only for their own but also for other group members' achievement. There is an abundance of empirical evidence that supports the efficacy of cooperative-learning strategies over traditional classroom methods. The well-documented findings of some 100 research projects show beyond doubt that cooperation is effective in increasing student achievement and is beneficial for the development of positive intergroup relations and prosocial behaviours and attitudes (Slavin, 1990). The impressive list of positive outcomes includes: Improved academic learning at all ability and school levels, in all subject areas, and in urban,

suburban, and rural schools; and increased critical-thinking competencies and higher-level reasoning abilities, enhanced through Interaction with peers; greater self-esteem and self-acceptance, resulting from better peer relations and improved academic achievement. By employing consultation as the primary method of instruction, cooperative-learning strategies develop understanding, trust, and unity among all participants. Most evaluations of cooperative learning also indicate those students who work together like school more than those who do not, that they generally enjoy learning, and that they experience the work as social and exciting.

Wankat (2002) in his book "The effective, efficient professor: teaching scholarship and service" denoted that think-pair-share participatory teaching strategy that enables students to think individually and then share ideas with each other in their pairs. This strategy enables students to learn from their classmates. Students may use think - pair - share to reach solutions on various issues. The style enables students to develop their interpersonal skills as they are exposed to the viewpoints of other group members and it offers to students an opportunity of gaining experiences required for the "real world". Explicitly, this type of learning style is a dynamic communication process whereby the instructional behavior is constantly communicated in a dichotomous ways. (Massawe, 2007) concluded that "When students are actively involved in the learning task, they learn more than when they are more passive recipients of instruction".

According to Weimer, (2002) mentioned that in the classrooms where the students are encouraged to ask questions are there successful students. In these classes teachers also ask questions. The more questions they ask the more likely they are to

be involved to learn and know what is happening. A key issue in appreciating the nature of learning, and so of teaching, is to acknowledge the nature of an individual's knowledge. We can certainly learn, to some degree at least, definitions and lists by rote, but meaningful learning that enables us to understand ideas, so that we can apply concepts, is not so easily obtained. In effect we all have to interpret information in terms of existing system of Personal concepts, to make sense of what we see, read and are told, and attempt to integrate this new information within our current ways of thinking (Holmboe, & Scott, 2005).

This is at the basis of the 'constructivist' perspective on learning (Taber, 2009), which posits that to some extent each individual has to construct their own knowledge of the world anew, even when books and teachers are available to considerably compress the process by supporting us in exploring the wealth of human knowledge that is already well represented in the public domain. Ultimately 'public knowledge' is really a set of negotiated representations that have been agreed as sufficiently reflecting the knowledge of other individuals, and which can only become the individual knowledge of the learner when those representations are re-interpreted within that individual's own conceptual system. This perspective on learning has a number of significant corollaries for teaching.

For one thing, if teaching means facilitating learning, then providing a clear and accurate presentation of subject matter may be a necessary but not sufficient basis for effective teaching. Thus, the traditional lecture exposition, takes little account of the learners' existing level of knowledge and understanding. Effective teaching is not just an issue of 'pitching' (another transfer metaphor) at the right level to make sense

to the learners, but rather designing instruction to optimally link with existing thinking, so to shift student understanding towards the target knowledge set out in the curriculum Taber, (2001).

Agbulu (2002), in their study of the impact of participatory and expository approaches on learning Agriculture in Benue state, they come up with findings that, participatory approaches are more effective than expository approach in stimulating student' interests in Agriculture. Also knowledge and performance in skills are significantly inculcated in student when using participatory approaches. Adela (2010), in the study on active learning pedagogies as a reform initiative in Malawi they comment that, learning become more enjoyable to students when they are engaged through students – centered pedagogies. They add that learning become meaningful and exciting as learners investigate issue also those pedagogies make the classroom environment become more democratic.

Townend (2009), in her paper give evidence for the existence of interactive learning in infants and young children, particularly before the years of formal education. She adds that young children learn through experimentation and play as they interact with environment therefore teachers have a responsibility to harness this innate capacity for interactive learning that learners bring to school and nurture it. And this will facilitate language learning.

Tilya and Mafumiko (2008) found out that participatory approach is greatly associated with the nation such as learning how to learn with students taking charge of their education through direct. Exploitation, exploration, expression and

experience in a democratic manner. But many teachers who are not use to it always need to control, talk, tell and instruct. There is more any evidence on the teacher's ability on participatory methods of teaching.

2.5 Comparison between Participatory and Traditional Methods of Teaching

According to Jacques (2002), the Traditional format encourages students to concentrate on superficial indicators rather than on fundamental underlying principles, thus neglecting deep (active) learning. Active learning refers to "experiences in which Students are thinking about the subject matter" as they interact with the instructor and each other (Elias, & Loomis 2002). This Type of learning is important to all disciplines and fields, but it is critical to the humanities and social sciences. Active learning techniques yield many benefits as they are student-centered; They maximize participation; They are highly motivational; and they give life and immediacy to the subject matter by encouraging students to move beyond a superficial, fact based approach to the material (Bonwell&Eison,2001;McKeachie, 1999; Schaftel &Van Ments, 1994).

2.6 Challenges for implementing Learner Centered Education in Schools

2.6.1 The use of Traditional Teaching Methods

Teachers use more of lecture methods. Teachers avoid participatory methods on the Pretext that if they use participatory methods time will not be enough for them to finish the syllabus Teachers believe that they have all the knowledge to transfer it to the students regardless their will. Teaching and learning is examination oriented (Mhando, 2006).

2.6.2 In-service Training

Improving pedagogical skills and extending knowledge of appropriate classroom Methodologies to in-service teachers. The continuous professional development programmes are not regularized. Continuous Professional Development (CPD) of teachers using Open and Distant Learning (ODL) modes is preferred. Provision of pre-service and in-service teacher education and training do improve teachers' effectiveness in the classroom and improving the quality of education (Chidiel, 2009).

Teachers with less training in education placed more emphasis on memorization. The pedagogical skills may interact with subject matter knowledge to influence teacher performance positively or negatively. Izuagba AC & Obiefuna CA (2005) investigated science trainee teachers' pedagogical content knowledge and its influence on physics teaching. They concluded that trainee teachers' pedagogical content knowledge for promoting conceptual understanding is limited; therefore they lacked the ability to transform their understanding of basic concepts in.

2.6.3 Physics Required Teaching Lower Secondary School Science Pupils

Educational outcomes in Tanzania have been heading downhill for years. Half of all children who sit through seven years of primary school can't pass the leaving exam. Success rates in secondary school have become equally low, with half of all Form 4 students failing the national exam in 2010. Several factors have contributed to this situation, including poor working and learning environments in schools and teachers' low salaries, but none so directly impacts what a student learns as the knowledge a teacher has acquired him- or herself and the skills he or she has to impart it. When

teachers aren't provided additional training after their initial education, how can they teach new curricula? Without further training, how can they teach difficult subjects like math and English? (Haki Elimu, 2011).

2.6.4 Teaching and Learning Materials

Student-teachers' increased knowledge and improved mastery of teaching techniques can only be effectively adopted in classrooms with adequate infrastructure: classrooms, desks, toilets, and especially teaching materials. A sufficient supply of teaching materials is commonly raised as the most important prerequisite for teachers to improve their teaching practice. It is unfair to misuse the time and money of poorly paid teachers by forcing them to make do with self-improvised materials when this is a compensation for government failure and lack of political will to give sufficient funding for teaching materials (Mhando, 2001).

Since 2005, the Government of the United Republic of Tanzania has been implementing a competence based curriculum, which emphasizes the development of certain specified key competences. A set of standards of resources (textual and non-textual) have been identified for effective implementation of competence based curriculum. These, include a number of teaching and learning resources such as textbooks, syllabi, modules and manuals, reference books, charts and maps, newspapers, Journals, and encyclopedias, texts in Braille, posters, fliers and photographs, and booklets and brochures (URT, 2010). Despite effort made by the Government of the united republic of Tanzania; rampant increase in enrolment in secondary schools create un-conducive environment for implementation of effective

participatory teaching methods. Because majority of schools still have inadequate teaching and learning materials.

2.6.5 Class Size and Teaching Methods

Class size refers to the actual number of pupils taught by a teacher at a particular time. Thus, the pupil/teacher ratio is always lower or greater than the average class size, and the discrepancy between the two can vary, depending on teachers' roles and the amount of time teachers spend in the classroom during the school day. From an administrative or economic viewpoint, pupil/teacher ratio is very important, because it is closely related to the amount of money spent per child. However, from a psychological viewpoint in terms of how students learn, what matters is the number of students who are physically present interacting among themselves and with the teacher (Ehrenberg & Chaykowski, R.P., & Ehrenberg, R.A.,2001). In addition, teachers in larger classes spent slightly more time disciplining students (Stasz&Stecher, 2000).

The numbers of students is one of the factors that determines the teaching methods used in the classrooms by teachers (Küçükahmet, 2000). In their other words, class size inevitably influences teaching styles,Rosalind; Hilary; John; Eduardo &Philip (2004). Teachers in smaller classes have more opportunities to monitor individual pupils closely; therefore smaller classes provide the opportunity for more individualized instruction and help during practice (Bosker, 1998).Westerlund (2008); Bandiera & Rasul (2009), they conclude that changes in class size have a significant impact on student performance but only at the very top and bottom of the class size distribution. Furthermore, they find that students at the top of the grade

distribution are most negatively affected by class size, particularly in large class sections.

2.6.6 Time and Teaching Strategy

According to Beijaard, Verloop & Vermont, (2000) time is an important aspect in teaching because teachers need to manage time effectively in order to implement their strategy. However, some researchers emphasize that small classes mean more time for teachers. Therefore, this issue is worth considering in classroom size research. In Tanzania where time is centrally planned through Tanzania Institute of Education (TIE) many schools do not implement because of the double shift.

2.6.7 The Heads of Schools Support to Teachers

Support to teachers is important in order to realize their weaknesses. If you see a teacher is rigid to the scheme of work and lesson plan to cover the intended content and doing most of the talking and so forth, it is a suggestion that the teacher is not aware of the problem he/she has in the teaching (Mhando,2001).

2.6.8 Large Classrooms in Teaching Environment

MoEC, (2003) evaluated that many teachers due to the fact of having big classes they tend to stick to traditional methods despite the fact that the Government has introduced a new curriculum which emphasized learner centered methods of teaching and learning. Contrary to this concept, the teacher should make sure that they find alternatives way of teaching by using participatory methods in the class in order to ensure full participation of learners in learning different subjects. This is due to the fact that, through Participatory methods, students' learners come into direct

interaction with the teachers and within students themselves. Therefore the teacher will be able to complement his/her curriculum at the right time and effectively.

2.8 Empirical Studies on Participatory Teaching Methods

Findings by Kitta and Fussy (2013) in their paper, made an attempt to analyse bottlenecks in preparation of quality teachers in Tanzania's teacher education colleges and universities. The findings revealed that, on the side of instructional characteristics, the integration of participatory teaching and learning methods in Tanzanian education system has been an issue of grave concern. Many teachers and educationists largely depend on long-established habits Nara, (2011) Mpate, (2012). In fact, some recent studies found that teachers in primary, secondary schools, teacher education colleges, as well as universities still dominant use lecture-citation methods. Where participatory methods have been deployed, they were poorly utilized by many teachers, as students have been encouraged to work in groups of five to six, largely discussing questions without proper direction Tilya & Mafumiko, (2010).

Kruijer (2010) conducted a study entitled: Learning how to teach-the upgrading of unqualified teachers in sub-Saharan Africa. In a research report on in-service education in Namibia, more than three-quarters of a sample of teachers did not demonstrate the desired teaching approaches. Two instructive explanations are given for these disappointing results. First, teachers were faced with very poor teaching conditions (physically inadequate classrooms, a lack of furniture and teaching materials, high pupil/teacher ratios, etc.), which made it impossible to apply the curriculum and teaching practices they had learned during their course. This shows

the importance of physical context to the effectiveness of teacher education. Secondly, teachers in a poor context are likely to fall back on their previous schooling practices. The result is traditional pedagogical styles, such as lecturing and factual information drills. Resorting to traditional methods is based on the remembrance of their own school experiences in childhood, which dominate the teachers' images and concepts of what it means to be a "good" teacher.

During the 1994 Rwandan genocide over half a million Tutsi and moderate Hutu were brutally murdered in just 100 days by radical Hutu militias. Today a small but powerful minority of Tutsi, who grew up as refugees mostly in Uganda (about 1-2% of Rwanda's population), and who formed the leadership of the Rwandan Patriotic Front that stopped the genocide, now control the government. They hold definite ideas about Rwandan history, which they promulgate as an official doctrine. Ending this moratorium, the government played a significant role in reconstructing Rwandan society. Findings revealed that it was significant for teachers to embrace democratic teaching methods that foster skills thought to be essential for successful participation in an increasingly global economy, skills such as critical thinking and debate. (Freedman, 2009).

2.9 Demonstration of the Gap of Knowledge

There are numbers of studies which have been conducted relating with participatory teaching approach. For example Jambo (2012), examined the perceptions of post graduate students towards the teaching strategies employed by higher learning institutions lecturers. Also other studies concentrated on seeking views from the primary teachers on the participatory approach used during teaching and learning

process. Kimaryo (2011) from Abo Academy in Finland studied about the participatory teaching methods in primary schools in the teaching of environmental studies. On the other hand Kafyulilo,et al, (2012) their study concentrated much on the implementation of competency based teaching approaches in Tanzania in teacher training colleges.

Therefore, the area of perceptions of teachers and students on participatory teaching methods in secondary schools in Tanzania is not thoroughly worked. With reference to the various studies which has been conducted by various researchers and the gap of knowledge that exists; I have decided to conduct a study about teachers' and students' beliefs and practices about participatory teaching approach adopted during teaching and learning process in secondary schools. This will enable to provide suggestions on how to improve performance and quality of secondary education in Tanzania which is pivotal in creating job employment.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

This chapter contains presentation, descriptions and discussion of various methods and techniques that used in the study. These include research design and approach, area of the study, population; sample and sampling procedures; research instruments, data collection Procedures, data analysis and ethical considerations.

3.2 Research Design

A research design is the structure of the research. It is the glue that holds all the elements in the research projects together. A design is used to structure the research, to show how all of the major parts of the research project work together to try to address the central research questions. Punch (2005) defined design as the scheme outline or plan that is used to generate answers to research problems. It can be regarded as an arrangement of conditions for collection and analyzing of data in a manner that aims to combine relevance with the research purpose. The research design that was used in this study is case study design. It is a fact findings study involving collection of data directly from population or sample thereof at a particular time; it is associated with deductive approach (Msaghaa, 2008).

The study design helped the researcher to examine and describe the Teachers' and students' beliefs and practices on participatory teaching methods in secondary schools of Moshi Municipality. The design is considered appropriate as it enabled the researcher to use more than one research methods such as interview schedules,

observation and the documentary review. Secondly; the design enabled the researcher to understand the views that teachers and students of had towards the use of participatory methods of teaching in Secondary Schools. Not only that, but also the design assisted the researcher to obtain information through listening, talking, speaking and direct observation.

3.3 Area of the Study

The study was conducted in Kilimanjaro region in Moshi Municipality. Five Secondary Schools namely Mjimpya, and Pasua, J.K. Nyerere, Zakharia High school and Anna mkapa secondary schools were involved in the study. Among them three are public owned secondary schools and the rest two are private owned Secondary Schools. Given the financial constraints, working conditions and limited time allocated for accomplishing studies, the researcher opted for above named schools because they are easily accessible.

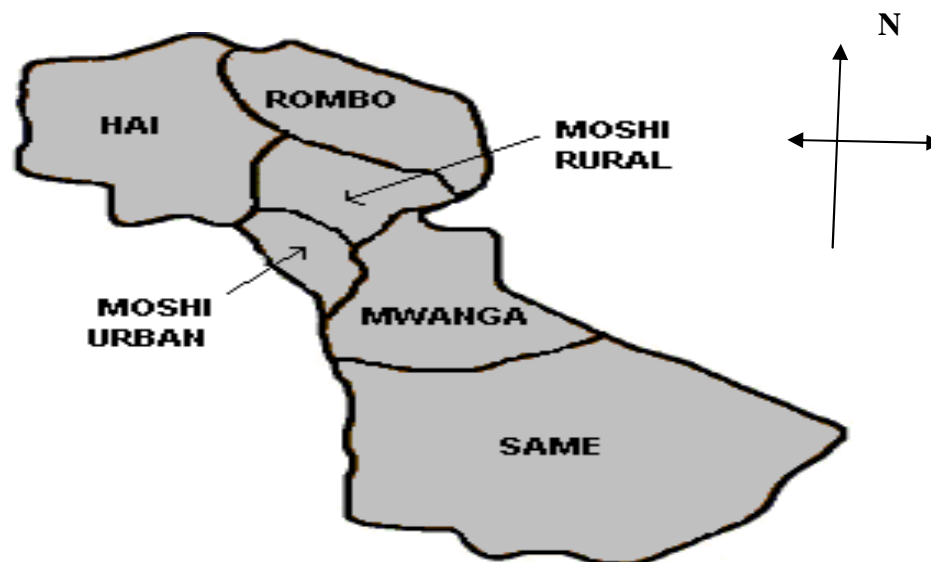


Figure 3.1: A Sketch Map showing Districts of Kilimanjaro Region

Source: sw.m.wikipedia.org/wiki/Kigezo:Wilaya_za_Mkoa_wa_Kilimanjaro

Also selection of the study area was grounded on the fact that no prior study had been conducted in the area (Moshi Municipality) on the teachers' and students' perceptions on participatory teaching methods in secondary schools.

3.4 Target Population and Sampling

Targeted population is a group of individual, object or items from which sample are taken for measurement (Kombo and Tromp, 2006). The target population in any study is expected to possess the relevant information of the particular study. In this study, the target population were Secondary school Teachers and Students of whom a researcher obtained the required information.

3.4.1 Sample and Sampling Techniques

Sampling is the procedure used by a researcher to gather people, places or things to study. It is a process of selecting a number of individuals or objects from a population such that the selected group contains elements representative of the characteristics found in the entire group (Kombo et al, 2006). A sample is a group of respondents drawn from population in such a way that the information obtained from the sample can be generalized on a population (kumar, 2005).

3.4.2 Sample Size

Msaghaa, (2008) define a sample Size as a smaller group of subjects drawn from the population in which a researcher is interested in gaining information and drawing conclusions. It involves a process where a researcher extracts from a population a number of individuals so as to represent adequately a larger group. The targeted populations of the study were representing 100 respondents by using simple random and purposive sampling (Table 3.1).

Table 3.1: Distribution of Respondents by Category

Respondents	Frequency	J.K. Nyerere	Mji Mpya	Anna Mkapa	Pasua	Zakaria
Teachers	30	6	6	6	6	6
Students	70	14	14	14	14	14
Total	100	20	20	20	20	20

Source: Researcher (2014)

3.4.3 Sampling Techniques

This study employed both simple random sampling and purposive sampling to obtain the information from the study area.

3.4.4 Simple Random Sampling

According to Mlyuka (2011), simple random sampling is the type of sampling which provides equal chance to every member in the population to be included in the study. Kumar (2005) define simple random sampling as a type of sampling whereby each element in the population is given an equal and independent chance of selection. Simple random sampling in this study was used to select five schools out of forty Secondary schools. Also it was used to obtain 70 respondents from the Students whereby the respondents were picked by using random numbers from the list of students.

3.4.5 Purposive Sampling

Kombo and Tromp (2006) define purposive sampling as the sampling methods whereby the researcher purposely targets a group of people believed to be reliable for the study. Patton, (2002) stated “The power of purposive sampling lies in selecting information-rich cases for study in depth information. Rich cases are those from

which one can learn a great deal about issues of central importance to the purpose of evaluation". The 30 teachers who participated in the study were all the teachers working in these 5 secondary schools, this number of teachers was considered to be sufficient to obtain the necessary information for the study. Teachers participated in the interview voluntarily. They were asked their experiences in teaching and the universities from which they were graduated. Their characteristics are presented in Table 3.1. Out of 30 teachers 19 (63%) were females and 11 (37%) were males. Of the teachers, 3(10%) had attended pedagogical courses; the others were either graduated from education faculties or started to work without a need of pedagogical courses.

After interviews were conducted with teachers, a size of 70 students was considered as sufficient to be interviewed. Again to increase variation and generalizability it was appropriate to make interviews from five secondary schools. The students were selected by purposive sampling. The students who would really be able to inform the researcher about the questions of interest were chosen. Accordingly the secondary schools teachers were asked these kinds of students and as a result 70 students were selected. Voluntary involvement was taken into consideration for students as well in order to ensure consistency. The students to be interviewed were selected to vary by gender. The sample consisted of approximately equal number boys (n=32) and girls (n=38) their ages ranged between 15 to 18 above.

3.5 Data collection methods, tools and Procedure

Research instruments are tools used by the researcher to collect information for the intended study. The research tools depended on the nature of a given population.

Therefore in this study the researcher employed interview guide, observation and documentary review. The use of different tools allowed the researcher to code information easily and to make sure that the obtained data are valid and Reliable. After the teacher interview schedules were prepared, necessary permissions were taken from related authorities. When the permissions of heads of the schools were taken; the interview schedules were made. Data were collected through face-to-face interviews with a total number of 70 students and 30 teachers. That means 6 teachers were interviewed in each school. Other important information was obtained through documentary review and observation.

3.5.1 Interview Schedule

Such guide is a set of questions administered through oral or verbal communication in face-to-face relationship between researcher and respondents (Kothari, 2000). Richie and Lewis (2003), adds that interview is a form of the objectives of the researcher. Kombo and Tromp, (2006) hold that, it the interaction, exchange of dialogue that may involve one to one interactions, large group discussion and may take place face to face or over the telephone or through interview. Interviews have an advantage of soliciting additional information through supplementary questions.

Interviewing of the selected individuals is an important method in qualitative research. Bogdan and Biklen (1992) have defined interview as “a purposeful conversation, usually between two people but sometimes involving more, which is directed by one in order to get information from the other”. Flick, U. (2007) identified interviewing as the most important data collection technique in qualitative studies. Interviewing, careful asking of relevant questions, aims to find out what is

on people's mind, what they think or how they feel about something (Fraenkel & Wallen, 1996). Patton (1990) has stated: We interview people to find out from them those things we cannot directly observe. The issue is not whether observational data is more desirable, valid, or Meaningful than self-report data. The fact of the matter is that we cannot observe feelings, thoughts, and intentions. We cannot observe behaviors that took place at some previous point in time. We cannot observe situations that preclude the presence of an observer. We cannot observe how people have organized the world and the meanings they attach to what goes on in the world. We have to ask questions about those things.

Interview method has both advantages and disadvantages. By way of interviewing it is possible to obtain full and detailed answers from the interviewees Morris, (2006). In addition interviewer has the opportunity not only to observe non-verbal behavior and evaluate the validity of respondents' answers but also to control question order. The other advantage of interview is that the interviewer can clarify obscure questions and ask the respondent to expand the answers particularly important or revealing. In this study, semi structured interview were employed to teachers and students which helped to obtain valuable information related to the study.

Therefore face-to-face verbal communication between the researcher and interviewee was applied. (OFSTED, 2002) called semi structured interviews" qualitative interview which has characteristics that include: interactive exchange of dialogue which allows one to one interaction and flexible structure and therefore allows researcher interviewee(s) to develop unexpected themes. It ensures that the relevant context knowledge is brought into focus so that situated knowledge can be brought.

Also the open-ended questions were used and the questions asked were not bias because what is needed is true information from their side. Provision of such types of questions made the respondents to be free in providing their views towards the efficiency of Participatory methods of teaching.

The use of interview guide is important because there are some incidences that cannot be simply observed in other tools of research such as body expression as well as tone of voice, but with interview it is possible. On the other hand, interviews may take much longer time compared to questionnaires; in addition, the presence of researcher may affect respondents in the way that they do not say what they really think (Fraenkel & Wallen, 1996).

In this study separate interviews were conducted with secondary school students and teachers. Accordingly, two interview schedules of the semi-structured type were developed. Semi-structured type interviews can be assumed as verbal questionnaires which consist of series of questions designed to elicit specific answers on the part of respondents. It is possible to use them to obtain information that can later be compared and contrasted. These are most useful to obtain information to test a hypothesis in researcher's mind (Fraenkel & Wallen, 1996).

3.5.2 Teachers' Interview Schedule

Teacher interview schedule (see Appendix A) consisted of a part to obtain information about the interviewee characteristics and the 13 questions were asked for the purpose of the study. In the first part of the interview schedule teachers were asked about their demographic data, but not their names in order to keep

confidentiality. Instead of their names each individual was assigned a number. The open-ended interview questions were prepared after related literature about the achievement was searched. The literature about the teachers' and students' perceptions on participatory methods of teaching helped researcher for preparation of appropriate questions that could provide better information for the purpose of the study.

Therefore the answers to the questions were the ones that were thought to best explain the teachers', and students' perceptions on participatory methods of teaching and the related issues. Teachers were asked if it was possible for them to be involved in the interview after they were given some information about the study by the researcher. Probes were used to provide a better understanding and obtain deeper information. In this study probe questions weren't written in the interview schedule but asked when needed. They were used to make the responses clear or to make sure that interviewee understood the question in the correct way.

3.5.3 Student Interview Schedule

Student interview schedule was designed after the interviews with the teachers were completed. The information obtained from teachers served as a source for developing the student interview schedule including open-ended questions. Student interview schedule (see Appendix B) included a part about information about their characteristics; their ages, their genders, and their school types but not their names in order to keep confidentiality. Each student was given a number. After that 10 questions in the interview sought to investigate the reasons of low achievement of

students in biology and related issues. Voluntary involvement was valid for students as well. Students were informed by the researcher about the study. Probes were used in the interview of students also in order to provide students a better understanding of the interview questions.

3.5.4 Observation

Both participant and naturalistic observation were used to gather the needed information by a researcher. The method served the researcher the chance to see teachers' performance and students' involvement when they are in the classroom. However, this method was also appropriate in this study due the fact that it enables the researcher to acquire accurate information which cannot be obtained by questionnaire and interview because of the respondents' unawareness of the answers or not being co-operative in study (Marlow, 2005).

3.5.5 Documentary Review

Yegidis, (2006) identifies documentary review as a process of reading various extracts found in offices or places dealing with or associated with issues related to what the study is investigating. It involves delivering information from written documents. The researcher was interested to pass through schemes of work and lesson plans as well as syllabus in order to reveal the applicability of participatory teaching methods in secondary schools. The information gathered through documentary review enabled the researcher to cross check consistence of the information collected through other research instruments. The written evidences also do save researcher's time and expenses of transcribing.

3.6 Validity and Reliability of the Instruments

3.6.1 Validity

Validity has been defined as “appropriateness, meaningfulness, and usefulness of the specific inferences researchers make based on the data they collect” while reliability refers to the consistency of these inferences over time (Fraenkel & Wallen, 1996). In qualitative study it depends on perspective of the researcher and the degree of confidence researchers can place in what they have seen or heard. Fraenkel & Wallen emphasized that how researchers can be sure that they are not being misled.

Furthermore whether a researcher sees what he or she sees or what he or she thinks is a concern of validity in qualitative studies (Golafshani, 2003). Validity is the most critical criterion and indicates the degree to which an instrument measures what it is to be measured (Msaghaa, 2008). Also Validity can be defined as the process of establishing document evidences which provide the higher degree of accuracy that specific process consistently produces a product that meet its predetermined specifications and quality attributes (Cohen, 2000). Triangulation is among the methods that qualitative researchers use to ensure that they are not being misinformed. In triangulation a variety of instruments is used to collect data. The validity is enhanced if a conclusion is supported by data collected from a number of different instruments (Fraenkel & Wallen, 1996).

In order to ensure validity of data, a multiple data collection techniques were employed. Thus, triangulation was employed. Therefore the study involved more than one method of data collection which allowed the researcher to combine the strength and correct some of the weaknesses of one source of data. In the light of this

study the researcher used questionnaires, interview, as well as observation. This helped to reduce reliance on only one method of data collection.

3.6.2 Reliability

Reliability means the ability of measuring instrument to give accurate and consistent results. It refers to providing consistent results over different measurements (Msaghaa, 2008). Reliability entails that the measures or data collection methods should be uninfluenced by changes in context. The reliability of the information gathered was seen in the extent to which the methods used pick up what the researcher expected them to. Reliability of the measures was ensured as all the questionnaires and interview guide were uniform to the respective women workers (Kombo & Tromp, 2006).

The collected data was processed in a uniform way to ensure that conclusions reached are similar to any other study that will be conducted using similar approach. No research assistants were employed in this study. The different methods of data collection questionnaires, interview and documentary review resulted into a high level of data triangulation which in turn ensured reliability of the data to collected (Ghauri, Gronhaug, & Kristianslund, 1995). In this study the instruments which are questionnaires and interview were prepared under the guidance of the research supervisor during research proposal preparation stage that enabled the researcher to have assurance on the quality of instruments prepared.

3.7 Data Analysis Plan

Since the researcher does not end with data collection, the collected data were analyzed. According to (Patton, 2002) propounds that activities of qualitative and

quantitative inquires are analysis interpretation and Presentation of the findings. Qualitative data were subjected to content analysis while quantitative data were expressed through tabular forms and converted into Frequencies and Percentages. The main focus was to answer the research questions.

3.7.1 Data Analysis Plan

In this study the researcher used qualitative approach. The study also adopted this combination in order to maximize the strengths and minimize the limitations of each (Kombo and Tromp, 2006). Kothari (2004) define qualitative approach as the research concerned with subjective assessment of attitudes, opinions and behaviour. He also points out that qualitative research design is to find out how people feel or what they think about a particular subject or institution. The use of this approach was used to enable the researcher to have a broader interaction with the target group in assessment of attitudes, opinions and behaviour of respondents concerning the research study through in depth interviews and questionnaires to obtain the study information.

It is possible to obtain detailed information about cases or people by way of qualitative research and the purposive sampling process increases understanding of the cases while reducing generalizability (Patton, 1990). Qualitative approach enables the researcher to collect and analyze data in natural settings. Moreover, it is viewed as inclusive, insightful, stimulating, highly exhaustive and reliable due to its deep exploitation of respondents to obtain information that is purposively comprehensive and relied upon for easy analysis of the finding (Cohen,2000).

3.8 Ethical Issues and Considerations

Saunders, Lewis and Thornhill (2007) define research ethics as the appropriateness of researcher behaviour in relation to the right of those who become the subject of the study work. Blumberg; Cooper; & Schindler (2008) define ethics as the moral principles, norms or standard of behaviour that guide moral choices about our behaviour and our relationship with others. Saunders, Lewis and Thornhill (2007) add that, research ethics based on how the researcher formulate and organizing his / her research design in all stage of research procedures in a moral and responsible way. In this study ethical procedure was considered throughout the period of research study and the respondents of the study were voluntary based on confidentiality and knowledgeable approval.

CHAPTER FOUR

FINDINGS AND DISCUSSION

4.1 Introduction

This chapter is divided into two parts. The first part deals with the information obtained from the interviews with the teachers concerning their understanding, perceptions about participatory methods of teaching, comparison between participatory and non participatory methods of teaching challenges and opinions about participatory methods of teaching. The second part presents the results of the interviews conducted with the students from both private and public secondary schools.

4.2 Respondents Characteristics

The 30 teachers who participated in the study were all the teachers working in these 5 schools, this number of teacher was considered to be sufficient to obtain the necessary information for the study. Teachers participated in the interview voluntarily. They were asked their experiences in teaching and their educational qualification. Out of 30 teachers 19 (63%) were females and 11(37%) were males. Their characteristics are presented in Table 4.1.

4.2.1 Teachers' Educational level

Most of the interviewed teachers 19(63.3%) had bachelors in education, 8(27%) had diploma in education. Therefore professional teachers with bachelors and diploma in education had pedagogical skills while 2(6.7%) had other bachelors and 1(3.3%) was a form six leaver had non-pedagogical skills. This indicates that most of the

respondents had enough knowledge to provide accurate information to the researcher (Table 4.1). However, it should be noted that teacher- training institutions have been critiqued for their inability to produce teachers who are properly grounded in pedagogy and content as well as having the ability to collaborate professionally in a working environment (Kuiper et al, 2008; Darling-Hammond, 2006). Educationists observed that the transition from academic theories in universities to classroom practice has often been very sharp suggesting that student teachers are not often properly groomed to put into practice current pedagogy and interactive skills that have been theoretically learnt. On the other hand there are scholars (Ajeyalemi, 2005; Okebukola, 2005; Candy, 2002) who claim that the Teacher training curriculum does not fully acknowledge the new age environment in schools and classrooms in terms of constructivist learning, learner-centred instructions and integrating technology into the processes of teaching and learning. There is not a sufficiently strong link between the schools' curriculum and the teacher education curriculum. This might be the case also in this study as not many teachers are trained to implement participatory teaching.

4.2.2 Teachers' Professional Experiences

The study was interested to get information from the respondents because it one of the important factor in teaching and learning process. The study revealed that most of the interviewed teachers, their professional experiences ranged from 1 to 10 years were 18(60%), those with 11 to 20 years were 10(33%), and those with 21 to 29 years were 2(7%). Teachers with good professional experience in teaching can use effectively participatory teaching methods comparing to the teachers with poor

professional experiences in teaching. This is supported by Murnane & Philips (2001) who have found that there is a relationship between teachers' effectiveness and their years of experience.

4.2.3 School Type

Both public and private schools were involved in the study. 18(60%) were interviewed teachers from public secondary schools and 12(40%) were teachers from private secondary schools.

Table 4.1: Field Data on Teachers' Characteristics

Teachers' characteristics	Gender	Frequency(N)	Percent (%)
Educational level	Female	19	63
	Male	11	37
	Total	30	100
Professional experience (in years)	Bachelors in education	19	63
	Diploma in education	8	27
	Other qualifications	2	7
	Form six leaver	1	3
School type	1-10	18	60
	11-20	10	33
	21-29	2	07
School type	Public	18	60
	Private	12	40

Source: Researcher (2014)

4.2.4 Students' Characteristics

In this study 70(100) students were involved in the study. 38(54%) were female and 32(46%) were males. The age of the students who ranged from 12 to 14 years 5(7%),

those who ranged from 15 to 17 years were 51(73%). Only 14(20%) their age ranged from 18 above. The interviewed students from public secondary schools were 42(60%) and 28(40%) were the interviewed students from private secondary schools. The study was interested in these categories of schools so as to obtain information and avoid bias when reporting information. The students' characteristics are shown on the Table 4.2.

Table 4.2: Students' Characteristics

Students' Characteristics	Gender	Frequency(N)	Percent (%)
Gender	Female	38	54
	Male	32	50
Age	12-14	05	07
	15-15	51	73
	18 above	14	20
School type	Public	42	60
	Private	28	40
Total		70	100

Source: Field Data (2014)

4.3 Understanding of the Concept Participatory Teaching Methods

Under this part the researcher was interested to check general knowledge of teachers about participatory teaching methods. To obtain the required information the researcher employed interview schedules to the teachers from both private and public secondary schools. Total numbers of the interviewee were 12 teachers from private secondary schools and 18 teachers from public secondary schools. Therefore the study revealed that 7 (23%) private secondary school teachers explained clearly about the concept of participatory methods of teaching as the interactive methods of

teaching. The rest 5(17%) from the same private secondary school did not explain clearly about participatory methods of teaching.

The same exploration was employed to public secondary school teachers where, 18 (60%) had clear concepts about participatory methods of teaching as the methods of teaching that allow students involvement, participation and interaction during acquisition of knowledge. This is supported by Beinomugisha;Jagero;&Rwashema (2012) who define participatory teaching as that method by which students are to the fullest engaged in teaching activities within their preferably learning styles. Also it is highly recommended by Peterson (2007),purported that participatory teaching methods create Learning whereby students are not passive members of teaching and learning process. In an interview with one of the private secondary school teacher who did not provide clear meaning about participatory methods of teaching said:

“It is not easy for me to be aware with participatory methods of teaching because I have a bachelor in accounts which does not include educational and pedagogical courses. Therefore participatory methods of teaching to me are a new phenomenon”[Catherine, interview, October 2014].

In an interview with one of the teacher from public secondary school, said:

“Participatory teaching methods are the interactive methods of teaching where students can be divided into groups for exchanging their ideas related to the lesson taught and present their findings before the teacher in the classroom environment. Therefore, this enables the teacher to be enriched with new ideas from the students”[Leonard, interview, October 2014].

In general teachers had wide knowledge about the meaning of participatory teaching methods as shown on the Table 4.3. Very few of them had little understanding about participatory teaching methods. For those who were not very clear with the meaning of participatory teaching methods perhaps are those who were not teachers by professional.

Table 4.3: Teachers' Understanding of Participatory Teaching Methods

Items	School teachers	Frequency(N)	% of understanding
Understanding	Public secondary schools	18	60
	Private secondary schools	7	23
Not clear with participatory methods of teaching	Public secondary schools	-	-
	Private schools	5	17
Total	5	30	100

Source: Field Data (2014)

4.4 Teachers' and Students' Views on use of Participatory Teaching Methods

4.4.1 Teachers' Views on use of Participatory Teaching Methods

A Teacher is an important factor that affects achievement of students. Therefore it was reasonable to get teachers' views which might be a source for students to have positive or negative feelings about participatory methods of teaching adopted during teaching and learning process that include: measuring students' prior knowledge, Teachers' interests on using participatory teaching methods, the effectiveness of participatory teaching methods, and the mostly preferred teaching methods.

4.4.2 Measuring Students' Prior Knowledge

Measuring students' prior knowledge is one of the important aspects that can help to verify that teachers are either using participatory teaching methods or not. A teacher who knows participatory methods of teaching will always begin asking questions to students of the previous lesson and or checking pre-knowledge of the students before starting a new lesson. The study employed interview schedules, observation and documentary review in order to get the required information.

Table 4.4: Measuring Students' Prior Knowledge Before Teaching New Topic

Teachers' Responses	Gender	Frequency(N)	Percentage (%)
Yes	Male	13	43
	Female	11	37
No	Male	3	10
	Female	3	10
Total		30	100

Source: Field Data

In Table 4.4 shows the results shows that 13 (43%) of the male teachers and 11 (37%) female teachers are measuring students' prior knowledge before teaching a new topic. That is equivalent to 80% of all teachers who measure students' prior knowledge before teaching a new topic. Only 20% of the teachers agreed of not measuring students' prior knowledge before teaching a new topic. Under this, 10% were Female teachers and 10% male teachers. As regard to these responses, it indicates that most of the teachers were applying participatory teaching methods during teaching and learning process as majority of teachers were measuring students' prior knowledge before teaching.

4.4.3 Teachers' Interests on using Participatory Methods of Teaching

The second question investigated the teachers' interest to teach by using participatory methods. This part was also very significant in providing accurate information because it is not possible for the teacher who does not have interests on participatory teaching methods to teach by using them properly. Therefore in order to get the desired data the study employed interview schedules to teachers. The responses revealed that 12(40%) of male teachers and 14 (47%) showed great interest of using participatory methods during teaching and learning process. The rest 03(10%) of male teachers and 01(03%) of Female teachers showed no interest of using participatory teaching methods.

The main reason given by the teachers who showed interests to use participatory teaching methods said simplified work to the teacher and increase performance of students. This is supported by Felder& Brent (2006) who said that participatory teaching methods are superior for promoting meta-cognitive thought, persistence in working toward a goal, transfer of learning from one setting to another, time on task, and intrinsic motivation.

Table 4.5: Teachers' Interests on Using Participatory Methods of Teaching

Teachers' responses	Gender	Frequency(N)	Percent(%)
Yes	Female	14	47
	Male	12	40
No	Female	01	03
	Male	03	10
Total		30	100

Source: Field Data (2014)

For example, students who score in the 50th percentile when learning competitively would score in the 69th percentile when taught cooperatively on the other hand for those who showed no interests it was due to in ability to apply participatory teaching methods effectively. These responses are presented on the Table 4.5.

As shown on the Table 4.5, the responses indicates that 26(87%) of the secondary school teachers from both public and private schools have interests to apply participatory methods during teaching and learning process. In an interview with one of the respondent from one of the Secondary school said:

“I like to involve my students during teaching and learning process in order to arouse interests and curiosity to my students. Also I do prefer participatory methods because they help me to simplify teaching activities and increase reasoning ability and dependability to my students.”

On the other hand, the interviewee who showed no interests to use participatory methods said:

“It is a burden to use participatory methods of teaching because they consume a lot o time and sometime can disturb teaching and learning environment due to misunderstanding among the students when participatory methods are applied. This can lead into poor discussion and weak points can be presented”[Hadija, Interview, October 2014].

Another teacher who worked with public school for 11 years was heard saying that:

“It is sometimes tiring to teach by using participatory methods because participatory methods may sometimes be boring and at that time students are

against learning. Accordingly these uninterested students affect me negatively to apply participatory methods when teaching. In general I like teaching, perhaps I must like it, because this is my profession but I should not be obliged to use teaching methods which I do not have interests with".

[Sauda,interview,October 2014].

4.4.4 The Effectiveness of Participatory Teaching Methods

The study sought to find out teachers' opinion on whether participatory teaching methods can improve the quality of education or not. Study employed interview schedule in order to gather the necessary information on this aspect. The study revealed that 23(77%) agreed that participatory methods can improve quality of secondary education in Tanzania while 7(23%) disagreed. Of those who agreed, 13(43%) were Female and 10(33%) were Male. Those who disagreed, 3(10%) were male and 4(13%) were Female.

Therefore study shows that most of teachers agree that participatory teaching increase understanding among students and thereby improving quality of secondary education. This is supported by Mabrouk (2007) who said that Individual student performance was superior when cooperative methods were used as compared knowledge acquisition, retention, accuracy, creativity in problem solving, and higher-level reasoning. The responses are shown in the Table 7. In an interview with teachers in one of the sampled secondary schools said:

"You know when participatory methods of teaching are effectively applied it is possible to make students active in learning and remember facts easily, quickly increase understanding and performance to students, hence improving the

quality of secondary education in Tanzania education in Tanzania.”[Witto, interview, October 2014].

Meanwhile, 23% of the teachers’ responses disagreed those participatory methods of teaching can improve quality of education in Tanzania. They said there are other important factors than participatory methods for improving quality of secondary education in Tanzania. One of the responded said:

“Participatory methods of teaching are useless in improving quality of secondary education if the schools do not have enough and qualified teachers in all subjects. Participatory methods will also be effective when mixed with other teaching methods like lecture method.

Table 4.6: Participatory Teaching Methods in Improving Quality of Secondary Education

Teachers ‘Responses	Gender	Frequency (N)	Percentage %
Yes	Female	13	43.3
	Male	10	33.3
No	Female	4	13
	Male	3	10
Total		30	100

Source: Field Data (2014)

4.4.5 The Mostly Preferred Teaching Methods

The study in this part sought to seek for information from the teachers on the common participatory teaching methods adopted during teaching and learning process. The study employed interview and observation and documentary review tools to collect information in this aspect. The study revealed that 21(70%) they

preferred group discussion method and 5(17%) preferred lecture method. The rest 2(7%) preferred question and answers, 1(3%) preferred field trip and 1(3%) preferred guest speaker method. Therefore, teachers' responses indicates that, majority of teachers in secondary schools do prefer group discussion method in relation to other methods of teaching. Also through documentary review, the researcher revealed that most of the teachers' lesson plans were written discussion method as the only adopted participatory teaching method.

Through participant observation the researcher revealed that, students were divided in groups to discussion. This indicates that majority of teachers were familiar with single participatory teaching method. Other participatory methods of teaching like Jigsaw, Role play, Socratic, Future wheel, Study tour and dramatization were ignored by most of teachers. In fact, some recent studies found that teachers in primary, secondary schools, teacher education colleges, as well as universities still dominant use lecture-citation methods. Where participatory methods have been deployed, they were poorly utilized by many teachers, as students have been encouraged to work in groups of five to six, largely discussing questions without proper direction (Tilya & Mafumiko, 2010). Also Felder and Brent (2006) said that Successful teachers should use many kinds of teaching strategies and interaction styles rather than a single approach. Effective teachers try to meet the needs of different students and demands of curricular goals, topics, and methods. In interview teachers they said:

“Group discussion is a popular and simplest and cheapest method that can easily be adopted by the teacher during teaching and learning process”

[Zawadi,interview,October,2014].

“Myself I prefer small group discussion because it is the only method of teaching that I am competent with. Apart from that it saves time and can even be utilized in the school environment where there are scarcities of teaching and learning materials”[Mwanahamis, interview, October 2014].

“To me lecture method is the best because can help me to cover syllabus on time. Also this method is applicable to all subjects and reduces interferences like unnecessary questions from the students” [Patrick, interview, October 2014].

The subjects’ responses show that most of the teachers use group discussion as the only participatory teaching methods. But an effective teacher should use different participatory methods of teaching like field trip in order to have meaningful learning because learning takes place not only at school but also at out of school environment.

Table 4.7: Teachers’ Mostly used Teaching Methods

Teachers responses	Frequency (N)	Percentage (%)
Questioning	27	
Lecturing 5	17	
Guest speaker	1	3
Study tour	1	3
Discussion	2170	
Total	30	100

Source: Field Data (2014)

According to Tilya and Mafumiko (2010) scientific experiences outside the classroom captivate students’ interest in, and enthusiasm for science inside the classroom. Field trips have effective instructional role to provide students meaningful understanding and consequently higher achievement of biology. Through field trips,

the events and the objects that cannot be brought into class are possible to be observed.

4.4.6 Students' Views on use of Participatory Teaching Methods

In this section the results of student interviews are presented. A total of 70 individual interviews of semi-structured type were held with 38 female and 32 male students among these fourteen students were form six students. The 14 questions were prepared after teacher interviews had been conducted. The prepared interview questions went together with some probing questions.

The information obtained from teacher interviews were used to prepare 70 students' interview protocol. The students were selected purposively with the help of teachers who were asked to select volunteer form three and form six students who were believed to really be able to inform researcher about their perceptions on participatory methods of teaching adopted by teachers in secondary schools.

4.4.7 The Mostly used Teaching Approach

The first six questions sought to reveal students' perceptions on participatory teaching methods used by teachers in secondary schools. The first question, "Which approach do teachers apply mostly when teaching lessons in the classrooms?" the students' responses to this question are presented on the Table 4.8 Table 4.8 shows that the students responses 48(69%) said that participatory approach is the mostly used by teachers when teaching various lessons in the classrooms and 15(31%) said that non-participatory is the mostly used teaching approach by teachers when teaching in the classrooms. But 7(10%) said were not sure of which approach do

teachers applied during teaching because there were multiplicity of teaching approaches adopted by teachers during teaching.

Table 4.8: The Mostly used Teaching Approach

Students' responses	Frequency (N)	Percent (%)
Participatory approach	48	69
Non-participatory approach	15	21
Not sure	7	10
Total	70	100

Source: Field Data (2014)

Therefore more than half of the students who were interviewed they testified to have been involved by their teachers in learning process. This indicates that teachers appreciate the need to have participatory teaching methods in the learning process as it has been supported by Peterson,(2007) who mentioned that in the classrooms where the students are encouraged to ask questions there are successful students.

One of a student interviewed said:

“Our teachers most of the time apply participatory approach when teaching. Good examples are the history, geography and some of the science teachers, for instance teachers ask some questions from the previous lesson and divide us in groups for discussion....I think that is participatory approach” [Benigna, interview, October 2014].

The second interviewee said:

“Our teachers normally come in the class they 4lecture, when the lesson time is off they quit without even asking some questions to students” [Hamis, interview, October 2014].

The third interviewee said:

“On my side I am not sure which approach do teachers apply when teaching us because you can see a teacher is lecturing, asking questions and dividing us in groups for discussing a certain written question on the board on the same lesson time....so I am totally confused of which approach mostly applied. But all in all I do understand her lesson”[Neema,interview,October 2014].

From the responses made by students above, the majority of students are aware with the approaches adopted by their teachers when teaching in classrooms. But few of them are not aware of which methods are used by the teachers when they are in the classrooms, because of application of different teaching methods when teaching as one of the interviewee said above.

4.4.8 The Mostly used Teaching Method

One of the elements of teacher’s instruction is students’ active involvement in the lesson which contributes to meaningful learning. The next question investigated the mostly used teaching method in the classroom. The researcher here was interested to check students’ views on whether teachers are applying participatory methods of teaching or not. Examples of participatory methods are such as Discussion, inquiry, Socratic, jig-saw and future to mention a few.

In order to obtain accurate information, the study employed interview schedules and documentary review. Therefore the study revealed that,48(69%) said group discussion is the mostly applied teaching method by most of the teachers when teaching a lesson and15 (31%) said lecture method is widely used teaching method

when teachers are teaching a lesson. But 7(10%) said other methods of teaching were applied by teachers during teaching and learning process.

In an interview with a certain student:

“Most of the teachers do apply group discussion when teaching. They normally divide students in groups of 5 to 10 students each group and provide a task to discuss and we make presentation before the teacher.”[Joyce, Interview, October 2014]

Another interviewee said:

"Yes I always see teachers grouping students of not less than 10 to 15 each group. But we suffocate because group is too big. Therefore slow learners are in hard time to grasp a lesson."

Through observation, the study revealed that, many teachers relied much on group discussion though some of the teachers did not utilize it properly because they divided students in groups left them with some questions for discussion in their groups without teacher's presence. (Tilya & Mafumiko, 2010,) in their study comment that, where participatory methods have been deployed, they were poorly utilized by many teachers, as students have been encouraged to work in groups of five to six, largely discussing questions without proper direction. Therefore for effective application of participatory teaching methods teacher should be close to students so as to assist them when difficulties arise.

4.4.9 Number of Students Per Each Group

The study here was interested to check the average number of students incorporated in each group for effective application of participatory teaching methods.

Observation and interview were among of the instruments applied on this aspect. The study revealed that 57(81%) said each group consist of ten to 15 students. This reflects that class was overcrowded to apply participatory teaching method like small group discussion. Only 13(19%) said their groups normally consists of 5 to 10 students each group. These students therefore could grasp the lesson properly. Normally the proposed number for each group discussion should not exceed 7 students for effective discussion. Through observation, the study revealed large groups of students estimated up to 15 who were divided to discuss a task provided by their teachers during classroom hours. Therefore, having large groups means ineffective application of participatory teaching methods.

Another student said:

“Very rare teachers use group discussion, I often see them using lecture method when teaching” [Hamida,interview,October 2014].

The next interviewee said:

“It is unfortunately that my teachers never applies group discussion, but always adopt question and answers when teaching plus other methods like demonstration and study tour as well as lecture methods”[Asha, interview, October 2014].

4.4.10 The Need to Learn Through Participatory Methods

The researcher here focused to investigate the students’ interests of being taught through participatory teaching methods. This was an important aspect to the researcher because sometimes you could force students to learn through participatory

methods unwillingly. To obtain the required information, interview schedules provided to students and the results were as follows: 56(80%) said there is need to be taught through participatory teaching methods where 14(20%) said there is no need to be taught through participatory methods of teaching. However the study shows that great number of students still realize the essence of using participatory methods in teaching and learning process.

This is supported by Wankat,(2002) in his book "The effective, efficient professor: teaching scholarship and service" denoted that think-pair-share participatory teaching strategy that enables students to think individually and then share ideas with each other in their pairs. Bahá, (2014) comment that an attitude of participation, rather than one of isolation and alienation, is a "source of power and vitality" and therefore a cornerstone in the advancement of a group or a community.

A Table 4.9 shows that 80 percent of the students have positive attitudes on participatory teaching methods applied by teachers when teaching various lessons in the classroom environment.

One of the interviewed students had the following to say

"I understand much the lesson when participatory teaching methods are applied in the classroom and these methods allow me to keep memory and be able to recall of what I learn. Also they help me to be aware and concentrate in studies thereby improving my performance".

I like participatory methods because they build confidence and the spirit of self independent among students....yah, teachers should be emphasized to proceed

with teaching using participatory teaching methods because to me I think...they are good”[Tatu, interview, October 2014].

“Nowadays learning is very simple because through internet you can get a lot of information about your lesson. Therefore I think teachers should not overwork themselves talking too much when teaching, but they should involve students when teaching so as to simplify their work” [Fannuel, interview, October 2014]

“I think there are needs to use participatory methods because help students to grasp well the lesson and also help students to get skills of answering questions properly” [Nobelet, interview, October 2014].

“Participatory methods are very important in learning process because they help a teacher to reveal learning difficulties and or weaknesses from each student”[Mohamed, interview, October 2014].

“Sure...there is a need for application of participatory methods in teaching and learning process because they provide freedom for students to contribute their ideas and perform activities practically”[Epson, interview, October 2014].

“I encourage teachers to proceed with teaching us by using participatory methods because they build sense of cooperation and spirit of solidarity and avoiding spoon feeding to students”[James, Interview, October 2014].

In an interviewee some students responded negatively as they said:

I hate teachers who use participatory methods of teaching because they are boring....check this class, it is full of students, how much time is spent to divide

groups and is it possible for a student to understand the discussion for example being in a group of fifteen students?[Agrisipina,interview,October,2014].

“I pay school fees in order to be taught by the teacher and not helping the teacher to teach. For instance when you are given a question to discuss in groups and being told to present your findings before the class, that is the same as taking teacher’s role and responsibility of teaching students” [John, interview, October 2014].

Therefore from the above information, it shows that majority of students were eager to learn by using participatory methods of teaching and knew the significance of using participatory teaching methods. Few students were not ready and did not see any validity to learn through participatory methods.

Table 4.9: Students’ Interests on Participatory Methods of Teaching

Students’ responses	Frequency (N)	Percentage (%)
Yes	56	80
No	14	20
Total	70	100

Source: field Data (2014)

From the Table 4.9,7(10%) of the students suggested that teachers should proceed with involving them during learning process, 14(20%) said the heads of schools, ministry of education and vocational Training and the government in general should distribute enough teaching and learning materials especially relevant text books as well as reference books so as to enable students to have proper way of learning

through participatory teaching methods. 7(10%) suggested that the schools environment should be improved so as to have peaceful mind during learning process. 6(9%) suggested on reducing number of students by constructing more classrooms which will accommodate the required number of students as recommended by the Ministry of education and vocational training that each class should accommodate not more than 45 students. The researcher's observation revealed that, many schools' classes had large number of students contrary to what it has been recommended by the ministry of education. With large number of students, there are possibilities of poor utilization of participatory teaching methods.

4.4.10 Participatory Methods and Quality Education

The researcher wanted to investigate and obtain information from the students on whether participatory teaching methods can help to improve the quality of secondary education in Tanzania. The responses to the question "Do you think learning through participatory methods can help to improve quality of Education in Tanzania?"

Of the students responses 50(71%) agreed that participatory methods can help to improve quality of secondary education in Tanzania while 20(29%) disagreed that participatory methods cannot improve the quality of secondary education in Tanzania. Therefore students are effectively involved during learning process it is impossible to improve quality of education. This can be supported by M pate,(2012) concluded that "When students are actively involved in the learning task, they learn more than when they are more passive recipients of instruction." Completing short in class writing activities, engaging in class discussions, field trips, completing laboratory exercises, participating in simulation activities, computer assisted

instruction activities, making individual or small group presentations are among the strategies in active learning (Mulder & (Ndabi, 2004).). In an interview with a certain student:

There is no doubt that using participatory methods of teaching can improve quality of secondary education in Tanzania because these methods help a student to be active in learning and cover large contents which help him to be competent in answering questions from different subject matters, hence improving the quality of education. [Rahma, interview, October 2014].

Another student was heard saying:

On my views, I think it is not very much easy to improve quality of secondary education only by applying participatory methods of teaching because there are other factors which should go together with these methods. For example if you don't have qualified teachers to different contents of study as well proper infrastructures like libraries good classrooms, laboratories, enough books and good and reasonable wages to our teachers, participatory methods have nothing to do with improving the quality of education”[Victoria, Interview, October 2014].

Another interviewee said:

“Although participatory methods are good, they should be mixed with non-participatory teaching methods like lecture, guest speaker and demonstration for effective improvement of quality secondary education in Tanzania. Also teachers should not use single participatory method; they should use multiple participatory methods as we hear from others that there are so many participatory teaching methods”[Ali, Interview, October 2014].

Therefore, from the above information obtained from the students, it is clear that 71% of the students have hope that the use of participatory methods of teaching can help to improve the quality of secondary education. Also information from few respondents 29% who had negative perceptions about participatory methods of teaching should not be ignored because they are important in improving the quality of secondary education. The well-documented findings of some 100 research projects show beyond doubt that cooperation is effective in increasing student achievement and is beneficial for the development of positive intergroup relations and prosocial behaviours and attitudes (Slavin, 1990). The Table 4.10 shows the respondents' views on participatory teaching methods on improving quality of secondary education:

Table 4.10: Participatory Methods and Quality Education

Students' responses	Frequency (N)	Percent (%)
Can improve quality of education	50	71
Cannot improve quality of education	50	29
Total	70	100

Source: Field Data (2014)

4.5 Comparison between Participatory and Traditional Methods of Teaching

This part was investigating the teachers' ability on comparing between participatory methods of teaching and traditional methods of teaching as regard to their applicability in teaching and learning process. The study employed interview schedules in order to obtain clue information from the teachers about this aspect.

The teachers' responses according to the Table 4.11 shows that 27(90%) said participatory methods are better than non-participatory methods of teaching. Only

3(10%) said non- participatory methods are better than participatory methods of teaching. Therefore great numbers of teachers still pay great respect to interactive methods of teaching.

One of the interviewee said:

“Participatory methods of teaching are better than traditional methods of teaching because they help students to brainstorm what they learn and increase thinking capacity. Also they help the teacher recognize students’ learning difficulties and recognize different talents of each learner and get time for assisting them according to the need of each student”[Regina,interview, October 2014].

These opinions comply with the views from (Mulder, 2004) said that Participatory teaching methods encourage interaction among teacher, students, the content and the environment in which learning occurs. Indeed, the method provides opportunities for students to share concepts and skills with their teacher as well as their colleagues.

Table 4.11: Teachers use of Participatory and Non-Participatory Teaching

Methods		
Teachers’ Responses	Frequency (N)	Percent (%)
Participatory methods of teaching	27	90
Non-participatory participatory methods	3	10
Total	30	100

Source: Field Data (2014)

Table 4.11 summarizes teachers' preferences between participatory methods and traditional methods of teaching. Certain active learning techniques in the classroom may well enable students to absorb and retain information just as well as, if not better than, the more traditional methods.

5.5.1 Students Views on Participatory and Non-Participatory Teaching

Methods

An investigation was conducted to understand the students' ability in comparing the best teaching methods between participatory and non-participatory teaching methods. To obtain relevant information, interview schedules were administered to students. The study revealed that 57 (81%) said that participatory teaching methods are better than non-participatory teaching methods and 10(14%) said non-participatory or traditional methods are better than participatory methods of teaching, while 3(5%) they were not sure of which methods of teaching were better than the other. From this study, it is obvious that great number of students agree that participatory teaching methods are better than non-participatory teaching methods.

Table 4.12: Student Views On Participatory and Non-Participatory Teaching

Methods		
Students' Responses	Frequency (N)	Percent (%)
Participatory methods used	57	81
Non- participatory methods used	10	14
Not sure	3	5
Total	70	100

Source: Field Data (2014)

In an interview with a student from J.K.Nyerere secondary school, said:

“This is obvious that participatory methods are better than non-participatory teaching methods because they allow students to interact with their teacher and I can say, they can build thinking capacity to a student faster than non-participatory teaching methods”[Collin, Interview, 2014].

The above argument is supported by Bahá, (2014) that participatory teaching methods enable all to work together, to encourage and support one another, and to coordinate efforts for the good of all. The results are shown in Table 12. From the above Table 17 results shows that 81% of students have confidence and interests on participatory methods rather than non-participatory teaching methods.

4.6 Teachers’ and Students’ Views on Challenges in Using Participatory Methods

4.6.1 Teachers’ Challenges in Using Participatory Methods of Teaching

This part of the study was interested to investigate the challenges facing teachers when using participatory methods of teaching in the classroom environment. The researcher was interested to focus on the number of students per each class, class size, and classroom environment, furniture, teaching and learning materials, support from the heads of schools, in-service training, time allocated for each lesson and suggestion for appropriate time.

4.6.1.1 Numbers of Students Per each Class

The study sought to seek valuable information from the respondents about the number of students accommodated in each class. This was an important part in this

study in order to find out the viability of using participatory methods during teaching and learning process. The study employed interview schedules and observation. According to the Table 4.13, teachers' responses shows that 6(20%) said their classes had good number of students ranged from 15-45 which could allow them to utilize effectively participatory methods of teaching. But on the other side, 24(80%) said their class had great number of students ranged from 50 and above.

Though many teachers claimed to have been using participatory methods during teaching and learning process, but for effective delivery of secondary education and effective utilization of participatory methods of teaching, number of students in each class should not exceed 45 each class. For example when you are using group discussion, each group should be five to seven students. If the numbers of students exceed 50 then effectiveness of participatory teaching methods will be very Minimal. MoEVT (2003) evaluated that many teachers because of having big classes they tend to stick to traditional methods despite the fact that the Government has introduced a new curriculum which emphasized learner centered methods of teaching and learning.

One of the interviewee said:

“My school has few classes to accommodate the available number of students which is above 50. This leads into ineffective management of the class and in effective utilization of participatory methods of teaching to some of us for example when using discussion method I am obliged to divide students ranging from 10 to 20 students each group which is out of the recommended number 5 to 7 students each group” [Juma, interview, October 2014].

Table 4.13: Number of Students Per each Class

Teachers' Responses	Frequency (N)	Percent (%)
15-45	6	20
50 above	24	80
Total	30	100

Source: Field Data (2014)

4.6.1.2 The Class Size

In this part the study was interested to investigate the class size because enough space is required for effective teaching by using participatory methods. The study employed interview schedule and observation for collecting the necessary information on this study. The study revealed that 13(43%) said the class size was enough to accommodate the available number of students, where 17(57%) said the class size was not enough to accommodate the available number of students.

According to this study it is clear that most of the schools their class size are not sufficient enough to accommodate the available number of students which is more than 50 above as we have seen on the Table 4.13. Through observation the researcher revealed that many classes of most schools were constructed to accommodate students not more than 45 students. But many schools had greater number of students above 50 students each class. Time is an important aspect in teaching because teachers need to manage time effectively in order to implement their strategy. However, some researchers emphasize that small classes mean more time for teachers. Therefore, this issue is worth considering in classroom size research. The numbers of students is one of the factors that determines the teaching methods used in the classrooms by teachers (Küçükahmet, 2000). In their other words, class size inevitably influences teaching styles (Capel, Leask, and Turner, 2009).

One of the interviewee said:

“The class size is small comparing to the number of students that each class should accommodate. Therefore, it becomes an issue when I am deciding to apply participatory methods during teaching and learning process because interactive methods require large class for its effective implementation”.

4.6.1.3 Classrooms Environment

The classroom environment means the general appearance of class, ventilation, desks arrangement and roofing. The study employed observation and interview for gathering the necessary information. Conducive environment is so significant for learning to take place. The study revealed that 19(63%) said the classroom environment does not allow effective application of participatory teaching methods, and 11(37%) said the classroom environment was conducive to allow the teacher to apply participatory teaching methods.

This is supported by Bahá, (2014) who said that the child’s growth must proceed in an organic manner. Through observations the researcher revealed that in some schools, classes had no sling boards. This could disrupt attention of students during class hours that students could hear voices of other teachers from other classes. In an interview with one of the respondent who said the classroom environment is not conducive:

“The class is suffocated with desks. Therefore, as a teacher I get hard time to tell my students to be divided into groups for discussion. This leads me into ineffectiveness of participatory methods of teaching thus I can be forced to use lecture methods”[Anneth, Interview, October 2014].

4.6.4 Availability of Chairs and Tables (Desks)

The study ought to seek information from the tables and chairs. These are important components for effective teaching through participatory teaching methods and it is one of the challenges that had been facing many schools in Tanzania. The study employed interview schedules and observation. The study revealed that 21(70%) said furniture were enough to accommodate the available number of students and only 9(30%) said desks were not sufficient to accommodate the available number of students. Therefore from the study, it shows that in urban areas there are no big challenges on the issue of desks with exceptional of few schools which are still having inadequate desks. Here teachers could apply participatory teaching methods properly if other challenges revealed above could be solved easily like class size and others of the like.

4.6.5 Availability of Teaching and Learning Materials

The study was interested to seek information from teachers on the challenges facing them on the side of teaching and learning materials like textbooks and laboratory equipments. The study employed interview and observation and documentary review in order to get the required information. The study revealed that 29(97%) said there were in adequate teaching and learning materials in facilitating secondary education and 1(3%) said there were adequate teaching and learning materials like books.

Therefore from this study it shows that it is obvious that it not easy for teachers to comply with participatory teaching methods effectively due to lack of textbooks and other teaching and learning facilities. Teaching and learning materials are very important in proper delivery of secondary school education and effective teaching by

using participatory teaching methods. This is supported by Mosha, (2011) who said that, a sufficient supply of teaching materials is commonly raised as the most important prerequisite for teachers to improve their teaching practice. Teachers' responses on the availability of teaching and learning materials are shown in the Table 4.14.

Table 4.14: Availability of Teaching and Learning Materials

Teachers' Responses	Frequency (N)	Percent (%)
Yes	1	3
No	29	97
Total	30	100

Source: Field Data (2014)

Focus on the Table 4.14 shows that 97% of the teachers' responses on the availability of teaching and learning materials in secondary schools are still big challenge. These responses reflect that teachers are in hardship environment to teach by using participatory methods. For its effectiveness libraries should be well equipped with books and other teaching materials so that to simplify work for teachers in implementing the competent based curriculum where there is interaction between a teacher and students.

One of the interviewee said:

“Several times I use my own effort and money to seek for teaching and learning materials from other school, internets, and sometimes I do prepare some handouts which help me and my students during teaching and learning process, especially when I decide to use participatory methods of teaching”[Jeremiah, interview, October 2014].

The above statement is supported by Mosha, (2011) said it is unfair to misuse the time and money of poorly paid teachers by forcing them to make do with self-improvised materials when this is a compensation for government failure and lack of political will to give sufficient funding for teaching materials.

4.6.5 Support from the Heads of Schools

The researcher was interested to seek information from the teachers on whether get support from the head of schools for improving teaching or not. The supports that the researcher was interested are such as financial assistance and teaching and learning materials and others of the like. The study employed interview schedules to the teachers in order to obtain valuable information on this aspect.

The study revealed that, 17(57%) said that they do not get any support from the heads of schools for improving teaching and learning process. Also 13(43%) said that they get support from their heads of schools for improving teaching and learning process. From the study, it shows that there is very little support from the heads of schools. But for effective teaching through participatory teaching methods and improving quality of secondary education, heads of schools should support their subordinates.

This is supported by Mhando (2001) who said that, support to teachers is important in order to realize their weaknesses. If you see a teacher is rigid to the scheme of work and lesson plan to cover the intended content and doing most of the talking and so forth, it is a suggestion that the teacher is not aware of the problem he/she has in the teaching.

“The teacher leader model standards can be used to guide the preparation of experienced teachers to assume leadership roles such as resource providers, instructional specialists, curriculum specialists, classroom supporters, teaching facilitators, mentors, school team leaders, and data coaches” (Harrison & Killion, 2007).

Through interview with one of the respondents said:

“It is my own creativeness which rescue me from this teaching profession; otherwise you won’t get good results. The head school normally replies that, he is just having a title as a head of school and that the ministry of Education and vocational training has the role to provide teaching and learning materials in secondary schools as well as learning environment”[Manka, interview, October 2014].

Another interviewee who agreed to have been given support from the heads of school said:

The head of school support me by sending my inquiries to the respective areas for further solutions, and always encourages teachers to use varieties of teaching methods especially participatory teaching methods so as to improve teaching, performance and quality of education in general. But our school still has many challenges which cannot be tackled by the head of school alone” [Irene, interview, October 2014].

From the above interview with the teachers and the results obtained, it shows that, majority of Heads of schools either do not value teachers as significant component in

imparting knowledge, skills and values as well as improving quality of education or they do not have power to do so. Support to teachers in terms of teaching and learning materials is very important for improving teaching and learning (Mhando,2006).

4.6.6 In-service Training

In-service training refers to the professional staff development that a worker should get while working or still in employment. In- service training can be in terms of short courses and or long courses. The study wanted together information from the respondents on whether they are getting in-service training pertaining to teaching methodologies especially participatory methods of teaching. To obtain the accurate information the researcher employed interview schedules and documentary review.

The study revealed that, 25(83%) said did not get in-service training since they have been employed as teachers to teach secondary education. On the other hand 5 (17%) said they are in-service training on progress. All of those who said were getting in-service training were Grade A teachers (primary school teachers), therefore they were upgrading to diploma level in the field of education. 1(3.3%) said she was sponsored by the head school that she is teaching and the rest 4(13.3%) they were sponsoring themselves.

Therefore, great percent of teachers' responses of about 83% responded that they had never attended in-service training. In-service training is one of the important components in improving teaching and learning processes through participatory teaching methods, contrary to that teacher will be ineffective in using interactive

methods. Teachers with less training in education placed more emphasis on memorization. In-service training is so significant in improving teaching and learning as well as quality education. .“The pedagogical skills may interact with subject matter knowledge to influence teacher performance positively or negatively” Mhando,(2001).It is also supported by Chidiel,(2004) who said that Provision of pre-service and in-service teacher education and training Improve teachers“ effectiveness in the classroom and improving the quality of education.

In an interview with one of the respondent said:

“Yes we are implementing the competent based curriculum where a teacher is supposed to use student-centered approaches, but still we are lacking in-service training pertaining to teaching methods in general. Myself I have been here for more than seven years and I had never attended in-service training”.[Teophil, interview, October 2014].

The second interviewee said:

“With little salary paid to me as the monthly wage, it is not easy to attend in-service training unless I am sponsored by someone else. Therefore I am still using the old experience obtained at the time when I was pursuing bachelor in education.”

Another interviewee who was in the in-service training programme said:

“There is no need to wait for heads of school or sponsors for improving my knowledge. The little money I get and those obtained from banks as loan I do utilize in advancing my career. Right now I am pursuing diploma in Education

where I learn teaching methodologies as a part of the courses that I am supposed learn in the whole programme”[Bakari, interview, October 2014].

Table 4.15 shows the teachers’ responses on the issue of in-service training.

Table 4.15: Teachers In-service Training

Teachers’ Responses	Frequency (N)	Percent (%)
Attending	5	17
Did not attend	25	83
Total	30	100

Source: Field Data (2014)

4.6.7 Time Spent Per each Lesson

The researcher here was interested to investigate the time to which each teacher is spending when teaching a lesson. The purpose for the study under this aspect was check the validity and reliability of the time allocated to teaching in relation to the application of participatory methods of teaching. This was important aspect to this study because under normal circumstances, for effective utilization of participatory teaching methods enough time should be allocated.

The study employed interview schedules in order to get the required information. The study revealed that 21(70%) said they normally use 80 minutes to facilitate teaching and learning process per each lesson. The rest 9(30%) they use 40 minutes or single period per each lesson. This indicates that the majority used 80 minutes or double periods while few teachers used only 40 minutes or single period in facilitating teaching and learning process to their students.

The next teachers' responses to the probing question "Do you think the class hours are sufficient as regard to application of participatory methods of teaching? Of the teachers' responses, 18(60%) said the time allocated was enough for them to teach by using participatory teaching methods while 12(40%) said the time was insufficient for them to use participatory methods during teaching and learning process. The probing question "What could be the appropriate class hours for effective teaching of each lesson? Of the teachers' responses 22(73%) said 80 minutes could be appropriate time for effective teaching and only 8(27%) said 120 minutes equivalent to 3 hours could be appropriate time for effective teaching by using participatory teaching methods.

One of the interviewee said:

"To me 80 minutes are enough to deliver the required knowledge, skills values and attitudes to my students by using participatory teaching methods. More than those minutes it will be tiresome and boring to me and students too. Remember these are secondary school students. You don't need to overwork them otherwise they will hate you (a teacher) and the lesson in particular"[Nuru, interview, October 2014].

The next interviewee from private school said:

"The current generation doesn't need too much concentration in learning. Therefore, using more than 80 minutes you are risking your own Job especially in private schools where students have great say to the employer thus can find any means to evacuate a teacher.....ah my dear friend is better to protect my job" [Ester, Interview, October 2014].

Another interviewee from public secondary school who said the appropriate time could be 120 minutes said:

“If I want to relax when teaching by using participatory methods, 120 minutes could be sufficient to deliver the required learning materials to the students”[Amina, interview, October, 2014].

Through documentary review, the researcher passed through several lessons plans and revealed that 19(63) of the teachers were spending eighty minutes when teaching and only 11(37%) they were spending forty minutes when teaching. This supported by Chedié, (2004) who said, time is an important aspect in teaching because teachers need to manage time effectively in order to implement their strategy. However, some researchers emphasize that small classes mean more time for teachers. Therefore, this issue is worth considering in classroom size research. A Table 4.16 shows the teachers’ responses on time spent and proposed time for effective teaching when using participatory methods:

Table 4.16: Time Spent and Proposed time for Effective Teaching

Time Spend	Frequency (N)	Percent (%)
80 minutes	21	30
40 minutes	9	83
Total	30	100
Sufficient class hours	18	60
Insufficient class hours	12	40
Total	30	100
80 minutes	22	73
120 minutes	8	27
Total	30	100

Source: Field Data (2014)

4.8 Challenges Facing Students when Taught Through Participatory Teaching Methods

Under this part the researcher was investigating challenges that might be facing students when taught through participatory methods. In this area, five interviews and probing questions were administered to students. The interview questions were based on learning materials, classroom environment, desks and time.

4.8.1 Availability of Enough Learning Materials

For effective application of participatory teaching methods schools should have adequate teaching and learning materials like books which can be used by students to seek valuable information for further discussion. To get accurate information semi-structured and structured interviews and observations were administered to students and the following results were obtained; of the students responses 67(96%) said there were lack of learning materials and only 3(5%) said there were enough learning materials like books in their schools.

These findings shows that majority of secondary schools are lacking from teaching and learning materials. Though both teachers and students shows positive attitude towards participatory methods of teaching but with lack of learning materials, there will be inefficient uses of participatory methods. This is supported by UNICEF (2013) says that, whatever teachers do in a child-friendly school, they need to focus on child participation and consciously strive for children's empowerment as an outcome of the learning process. Combining the right classroom conditions and processes with the expertise of trained teachers and a supply of pedagogic materials constitutes the critical child-friendly school package.

4.8.2 Classroom Environment

The study here focused to investigate classroom environment so that to reveal challenges which students get when participatory methods of teaching are applied in their classrooms. One of the interview questions “Does classroom environment conducive for you to learn through participatory teaching methods? To obtain the required information, interview schedule and observation were employed. The study revealed that 27(39%) said the classroom environment was conducive for them to learn through participatory teaching methods and 43(61%) said the classroom environment was generally not conducive to both teachers and students to learn and teach by using participatory teaching methods. Therefore, conducive environment help a learner to grasp a lesson taught in the classrooms effectively. According to Mhando (2006) classroom environment is composed of six areas; the emotional climate of classroom, science curriculum, physical environment of classroom, and students in the classroom, friends’ attitudes toward learning. Mosha (2011), also, emphasized that if students experience an unpleasant and punishing classroom then the limited knowledge that they learn will soon be lost.

One of the interviewee said:

“We have positive attitude about participatory teaching methods but one of the challenges we are facing; classes are not large enough to accommodate available number of students. Also the time we are asked by the teacher to divide ourselves in groups for discussion, it is cumbersome because the spaces are not enough for each group to sit comfortably.”[Husein, Interview, October 2014].

From the researchers' observation, tables and desks were suffocated in the classrooms of some of the schools in which the class size was small. Therefore the researcher revealed that teachers perhaps used participatory methods as custom and tradition, but the truth is that they were working in a hardship environment, for example when group discussion is adopted as one of the popular method adopted by majority of teachers.

4.8.3 Sufficient Chairs and Tables (Desks) in the Classrooms

Chairs and tables are very important components in the classroom and the whole process of learning. Students will be comfortable in learning program when they sit into proper desks, but when they sit onto floor, learning become difficulty. Therefore the study in this aspect was interesting to investigate if schools have enough classroom furniture's to be used by students during learning process.

With enough furniture, both students and teachers could utilize participatory teaching methods effectively. To get more information from the respondents the researcher used, interview and observation. The study revealed that 53(76%) agreed that desks were enough in their classrooms but the only challenge was the class size which was not large enough to accommodate the available number of students. On the other hand 17(24%) said desks were not enough in their schools.

Also through observation the researcher revealed that desks were enough in relation to the number of students available except few schools which had few desks comparing to the number of students available and some of the desks needed some minor maintenances. Though desks were enough according to the students'

information and researcher's observation but the class size was still a challenge for effective application of participatory teaching methods.

“In an interview with a certain student from ward secondary school said:

In our school desks are not big issue, I mean we have enough chairs and desks but class size not attractive and affordable to hold those desks.”[Remijo, Interview, October 2014]

Another student said:

“My friend when you go late to school you will suffer by sitting down on the floor as lessons proceed because desks are not sufficient. We always scramble for chairs and desks because they are not enough”.

4.8.4 Lessons Class Hours

The researcher here was interested to get information from the students in order to find out the mostly used time by teachers when teaching. Forty to eighty minutes are recommended times the ministry of education and vocational training. The researcher's interest on time was due to the fact that teaching by using participatory teaching methods needs enough time so that to avoid rushing in teaching. Under this aspect, interview and documentary were employed as the important tools in gathering accurate information from the question “how many minutes do you spend per each lesson?”

Of the students' responses, 55(79%) said the most spent time per each period are 80(eighty) minutes where 15 (21%) said an average time spent per each lesson is 40 minutes. Following the probing question “Do you think that lessons class hours are

sufficient as regard to the use of participatory methods of teaching?”Of the students’ responses, 51(73%) said 80 minutes should maximum the appropriate class hours per each lesson and 11(16%) said 40 minutes were enough per each lesson. But 8(11%) said the appropriate time for effective application of participatory teaching methods should be 120 minutes equivalent to two hours per each lesson. In an interview with students, one of them said:

According to my opinion, eighty minutes are enough for us to learn through participatory teaching methods, more than that it is boring.

“ Anyway the level of students’ understanding differs, because there are gifted students who understand quickly, therefore forty minutes are enough...yah any extra time to these students will be chaos.”[Nelson, Interview, October 2014].

“Some subjects like biology and mathematics, history and geography have so many topics which cannot easily be covered on time especially when participatory methods are applied. Therefore the appropriate time would be 120 minutes or two hours consecutively...that is my opinion.” [Ashura, Interview, October 2014].

Table 4.17: Lessons Class Hours

Students’ Responses	Time	Frequency (N)	Percentage (%)
Normal class hours spent	40 minutes	15	21
	80 minutes	55	79
Total		70	100
Appropriate time spend for effective application of participatory methods	80 minutes	58	83
	120minutes	05	7
	40 minutes	07	10
Total		70	100

Source: Field Data (2014)

4.8.5 Improving Teaching and Learning by Participatory Methods of Teaching

The researcher here was interested to get students' opinion on the way they can move forward towards teaching by using participatory teaching methods. To obtain the required information, the researcher used interview schedules which were administered to students and teachers. Students and teachers had to respond to the question "What is your opinion on improving participatory methods of teaching in secondary education?" The students' and teachers' results are indicated in Table 4.18.

From the table above, 7(10%) of the students suggested that teachers should proceed with involving them during learning process, 14(20%) said the heads of schools, ministry of education and vocational Training and the government in general should distribute enough teaching and learning materials especially relevant textbooks as well as reference books so as to enable students to have proper way of learning through participatory teaching methods, 7(10%) suggested that the schools environment should be improved so as to have peaceful mind during learning process. 6(9%) suggested on reducing number of students by constructing more classrooms which will accommodate the required number of students as recommended by the Ministry of education and vocational training that each class should accommodate not more than 45 students.

The researcher's observation revealed that, many schools' classes had large number of students contrary to what it has been recommended by the ministry of education. With large number of students, there are possibilities of poor utilization of

participatory teaching methods. Also 7(10%) suggested the employment of qualified teachers who will teach effectively by using participatory teaching methods. The study revealed that in some of the schools especially in two private secondary schools there were some teachers who were not teachers by professional, therefore, it was not possible for them to apply participatory teaching methods because of lacking pedagogical skills. Thus, they preferred using lecture method most of the time.

Table 4.18: Students' Opinions on Improving Participatory Methods

Students' Responses	Frequency (N)	Percentage (%)
Involvement of students	7	10
Teaching and learning materials	14	20
Improving classroom environment	7	10
Reducing number of students	6	9
Employment of qualified teachers	7	10
Application of different techniques of teaching	6	9
Libraries and laboratories	12	17
Reducing the shortage of science teachers	6	9
Cooperation between teacher and students	5	7
Total	70	100

Source: Field Data (2014)

Another suggestion was on the use of varieties of teaching methods. About 9% suggested to teachers on the use different teaching methods instead of using single or few methods of teaching. Through interview and observation made by the researcher during the study, revealed that majority of teachers were using discussion methods most of time. Also 7(10%) suggested schools to have well constructed and equipped laboratories so that they can get time to make practices and self reading of books

instead of relying to the teacher only.6(9%) suggested on the employment of science teachers so as to reduce shortage of teachers. Inappropriate number of teachers can force them to use traditional methods of teaching in order to cover syllabus. Cooperation between students and teachers was suggested by 5 (7%).through interview they said that it is important for teachers to have fully cooperation so as to have effective teaching through participatory teaching methods. In other words teachers should not intimidate students during teaching and learning process.

CHAPTER FIVE

SUMMARY, CONCLUSION AND RECOMMENDATIONS

5.1 Introduction

This study aimed at investigating the teachers' and students' perceptions on participatory teaching methods in secondary schools through the analysis of interviews conducted with teachers, form three and form six students from both public and private secondary schools. This chapter presents a summary of the study, conclusions, and implications for practice and future studies.

5.2 Summary of the Major Findings

Investigation, analysis and interpretation of both primary and secondary information about the current study showed the findings which are summarized as follows: Teachers had wide understanding about participatory teaching methods as believed that they employed interactive ways of teaching involving students during teaching and learning process (Kim, 2005; Mayer, 2004). A few teachers had partially understanding about participatory teaching methods as said needed further training.

The study revealed that, most of teachers in secondary schools are measuring students' prior knowledge before teaching new topic. Checking students' prior knowledge is one of the important components in teaching when using participatory methods of teaching. Therefore, it verifies that teachers using participatory teaching methods (Mayer, 2004). A few teachers were unable to measure students' prior knowledge before teaching. Majority of teachers and students showed interests of facilitating teaching and learning process by using participatory teaching methods

and had a belief that if are properly applied could improve quality of secondary education in Tanzania because they help a student to be active and cooperative and keep memory of what he or she is learning. On the side most of students showed interests of learning and being taught through participatory teaching methods because they could gain valuable knowledge.

In the study area most of the teachers in secondary schools were using discussion method as the only way of facilitating teaching and learning process to students. Other participatory methods of teaching such as study tour, and questioning were also adopted. Only a few teachers employed traditional teaching methods such as lecturing and guest speaker teaching methods. On the other hand most teachers and students had opinion that participatory teaching like discussion, questioning, role play and study tour are better than traditional methods of teaching such as lecturing, guest speaker demonstration just few to mention.

Both public and private secondary schools had large number of students exceeding 50 above which indicates that teachers had challenges of teaching large classrooms. The students witnessed that normal groups for discussion were ranged from 10 to 15 students comparing to the recommendable number of students for group discussion that should range from 5 to 10 students (Beniamin, 2005). As such both teachers and students agree on a need for the Government to construct enough and large classrooms as well as improving teaching and learning Environment so that to reduce the problem of congestion and create conducive teaching environment which will enable teachers to use participatory teaching methods effectively and enable students enjoy learning activities.

The Majority of teachers and students said, most of urban secondary schools had little problems related to availability of desks. On the side of teaching and learning materials, it is still a big issue in most secondary schools in Tanzania. Teachers and students had opinion that there were inadequate teachings and learning materials in secondary schools especially textbooks and laboratory equipments.

The majority of teachers of said do not get support from the heads of school for example material support like text books and references books as well as laboratory equipments for facilitating teaching and learning process through participatory methods of teaching. Large number of teachers said that, most of secondary school teachers were not getting in-service training or seminar workshops for improving teaching and learning process through participatory teaching methods. In-service training is one of the important professional staff developments that a teacher should be equipped with for improving teaching and learning process. Only few teachers do get in-service training opportunities (Stuart & Lewin, 2002).

In this study, time spent per each lesson during class hours were adequate enough for both teachers and students. The average times spent were 80 minutes and most teachers and students said 80minutes could be sufficient to teach and learn through participatory teaching methods, there were those who proposed the use of 120minutes or two hours when teaching by using participatory teaching methods (Barrett, 2008). On the whole though there are challenges the fact remain is that participatory methods were seen by both students and teachers as good means toward improving the quality of education in Tanzania.

5.3 Conclusion

From the findings it can be concluded that, majority of both teachers and students still have positive attitudes towards participatory teaching methods. Also teachers and students had shown their preferences that participatory methods of teaching are better than traditional methods of teaching and that with participatory teaching methods it is possible to improve quality of secondary education in Tanzania. Very few teachers benefit from in-service training and or seminars as it has revealed that only 83% of the teachers are not accessible to in-service programs, seminars and workshops which are very important components in improving teaching through participatory teaching methods.

Apart from that, large numbers of secondary schools do not have enough teaching and learning materials like especially text books and references books which are very significant in improving teaching and learning process through participatory teaching methods. Also, poor learning environment, lack of libraries and laboratories with their equipment, are among of the factors that lead into ineffectiveness application of participatory methods of teaching. Large numbers of students in the classrooms are among of the impeding factors for smoothly application of participatory teaching environment.

From the findings we can also conclude that, majority of teachers they have wide understanding on single participatory teaching methods as it was revealed that 70% of the teachers used discussion method as the only participatory teaching method. This reflect that most of teachers had little knowledge on other participatory teaching methods like study tour, role play, dramatization and Socratic Method to mention

few. It seems heads of school have little contribution to teachers because very few teachers were given assistance from the heads of school for example financial assistance to teachers so as to adopt other participatory teaching methods like study tour which cannot easily be conducted in schools if a subject teacher does not have financial ability.

5.4 Recommendations

Based on the analysis and interpretation of the results, the researcher has the following recommendations which will be useful to the nation, Ministry of education and vocational training, other educational stakeholders and further research on the same topic. The Ministry of education and vocational Training there is a need to provide enough textbooks and references so as to enable students and teachers to utilize effectively when using participatory teaching methods. There is a need also to have well equipped and quality laboratories and libraries constructed in each secondary school in Tanzania so as to enable teachers and students to perform practical work and make library researches properly.

Both public and private heads of school should support their employees' morale and materially in order to improve teaching by using participatory teaching methods. There is a need for the government to establish policy which allow and oblige teachers to attend regular in-service training, seminars, and workshops pertaining to various approaches of teaching in order to improve teaching, performance and quality of education and updating teachers to have wide understanding about participatory methods of teaching and other teaching methods in general. The heads of schools should assist their teachers to use varieties of participatory teaching

methods such as study tour, roleplay, dramatization, and questioning instead of relying on group discussion as a single method of teaching.

On other hand the government and school administrators have to try to employ more science teachers so that to reduce workload leading them to have ineffective application of participatory methods of teaching and improvement of classrooms environments in order to have peaceful learning environment. Educational officers should have regular inspections to see how teaching is conducted in secondary schools and provide advice on how teachers can improve teaching by using participatory methods of teaching plus other teaching methodologies like traditional methods of teaching. It is recommended that the average number of students per each class not exceed 45 students so as to ensure teacher maximum support to each student.

5.5 Recommendations for Further Studies

During a period of researching, the researcher met some of unrehearsed areas that she suggests other researchers to carry more investigations in those areas for further studies. Those areas are as follows:

It is recommended that similar study be conducted on perception of teachers on: Secondary school infrastructures; Secondary school teaching and learning environment; School teaching and learning materials; contents taught in schools; and on curriculum. Also the researcher suggests conducting similar studies on specific teaching subjects like Science subjects and Arts subjects. This is due to the fact that this study relied much on obtaining general information on teachers' and students perceptions on participatory teaching methods.

The researcher's study based in seeking information from secondary school Teachers and Students. Therefore other researchers are recommended to conduct similar study in Primary Schools. This study involved sample of five secondary schools and one hundred respondents only. It is therefore not possible to generalize the findings Countrywide. Thus, there is a need to conduct similar study in other areas of the country using large samples.

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APPENDICES

Appendix I: Students' Interview Schedule

My name is Esco Nzogela. I am performing a research for master about the teachers' and students' beliefs and practices on use of participatory methods of teaching in secondary schools of Moshi Municipality of students'. The purpose of the study is to get your views which will enable to improve quality of education provided in secondary schools. We shall spend about 15 to 20 minutes. I want you to feel comfortable, this is not an exam and information you provide will not be exposed and there is no need for you to write your name.

ABOUT THE STUDENT

Gender: -----

Interview No:

School Type: -----

Date: -----Age: -----

QUESTIONS

1. Which approach do teachers mostly apply when teaching lessons in the classrooms?
 - (a) Participatory approach, (b) Non-participatory approach ()

2. Which of the following is the mostly used teaching method when lesson is taught in the classroom? A. Group discussion method, B lecture method ().
If the answer is A, how many students are involved in each group?
 - (a) 5-10 (b) 10-15 ()

3. Do you think there is any necessary to learn through participatory teaching methods?

(a) Yes (b) No ()

If the answer is yes give reasons-----

If the answer is no give reasons-----

4. Do teachers ask you some questions related to the lesson taught in a particular period?

(a) Yes (b) No ()

5. Do you think that, learning through participatory methods can help to improve quality of secondary education in Tanzania?

6. Do you think that participatory teaching methods are better than non-participatory teaching methods?

(a) Yes (b) No ()

If the answer is yes, give reasons-----

If the answer is no, give reasons-----

- 7. Does the class size enough for you to be taught by using participatory teaching methods?
(a) Yes (b) .No ()
- 8. Do you have enough learning materials like books in your school?
(a) Yes (b) No()
- 9. Does class environment conducive for you to learn through participatory teaching methods?
(a) Yes (b) No ()
- 10. Do you have enough chairs and tables in your classroom?
(a) Yes(b)No ()
- 11. Do you think that class hours are sufficient in relation to application of participatory methods of teaching?
(a) Yes (b) No ()

If not, what do you think could be the appropriate class hours for each period for effective learning?-----

Appendix II: Teachers' Interview Schedule

My name is Esco Nzogela a student at the Open University of Tanzania. I am conducting this research as the requirement for the award of Master degree of education Administration; Planning and Policy studies (MEd.APPS).The research is on the investigation of the Teachers' and students' beliefs and practices with respect to participatory methods adopted in teaching and learning process. The researcher has been interested in this study due to the fact that since the ministry of Education decided to shift paradigm which put much emphasis on learners' centered approaches to teaching or competent based curriculum; still there is no positive Improvements in performance particularly in ordinary level schools.

Therefore this study will help stakeholders including educational administrators to have a clear picture whether the participatory methods of teaching are properly used. There is no need of writing your name, this information will remain confidential.Please answer the following questions, where explanation required use the space provided:

ABOUT THE TEACHER

Gender: _____ Interview No:.....

School Type: _____ Date:.....

Professional Experience: _____ Education level _____

Do you have a certificate of pedagogical courses? -----

Which subjects are you teaching? -----

QUESTIONS

1. To explore teachers' understanding about participatory teaching methods

(i) What do you understand by the concept of participatory methods of teaching? -----

2. To investigate teachers' and students' views on the effectiveness of participatory teaching methods.

I. Do you measure students' prior knowledge before teaching the new topic?

(a) Yes (b) No ()

(ii) Are you interested to teach by using participatory methods?

(a) Yes (b) No ()

(iii) Do you think adaptation of participatory methods of teaching can help to improve the quality of education in the country? If Yes or no give reasons:

(vi) Which of the following methods of teaching do you prefer most?

(a) A Small group discussion, Jig saw, role play, question and answers, and Field trip

(c) Lecture, guest speaker, and demonstration ()

(a Name other teaching methods applied during teaching process apart from those mentioned in roman three above?-----

3. To make comparison between participatory and traditional methods of teaching

(vii) Do you think that participatory methods are better than non-participatory methods of teaching?

(a) Yes (b) No ()

If the answer is yes give reasons-----

---and if the answer is no give reasons-----

VIII.

Do you think participatory teaching methods are effective in providing quality of education in Tanzania?

(a) Yes(b) No ()

If the answer is no give reasons-----

4. To assess the challenges that teachers and students face when using participatory methods in classroom environment.

IX. What is the total number of students do you teach per each class?

A.15-45 B.45-80 ()

X. Does the class size large enough to accommodate the available number of students?

A. Yes B. No ()

XI. Does the classroom environment allow effective application of participatory teaching methods?

A. YesB. No ()

If the answer is no, give reasons-----

If not, what could be the appropriate class hours for each class for effective teaching? -----

THANK YOU FOR YOUR COOPERATION

Appendix III: A Guide for Documentary Reviews

A: Academic documents

S/N	Documents	Information
1	Library and classes	Are text books and reference books available for all subjects
2	Laboratory	If available, equipped and properly used
3	Test and examination records	If available and type of questions asked
4	Lesson plans	If teachers prepare and use them accordingly
5	Schemes of work	If available and used
7	Teachers departments meeting	If available

Appendix IV: Observation Check List

1. What can you say about the quality of the teaching materials?
2. What were the teaching methods used?
3. How did the teacher involve students in learning?
4. What support mechanisms were available in the classroom?
5. Were desks enough for all students
6. How many students occupied a desk
7. Were students involved during teaching and learning process
8. Did the teacher use teaching material in the class? If used, how did the use of teaching materials affect the classroom climate? Was the time enough?