



Mwenge Catholic University

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- The Link between Leadership, Monitoring, Evaluation and Schools Sustainability: A Survey of Catholic Primary Schools in Eastland of Nairobi, Kenya
- Educators' Perspectives on the Legacy of Colonialism in the Post-Colonial Tanzanian Educational System
- Developing Competent Social Work and Community Development Professionals through Embedding Fieldwork Experience in Tanzanian Higher Education

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Footnotes to the text should be avoided. Manuscripts will only be published subject to review by scholars of proven competence in their areas of specialization. Nevertheless, the final decision regarding publication shall reside with the Editorial Board. All Manuscripts, including all correspondences, notes, comments, articles and book reviews must be made in English and should be submitted both in hard-paper format and electronically as an attachment to the address below:

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EDITOR'S PREFACE

The Editorial Board of the Mwenge Journal of Academic Studies (MJAS) is delighted to invite our esteemed readers and contributors to Issue 1 Volume 4 of 2016. MJAS goes on press bi-annually and it's a multidisciplinary academic forum, accepting articles on crosscutting issues and with pressing development needs. MJAS provide academics and researchers within Tanzania and beyond with a forum to share experiences and knowledge.

Information sharing is important for professions and career development as it enables people to tap knowledge, skills and experiences which otherwise they themselves may not have. The main problem in many communities and societies is the absence of means with which to facilitate information sharing.

As a result, many people including academics seat on golden treasures of knowledge and experiences from which other people would have improved their understanding and benefited from the same. MJAS is therefore one of the many efforts by the Mwenge Catholic University (MWECAU) to put in place means with which academics and researchers can share their excellent scholarship and experiences. The present issue carries a wide range of scholarly papers backed by research. The articles address topical issues in their respective fields. They include; *Effectiveness of open and distance learning programme implementation in secondary schools in Moshi Municipality; Effectiveness of Heads of Schools' supervisory strategies in community secondary schools in Ukerewe District, Tanzania; A review on the environmental pollution in the Mining Industry in Tanzania, Implementation of English Language Curriculum in Diploma Teachers' Colleges in Northern Zone Tanzania; The Link between Leadership, Monitoring, Evaluation and Schools Sustainability; Educators' perspectives on the legacy of colonialism in the post-colonial Tanzanian educational system and Developing Competent Social Work and Community Development Professionals through embedding fieldwork experience in Tanzanian Higher Education.*

We are grateful to all authors who have contributed articles to this issue. It is hoped that intended parties will find this edition useful and will make a maximum use of it, and we look forward to your comments and contribution to our future issues.

Enjoy your reading,

**Godfrey Telli,
Chief Editor.**

Effectiveness of Open and Distance Learning Programme Implementation in Secondary Schools in Moshi Municipality, Tanzania

Amina Mbughi and Malusu J. M.

ABSTRACT

This study assessed the Effectiveness of Open and Distance Learning Programme implementation in Secondary Schools so as to document the actual situation. The study was conducted in Kilimanjaro region specifically in Moshi Municipality in selected five private ODL centres. The study was guided by four research questions and two hypotheses, under Cross-sectional survey and Phenomenological research designs. Data collection instruments were questionnaire, interview guide and document analysis guide. One hundred and forty six (146) respondents were studied in this research from five private ODL centres. The data were coded and presented in tables and charts. Statistical data were analyzed by the use of means, standard deviations, frequencies and percentages so as to generate data for testing hypotheses. Null hypotheses were tested by using ANOVA and Chi-square of independent at 0.05 significance level. The major findings of the study were: (i) All ODL stakeholders believed that ODL programme in secondary schools was established for the purpose of accommodating students who fail in formal Primary Schools only. (ii) There was no specific policy at National level which guides operations in ODL programme in secondary schools. (iii) There was no any activity carried out to make people aware before the implementation of ODL programme in secondary schools. (iv) There were inadequate teaching and learning resources in almost all ODL centres. Finally, On the basis of the findings of this study, the researcher concluded that poor performance in ODL programme in secondary schools is contributed by several factors including: poor perceptions of ODL stakeholders towards the programme, inadequate teaching and learning resources in ODL centres, English language problem, financial difficulties to students and facilitators, and improper approach adapted during the introduction of the programme in secondary schools. Therefore, though the programme is contributing much to the development of the nation; the way of implementation is defeating the initial objectives of the programme. Thus, the major recommendation was that the founder of the programme should either revise or resume the programme by following all necessary procedures of implementing a new educational programme as declared in Fullan 2001.

Key words: Adult Learning, Conventional Learning, Effectiveness, Institute of Adult Education, Open and Distance Learning, Synchronous Learning, Asynchronous Learning.

INTRODUCTION

Tanzania is one of the countries which adopted both the 1990 Jomtien and 2000 Dakar World Conference on Education for All (EFA) which formulated a framework for action for achieving Education for All by 2000 and 2015 respectively. The main EFA goals that are linked to the AE/ NFE include: Ensuring that the learning needs of all young people and adults are met through equitable access to appropriate learning and life skills programmes, achieving a 50% improvement in levels of adult literacy by 2015, especially for women, and equitable access to basic and continuing education for all adults, improving all aspects of the quality of education and ensuring excellence of all so that recognized and measurable learning outcomes are achieved by all, especially in literacy, numeracy and essential life skills. Tanzania realizes that basic education is at the heart of national development. That is why the government prioritizes education sector development including AE/NFE sub-sector to meet the earmarked EFA goals (AE/NFE medium Terms strategy 2010/11 - 2014/15).

The Open and Distance Learning Programme in Tanzania

In order to achieve the objectives stipulated by government commitments to Education For All (EFA) goals and targets, Millennium Development goals (MDGs), Tanzania Development Vision 2025 and the National Strategy for Growth and Reduction of Poverty (NSGRP/MKUKUTA), it is important to enable out-of- school children, youths and adults to acquire necessary competences for improving their livelihood and their effective participation in national and community development. Since the major focus of the Education and Training Policy (ETP 1995) was to improve the quality of the education process, increase and improve access and equity for all children, youths and adults, it believed that the implementation of the AE/NFE strategy will contribute to the realization of Vision 2025. Therefore, one way of the translating the AE/NFE strategy into practice was to introduce Open and Distance Learning Programme (ODL) in secondary schools.

The idea of establishing Open and Distance Learning (ODL) programme/study centres in Tanzania originates from the country's Education and Training Policy of 1995 which aims at achieving the national education goal of providing quality education and increasing enrolment and equitable access to education at all levels. In the efforts to make this goal realistic, the government, in 1998 launched a nationwide Primary Education Development Programme (PEDP) to address provision of quality primary education to all children with age of 7-13 years.

The programme has been relatively successful (URT, 2009). This situation necessitated the government to introduce five years secondary education development plan which was launched in 2004; its main objectives included to expand public secondary education and

make it accessible to all children who missed it (IAE, 2006). However, the government effort to provide secondary education to all children can hardly be realized through the conventional education system regardless of the fact that several strategies, such as double session and community secondary schools are already introduced. Experience from both international and national education systems has shown that formal secondary education is extremely hard pressed to meet the demands of the current socio-educational milieu especially for developing countries (Ochuba, 2008). Many third world countries, for example, are still unable, for a variety of reasons, to construct school buildings for more than a half of their young people. The ODL study centres in Tanzania have become an object of interest since the conventional education system has proved a failure to suffice the social demand for secondary education in the country. Education is regarded to be essential in the country due to its merit in human resource development needed to bring about national development (Ochuba, 2008). Thus, the quality of education acquired by people through ODL study centres is expected to determine the level of the nation's development.

Apart from that, the government further recognized that the demand for secondary education was not pressed only by children in schools. This was because the transition rate from primary to secondary education was not yet 100%. This implied that there were many youth and adults who had missed the chance to acquire secondary education, but desired to start or continue with in order to either meet job qualification requirements or increase the general knowledge they had. The problems could only be solved by education programmes outside the formal education system. This was the main reason that made the Institute of Adult Education (IAE) in 2004 to introduce ODL programme mode of delivery as an alternative to support formal secondary education.

The programme is under the support of MoEVT sponsored by the World Bank and offers secondary education through various non-formal courses. The programme is concerned with provision of secondary education in two stages where by stage one comprises forms one and two while stage two serves forms three and four. The programme delivers knowledge on traditional subjects like Civics, History, Geography, Mathematics, Biology, Kiswahili and English. The target group for the ODL study centres is class seven leavers, secondary school drop-outs, the marginalized and disadvantaged groups like girls, 'nomads' and children living in difficult conditions (IAE, 2007c).

The efforts of integrating technology in education in Tanzania started in 1997. This is the period when the first computer syllabus was introduced in schools. However these efforts encountered some challenges. Lack of technological tools in most of the schools, lack of a policy for technology in education, lack of skilled teachers, lack of reliable supply of electricity in most schools and limited access to internet has influenced smooth acquisition of the distance learning (DEASA, 2011). A report by distance education association for

Southern African Countries (SAIDE, 1999) shows that the use of educational technologies, other than print, is very minimal. The main technologies used other than prints are radios and audios, with no use made of either television or computers to support teaching and learning directly.

Tanzania is among the few countries in the Sub Saharan that emphasizes learning through Open and Distance Learning (ODL). Although there is no policy specifically focusing on distance education, policy commitments to distance education do exist in various policy documents (SAIDE, 1999). The Open University and Institute of Adult Education of Tanzania are among the main institutions in the country that offer Open and Distance Learning.

The term Open and Distance Learning represents approaches that focus on opening access to education and training provision freeing learners from the constraints of time and place, and offering flexible learning opportunities to individuals and groups of learners. Open and distance Learning is one of the most rapidly growing fields of education and its potential impact on all education delivery system has been greatly accentuated through the development of internet-based information technologies, and in particular the world wide web (UNESCO,2002).

In developed countries Distance learning has great achievements as compared to developing countries particularly Tanzania where its effectiveness is not yet clearly pointed out in the society. Experience shows that many people who opt for distance learningmodein developed countries are higher learning students especially in tertiary colleges, where most of them perform better compared to conventional learners. The study conducted in UK in the year (2000), where the researcher studied students under distance and classroom-based students undertaking the same module in a degree course, the findings showed that students from all three groups were successful in their studies, but the students studying by distance learning obtained significantly higher end-of-module results than their classroom-based colleagues. Thus, this study seeks to know whether students of secondary schools who study through distance learning perform equally to, or better than face to face learners.

Over the past few years the number of people who learn by distance learning has increased, so it is the means of delivery of the knowledge where the advancement of technology favors people to learn online. People are able to access and disseminate different kinds of information from the internet within a short time, a factor which would have increased the performance of students particularly in form four results. When the trend of performance in formal learning system is dropping rapidly in secondary schools, situation in distance learning institutions is the same. The quality of education in Secondary Schools in Tanzania has been declining in recent years. The picture of the quality of education at present is evident when one looks at the performance in Secondary education examinations. The

pass rates in the Form Four national examination (CSEE) have been falling consistently and persistently over the past ten years (Njau, 2013).

Table 1:1 General Performance of CSEE for School Candidates in Kilimanjaro Region 2010-2012

YEAR	DIVISION					TOTAL CANDIDATES
	1	11	111	1V	0	F
2010	0.79%	5.61%	6.19%	48.99%	38.42%	326051
2011	0.76%	2.44%	4.22%	46.17%	46.41%	336301
2012	0.24%	1.42%	3.28%	38.14%	56.92%	370837

Source: Academic Office Kilimanjaro Region-2014

Table 1.1 shows that 125,203(38.42%) got division zero in 2010 while only 2,560(0.79%) got division one. The situation indicates that performance of students decreases yearly while number of students who sit for CSEE increases. In 2011, 156,085 equals to 46.41% got division zero while only 2,561(0.76%) got division one. In 2012 the situation was even worse, since 211,090 (56.92%) got division zero while only 875(0.24%) got division one. The trend is not different in non-formal education, where almost three quarter of those who sit for CSEE as private candidates fail as table indicates below:

Table 1:2 General Performance of CSEE for Private Candidates in Kilimanjaro Region 2010-2012

YEAR	DIVISION					TOTAL CANDIDATES
	1	11	111	1V	0	F
2010	0.0%	0.0%	20.5%	60.7%	18.8%	122
2011	0.8%	3.0%	14.4%	36.8%	45.0%	362
2012	0.0%	0.8%	4.3%	47.2%	47.7%	392

Source: IAE office Kilimanjaro Region-2014

Table 1.2 also shows that number of students sat for CSEE in non-formal system from 2010 to 2012 is increasing while the pass rates are decreasing yearly. The situation forced the researcher to conduct a study to know what exactly causes the performance to become poorer in non-formal education compared to formal education; that is why the questionnaire items addressed the teaching methods, availability of teaching resources,

amount of time employed per day, inspections rate, challenges that might interfere the programme implementation and solutions to the stated problems.

Experience shows that people in the country have different perceptions about distance learning. When considering current perceptions, there are those who are critical and those who are supportive of distance learning. Critics of distance learning question its effectiveness when compared to traditional learning.

Others have expressed doubts as to whether the quality of distance education is equivalent to that of traditional education. Many academic leaders indicate that there are similarities available in online learning and conventional learning. The Sloan Report (2010) in (Allen & seaman, 2010.p3) indicated that, "Over three-quarters of academic leaders at public institutions report that online is as good as or better than face-to-face instruction".

Review of the Empirical Studies

A Study by Kafyulilo (2011) on "Teachers' and Students' Perceptions towards the use of Mobile Phones as a tool for teaching and learning in Tanzania at Dar-es-salaam University College of Education revealed that both teachers and Students admitted that a mobile phone was the most acceptable technology in Tanzania, but there was limited use for mobile phones in teaching and learning in both Universities and Schools. At University level, lecturers and Pre-service teachers, were willing to use mobile phones as a learning tool, while at School level students were willing to use mobile Phones for learning; though their teachers were still reserved, since they believed that mobile Phones were the source of students' misbehaviors. The Study concludes that despite its handy, acceptability and afford ability, mobile phones are not accepted in schools for use in learning. Thus to bring the concept of Open and Distance Learning in the lower level of education, a change should start at a government level.

Various researchers have conducted the studies on effectiveness of Open and Distance Learning in the world. Among the studies was conducted by Wisher, Curnow and Drenth (2001) on a cross-sectional Analysis of Distance Learning Effectiveness in U.S Army Research Institute. The study needed empirical evidence that the learning outcomes gained through distance learning transferred to performance on the job at least as well as did the training in the traditional classroom. A study conducted in Pretoria University of South Africa by Aluko (2007) with a title of "A Comparative Study of Distance and Conventional Education Programmes". The study aimed at investigating and comparing the impact of distance and conventional education on the performance of learners in a bachelor degree program B.E.D (Hons) with specialization in education management assessed in terms of access, delivery and output. The findings showed that there were no prominent discrepancies that could be found between the two modes, and one could assume that both modes were

guided by a similar underpinning philosophy, which drove the ethos of the programs that impacted on the instructional design.

A study from United States by Brown and Liedholm (n.d) was carried out to compare students who completed an economics course online with those who took the same course in a traditional classroom. They found that the distance students performed more poorly on a set of standardized exam questions than those students in the live setting. From the two beliefs above, this study came up with which exactly believe is correct concerning the effectiveness of Open and Distance Learning Programme in Moshi municipality.

Constructivism Theory of Learning

Constructivism comes under the broad heading of cognitive science in the area of learning (Pritchard, 2005). Cognitivism is the study of how people learn, remember and interact. It is directed at the mental process that takes place in human rather than the restriction of an outside stimulus controlling behavior as in the case of behaviorism.

This theory holds that learning always builds upon knowledge that a student already knows. This prior knowledge is called schema. Because all learning is filtered through pre-existing schemata, constructivist suggests that learning is more effective when a student is actively engaged in the learning process rather than attempting to receive knowledge passively. The theory's origin lie between cognitive (Jean Piaget 1896-1980) and humanistic view (Lev Vygotsky, 1896 – 1934) as quoted in Armstrong (2003). Cognitive constructivism holds that learners understand things in relation to developmental stages and learning styles; while social constructivism emphasizes on interaction during learning process. Vygotsky states that culture affects and shapes cognitive development and that language should be regarded as a vehicle of interaction when students face difficulties (Zone of Proximal Development). He adds that teachers should stimulate and maintain conversation with students by helping them/giving support, and he calls it scaffolding. This study calls for social constructivism theory which has been frequently applied by several educationalists when conducting distance learning where there is a separation between teacher and student most of the time. Instructional methods in ODL should be student-centered, a mode of delivery that requires students to be active and responsible participants in their own learning. The Social constructivism theory has the following advantages in open and distance learning it emphasizes that learning should be from simple to complex (i.e. from what students know to what they don't know). The schemata will help Distance Learners to easily build new knowledge upon the existing knowledge and meanings of concepts will help them to have longer retention of concepts; hence higher performance in National formal exams. It also encourages collaborative learning. Sharing ideas among learners and getting support from their facilitators help distance learners to persist in learning hence lowering drop out incidences. It also emphasizes the use of simple and clear language during teaching/learning process, so as to help the learners internalize the concepts easily.

STATEMENT OF THE PROBLEM

Since the introduction of ODL programme in Tanzania particularly in Kilimanjaro region very little is known about its progress and effectiveness in Secondary school. Information about ODL programme status in providing secondary education is very important to government, the Institute of Adult Education, (who are major providers of ODL is secondary schools) and the whole society at large. Failure to provide this kind of information would have hindered the government in its effort to address problems facing ODL study centres in performing their daily activities. Although the literature on Open and Distance Learning (ODL) is quite substantial, reports on evaluations represent a relatively minor part. For organizations contemplating distance learning this is inopportune, as there is little empirical work examining its effectiveness with respect to eventual job performance (Wisher *et al*, 2001).

Several studies which were conducted outside Tanzania on the effectiveness of distance education have been showing that there is no significant difference on the end output between students under distance learning and those who pursue their studies through conventional learning. Studies regarding the effectiveness of distance education have been conducted since its introduction in the United States of America; majority of the researches indicate that student's success rates are comparable between traditional classroom settings and distance courses (Wisher et.al, 2001).

Another study which was conducted in university of Paisley in United Kingdom, which made a specific comparison of the results achieved by classroom based students and distance learning students under taking the same degree course. Analysis of the assessment results showed that students from two groups were successful in their studies, but the students under distance mode obtained significantly higher end of module results than their classroom based colleague (Duffy, Gilbert, and David, 2002). Another researcher from the University of Pretoria conducted a comparative study of Distance and conventional education programmes, the study conducted the assessment in terms of access, delivery and output. The findings showed that there were no prominent discrepancies that could be found between the two modes, and one could assume that both modes were guided by similar underpinning philosophy, which drove the ethos of the programs that impacted on the instructional design (Aluko, 2007). A study from United States of America by Brown and Liedholm (n.d) was carried out to compare students who completed an economics course online with those who took the same course in a traditional classroom. They found that the distance students performed more poorly on a set of standardized exam questions than those students in the live setting. Since most of the studies reviewed by the researcher seemed to be conducted outside Tanzania, also it is not possible to apply their findings in Tanzania because of geographical and technological differences. Also, since most of the studies which were conducted by Open University of Tanzania were focusing on ODL in higher learning and none of the studies touched ODL in secondary schools. Therefore, this

study investigated the Effectiveness of Open and Distance Learning Programme Implementation in Secondary Schools in Moshi Municipality, Tanzania.

Research Questions

This study was guided by the following Research Questions

1. What are the perceptions of facilitators and students towards ODL program in Moshi Municipality?
2. To what extent is ODL programme effectively delivered in secondary schools in Moshi Municipality?
3. What challenges do students and facilitators encounter in ODL programme in Moshi Municipality?
4. What should be done to overcome the challenges encountered by facilitators and students in ODL programme in Moshi Municipality?

Research Hypotheses

1. There is a relationship between mode of delivery and students' performance in National form four examinations.
2. There is a relationship between gender and selection of mode of learning in Open and Distance Learning Programme in Moshi Municipality.

Significance of the Study

The findings of this study aimed to enable the education stakeholders including ODL coordinators, managers, school heads, facilitators, parents, students as well as education administrators to be familiar with the ways to make Distance learning programme effective. From the findings, facilitators are able to employ viable strategies that enhance teaching and learning in distance learning approach. Different challenges that encounter the implementation of distance learning in the country were identified; thus suggested valuable solutions to the challenges that affect the distance learning programme. Besides, the findings and recommendations of the study have marked a crucial benchmark towards quality education in Tanzania. The study is yet another significant addition to efforts of community based organizations (CBOs), non- governmental organizations (NGOs) and the government to achieve quality education for the poor sons and daughters of this 'great nation'.

Scope and Delimitation of the Study

The study was confined to Moshi municipality only, where other six districts within Kilimanjaro region were not studied. The study involved 146 respondents, where 24

students from each centre, 4 teachers from each centre, one ODL coordinator from each centre, and one Adult Education Officer represented all the other educational stakeholders. There are so many issues that have not been investigated in Open and Distance Learning in secondary school level in Tanzania; such things are challenges that face distance learners towards learning, effectiveness of the programme since its establishment, and comparisons of performance between formal and non-formal learning. Therefore this study aimed at knowing the effectiveness of the programme implementation in ODL centres in Moshi Municipality.

Research Design and Methodology

According to Ogula (2009) a research design is a strategy for planning and conducting a study. According to this understanding, research designs are blueprints that guide the planning and implementation of the research (This means, data collection and analysis).

This study employed cross-sectional survey method (whereby data were collected at one point in time from selected sample) and phenomenological research design. The methods allowed the researcher to gather quantitative data using questionnaires which constituted both closed and open ended questions; and qualitative data were gathered through document analysis guide and interview guide.

Target population

The target population constituted all 14 ODL centre coordinators (owners of ODL centres), three thousand nine hundred and ninety (3990) ODL students, seventy (70) ODL facilitators and one (1) Adult Education officer. ODL students and ODL facilitators were purposely focused by this study because they are among the key players in ODL programme; so they had a possibility of bringing the real picture of ODL programme in secondary schools. Centre coordinators and a Municipal adult education officer were directly involved in this study due to the virtue of their managerial positions. Consequently, they were able to analyze how effectively the programme is implemented in secondary schools, problems which face the programme and the measures to be taken to improve the situation

Description of sample & sampling procedure

The study was limited to Moshi Municipality only, whereby the place was dominated with private ODL centres only. The study used both probability and non-probability sampling procedures as per the category of the population group. Therefore, simple random sampling was applied to obtain five ODL centres. Stratified simple random sampling was used in some centres to obtain male and female students while simple random sampling and purposeful sampling techniques were used in a few centres which had female students only; some had many females compared to males and those centres which consisted of

both face to face students and distance students. Simple random sampling was also used to obtain facilitators from each centre; while owner of centres and adult education officer were involved directly in the study.

The study engaged a total of 146 respondents, whereby a total number of five (5) private ODL centres out of 14 was selected, 24 students from each centre made the total of 120 students; 4 facilitators from each centre totaling up 20 facilitators; five centre coordinators and one Municipal adult education officer. Data were gathered by the use of Questionnaires, interview guide and document analysis guide; and they were analyzed in terms of frequency and percentage.

The research instruments of this study were pilot tested in one ODL centre in Moshi Municipality which was obtained through simple random sampling technique. The trial involved six (6) students, four (4) facilitators and one centre coordinators; who were obtained by the use of simple random sampling technique. Cronbach Alpha used for assessing reliability of research instrument, in section B of the Questionnaires which constituted attitude scale questions. The reliability coefficient value of students' questionnaire was 0.603, for facilitators' questionnaire was 0.698, while for centre coordinators' questionnaire was 0.837. All the questionnaires' reliabilities met the criteria recommended by (Ogula, 2009, p. 103) who asserts that instruments with the reliability of 0.80-0.90 should be regarded as having high reliability; 0.60-0.80 is acceptable but instruments with reliability below 0.50 should not be accepted. Yet other researchers believe that there are no fast and hard rules about acceptable rules in the reliability.

Therefore, the researcher consulted two experts from Mwenge University and one Regional adult education officer for deep check before taking the instruments to the field. Also the researcher obtained assistance from two experts of Mwenge University Department of Education to ensure validity of the research instruments. Intention of the researcher was to assess if the data collection instruments represented a specific domain of the content and complexity of language used to ask questions. At last the obtained data were analyzed by the means of frequencies and percentages, where one way ANOVA and Chi-square of independent were used to test the two hypotheses.

SUMMARY OF THE FINDINGS

The findings obtained were summarized basing on different themes which were reduced from research question and hypotheses as follows:

Perceptions of ODL stakeholders towards the ODL programme in secondary schools

Table 2: Distribution of students' responses about perceptions on Open and Distance Learning in Secondary Schools (n=120)

Statements	SD		D		U		A		SA		Total	
	f	%	f	%	f	%	f	%	f	%	f	%
Open and Distance Learning issuitable for learning	4	3.3	7	5.8	1	8	42	35	66	55	120	100
Open and Distance Learning is for students who failed to continue in formal system	5	4.2	8	6.7	7	5.8	32	26.7	68	56.7	120	100
It is difficult for students in ODL to Perform like those in formal system	10	8.3	15	12.5	7	5.8	26	21.7	62	51.7	120	100
I like Open and Distance Learning classes	10	8.3	12	10.0	10	8.3	48	40.0	40	33.3	120	100
ODL centres are not good because there is no enough learning materials	14	11.7	27	22.5	4	3.3	34	28.3	41	34.2	120	100
ODL lacks regular classroom discussions which leads into Passive learning	10	8.3	8	6.7	9	7.5	29	24.2	64	53.3	120	100
Teaching approach in ODL centres is the same as in formal schools	23	19.2	21	17.5	7	5.8	32	26.7	37	30.8	120	100
It is simple for students in ODL centres to receive materials through email	52	43.3	31	25.8	11	9.2	18	15.0	8	6.7	120	100
Formal schools are better than ODL centres in Moshi municipality	15	12.5	19	15.8	10	8.3	40	33.3	36	30.0	120	100
It is possible for students in ODL to learn by themselves	29	24.2	25	20.8	8	6.7	33	27.5	25	20.8	120	100
I will advise my friends to attend ODL programme	16	13.3	11	9.2	3	2.5	44	36.7	46	38.3	120	100
ODL contributes to the development of the country	8	6.7	7	5.8	6	5.0	24	20.0	75	62.5	120	100

KEY:Strongly Disagree= SD, Disagree=D, Undecided=U, Agree=A, Strongly Agree=SA

Table 3: Distribution of facilitators' responses about perceptions of ODL programme in secondary school (n=20)

Statements	SD		D		U		A		SA	
	f	%	f	%	f	%	f	%	f	%
ODL is suitable for Learning	1	5.0	2	10.0	-	-	10	50.0	7	35.0
ODL is for students who failed to continue with formal education system	5	25.0	3	15.0	1	5.0	7	35.0	4	20.0
It is difficult for students in ODL to perform like those in formal system	3	15.0	5	25.0	1	5.0	6	30.0	5	25.0
I like Open and Distance learning classes	1	5.0	3	15.0	-	-	7	35.0	9	45.0
ODL centers are not good because there are no enough learning materials	1	5.0	7	35.0	2	10.0	5	25.0	5	25.0
ODL lacks regular classroom discussion which leads into passive learning	2	10.0	3	15.0	-	-	11	55.0	4	20.0
Teaching approach in ODL centres is the same as in formal schools	2	10.0	1	5.0	2	10.0	10	50.0	5	25.0
It is easy for students in ODL centre to receive materials through email	5	25.0	11	55.0	-	-	4	20.0	-	-
Formal schools are better than ODL centres	2	10.0	3	15.0	5	25.0	7	35.0	3	15.0
It is possible for students in ODL to learn by themselves	1	5.0	1	5.0	3	15.0	10	50.0	5	25.0
I will advice my friends to teach ODL programme	1	5.0	3	15.0	2	10.0	8	40.0	6	30.0
ODL contributes to the development of the country	1	5.0	-	-	-	-	10	50.0	9	45.0

KEY:Strongly Disagree= SD, Disagree=D, Undecided=U, Agree=A, Strongly Agree=SA

Table 4: Distribution of centre coordinators' responses about perceptions of ODL programme in secondary school (n=5)

Statements	SD		D		U		A		SA		Total	
	f	%	f	%	f	%	f	%	f	%	f	%
ODL programme is suitable for learning	-	-	-	-	-	-	1	20.0	4	80.0	5	100
ODL is for students who failed to continue with formal education system	-	-	2	40.0	-	-	-	-	3	60.0	5	100
It is difficult for students in ODL to perform like those in formal system	2	40.0	-	-	-	-	-	-	3	60.0	5	100
I like ODL classes	-	-	1	20.0	-	-	1	20.0	3	60.0	5	100

ODL centres are not good because there are no enough learning materials	3	60.0	1	20.0	-	-	-	-	1	20.0	5	100
ODL lacks regular classroom discussions which lead into passive learning	1	20.0	2	40.0	-	-	-	-	2	40.0	5	100
Teaching approach in ODL centres is the same as in formal school	-	-	1	20.0	-	-	3	60.0	1	20.0	5	100
It is easy for students in ODL centres receive materials through email	1	20.0	1	20.0	-	-	2	40.0	1	20.0	5	100
Formal schools are better than ODL centres	-	-	1	20	1	20	1	20	2	40.0	5	100
It is possible for students in ODL to learn by themselves	1	20.0	2	40.0	-	-	-	-	2	40.0	5	100
I will advice my friends to teach ODL programme	1	20.0	-	-	-	-	2	40.0	2	40.0	5	100
ODL contributes to the development of the country	-	-	-	-	-	-	-	-	5	100.0	5	100

KEY:Strongly Disagree= SD, Disagree=D, Undecided=U, Agree=A, Strongly Agree=SA

The findings under this research question revealed that students, facilitators, centre coordinators and Adult education officer believed that Open and Distance Learning programme was established to accommodate students who fail in formal primary schools. Also all the categories of the respondents indicated that it is very difficult for students in ODL programme to perform like those who are in formal schools in national examinations. In addition, the findings of all the three categories of respondents showed that ODL programme lacks classroom discussions and lacks adequate teaching and learning materials, its approach of teaching is not different from that of formal system. Although respondents' responses were highly discouraging, at last they showed that the programme is very advantageous to the nation since it helps to reduce illiteracy rate in the country and generally it contributes to the development of individuals and the whole country at large.

Effectiveness of ODL programme Implementation in secondary schools

Table 5: Distribution of students' responses on effectiveness of ODL programme in secondary schools. (n=120)

	VU		UT		U		T		VT	
	f	%	f	%	f	%	f	%	f	%
ODL programme uses self instructional materials (modules) in each subject.	64	53.3	43	35.8	5	4.2	6	5.0	2	1.7
ODL programme uses ODL Syllabi in each subject	22	18.3	36	30.0	8	6.7	25	20.8	29	24.2
There is regular inspection in teaching and learning in ODL centres by respective institution	45	37.5	27	22.5	13	10.8	19	15.8	16	13.3
Enough time is spent on teaching and learning per each period in ODL centres	18	15.0	19	15.8	4	3.3	31	25.8	48	40.0
Facilitators provide feedback on time in ODL centres through internets	22	18.3	18	15.0	17	14.2	40	33.3	23	19.2
There is a clear policy about ODL programme	44	36.7	25	20.8	33	27.5	12	10.0	6	5.0
Students can get materials from teachers physically in ODL programme	9	7.5	7	5.8	7	5.8	44	36.7	53	44.2
There is easy receiving of self-instructional materials (modules) in ODL centres	51	42.5	44	36.7	12	10.0	11	9.2	2	1.7
Digital and internet is the most common means of communication in ODL programme	65	54.2	35	29.2	8	6.7	8	6.7	4	3.3
ODL offers physical interaction during classroom Discussions	9	7.5	14	11.7	2	1.7	52	43.3	43	35.8
ODL encourages independent learning to students	6	5.0	4	3.3	6	5.0	54	45.0	50	41.7
ODL programme encourages students to use computers in learning	13	10.9	10	8.4	4	3.3	49	41.2	43	36.1

KEY: Very untrue = VU, Untrue = UT, Undecided = U, True = T, and Very true = VT

Table 6: Distribution of Facilitators' Responses on the Effectiveness of ODL Programme in Secondary Schools (n=20)

	VU		UT		U		T		VT	
	f	%	f	%	f	%	f	%	f	%
ODL programme uses self instructional materials (modules) in each subject	4	20.0	5	25.0	4	20.0	3	15.0	4	2.0
ODL uses ODL syllabi in each subject	6	30.0	5	25.0	3	15.0	1	5.0	5	25.0

There is regular inspection in teaching/ learning ODL centres by respective institutions	3	15.0	8	40.0	3	15.0	4	20.0	2	10.0
Enough time is spent in teaching and learning per each period in ODL centres.	3	15.0	6	30.0	-	-	5	25.0	6	30.0
Facilitators provide feedback on time in ODL centres through internet	3	15.0	5	25.0	6	30.0	5	25.0	1	5.0
There is a clear policy about ODL programme	1	5.0	1	5.0	2	10.0	13	65.0	3	15.0
Students can get materials from teachers physically in ODL programme	2	10.0	3	15.0	2	10.0	9	45.0	4	20.0
There is easy receiving of instructional materials in ODL centres	6	30.0	6	30.0	2	10.0	3	15.0	3	15.0
Digital and internet is the most common means of communication in ODL programme	3	15.0	4	20.0	3	15.0	7	35.0	3	15.0
ODL offers physical interaction during classroom discussions	1	5.0	4	20.0	2	10.0	11	55.0	2	10.0
ODL encourages independent learning to students	1	5.0	9	45.0	-	-	10	50.0	-	-
ODL programme encourages students to use computers in learning.	1	5.0	-	-	4	20.0	10	50.0	5	25.0

KEY: Very untrue = VU, Untrue = UT, Undecided = U, True = T, and Very true = VT.

In adequate teaching and learning resources in all the ODL centres was the most earmarked result; whereby four (4) ODL centres had no modules, no laboratories, no libraries, no trained ODL facilitators and also classrooms were in low standard where one class was partitioned into two parts and there was overlapping of voices during teaching/learning process. Facilitators found in all the five (5) ODL centres were obtained from formal system who didn't know the principles of teaching adult learners as suggested by Knowles (1980). ODL centres were not equipped by Audio tapes, video tapes, radios which would take a role of teachers in formal schools.

Moreover, all categories of the respondents claimed that there was no sensitization to people prior to the introduction of the programme, whereby even Adult education officer was just told to supervise the programme without attending any workshop/seminar. No evidence to show that there were some activities carried out to assess the need of the programme to beneficiaries, and the clarity of goals and objectives of the programme to people as pointed out by Fullan (2001). The findings add further that self-instructional materials (modules) and non-formal syllabi are not used in ODL centres; also ODL centres are not regularly inspected and there are no clear regulations for guiding the operations in ODL programme. Thus, the approach of implementation showed that it is not contributing to the attainment of the initial goals of the programme. These results also reinforce on what Mcharazo (2000) concluded in his study.

Major challenges which face ODL programme in secondary schools

Table 7. Distribution of Students' Responses on Problems Encounters ODL Students and Facilitators (n=120)

Statement	F	%
Financial difficulties	13	10.8
Inadequate teaching and learning resources	68	56.7
Lack of seminars/workshops for students in facilitators	1	0.8
Language barrier	16	13.3
Lack of recognition from the government	10	8.3
Others	12	10.0
Total	120	100.0

Table 8: Distribution of Facilitators' Responses on Problems Encounter ODL Students and Facilitators (n=20)

Statement	F	%
Financial difficulties	3	15.0
Inadequate teaching and learning resources	6	30.0
Lack of seminars/workshops to students and facilitators	4	20.0
Language barrier	4	20.0
Lack of recognition from the government	2	10.0
Others	1	5.0
Total	20	100.0

Table 9. Distribution of centre coordinators responses on major ODL problems (n=5)

Statement	F	%
Financial difficulties	1	20.0
Inadequate teaching/learning resources	1	20.0
Lack of seminars/workshops to students and facilitators	-	-
Language barrier	1	20.0
Lack of recognition from the government	2	40.0
Others	-	-
Total	5	100.0

Findings under this research question indicated that there are several challenges that act as detrimental to ODL students and facilitators. Among the mostly pointed out were inadequate teaching and learning resources in ODL centres, financial difficulties to both students and facilitators, lack of recognition from the government, lack of knowledge on computing skills (ICT) and language problem were also noted by both students and their facilitators. Other challenges pointed out by all categories of respondents include lack of food (lunch) in ODL centres to those who undergo face-to face mode as formal secondary school do and unequal treatment between ODL students and formal students by National Examinations Council of Tanzania (NECTA).

Measures to be taken to problems encounter ODL programme in secondary schools.

Table 10. Distribution of Students' Responses on the Measures to Take to Combat ODL Problems in Secondary Schools (n=120)

Statement	F	%
Government should provide subsidies to ODL centres	25	20.8
There should be clear police about ODL programme in secondary schools	7	5.8
Provision of adequate teaching/learning materials by respective institution.	26	21.7
Legal recognition of ODL students and facilitators by the government	19	15.8
Medium of instruction should be encouraged right from elementary level	15	12.5
ODL centres should be regularly inspected by respective institution	17	14.2
Others	11	9.2
Total	120	100.00

Table 11. Facilitators' Responses on the Solutions to Combat ODL Problems (n=20)

Statement	F	%
Government should provide subsidies to ODL centres	4	20.0
Government should provide clear policy about ODL programme in secondary schools	4	20.0
Government should provide adequate teaching learning materials to ODL centres	4	20.0
Government should legally recognize ODL students and ODL facilitators	1	5.0
Media for instruction should be encouraged right from elementary level	3	15.0
ODL centres should be regularly inspected by respective institution	1	5.0

Others	3	15.0
Total	20	100.00

Table 12. Distribution of Centre Coordinators' Responses about Measures to Take to Combat ODL Problems (n=5)

Statement	F	%
Government should provide subsidies to ODL centres	1	20.0
Government should provide clear policy about ODL programme in secondary school	1	20.0
Government should provide adequate teaching-learning resources to ODL centres	-	-
Government should legally recognize ODL students and facilitators	2	40.0
Medium of instruction should be encouraged right from elementary level	1	20.0
ODL centres should regularly be inspected by respective institution	-	-
Others	-	-
Total	5	100.00

Almost all the three categories of respondents suggested that: Government should provide subsidies to the owner of the ODL centres (centre coordinators) which will help in vanishing ODL centres with laboratory equipment, self-instructional materials (modules) and payment to facilitators. Also a practical policy should be introduced which will help to guide the activities in ODL centres. Moreover, there should be encouragements of the medium of instruction (English Language) right from low level of learning. Besides, ODL centres should be regularly inspected by respective institution to monitor the progress of the students and overcome emerging problems before the situation is worse. Lastly, all categories of the respondents insisted on legal recognition from the Government to ODL stakeholders, including attaching equal value to all categories of education in the country.

Findings from test of Hypotheses

Chi-square test of independent and one way ANOVA test was used to test the two hypotheses which guided this study. Chi-square test of independent was used to test the relationship between gender and selection of mode of learning in Open and Distance Learning programme while one way ANOVA test was used to test if there is a difference in mean scores of students taught by two different methods of delivery. The significance level used in this study is 0.05; which was used to test the hypotheses stated from null hypotheses as indicated below: The significance level is the amount of error a researcher is prepared to accept in the hypothesis testing when reaching a decision on null hypothesis (Ogula, 2008

p.170) as quoted in (Njau, 2013).

H₀ 1: There is no significant difference between mean scores of students taught by two different methods of delivery.

H₀ 2: There is no significant relationship between gender of students and selection of mode of learning in Open Distance Learning programme.

Null Hypothesis 1:

There is no significant difference between mean scores of students taught by two different methods of delivery. This hypothesis was tested by using one way ANOVA under significance level of 0.05

Assumptions for one way ANOVA

1. The subjects are independently and randomly sampled.
2. The sample data are drawn from a normally distributed population.
3. The population variances are homogeneous (meaning they are the same).
4. The groups are independent of one another.
5. The scale of measurement is at least interval.

Decision Rule

Given the significance level of 0.05

If P-value < level of significance (0.05) null hypothesis will be rejected.

If P-value \geq level of significance (0.05) null hypothesis will not be rejected

Table 13. Anova Summary Table

	Sum of squares	Df	Mean square	F	Sig
Between Groups	.504	1	.504	1.160	.284
Within Groups	51.287	118	.435		
Total	51.792	119			

Since P-value (0.284) is greater than 0.05 hence the null hypothesis is not rejected. Therefore, there is no relationship between mode of delivery and students' performance in form four National Examinations. These finding implies that the statistical difference of scores of students taught by two different methods is not real but just by chance. This could be

caused by opportunities for discussion which students under distance get though are being taught for short time compared to students under face-to-face mode parse, who are taught continuously by facilitators and for short time without being provided with opportunities for discussion. The findings are in line with Aluko (2007), Duffy at el (2002) and Wisner, et.al (2001) who founded that there were no prominent discrepancies that could be found between the two modes of learning. Thus, the differences observed could be caused by other factors like inadequate teaching and learning facilities and language problem; to mention a few.

Null Hypothesis 2:

There is no significant relationship between gender of students and selection of mode of learning in ODL programme. This hypothesis was tested by using Chi-square of independent under significance level of 0.05

Assumptions for chi-square of Independent

1. Subjects are Independent and randomly sampled
2. Subjects are not normally distributed.
3. Variances are not homogeneous.
4. Groups are Independent.
5. Each observation must qualify for one and only one category.

Decision rule

Given the significances level of 0.05

If P-value < significance level Null hypothesis will be rejected

If P-value e"significance level Null hypothesis will not be rejected.

Table 14: Chi-square summary Table

	Gender
Chi-square	.445
Df	1
Asymp.sig	.505

Null hypothesis 2 was tested and the p-value obtained was 0.505. Since P-value (0.505) is greater than (0.05), null hypothesis is not rejected. Therefore, it can be concluded that there is no significant relationship between gender of students and selection of mode learning. This implies that gender of students cannot influence a student to opt for face-to-

face or distance mode of learning. As noted in demographic information of students table 1.3 it seem that most of ODL centres are mostly populated with female students. This could be due to pregnancies drop outs in formal system which does not allow female students to resume their studies, hence they are forced to join ODL programme because they have no any alternative. Also large number of females compared to males in the country as per 2012 census might be another reason (National Bureau of Statistics, 2014); where a large number of females fail to be accommodated in formal schools. Since the country is adhering to gender equity as per 2025 Tanzania Development Vision, Dakar Declaration (2000) and Millennium Development Goals (MDGs); having a large number of females in ODL centres is indispensable for the development of the Nation.

CONCLUSIONS

- ❖ On the basis of the findings of this study, the researcher concluded that poor performance in ODL programme in secondary schools is being contributed by several factors including: poor perceptions of ODL stakeholders towards the programme, inadequate teaching and learning resources in ODL centres, English language problem, financial difficulties to students and facilitators, and improper approach adapted during the introduction of the programme in secondary schools.
- ❖ All the categories of respondents are not aware of the Open and Distance Learning mode as an approach of learning in secondary schools. This is because they believe that ODL programme accommodates only students who fail in formal education.
- ❖ There was no sensitization of public prior to the implementation of the ODL programme in secondary schools. Both student's and facilitators' responses contradicts to what was suggested in Fullan Theory of change (2001).
- ❖ There is no specific policy which guides Open and Distance Learning in secondary schools, hence most of the private candidates students fail in National form four examinations.

Therefore, though the programme is contributing much to the development of the nation; the way of implementation is defeating the initial objectives of the programme.

RECOMMENDATIONS

In this section suggestions are made basing on the conclusions arrived above.

- ❖ Since the findings is useful to various education stakeholders including the founders of this programme (Institute of Adult Education Tanzania), policy makers, Minister of Education, inspectorate, students and parents, the Ministry

of Education and Vocational Training (MOEVT) through the Institute of Adult Education should enforce a practical policy (laws and regulations) that will guide the operations in ODL programme such as: selection of ODL students, employment of ODL facilitators, establishment of ODL centres, payments in ODL programme, and distribution of proper teaching and learning materials basing on the mode of delivery.

- ❖ Since the implementation of new curricula is always linked with new teaching methods or new teaching resources; the teachers should therefore be supported through various planned and systematic in-service and pre-service training programmes at teacher college level. This will contribute to better quality of the instruction process and consequently better the students' results
- ❖ The Institute of Adult Education should innovate the programme by re-sensitizing the public on ODL programme in secondary schools and training the key players of the programme by either in-servicing (facilitators, ODL centre owners and District Adult Education officers), and/or by phase-in-phase out to (students). Due to inadequate resources in the country, the Ministry of Education and Vocational Training through IAE needs to appoint a team which will train the trainers of the trainers (TOTs) who in turn will train ODL facilitators, inspectors and District Adult Education officers in the whole country on Open and Distance learning issue.
- ❖ The Ministry of Education agencies, namely: The Institute of Adult Education and National Examinations Council of Tanzania should harmonize on how the provision of National examinations will reflect on non-formal syllabi instead of basing in formal syllabi as currently do. Also continuous assessment system should be introduced to private candidates by MOEVT through the IAE. The Ministry of Education and vocational training should accord highly to non-formal education as do in formal education so that Adult education officers should have their own code number instead of relying on primary school code.
- ❖ Adequate resources and facilities should be provided by both the government and by Non-Governmental organizations that are interested in Open and Distance Learning mode to improve the teaching-learning environment in ODL centres.
- ❖ The Ministry of education should enforce laws and regulations which will insist on using English language as a medium of instruction right from elementary level.
- ❖ The Ministry of Education should establish a section that should specifically deal with Distance Education programmes in both public and private secondary schools.

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Effectiveness of Heads of Schools' Supervisory Strategies in Community Secondary Schools in Ukerewe District, Tanzania

Pius Mmanda and Godfrey Telli

ABSTRACT

This study examined the effectiveness of heads of schools' supervisory strategies in community secondary school in Ukerewe District, Tanzania. Specifically the study focused on supervisory strategy on students' academic achievement in Ukerewe community secondary schools. The study used Cross-Sectional Research Design. The sample included Ten (10) community secondary schools out of twenty two (22); eighty (80) teachers; 120 students; and 10 heads of schools from sampled community secondary schools. The study findings revealed that students' academic achievements are not determined directly by the heads of schools' supervisory strategies but rather other pertinent factors that require further studies to investigate.

INTRODUCTION

Background of the Study

The key purpose of education is to promote the acquisition and appropriate use of literary, social, scientific, vocational, technological, professional and other forms of knowledge, skills and understanding of the development and the improvement of the condition of man and society (World Bank on Education, 2006). Thus, education is viewed as a catalyst of development in any community and country at large. Due to this fact, Education Officers and other stakeholders in any country are working hard to see the education system is improved to meet the quality of education required. For the country to attain the quality of education, it needs to have enough number of teachers who qualify to teach at specified level and for better performance.

School supervision in Tanzania context

The formalized supervision in Tanzania was introduced in 1922 under the chief education Officer (De Grauwe 2001). In 1925 the Government introduced three categories of supervisors these include; Government school supervisors who had a mandate to supervise all schools, government schools, local authority schools and schools owned by other agencies, Supervisors for schools under local authorities, and Education secretaries for schools under other agencies (De Grauwe 2001).

Currently, the Ministry of Education and Vocational Training (MoEVT) through the Inspectorate department is mandated to carry out quality assurance in education by inspecting schools to verify the provision of education as well as implementation of education policies (MoEVT, 2009).

Within Tanzania context, School Supervision refers to the act of overseeing the work of the school and providing professional guidance and advice to teachers. The main actors in school supervision are heads of schools. School Committee/Board provides oversight on behalf of the community of parents. Nonetheless, parents, students and the neighborhood community conduct informal supervision through their day to day activities and interaction with the school (MoEVT, 2009).

The Ministry of education and vocational training in Tanzania posits that as supervisors, heads of schools need to perform the following responsibilities supervising availability and proper utilization of inputs which include buildings, teachers, learners, syllabuses, funds, books and other teaching and learning materials such as laboratory chemicals and equipment, kitchen utensils, furniture, office and sports gear. Other responsibilities of a head of schools according to MoEVT (2009) are to supervise Curriculum implementation

Past and contemporary scholars and researchers (such as Musaaazi, 1985; Blasé and Blasé, 1999; Sullivan and Glanz, 1999; and Sergiovanni and Starratt, 2002), believe that supervision of instruction has the potential to improve classroom practices, and contribute to student success through the professional growth and improvement of teachers. Supervision is viewed as a co-operative venture in which supervisors and teachers engage in dialogue for the purpose of improving instruction which logically should contribute to student improved learning and success (Hoy and Forsyth, 1986; Sergiovanni and Starratt, 2002; Sullivan and Glanz, 1999).

The Ministry of Education and Vocational Training (2013) asserted that the quality of an education system cannot go above the quality of its teachers thus the best way of improving the quality of student outcomes is to improve the quality of teachers such as improving instruction in the classroom. This means, teacher's instructional practice should be improved if really the country needs to attain the quality education in her secondary schools, and this can easily be reached through effective school supervision.

Education in Ukerewe District

Table 1.1 Pass Rates of Students in NECTA Form Four Examination in 2011, 2012, 2013 in Ukerewe District

	Candidates		Divisions					
	Sat	I	II	III	I-III	%I-III	IV	Failed
2011	2314	06	19	82	107	6.78	887	1320
2012	2394	03	12	72	87	3.6	733	1439
2013	2402	05	38	199	242	10.07	789	1170

Source: MoEVT, 2011, 2012, 2013

As Table 1.1 indicates, most of the students in Ukerewe District community secondary schools scored between divisions four and zero. This implies that the above grades do not allow most of them (about 90% in 2013) to continue with further studies.

STATEMENT OF THE PROBLEM

In the school system, supervision of instruction is considered to be a major factor for the improvement of quality and standards of teaching and learning process. Poor performance in examinations is costly for any country since education is a major contributor to economic growth (Atkinson, 1987). However, since the establishment of community secondary schools in Tanzania their academic performance has not been impressive. This situation thwarted parents' high expectations and excitements that they had developed as a result of mass transition of their children from primary to secondary schools.

To address the shortcomings, the Ministry of Education and Vocational Training in Tanzania decided to put supervisory power to heads of secondary schools for the purpose of improving school effectiveness (MoEVT, 2009). Despite these initiatives most heads of schools still have not accommodated these supervision and mentorship powers into their leadership strategies.

The need for an effective supervision in today's educational system in Tanzania can not be over emphasized. In education, supervision is an essential ingredient that engenders the effective realization of the educational aims and objectives. Like other areas in Tanzania, Community Secondary Schools in Ukerewe District are experiencing poor academic achievement since their establishment although there is headship supervision. This situation prompted the researcher to conduct the study in Ukerewe District to examine the effectiveness of heads of secondary schools' supervisory strategies in community secondary schools in Ukerewe District.

Research Questions

This study was guided by the following research questions

1. To what extent are heads of schools trained to implement different supervisory strategies in community secondary schools in Ukerewe District?
2. What are the supervisory strategies commonly used by heads of schools in community secondary schools in Ukerewe District?
3. To what extent are the heads of schools' supervisory strategies effective in improving students' academic achievement in community secondary schools in Ukerewe District?
4. What are the challenges facing heads of schools in implementing supervisory practice in community secondary schools in Ukerewe District?

Hypothesis

1. There is a significant relationship between the heads of schools' supervisory strategies and students' academic performance in the community secondary schools.

Scope and Delimitations of the Study

Under this study, the coverage area was Ukerewe District in Tanzania. The target population was all heads of community secondary schools, all teachers in community secondary schools and community secondary school students in the District. Indeed, Ukerewe district is among the lowest academic performing district in Mwanza region.

Thus this study focused on the effectiveness of heads of schools' supervisory strategies in community secondary schools on students' academic achievement in Ukerewe District.

Theoretical Framework

The theoretical framework for examining supervisory strategies was guided by Transformational Theory of Leadership by James MacGregor Burns (1978), and then developed by Bernard M. Bass (1985). The theory was introduced to establish the effectiveness of the leader in an organization; the theory tries to establish the relationship between the leader as a supervisor and subordinates as supervisees. It assumes that a leader in an organization has an influence on supervisees and induce effectiveness for better performance in the institutions.

James MacGregor Burns (1978), first introduced the concept of transforming leadership. Burns (1978), contended that in transformation leadership, leaders and followers need to work in a collaborative manner by helping each other to achieve a higher level of morale

and motivation." Transforming leaders are idealized in the sense that they are a moral exemplar of working towards the benefit of the team, organization and/or community.

According to Bass (1990), the theory was under the following assumptions:

- a) People will follow a person who inspires them
- b) A person with vision and passion can achieve great things
- c) The way to adopt or get things done is by injecting enthusiasm and energy
- d) Awareness of task importance motivates people.
- e) A focus on the team or organization produces better work.

The leader transforms and motivates followers through his or her idealized influence, intellectual stimulation and individual consideration. This leader encourages followers to come up with new and unique ways to challenge the status quo and to alter the environment to support being successful. Idealized influence incorporates two separate aspects of the follower relationship. First, followers attribute the leader with certain qualities that followers wish to emulate. Second, leaders impress followers through their behaviors. Inspirational motivation involves behavior to motivate and inspire followers by providing a shared meaning and a challenge to those followers. According to Bass and Riggio (2006), Intellectual stimulation allows leaders to increase their followers' efforts at innovation by questioning assumptions, reframing known problems, and applying new frameworks and perspectives to old and established situations and challenges.

Intellectual stimulation requires openness on the part of the leader. Openness without fear of criticism and increased levels of confidence in problem solving situation combine to increase the self-efficacy of followers. Increased self-efficacy leads to increased effectiveness (Bandura, 1977). Individualized consideration involves acting as a coach or mentor in order to assist followers with reaching their full potential. Under the individualized consideration, leaders provide learning opportunities and a supportive climate.

Transformational leadership can be applied in one-on-one or group situations. Using this approach, the leader and the followers are "transformed" to enhance job performance and help the organization or institution be more productive and successful. Northouse (2001) identifies the strengths and weaknesses of the transformational leadership approach as follows: The theory may effectively influence associates on all levels (from one-on-one to the whole organization or institution), and strongly emphasize associates' needs and values.

Transformational leadership is a vital role for effective heads of schools because leader effectiveness determines the success level of the school. Effective transformational

leadership results in performance that exceed organizational or institutional expectations. Transformational theory focus upon the connections formed by leaders and followers. Therefore, transformational leaders motivate and inspire people by helping group members see the importance and higher good of the task. These leaders are focused on the performance of group members, but also want each person to fulfill his or her potential; leaders with this style often have high ethical and moral standards.

The “Transformational theory” has been selected for this study because it helps the researcher to look at different aspects of supervisory practice in community secondary schools. It also looked at supervisory strategies that help promote or inhibit teachers’ instructional performance, students’ academic achievement and students’ discipline maintenance.

This theory therefore allowed for a holistic analysis of the obstacles and facilitating factors associated with heads of schools supervisory strategies for developing teachers and students. When heads of schools are strong role models, encourages, innovators, and coaches, they may help to “transform” their teachers into better, more productive and successful individuals. Therefore, it can be very advantageous for heads of schools to apply the transformational approach in the workplace.

OPERATIONAL DEFINITIONS OF KEY CONCEPTS

Supervisory strategies: - this refers to approaches used by heads of schools for effective supervision in community secondary schools for the purpose of meeting the specified objectives, such as academic achievement and discipline maintenance. It’s always done by monitoring teachers’ activities and providing assistance to the teachers. This study limited itself into the following key strategies: individualized consideration, intellectual stimulation and inspirational motivation.

Academic achievement: - in this study it refers to results obtained from the national form four examinations, specifically in the year 2011, 2012, 2013 and 2014. In this study students who scored between division I-III were considered as high achievers, those with division IV were considered as moderate achievers and who scores division 0 were considered as low achievers.

Effectiveness: - the degree to which heads of schools use supervisory strategies to influence subordinates or teachers to accomplish their task and meet the set standards. In this study supervisory strategies for improving teachers’ instructional performance, students’ academic achievement and students’ discipline maintenance were considered very effective if they were between 22-30 scores, effective if it scored between 11-21 and less effective if it scored between 6-10.

LITERATURE REVIEW

Review of Related Theories

Path-Goal Theory of Leadership

Path-goal theory is a contingency approach which was developed by House and Evans refined it during the 1970s. Basically, the model integrates concepts such as leader behaviour, and situational favourableness, and it provide a unique definition of effectiveness. Major focus of the theory was the importance of situational factors and task accomplishment and psychological state of subordinates and process, the theory was under the assumption that, leader behaviour is shaped and constrained by situational factor.

The theory is designated path-goal because it focuses on how leaders influence their subordinates perceptions of work goals, personal goals, and paths to goal attainment (Wayne, 1982). The primary aim for a leader is to move subordinates along a desired path of behaviour towards attainment of organizational goal. In this theory, leaders assess work and workers needs and adjust their own behaviour based on situational variables (Guthrie and Schuerman, 2010).

In clarifying the path, leaders may be directive or give vague hints. In removing roadblocks, they may scour the path or help the follower move the bigger blocks. In increasing rewards, they may give occasional encouragement or pave the way. But this variation in approach will depend on the situation, including the follower's capability and motivation, as well as the difficulty of the job and other contextual factors. House and Mitchell (1974), identified four styles of leadership that can be used by leaders who shows the path to his or her followers: supportive leadership, directive leadership, participative leadership and achievement-oriented leadership.

Reviews of Empirical Studies in Related Areas

Nike (2014) conducted a study in Nigeria on the impact of Principals' supervisory roles on students' academic performance in Kwande Local Government Area of Benue State. The study adopted descriptive survey design. The population of the study comprised of 120 secondary school principals and 3,230 teachers, giving a total of 3,350 in Kwande urban settlement. A sample of 200 respondents representing 80 (67%) principals and 120 (5%) teachers from urban schools was randomly selected for the study. The findings of the study revealed that lesson notes and scheme of work, continuous assessment and classroom visitation impact on the school tone and enhance students' academic performance in secondary schools.

Alimi and Akinfolarin (2012) conducted a study in Nigeria on the Impact of selected modes of instructional supervision activities on students' academic performance in senior

secondary schools in Ondo state; the central purpose was to examine the impact of instructional supervision on secondary school students' academic performance in English Language. The study adopted a Descriptive method, whereby questionnaire was administered to sixty (60) teachers from the three senatorial districts in the state, while the performance of the students in English Language was obtained from the 2008 Senior Secondary School Certificate Examination (SSCE) result of the sixty randomly sampled schools.

The study revealed that there was a significant impact of checking of students' notes, class visitations, checking of teachers' punctuality and attendance and moderation of examination questions and marking scheme on students' academic performance in English Language in Senior Secondary Schools in Ondo State.

Moreover, Fajemidagbaet all (2012) conducted a study in Nigeria on the Effect of Teachers' Instructional Strategy Pattern on Senior Secondary School Students' Performance in Mathematics Word Problems in Ondo state. The purpose of the study was to examine the effect of Instructional strategy pattern on the performance of Nigerian Senior Secondary School Students in Mathematics word problems.

One hundred twenty five Senior Secondary II Students were purposively sampled from two schools in Ondo town of Ondo State. The study adopted quasi-experimental design, whereby the instrument used for the study was a Mathematics Academic Performance Test. Findings from the study showed that the experimental group exposed to an Instructional strategy pattern performed significantly better in Mathematics word problems-solving involving simultaneous equations than their counterparts in the control group.

Kimutai and Zachariah (2012) conducted a study in Kenya on the Impact of Head Teachers' Supervision of Teachers on Students' Academic Performance. The purpose of the study was to examine the influence of supervision of teachers by head teachers on students' academic performance in secondary schools in Bureti District. The study involved all head teachers who had served in their stations for a period of three or more years up to 2006 were chosen. Simple random sampling was used to select teachers in every school and descriptive survey design was used, whereby Questionnaires were used to collect data. Results revealed that supervision had a positive relationship with the schools' overall mean scores in KCSE examinations. The study recommended that head teachers should improve on teacher supervision if schools were to register improved performance in examinations.

Summary of Literature Review

The review of literature has detailed the important role of supervision in education where supervision is effective; there is a success in students' or teachers' performance.

Studies indicated that supervision lacked relevance to instructional improvement (Ndebele, 2013); but teachers' performance is significantly dependent on the capacity of principals' supervision (Nakpodia, 2013). Lesson notes and scheme of work, continuous assessment and classroom visitation impact on the school tone and enhance students' academic performance in secondary schools (Nike, 2014). There is a significant impact on checking students' notes, class visitations, checking of teachers' punctuality and attendance and moderation of examination questions and marking scheme on students' academic performance (Alimi and Akinfolarin, 2012).

RESEARCH DESIGN AND METHODOLOGY

Research Design

The study used cross sectional Survey design. The survey design considered appropriate for this research for numerous reasons. First, it attempts to collect data from members of a population in order to determine their current status with respect of one or more variables. Secondly, it is an appropriate way of eliciting the most complete response from a sample of individuals presumed to have experienced the phenomena of interest. Besides, it collects information from a large number of respondents (Students, teachers and heads of schools) and relies on the individual self-report of their knowledge and attitudes.

Target Population

The target population comprised of all heads of community secondary schools, all community secondary school teachers and all form three and four students of all community secondary schools in Ukerewe District. Heads of the community secondary schools were included in the study because of their positions and roles.

Teachers of community secondary school participated in the study as they are directly involved in the supervision process and therefore they are in a position to indicate the effectiveness of supervisory strategies in community secondary schools. Form three and form four students of community secondary schools included in the study because they have been in school for a relatively longer period of time to determine the effectiveness of supervisory strategies in community secondary schools.

Description of the Sample and Sampling Procedures

The study used probability sampling procedures as per the category of population components. The probability sampling procedure used to ensure equal chances for participants to be involved in the study. The sample consisted of ten (10) community secondary schools whereby each school provided twelve students, eight teachers and ten heads of schools. In total, the sample consisted of two hundred and ten (210) respondents who participated in this study.

Schools

In Ukerewe District there are twenty two (22) community secondary schools. The researcher employed the simple random sampling technique to select 10 community secondary schools that participated in the study out of the 22 in the District.

Students

The stratified random sampling technique employed to select students who participated in the study, since all community secondary schools were mixed schools. Thus, form three and from four students were stratified on the basis of their sex. Then a simple random sampling with replacement used to select six boys and six girls from each school, three from form three and another three from form four. A total of 120 students participated in the study.

Teachers

The stratified sampling technique used to select eight teachers on the basis of their sex, (four female teachers and four male teachers) from each of the sampled community secondary schools. Thus a total of 80 teachers from community secondary schools participated in the study.

Heads of schools

All heads of community secondary schools from the sampled schools (n=10) participated in the study.

Description of Data Collection Instruments

Questionnaires, interview schedule and document analysis schedule were used to collect data for the study. Questionnaires were administered to the students and teachers. The heads of schools were interviewed, while document analysis schedule used to review official school documents such as schemes of work and lesson plan.

Validity of the Instruments' Results

The researcher validated the instruments in terms of their contents and face validity. The researcher requested three experts in education and research to review the instruments for content coverage and face appropriateness. The suggestions given were incorporated to improve the validity of the instruments.

Pilot Testing

The study instruments were pilot tested in one school in Ukerewe District which was selected randomly. The exercise involved twelve students, eight teachers who were selected randomly. The head of the school was involved basing in the position he or she

held. The data collected during the pilot testing were prepared, analyzed and interpreted. From the results, the instruments were reviewed further by re-phrasing the question items that were not well understood while irrelevant questions were removed.

Reliability of the Instruments' Results

Cronbach alpha formula which requires only a single test to determine the internal consistency of the instruments was used. The Cronbach alpha technique is generally the most appropriate type of reliability test for survey research and other questionnaires in which there is a range of possible answers for each item (McMillan and Schumacher, 2001). The coefficient reliability was computed on quantifiable items of questionnaire instruments (Section B, C and D for teachers' and students' questionnaires) using SPSS with twelve students, eight teachers and one head of the school who were then excluded from taking part in the study.

The reliability coefficient of the instruments was 0.815 for questionnaire for students and 0.784 for questionnaire for teachers. The researcher concluded that the instruments were reliable. This met the criteria set by McMillan & Schumacher (2001) that the reliability coefficient of 0.70 or more implies that there is a high degree of reliability of the instruments. The pilot test enabled the researcher to identify ambiguous items in the instrument and make necessary modification.

Description of Data Analysis Procedures

The study applied quantitative approach. Quantitative data from both questionnaires and interview schedule were categorized, coded and entered into the computer for computation of descriptive statistics and inferential statistics. The Statistical Package for Social Sciences (SPSS) used to run descriptive analyses to produce frequency distribution, percentages, means and standard deviations based on various characteristics of the respondents. Descriptive statistics presented in frequency tables while inferential statistics contained standard deviations and means to generate data that used to test the hypotheses. Analysis of variance (ANOVA) was used to test the study hypotheses.

RESEARCH FINDINGS AND DISCUSSION

Background information of the respondents

This section describes the general background information about the three categories of the respondents: Students, Teachers and Heads of Schools.

Table 4.1: Summary of information of respondents

Participants	ExpectedNumbers	Actual numbers	Percentages
Students	120	120	100
Teachers	80	74	92.5
Heads of Schools	10	10	100

Table 4.1 indicates that all 120 questionnaires from students who were sampled to participate in the study were returned to the researchers which made 100% of expected respondents from students. Whereby, 74 (92.5) out of 80 expected teachers managed to return questionnaires to the researcher and on the other hand the researcher managed to interview all 10 heads of community secondary schools which made 100%. This implies that almost all the expected sample (students, teachers and heads of schools) participated in the study.

Students

The students' demographic information comprised of their sex, year of study and duration being at school, their responses are summarized and presented in Table 4.2.

Table 4.2: Demographic Information for the Students (n=120)

Demographic information	Frequency	Percent
Gender of the respondents		
<i>Male</i>	60	50
<i>Female</i>	60	50
Year of Study		
<i>Form three</i>	60	50
<i>Form four</i>	60	50
Duration being at school		
<i>Less than one year</i>	03	2.5
<i>One year</i>	01	08
<i>Two years</i>	04	3.3
<i>Three years and above</i>	112	93.3

Table 4.2 shows that out of 120 students who participated in the study, 60 (50%) were male while the remaining 60 (50%) were female. Sixty (50%) students were in form three and the remaining 60 (50%) students were in form four. These students have experienced the heads of schools' supervisory practice in their respective schools because most of students 112 (93.3%) who participated in the study had three years and above at school; hence their data were construed to be valid and reliable.

Teachers

Demographic characteristics of the teachers who took part in the study were also determined. These characteristics included: sex of teachers, academic qualification and their working experience. The responses were summarized and presented in Table 4.3.

Table 4.3: Demographic Information of the Teachers (n=74)

Demographic information	Frequency	Percent
Gender of the respondent		
Male	38	51.4
Female	36	48.6
Academic Qualification		
Diploma	30	40.5
Bachelor Degree	43	58.1
Master's Degree	-	-
Others	01	1.4
Working Experience		
1-3 years	39	52.7
3-5 years	12	16.2
5-7 years	15	20.3
More than 7 years	08	10.8

Data in Table 4.3 shows that out of the 74 teachers who took part in the study 38 (51.4%) were males and the remaining 36 (48.6) were females, the number of both sexes was almost equal because of the sampling procedure adopted which aimed at achieving equal representation of males and females among teachers. These findings indicate that academic qualifications of teachers in Ukerewe District are relatively high and most of them have are bachelor degree holders and have a working experience of less than seven (07) years.

Heads of Schools

Demographic information of the Heads of School who took part in the study was also established. Demographic characteristics determined from Heads of Schools were sex, academic qualification and their duration as Heads of Schools. The responses of the Heads of Schools were summarized and presented in Table 4.4.

Table 4.4: Demographic Information of Heads of Schools

Demographic information	Frequency	Percent
Gender		
Male	10	100
Female	-	-
Academic Qualification		
Diploma	03	30
Bachelor Degree	07	70
Duration being a Head of School		
5-9 years	10	100

Table 4.4 shows that all the sampled schools (10) were headed by males. Therefore, it can be argued that school managerial responsibilities in Ukerewe community secondary schools are male dominated. Likewise, the findings indicate further that most of heads of community secondary schools who took part in the study 07 (70%) were bachelor degree holders whereby 03 (30%) were diploma holders both with working experience of between 5-9 years.

The Extent to Which Head of School has Trained to Implement Supervisory Strategies in Community Secondary Schools

This study aimed at finding out whether heads of schools were trained to implement supervisory practice in community secondary schools. From the interview, the findings indicated that all 10 (100%) heads of schools who participated in the study were well trained to coach or mentor teachers in their instructional performance. From the interview, the heads of schools in Ukerewe District informed that they all attended training on how to guide and counsel teachers and students on how to improve their (teachers') attitudes and raise students achievements.

Supervisory Strategies used by Heads of Schools in Community Secondary Schools

There are various types of supervisory strategies commonly used by heads of schools. This study aimed at finding out the various supervisory strategies used by heads of schools in

community secondary schools in Ukerewe District to improve teachers' instructional performance, students' academic achievements and students' in their schools.

Heads of Secondary Schools' Supervisory Strategies on Students' Academic Achievement

To understand the various supervisory strategies used by heads of schools in community secondary schools in Ukerewe District, participants (students and teachers) were interviewed regarding the Heads of Secondary schools' supervisory strategies in teachers' instructional performance and students' academic achievement. Their responses are summarised in the table below:

Table 4.7: Students' and Teachers' Responses on Supervisory Practice in Teachers' Instructional Performance

Statements	Always		Mostly		Sometime		Rarely		Never	
	F	%	F	%	F	%	f	%	f	%
1. <i>Regular checking on weekly basis teachers' scheme of work, lesson plan, lesson notes, student's notes and record of marks</i>										
Teachers	17	23	32	43.2	23	31.1	-	-	2	2.7
2. <i>Appraising teachers and students</i>										
Students	33	27.5	32	26.7	38	31.7	08	6.7	09	7.5
Teachers	12	16.5	22	29.7	28	37.8	06	8.1	06	8.1
3. <i>Supervise teachers on a regular basis in the classroom during instruction</i>										
Students	24	20	23	19.2	37	30.8	08	6.7	28	23.3
Teachers	03	4.1	05	6.8	22	29.7	21	28.4	23	31.1
4. <i>Assess students' and teachers' performance</i>										
Students	56	46.7	31	25.8	29	24.2	02	1.7	02	1.7
Teachers	15	20.3	20	27	16	21.6	19	25.7	04	5.4
5. <i>Identifying teachers' shortcomings and finding a possible remedy</i>										
Teachers	17	23	24	32.4	23	31.1	05	6.8	05	6.8

Regular checking on weekly basis teachers' scheme of work, lesson plan, lesson notes, student's notes and record of marks.

Data in Table 4.7 shows that few teachers 32 (43.2%) indicated that higher percentage of heads of schools conduct a regular check up on weekly basis on teachers' schemes of work, lesson plan, lesson notes, student's notes and assessments record.

Appraising teachers and students

On whether heads of school appraise teachers and students when they perform well, 38 (31.7%) students indicated that sometimes the heads of schools appraise teachers and students when they perform well. This was confirmed by 28 (37.8%) teachers who indicated that sometime heads of schools use this strategy. This information was in agreement with the interview conducted to heads of schools which indicated that they have a system of appraising teachers and students depending on their performance.

Supervising teachers on a regular basis in the classroom during class instruction

Data in Table 4.7 show that 37 (30.8%) of students indicated that heads of schools sometimes supervise teachers on a regular basis in the classroom during class instruction. However, teachers' responses [23 (31.1%)] indicate that heads of schools do not supervise teachers on a regular basis when they are in classrooms during teaching. Contrarily, heads of schools who took part in the study indicated that majority of heads of schools regularly visit teachers in the classroom while teaching is in progress.

Assess students' and teachers' performance

On whether heads of school assess the students' and teachers' instructional performance, 57 (46.7%) of students indicated that always heads of schools assess teachers' and students' performance. However, only 20 (27%) of teachers confirmed that heads of schools use this strategy. The interview with the heads of schools, however, indicated that majority of heads of schools assess teachers instructional performance as well as students' academic achievement.

Identifying teachers' shortcomings and finding a possible remedy

Less than half number of teachers 24 (32.4%) indicated that heads of schools identify teachers' shortcomings and finding a possible solutions. This information was also confirmed by the heads of community secondary schools which showed that majority of heads of schools does identify teachers' weak points in teaching and find a possible solution.

Effectiveness of Heads of Schools Supervisory Strategies in Community Secondary Schools in students' academic achievement in Ukerewe District

On whether heads of schools' supervisory strategies are effective on improving students' academic achievement in community secondary schools, 49 (66.2%) teachers who participated in the study indicated that supervisory strategies used by heads of community secondary schools to improve students' academic achievement were effective in three consecutive years (2011, 2012 and 2013) whereby 56 out of 74 teachers who participated in the study indicated that heads of schools' supervisory strategies were effective in the year 2014. This information is summarized in the Table 4.7.

Table 4.9: Categories of Supervisory strategies towards students' academic achievement

Supervisory strategy towards academic achievement		2011	2012	2013	2014
Very effective	Mean	4.62	4.7	5.32	1.33
	N	12	12	12	12
	Std. Deviation	0.06	.09	0.09	0.37
Effective	Mean	4.57	4.65	5.2	1.42
	N	49	49	49	56
	Std. Deviation	0.07	.08	.14	0.27
Less effective	Mean	4.48	4.78	5.25	1.43
	N	5	5	5	6
	Std. Deviation	0.03	0.11	0.07	0.10

From the Table 4.7 it seems that heads of schools' supervisory strategies contribute little to students' academic achievement in community secondary schools in Ukerewe District.

Students' Academic Achievement in Community Secondary Schools

This study ought to find out students' academic achievement as a result of heads of schools' supervisory practice in community secondary schools in Ukerewe District. To understand this, the researcher used the document analysis schedule to view students' academic result in four consecutive years and find out whether they were resulted from heads of schools' supervisory strategies. Students' academic achievement for four consecutive years in community secondary schools in Ukerewe District were summarized in Table 4.12.

Table 4.10: students' academic achievement in Ukerewe District

	Candidates		Division		
	Sat	I-III	%I-III	IV	Failed
2011	2314	107	6.78	887	1320
2012	2394	87	3.6	733	1439
2013	2402	242	10.07	789	1170
2014	406	116	29	183	106

Form the Table 4.10 indicates that students' academic achievement in community secondary schools is significantly poor to an extent that in the year 2011 only about 6.8% of all students passed atthe level of division I to III whereby 1320 (57%) students out of 2314 scored division zero in form four national examinations. In the year 2012 only 87 (29%) students managed to score between division I and III. This poor academic performance might be contributed to ineffectiveness of heads of schools in implementing high level supervisory strategies for improving students' academic achievement.

Challenges facing Heads of Schools in Implementing Supervisory Practice in Community Secondary Schools

Schools supervision is a central to quality education and is part of the core business of schools. Despite the critical role that heads of schools play, there are a number of challenges that face school administrators as they try to implement supervisory practice. This section examines these challenges as highlighted by students, teachers and heads of schools. Students and teachers were asked to list down the challenges heads of schools are likely to encounter in trying to implement supervisory practice for the purpose of improving teachers' instructional performance and students' academic achievement. The challenges have been categorized under subsections below.

Challenges heads of schools encounter in implementing supervisory practice for teachers' instructional performance improvement and students' academic achievement improvement

The Table 4.12 summarizes the challenges that face heads of schools when trying to supervise teachers in community secondary schools in Ukerewe District.

Challenges	F	%
<i>Teachers failure to attend classes</i>		
Students	30	25
Teachers	04	5.4
<i>Inadequate teaching and learning facilities</i>		
Students	50	41.6
Teachers	30	40.5
<i>Increased workload for the heads of schools</i>		
Students	20	16.7
Teachers	18	24.3
<i>Uncooperative teachers</i>		
Students	20	16.7
Teachers	15	20.3
<i>Poor preparation by teachers</i>		
Students	-	-
Teachers	07	9.5

According to Table above, 50 (41.6%) students identified inadequate teaching and learning resources as the main challenge that face heads of schools when trying to implement supervisory practice of teachers. The students' responses were confirmed by 30 (40.5%)

teachers. However, heads of schools contended that it might be true that some community secondary schools have inadequate teaching and learning facilities which on the other hand affect supervisory practice inside the classroom. Another challenge that the teachers in community secondary schools identified included teacher's failure to attend classes, increased workload for the heads of schools, uncooperative teachers, and poor preparation by teachers.

Heads of community secondary schools during the interview identified another key challenge that they face when trying to implement supervisory practice is the reluctances of teachers to prepare teaching and learning materials. One head of community secondary school stated that;

There are some teachers who feel that being supervised is like punishment and sometimes they do not feel happy at all. Most of teachers prepare and use teaching and learning materials such as schemes of work and lesson plans after being pushed by the heads of schools.'

This implies that most teachers do not like to be supervised; hence they want to work independently.

Tests of Hypothesis

The study tested hypotheses stated from the Null hypothesis point of view which states that: There is no significant difference between students' academic achievement mean score and the heads of schools' supervisory strategies in community secondary schools in Ukerewe District.

The hypothesis was tested using Analysis of Variance (ANOVA).

Significance Level

The significance level is the cutoff point that the researcher uses to decide when to reject the null hypothesis (Jonson & Christensen, 2012). In this study, the researcher chose to use the significance level of 0.05 to test the hypotheses.

Decision Rule

If the P value is greater than 0.05 do not reject the Null hypothesis

If the P value is less than or equal to 0.05, reject the Null hypothesis

Null hypothesis

There is no significant difference between students' academic achievement mean scores and the heads of schools' supervisory strategies in community secondary schools in Ukerewe District

Table 4.13: Test for difference between mean score of students' academic achievement in community secondary schools and heads of schools' supervisory strategies

	Sum of Squares	Df	Mean Square	F	Sig.
Between Groups	.001	1	.001	.250	.632
Within Groups	.040	7	.006		
Total	.042	8			

The P value is 0.632

The P value is 0.632 which is greater than 0.05 levels of significance. Then we do not reject the Null hypothesis. From this test, the researcher concludes that Students' academic achievement in community secondary schools in Ukerewe District were not influenced by the heads of schools' supervisory strategies. This means that students' academic achievement in community secondary schools in Ukerewe District were not determined by the heads of schools' supervisory strategies. These findings were in disagreement with Alimi and Akinfolarin (2012) who found a significant impact of checking of students' notes, class visitations, checking of teachers' punctuality and attendance and moderation of examination questions and marking scheme on students' academic performance in English Language in Senior Secondary Schools in Ondo State. Further studies are required to verify these findings.

CONCLUSION AND RECOMMENDATION

Summary of the Study

The objective of the study was to examine the effectiveness of heads of schools' supervisory strategies in community secondary schools in Ukerewe District. The researcher reviewed related literatures on supervisory strategies and established that there was limited research on the same locally. The limited research on this motivated the researcher to carry out this research in community secondary schools in Ukerewe District.

The heads of schools' supervisory strategies that the research concentrated on included assessment strategy, classroom visitation, coaching/mentoring strategy, reward strategy and demonstration strategy that heads of schools may apply to teachers' instructional performance and students' academic achievement in their schools.

The research was guided by the following research questions;

1. To what extent are heads of schools trained to implement different supervisory strategies in community secondary schools in Ukerewe District?

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2. What are the supervisory strategies commonly used by heads of schools in community secondary schools in Ukerewe District?
 3. To what extent are the heads of schools' supervisory strategies effective in improving students academic achievement in community secondary schools in Ukerewe District?
 4. What are the challenges facing heads of schools in implementing supervisory practice in community secondary schools in Ukerewe District?

The research employed cross-sectional survey design since the area of the study has been extended and the entire population could not be covered on individual basis. Survey design enabled the researcher to generalize the findings to the entire population because of its representation. The target population consisted of all heads of community secondary schools, all teachers all form three and four students in Ukerewe District.

The study used probability sampling procedures as per the category of population components. The sample was chosen from 22 community secondary schools in Ukerewe District which consisted of day mixed schools. The schools were randomly selected to ensure that there is equal representation. The sample consisted of ten (10) community secondary schools with each school providing twelve students, eight teachers and the head of school. In total, the sample consisted of two hundred and ten (210) respondents.

The instruments that were used for this study were questionnaires, interview schedule and document analysis schedule. The questionnaires were for the students and teachers while the interview schedule was used for interviewing the heads of community secondary schools. Document analysis schedule was used to guide the researcher in identifying the documents that are used in schools when dealing with students' academic achievement. The data collected were analyzed by use of descriptive statistics such as frequencies, standard deviation and percentages. Means were also computed which were used for hypothesis testing.

There were two Null hypotheses, which were tested by use of ANOVA (Analysis of Variance). From the data analysis it was found out that, students' academic achievements in community secondary schools in Ukerewe District are not determined by the heads of schools' supervisory strategies.

CONCLUSIONS OF THE STUDY

1. From the study findings, it is apparent that most of the heads of community secondary schools in Ukerewe District were trained how to implement supervisory practice in secondary schools.

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2. Based on the findings of the study, the researcher concluded that most heads of schools of Ukerewe community secondary schools commonly use assessment strategy, classroom visitation strategy and coaching/mentoring strategy in improving teachers' instructional performance and students' academic achievement. The study noted that most of the students and teachers agreed that their heads of schools were commonly using these supervisory strategies in their schools.
 3. Most of the heads of schools' supervisory strategies commonly used by heads of schools were found to be effective in improving both teachers' instructional performance but not students' academic achievement.
 4. Moreover, the study found out that the main challenges faced by the Heads of community secondary schools in Ukerewe District in trying to implement supervisory practice were poor cooperation from parents. This was demonstrated by students and teachers through questionnaires and interviews.

RECOMMENDATIONS

From the findings of the study, the researcher recommends the following:

- i. Heads of community secondary schools should strive to create a good cooperation between schools and the community because these schools are in partnership with the community. This will create interest and morale of teachers' to work hard and hence reduce the workload of the heads of schools during supervision.
- ii. A rigorous study needs to be conducted to investigate how and why other factors seem to be more significant than supervisory strategies on poor performance of students in the community secondary schools in Ukerewe District. It seems like other pertinent factors overshadowed supervisory strategy to inflict significant impact on students' performance. Further studies are needed to determine the factors.

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A Review on the Environmental Pollution in the Mining Industry in Tanzania

Gervas Assey

ABSTRACT

This paper reviews the causes, effects and possible solutions to the environmental pollution with reference to the mining of gold, coal, tanzanite and diamonds in Tanzania. The review of the studies done on the pollution of the artisanal and small scale gold mining (ASM) as well as on Large Scale Gold Mining (LSM) is presented. An extensive review of the pollution caused by the open pit mining as well as that caused by underground mining activities is examined. Findings revealed the main type of pollution in coal mining industry is Acid Mine Drainage (AMD). The main environmental pollution cited in literature in tanzanite mining is air pollution due to dust coming from the mining operations. Solutions that have been put forward to control pollution in the mining industry include lime neutralization, calcium silicate neutralization, ion exchange, constructed wetlands and use of cyclone for dust separation from the air.

Key words: Environmental pollution, mining industry, artisanal and small scale gold mining, Large scale Gold mining, and sustainable development.

INTRODUCTION

Tanzania has enormous natural such as gold, diamonds, rubies, tanzanite, coal, copper, nickel, cobalt, gypsum, iron, lead, limestone, phosphate, tin, titanium, vanadium, uranium and gas reserves (Kaiza, 2011). It is among the major producers of gold, diamonds and a variety of coloured gemstones – tanzanite with the trade name for generally heat-treated bluish-purple mineral (Howard, 2011). Today, Tanzania is the third largest gold exporter in Africa after South Africa and Ghana (Anderson and Slunge, 2005). These minerals account to over 45% of the country's export (Economic Survey, 2011) increasing their share of tax revenue to 3.6% and GDP of 3.2% (Lugoe, 2012) between 1998 to 2008

As a result, mining activity is one among the main economic sectors that has contributed to the economic growth of the country. This is by: 1) the tax collection from the large-scale mining (LSM) companies and 2) the direct employment opportunities within the mines and indirect services provision. In addition, regions close to the mining areas have experienced a significant social economic infrastructure development (Oviir and Utouh, 2010). Other support services such as education, health services, improve infrastructure, increase foreign exchange reserves and water supply are generated in this areas instead of importing from abroad (Oviir and Utouh, 2011).

The two types of mining approaches that are practiced in Tanzania are the artisanal small scale mining (ASM) and large scale mining (LSM). Pollution is defined as an undesirable change in physical, chemical and biological characteristics of air, water and land that may

be harmful to living organisms, living conditions and natural assets (Kumar et al., 2013). In gold mines, pollution of waters sources occurs during gold processing (Mwami, Sanga and Nyoni, 2002).In Tanzania, LSM of gold is the main approach,which accounts to 64% in terms of both accrued revenue and physical activities compared to others, gas (20%), limestone (14%), diamond and tanzanite (1%) each (Adam Smith International, 2011).

Despite the positive contribution of the mining sector to the economic growth (government revenue and employment and local impacts on poverty reduction) issues related to environmental pollution still remained a major challenge.

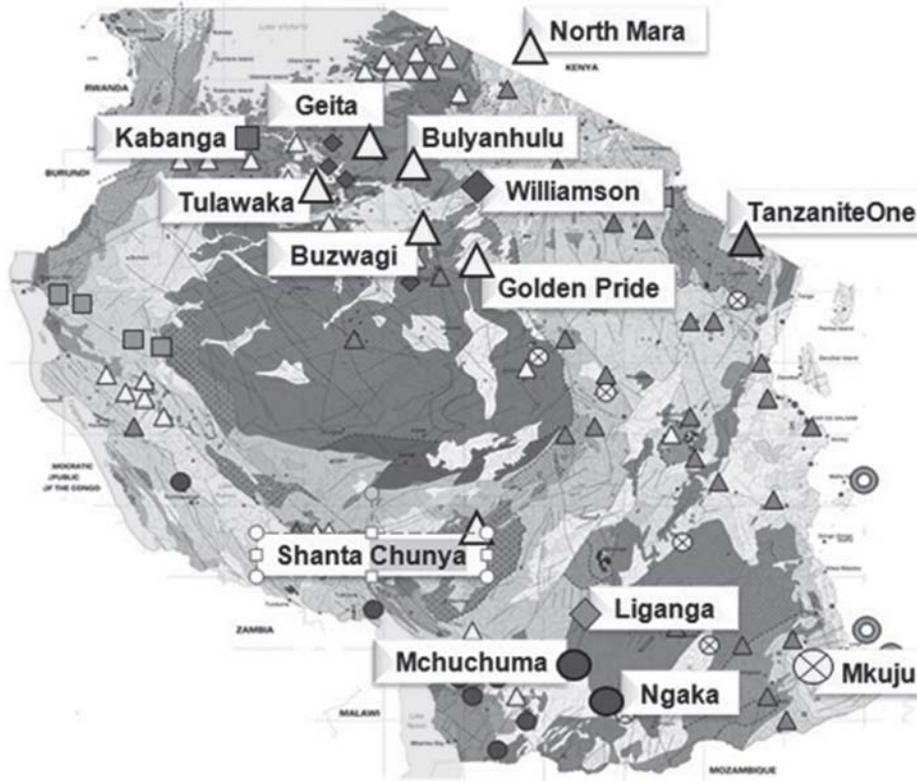
There are six areas that are linked to the mining industry which need to be focused: i) Land and waste use, ii) waste management - chemicals and pollutants, iii) tailings disposal iv) human health risks, v) potential environmental risks and vi) the plans to mitigate these risks.

The aim of this review is to address the causes, effects and problems of environmental pollution in the mining industry of Tanzania. We also review several research studies that address the environmental pollution during the mining of gold, diamond, tanzanite and coal up to the year 2014. Finally, we offer recommendation on ways to mitigate some environmental pollution in the mining field.

MINING AND SUSTAINABLE DEVELOPMENT IN TANZANIA

Mining is a major economic activity in many developing countries (Kitula, 2006). Tanzania is one of the countries that are endowed with rich mineral resources. The mining sector has been the fastest-growing sector of the economy since the mid-1990 due to the adoption of favourable investment policies (Kweka, 2009). Tanzania experienced unprecedented boom in large scale mining developments particularly in the North West Lake Victoria region (URT, Water Sector Environmental Action Plan, 2011).

Figure 1: Map of Tanzania indicating large scale mining areas of gold, diamond, coal and tanzanite and sites where there are other types of mineral activities and occurrences.



Source:http://www.tmaa.go.tz/images/site/mineral_occurance_in_tanzania.jpg

The mineral reserves and the large scale mining (LSM) sites are shown in Figure 1.

Currently, Tanzania has the following large scale mining (LSM) companies: Buzwagi gold mine, Bulyanhulu gold, Geita gold mine, Golden Pride Mine, North Mara gold mine, Tanzania-One tanzanite mine, Williamson diamond mine and STAMIGOLD Biharamulo gold mine. LSM have very much affected the small scale mining(ASM) that employs more people than the LSM.

ASM employs an estimate of 90 % of more than 1,000,000 Tanzanians who are engaged in mining activities (Mwakaje, 2012). A regulatory agency adapted a policy the national minerals policy (NMP) of 1997 and Mining Act of 1998 that defined the sector vision as: 1) a well-organized private sector in the mining industry involves key stakeholders that are both LSM and ASM, ii) deals with aspects or concerns with safety and environmental protection, iii) sector contributes to GDP in excess of 10 per cent, iv) a well-developed gemstone cutting and jewellery industry, and vi) a sector that provide reliable employment (Kweka, 2009).

In order to apply the concept of sustainable development in the mining industry, there is a need to first address the concept of efficient mining to minimize the adverse environmental impacts at all stages of mineral development. The following measures need close attention: i) project redesigning to minimize environmental damage and optimize ore recovery, ii) pollution decrease measures especially in respect to air pollution, iii) water pollution and noise, iv) rehabilitation of abandoned mine sites, v) implementation of adequate worker health and vi) safety standards, adoption of environmental management plans in order to implement the aforementioned plans (Richards, 1998).

In a study conducted on the corporate social responsibility of tanzanite mining in Mirelani mines near Arusha. They found a profound environmental impact of mining activities at the mining location. There was pollution from the waste and toxic substances (acid rock drainage) at the site. The authors suggested the need to establish a legal framework that ensures compliances to control further environmental pollution from the mines (Angonet and Kepa, 2013).

There are two types of mining techniques involved in the mining industry: a) open pit mining and b) subsurface or underground mining. In open pit mining, the ore deposit extends very dip in the ground, which makes it necessary to remove layer by layer of earth containing the ore. It involves the creation of a pit below the water table which means that the ground water needs to be pumped out of pit to allow mining to take place. To gain access to the ore enormous amounts of earth debris are removed which later surrounds the area of mine. The piles of earth debris result to pollution of the surrounding environment(Chernaik, 2010). For underground mining, there are minimum amount of earth materials removed to gain access to tunnels or shafts. However, there are a variety of environmental challenges that face the formal mining sector.

2.0 METHODOLOGY

2.1 Search Criteria

Research articles that were used in this review were selected by identifying those that address the problems of environmental pollution in the mining of gold, diamond, coal and tanzanite in Tanzania. To identify publications in the above categories the following databases were searched: Google Scholar, Pub Med and American Chemical Society (ACS) publications. Cross-reference from the identified publication articles was used to obtain additional studies. Publications that did not present any new data were excluded from the review analysis. For each type of mineral the following categories of environmental pollution were identified; Air pollution, surface and ground water pollution, soils and sediments pollution.

2.2 Screened Publications

A total of 109 research articles were screened, of which twenty five publication articles reported on gold mining, while one publication reported on diamond mining pollution, four publications reporting on tanzanite mining pollution, eleven publications reporting on coal mining pollution, seven publications reporting on social aspects of mining industry, three publications reporting on the evaluation of environmental impact assessment in mining projects, nine publications reporting on the mining pollution control measure, five publications containing mining policy in Tanzania, nine publications reporting on the effects of mine pollution, ten publications reporting on ASM and LSM activities and three publications reporting on the use of Borax as environmentally friendly alternative method to the use of mercury in gold extraction process. According to the studies done by Appel (2011), the use of borax to extract gold is an environmentally benign method and does not use any extra equipment in its process. The mining, crushing and milling are done with the same equipment as in the mercury extraction method.

3.0 RESULTS AND DISCUSSION

In this review we discuss in detail the finding on the environmental pollution during mining. These are: i) mercury pollution in mining, ii) water, soils and sediments pollution in mining, iii) air pollution in mining, iv) minimization and v) control of mining pollution.

3.1 Mercury Pollution in Mining

Mercury is among the world's most toxic heavy metal that comes from the mining industry (Harris and McCartor, 2011). Other pollutants include Lead, arsenic, cadmium, cyanide and radionuclides that are as a result of mining and ore processing.

Mercury is an important mineral that is used in gold extraction. It is used mainly by ASM. The mercury forms an amalgam with gold particles that is later separated from the amalgam by heating through torching by flame (Mwakaje, 2012; Mwaipopo, Mutagwaba, Nyange and Fisher, 2004; Dreschler, 2001).

Ikangura and Akaji, (2006) monitored fish and human exposure to mercury due to gold mining in Lake Victoria goldfields, Tanzania. They found that urinary mercury levels in goldmine workers frequently exposed to mercury vapour in amalgamation and burning of amalgam were significantly higher (mean; 241 ng/ml) than those in the general mining population not occupational exposed to mercury (mean; 2.6 ng/ml). Metallic or elemental mercury is a liquid at room temperature and like any other liquid it evaporates into the air where it can be inhaled and become harmful to health (Azimi and Moghaddam, 2013). The majority of mercury emissions to air are in the form of gaseous elemental mercury which can be transported to the regions far from the source. The remaining emissions are in the form of gaseous inorganic mercury forms such as mercury chloride or bound to emitted particles (Azimi and Moghaddam, 2013).

Among the effects reported by (Lintner, McDonald and Baggio, 1993) due to mercury exposure are: neurological and developmental effects to human and wildlife such as nerve damage, losses of sensory or cognitive ability, learning disabilities, birth defects, tremors, cerebral palsy, alteration to immune system, liver degeneration, kidney toxicity, cardiovascular disease to death. Schmidt, (2014), reported that the two forms of mercury namely inorganic mercury and organic mercury in the form of methyl mercury can cause neurological problems. However, it was noted in the study that, since methyl mercury passes more easily into the brain it is considered more toxic. It can make children exposed to experience IQ loss, delayed speech and other neurological disorders

The environmental impacts of gold mining are significant at all stages of mining development. This is particularly significant during mineral extraction, processes that disturbs the land, water and air during construction, excavation, dumping of water from rocks, disposal of tailings and water runoff from processing sites (Makene, Emel and Murphy, 2012).

3.3.1 Cyanide Pollution in Mining

To extract gold in large scale mining (LSM), cyanide (as sodium cyanide solution) is used (Eisler and Wiemeyer, 2004). Cyanide is a heavy metal that is very toxic even at low concentration to humans. At low concentration, cyanide can result in rapid breathing, restlessness, dizziness, weakness, headache, nausea, vomiting, and increased heart rate (Bitala, Kweyunga and Manoko, 2009). A prolonged exposure to a high concentration (1 part in 500) in an area could lead to convulsion, low blood pressure, loss of consciousness, lung injury and death in 8-10 minutes (Bitala, Kweyunga and Manoko, 2009). The death of wildlife is likely to occur at mine processing Cu-gold ores due to the formation of copper-cyanide complexes that are toxic to birds and bats (Donato et al, 2007).

A, research study was conducted to investigate the effects of gold mining activities on the water quality of Bulyanhulu River in Shinyanga by measuring the concentration levels of

anions: CN^- , NO_3^- , and SO_4^{2-} and heavy metals Ni, Zn, Fe, Ag and Hg. The results revealed that the concentration levels of Ni, Fe, Zn and SO_4^{2-} were above the allowable limits which make the Bulyanhulu river water unsuitable for human consumption. The concentration of CN^- and NO_3^- were below the detection limits. The CN^- concentrations in tailings waste rock drainage at North Mara Gold Project (NMGP) were compared with that of the water obtained from Bulyanhulu River and with standards (Bitala, Kweyunga and Manoko, 2009&Nkuli, 2008) as shown in Table 1.

The comparison showed that the cyanide concentrations obtained from the two studies on average were below the Tanzanian standard. The cyanide level from Bulyanhulu river water samples were below the Tanzanian standards as well as below the US EPA standards. While the cyanide levels from tailings waste rock drainage samples NMGP were above the US EPA standards

Sample location	Cyanide level (mg/L)	Standards		
		WHO	Tanzanian	US EPA
Bulyanhulu river point near Bulyanhulu Gold Mine (BGM) site (Nkuli, 2008)	< 0.005	-	0.1	0.0052
NMGP Tailings, waste rock drainage (Bitala, Kweyunga and Manoko, 2009)	0.001–0.076	-	0.1	0.0052

Table 1: Comparison of cyanide CN^- in the tailings, waste rock drainage from North Mara Gold Project (NMGP) (Bitala, Kweyunga and Manoko, 2009) concentration levels with that from water obtained from Bulyanhulu river near Bulyanhulu Gold Mine (BGM) (Nkuli, 2008) with the standards of WHO, Tanzania and US EPA

3.2.2 Acid Mine Drainage Pollution of Water, Soil and Sediments

Pyrite is mineral found adjacent to coal beds or from mining that contains minerals with large amount of sulphides. During coal mining, pyrite is exposed to air and water which oxidizes it to form sulphate and sulphuric acid (Sams III and Beer, 2000; McCarthy, 2011; Sahoo, Kim, Equeenuddin and Powell, 2013)). Acid mine drainage (AMD) sometimes referred to as acid rock drainage (ARD) is a result from the formation of sulphuric acid in the oxidation of iron sulphide minerals such as pyrite.. The reactions further proceed to produce ferric sulphate, ferric hydroxide and more sulphuric acid. The equations for the acid mine drainage reactions are as follows (US Office of Surface Mining, 1998; Blodau, 2006).

- $2\text{FeS}_2(\text{s}) + 7\text{O}_2(\text{g}) + 2\text{H}_2\text{O}(\text{l}) \longrightarrow 2\text{Fe}^{2+}(\text{aq}) + 4\text{SO}_4^{2-}(\text{aq}) + 4\text{H}^+(\text{aq})$
- $4\text{Fe}^{2+}(\text{aq}) + \text{O}_2(\text{g}) + 4\text{H}^+(\text{aq}) \longrightarrow 4\text{Fe}^{3+}(\text{aq}) + 2\text{H}_2\text{O}(\text{l})$
- $4\text{Fe}^{2+}(\text{aq}) + 12\text{H}_2\text{O}(\text{l}) \longrightarrow 2\text{Fe}(\text{OH})_3(\text{s}) + 12\text{H}^+(\text{aq})$
- $\text{FeS}_2(\text{s}) + 14\text{Fe}^{3+}(\text{aq}) + 8\text{H}_2\text{O}(\text{l}) \longrightarrow 15\text{Fe}^{2+}(\text{aq}) + 2\text{SO}_4^{2-}(\text{aq}) + 16\text{H}^+(\text{aq})$

These reactions produce elevated concentrations of insoluble precipitate $\text{Fe}(\text{OH})_3$ and soluble SO_4^{2-} and H^+ acid.

The amount of H^+ ions lowers the pH and result into more dissolution of the ferric ion. The elevated levels of heavy metals can only be dissolved in waters that have low pH. The iron hydroxide which precipitates in the streams gives a red/orange colour to the water and it cover surface of the sediments and streambeds that can contribute to the destruction of the habitat (Jennings, Neuman and Blicher, 2008). AMD is characterized by low pH high salinity levels, elevated concentration of sulphate, iron, aluminium and manganese raised levels of toxic metals such as cadmium, cobalt, copper, molybdenum, zinc and possibly radionuclides (Oelofse, 2008) A study on the impact of gold mining on environmental pollution in three different media of water, soil and sediment was conducted (Cukrowka, Lusilao-Makiere, Tutu and Chimuka, 2012). The study demonstrated a typical case of AMD with high redox potential, high electrical conductivity and low pH.

Mnali, (2001) analysed heavy metals in water, soil, stream sediment and tailings samples to assess the heavy metal pollution at the Lupa Gold Field (LGF). These were: As, Cd, Cr, Cu, Pb, and Hg. The concentration of As in water was low but the concentration of high in mine tailing samples. However, Cd concentrations in all sample analysed were very low. The results showed that the water samples had low concentrations of heavy metals compared to some stream sediments and mine tailings that had concentrations above WHO (1993) permissible limits.

Another study on the concentration of the heavy metals Ni, Cd, Pb and Cr in soil, sediment, water samples, CN- and pH level at North Mara Gold Project (NMGP) in Tarime District, Tanzania was conducted (Bitala, Kweyunga and Manoko, 2009). The observed levels of cyanide and heavy metals were compared to those of WHO, Tanzanian and US Environmental Protection Agency (EPA). The levels observed for the heavy metals and cyanide in soil, sediment and water at the vicinity of NMGP were higher than the recommended standards. These suggested that the likely source of the heavy metals was from AMD while the cyanide came from the leaks of waste rock piles and tailings. The heavy metals Cd, Cr and Pb from the studies of (Mnali, 2001) and (Bitala, Kweyunga and Manoko, 2009) were also compared together and with the WHO standards as shown in Table 2.

Parameter		Cd		Cr		Pb	
Sample location and media		Observed	Standards WHO*	Observed	Standards WHO*	Observed	Standards WHO*
LGF	Water Sample	0.10 - 0.12	0.003	0.14 - 3.4	0.05	1.3 - 1.2	0.01
	Soil Sample	0.01-0.10	No data	70-900	No data	10-80	No data
	Tailings Sample	0.03-1.40	0.003	15-660	0.05	10-570	0.01
NMGP	Water Sample	0.12-0.25	0.003	2.0-3.14	0.05	1.17-2.16	0.01
	Soil Sample	0.9-11.7	No data	0.7-33.4	No data	0.9-32.4	No data
	Tailings Sample	0.12-4.90	0.003	0.2-20.9	0.05	1.17-124.8	0.01

WHO* standards source:(*Bitali, Kweyunga and Manoko, 2009*)

Table 2: Comparison between heavy metals (Cd, Cr and Pb) levels (mg/L) from samples obtained from Lupa Gold Field (LGF) (*Mnali, 2001*)and from North Mara Gold Project (NMGP) (*Bitali, Kweyunga and Manoko, 2009*) with WHO standards

The observed Cd, Cr and Pb levels in water, samples from the studies done in NMGP were higher than those obtained from the studies done in LGF. However the Cd levels from the two studies were higher than those of the WHO standards. The average concentrations of the heavy metals Cd, Cr and Pb in the samples of water, soil and tailings from the two studies were higher than those of WHO standards. The concentrations of heavy metals Cr and Pb in soil and tailings samples from LGF on average were higher than those of the same heavy metals in soil and tailings samples from NMGP.

3.4 Air Pollution in Mining

Air pollution through mining activities results from the working of open pits during crushing and grinding operations. The dust particles that fall around the mine contaminate the soil vegetation and water. Workers and nearby communities can be affected by the dust coming from the mines. Other sources of air pollution from mines are CO₂ and methane produced due to the energy usage especially in coal mine (Hoskins, Bird and Stanley, 2000). Air pollution in tanzanite mining is due to miners exposure to dust mixed with graphite quartz and mica particles that are considered carcinogenic or development of chronic silicosis (Malisa and Kinabo, 2005). The gases generated as a consequence of blasting in the tanzanite mining are ammonia, carbon dioxide, nitric oxide, nitrogen dioxide and sulphur dioxide.

Coal incorporates hazardous impurities including sulphur and heavy metals such as mercury, arsenic, lead and nickel (Billings, 2011). Hazardous air pollutants emitted to the atmosphere by coal combustion cause a wide range of adverse health effects that include damage to the eyes, skin and breathing passage, negative effects on kidneys, lungs, nervous system, carcinogenic, impairment of neurological function - affect cognitive abilities to learn and pulmonary and cardiovascular disease (Billings, 2011). Australia's coal industry contributed to the global climate change and global health impact due to pollutants from the mine (Castleden, Shearman and Finch, 2011). Every phase of coal's lifecycle (mining, disposal of contaminated and tailings, transportation, washing, combustion and disposal of post combustion waste) produces pollutants that affect human health.

3.5 Mitigating and Control of Mining Pollution

There are several ways that are used to mitigate and control the mining pollution which include lime neutralization, calcium silicate neutralization, carbonate neutralization, ion exchange and constructed wetlands for AMD mitigating. Additionally, the effects of cyanide toxicity are controlled by woody plants using biological treatment. To control mercury pollution the use of alternative environmentally benign materials, such as borax instead of mercury, are recommended during gold purification.

3.5.1 Mitigating Acid Mine Drainage (AMD) Pollution

Lime neutralization is a common method that is used in reducing the effects of AMD in mining effluents.. It involves the addition of lime into the acid mine drainage water effluent in a treatment tank. The lime and recycled sludge are continuously added to the treatment tank until the pH reaches 9. Consequently, most toxic metals at pH 9 are insoluble and are precipitated aided by the recycled sludge. The treated water overflows from the treatment tank and the sludge is withdrawn from the bottom of the tank.

Calcium silicate method is also used for the treatment of the AMD effluents from mining sites. Calcium silicate reacts with AMD waters and causes an increase in the pH. The silicate ion captures the H^+ ions and increases the pH. Consequently, neutral H_4SiO_4 is formed which combine with the calcium silicate and is absorbed onto the metal surface. The development of silica layers (mono and bilayers) lead to the formation of colloidal complexes with neutral or negative surface charges. Ion exchange resins are also be used to remove potentially toxic ions by caution exchange processes.

The last method that is used to reduce the effects of AMD is by allowing the effluent water to pass through constructed wetlands. Precipitation occurs as a result of oxidation of the metal at this pH and complexion precipitating as carbonates and sulphides. The effluent from the wetlands at pH near neutral is buffered at 6.5 to 7.0 pH and discharged. This method can treat large amounts of mine waters at low cost. Several other techniques are

available to avoid early oxidation of sulphides. They are: physical barriers or dry cover, bacteria inhalation, chemical passivation, electrochemical and desulphurization and cover of reacting or oxidation sites (Sahoo, Kim, Equeenudin and Powell, 2003)

3.5.2 Mitigating Cyanide Pollution In Mining

Two particular studies that address the reduction of cyanide pollution in the mining effluents were considered in this review. First, a study to evaluate the in vivo capacity of woody plants (willow poplar, elder rose birch) to remove cyanide from aqueous solutions should be given prominence space. (Larsen, Trapp and Prandelo, 2004). The highest removal obtained from this study was that from the basket willow hybrid (*salix viminalis*). The authors suggested this plant to be used for cyanide removal in phytoremediation and treatment of waste water from gold mining. Secondly, biological treatment of cyanide through the growth of micro-organisms that are essential for the degradation of cyanide in gold mill effluents has been commercially used at gold mining operations in North America (Akcil, 2003).

3.5.3 Minimization and Control of Mercury Pollution

Borax method has been reported in literature as an alternative method to the mercury method used by ASM in extracting gold (Appel and Na-Oy, 2012; Appel, 2011). The method uses borax ($\text{Na}_2\text{B}_4\text{O}_7 \cdot 10\text{H}_2\text{O}$) to reduce the melting temperature of gold (1063 °C). It achieves much higher temperatures compared to the inexpensive burners. Adding borax to the heavy mineral concentrate and the melting temperature decreases enable gold to melt out of its concentrate. The steps involved in the borax method are grinding, washing, mixing, heating and extraction. The borax method recovers much more gold than the mercury extraction method and it is environmentally benign (Appel, 2011).

Another method that is reported in literature for the mitigation of mercury pollution is that of recycling of the mercury in the mining process through mercury distillation (Appel and Na-Oy, 2013). This method uses a small cup of iron attached to a bent iron tube. The cup is placed in a charcoal for heating. The mercury is evaporated and condenses in the iron tube and is finally collected. The resultant gold contains 5% to 10% and is sold as it is. The method reduces the mercury pollution by 90%.

3.5.4 Technological Minimization of Waste In Mining

The technological options for waste minimization in mine industry are reviewed by Driussi and Jansz (2006). The examples of their review included how technology can be used to minimize air, water, land and noise pollution. The reviewed technologies to control air pollution were Cyclone separation, electrostatic separation, fabric filters and venturi scrubbers. Technologies for land and water pollution include waste water treatment and recovery. The technology reviewed by the study for the destruction of cyanide in LSM process of gold is the so called INCO-SO₂ process. In this process, SO₂ and air are added to

cyanide infested tailings and copper sulphate is added to catalyse oxidation and precipitate iron cyanides into soluble copper salts. Then $\text{Fe}_2(\text{SO})_4$ is added to precipitate arsenic and antimony and to suppress residual iron cyanides that reduce the concentration of cyanide discharged to the tailings dam to 1 ppm (1 mg/ml).

4.0 CONCLUSION

These review analysis has demonstrated that there is pollution in the mining activities of gold, diamond, coal and tanzanite. The public health risks through exposure to the pollution coming from these mines have also been demonstrated by the studies. The measures to control or reduce the effects of the pollution to the environment that have been reported by some studies have been incorporated. However among the reviewed studies there is no study has explained about the fate and pathways of mercury losses to the atmosphere although the mercury losses account for 70-80% of the total mercury used in gold processing. Despite this limitation, the following suggestions from the reviewed studies need policy action for the protection of the environment, humans and animals from mining pollution.

In the ASM activities in order to reduce the mercury exposure level of the workers in the amalgamation and burning of amalgam sections, mine duties should be on rotation basis so that the risk of intoxication of the workers is reduced (Ikangura and Ikaji, 2006). Mines must be properly ventilated and the miners and mine owners must adhere strictly to mining rules, regulations and code of practice (Malisa and Kinabo, 2005). The government need to establish legal framework and compliance mechanisms to control environmental pollution. Further it ought to enact legislations on mining to mandate the mining companies to rehabilitate land that was used for mining into viable post mining use such as agriculture. To reinforce the mining policy (URT, National Environmental Policy, 1997) that requires minimization of pollution from the mines. This is through the following measures: i) adequately manage the overall cycle of mining project, ii) reclamation and restoration of land after use, iii) control the mining effluents from the mines to grounds and water, iv) perform preventive and clean up measures in case of accidents, v) control air pollution from mining, vi) restrict the use of mercury in mining activities and vii) regulate and maintain environmental audits to ensure the adoption of environmentally sound practices in mining operations.

Mining industry need to apply novel technological innovations that ensures effective mitigation on AMD and water quality. The public and government should put pressure on the mining companies and small scale artisanal miners to have a post closure restoration of the impacted environment. There should be integrated approach during the closure planning whereby the mining industry stakeholders, government and community would assume the responsibility for the closed mine (Davies, 2012).

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The Link between Leadership, Monitoring, Evaluation and Schools Sustainability

A Survey of Catholic Primary Schools in Eastland of Nairobi, Kenya

Kori Blandina Walowe

ABSTRACT

This article is a result of my MBA research thesis of 2014 from the Catholic University of Eastern Africa. The study set to establish the type of leadership styles required in organization sustainability in the contemporary competitive world. It first discusses the perceptions of a leader with the background of attribution theory to explain leadership phenomenon in an organizational set up. Then it reflects on the six reach questions with the main focus on the link between leadership, monitoring & evaluation and sustainability. This is a descriptive research, which used census methodology to survey 14 different Catholic primary schools in Eastland Nairobi, Kenya. A significant contrast between authoritative and transformative styles of leadership came out clearly. While authoritative style stagnated creativity, transformative leadership style enhanced growth and development. The study used questionnaires and question guide as instruments for data collection which contained both open and closed ended questions. Both quantitative and qualitative methods were used in the process of analyzing data.

Key words: the link between leadership, monitoring, evaluation and sustainability.

INTRODUCTION

Harmony in an organization leads to high achievements and sustainable development in an organization. Harmonizing of individual objectives and organizational goals removes any conflict that may come about due to poor leadership styles. Leadership that builds an environment that enhance good human relationship encourages efficient and stable organization growth (Jago, 1982). According to Grauwe (2011) a leadership that uses proper monitoring and evaluation achieve organization sustainability without putting in too much effort accompanied with a lot of stress.

The discussion in this study is geared towards solving the problem of poor management that results to unsustainable organization. The study considers participatory leadership as driver for a successful organization guided by monitoring and evaluation as a moderating factor (Aubel, 1999 & Avilio et al., 2009). The study borrows from the words of Hauschildt et al. (2000:p24) that "the success of an organization depends on human factors such as organization's leadership, top management support, and project team and not necessarily upon the technocratic instruments of organization's management". Findings of Haid et al.

(2010) indicate that, to encourage organizational effectiveness and to ensure sustainability leaders role must focus on aligning their people, the systems, the structure and roles with the organization's strategies. Despite leadership role being key, Thompson (2010) notes a downturn, accordingly, he notes that the projects continue to fail due to ineffective leadership in the organization. It is important therefore, that leaders maximize efficiency in order to achieve organizational goals by enhancing effective communication (Druskut&Weeler 2003). Team work that motivates and creates confidence to subordinate, build morale hence enhancing willingness, co-operation and accountability, which in turn maximises employees capability (Raeline, 2005). According to Rusell and Stone, this is a leadership that build a conducive working environment and coordinates activities to reconcile personal interests with organizational goals.

STATEMENT OF THE PROBLEM

Due high competition and consistent changes in organizations' management, managers are charged with unavoidable responsibility of place write persons on the leadership position. The Catholic Church institutions are not an exempt. Jago (1982) observed that leadership that builds an environment that enhances good human relationship encourages efficient and stable organization growth and sustainability. A study carried out by University of Cambridge (2010) reported that a survey of 766 United Nations Global Compact (UNGC), 93% CEO's find sustainability as important to their organization's future success. On the same study they discovered that 96% of the population believed that sustainability issues should be fully integrated into the strategy and operations of an organization. A leader should therefore, encourage cordial relationships among employees, and have ability to enforce policies, systems and procedures that facilitate sustainability rather than hinder progress (Chiku, 2007). According to Grauwe (2011) M&E act as a pillar that supports the local actors for sustainable development. For the purpose of this study therefore, the research is set to establish whether the potential of a leader in project management and the practice of monitoring and evaluation as moderator in policy-making process can lead to school sustainability of the Catholic institutions. The study will therefore answer the following questions:

- i. Which leadership styles are practiced in the Catholic institutions?
- ii. What effect does leadership has on sustainability of Catholic institutions?
- iii. Which Monitoring & Evaluation systems exist within the Catholic institutions?
- iv. What is the relationship between Monitoring & Evaluation and sustainability of the Catholic institutions?
- v. What is the moderating effect of Monitoring & Evaluation on the relationship between leadership and sustainability?
- vi. What is the effect of Monitoring & Evaluation on Catholic institutions?

Theoretical Framework

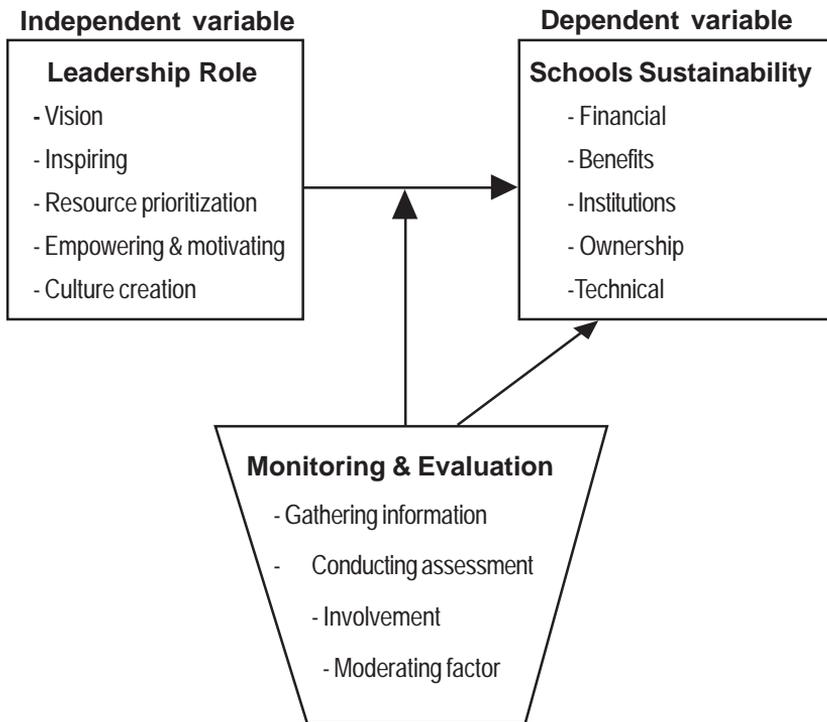
This study adapts the Haiderattribution theory of 1958 to explain leadership phenomenon in an organizational setup. This theory gives reasons for success or failure of every event, which Harvey and Martinko refer it as "locus of causality", which describes the internality or the externality of attribution. According to this theory individual believes that success come-forth as a result of own behaviour, while failure is normally attributed to external and uncontrollable factors. For example, if a company grows in the hands of an individual, it is attributed to his/her ability and competence whereas if he/she does not succeed it is because the people working with him/her did not offer support. Thus it is assumed that self-serving bias is strongly related to the fact that people want to protect their self-esteem. The theory therefore, implies that leaders will use defensive attribution to avoid feelings of vulnerability to protect their self-image. With regards to this phenomenon, the leader fails to take responsibility when he/she receives negative results from an assignment. This is also linked to participatory leadership in this study, where leaders involve colleagues in decision making and implementation of organization's strategic plans. When there's success it is attributed to leader's ability, but where there's failure, they may attribute this to lack of support from followers. A sustainable catholic institution in this study will therefore attributed to the leader's ability without considering the contribution of the followers, while failure will be blamed to external factors. However, this theory is criticized by (Wiley et al. 2012 & Buss 1978). Accordingly, they argue that the theory does not adequately distinguish "causes" for behaviour from 'reasons' for behaviour. It also does not consider the individual's alteration of behavior in order to successfully complete the task (Estrella, 2001). According to Hand (2010) it is the leadership style which plays an important role in influencing followers, hence achieving good performance of the organization despite the environmental factors.

Conceptual Framework

The conceptual framework in this study is a combination of both the leader's efforts to implement conventional monitoring and evaluation and leadership for sustainable development as shown below.

Figure 1: Conceptualized relationship Leadership, M&E and sustainability

(leadership= predictor, M&E= moderator, sustainability = criterion/outcome)



Source: Adapted from Rose et al. 2004 & Eberly et al. 2011.

To perform their role effectively therefore, Eberly et al. (2011) suggests that leaders must remove locus of leadership from individuals to collectiveness. Strategic leadership or top management is perceived as one that supplies visions, direction and behavioral guidelines. They are also held accountable for circumstances in which uncooperative situations take place. If the circumstances conform to upheld norms with regard to performance or attainment of goals, then the leadership is perceived to be good or excellent. If not, the leadership is regarded as failure and or incompetent which may result in an unsustainable future.

Adopting a culture of sustainability in an organization running, ensures protection of resources including cultural diversities and advancing of the just and better future of the organization by ensuring proper service delivery, informational dissemination, behavior change and measurement of results for set standards. Hand (2010) suggests that it is the leadership style which plays an important role in achieving good performance of the organization and the leader's ability to adapt to internal and external environmental changes and the ability to lead a group through the right direction. A leader who involves

and agrees with the followers or change their minds in order to move organizations forward, and or to accomplish identified goals, is regarded to be a worthy individual for organization sustainability (Yulk 2010, Kouzes, Martinko et al., 2011 and Barry 2012), According to Avilio (2009), when leadership involves members in decision making (participatory leadership), people tend to be more committed to actions, they become less competitive and more collaborative while working on joint goals.

RESEARCH METHODOLOGY

This was a descriptive study conducted in Eastlands of Nairobi to find out the link between leadership, monitoring and evaluation and sustainability. The study used survey and census methodology which required the researcher to practically meet all the respondents face to face. A total of 14 Catholic private primary schools which provided seventy (70) purposefully selected participants were involved in the study. A total of twenty (28) participants responded through questionnaires while the remaining fifty two (52) formed fourteen (14) focus groups. The researcher used convenience sampling technique to get the catholic primary schools located in the same geographical area. Research instruments included the questionnaires which were directed to the purposefully selected respondents and a question guide which was used to conduct a face-to-face interview.

A pre-test activity for validity and reliability of the instruments was carried out two months before the actual data collection. The alpha test indicated that over 75% of the instruments were error free and fit for data collection. All survey, observations and interview findings were kept anonymous to protect individuals from victimization.

Review of Theories

Leadership Styles

Leadership style is a form of cross situational behavioural consistency named by Pondy (1989) as a social influence and applied to pastiche characteristic ranging from that of foreman to that of prophet. The leader therefore 'enactment of power' and balances between the goal attainment function and the maintenance function of the group. The commonly provided strategies of leadership theories to choose from are three namely; democratic, autocratic and laissez-faire (Leavitt et al., 1989). However D'Souza (2009) argues that the best style of leadership is the one appropriate in a given situation. D'Souza's argument indicates that, a well led organization can not have only one style of leadership, rather there will be a mix and match and even engagement of team members. The eight leadership styles below can be applicable in managing circumstances in real-world;

Democratic Leadership/ Participative Leadership Style

A democratic leadership style recognizes each person's self-worth, esteem, trusts, integrity, equality, honesty, openness and mutual respect (Ronald, 2011). The leader facilitates innovation by promoting the motivational mechanism of employees' empowerment (Somech, 2005). In such a leadership team leaders are responsible for their teams' performance, by mobilizing people to reach organization objectives (Lyne, 2009). The leader encourages team members to discover new opportunities and challenges and learn to cope through open communication and sharing knowledge among employees (Druskut & Weeler 2003, & Somech 2005). The leader strives to empower all employees to their maximum capability and desire, emphasis on teamwork and develops a natural synergy among group (Raelin, 2005). According to Ronald (2011) democratic leaders consider mistakes as a learning process thus the leader puts more emphasis on rewards rather than punishment.

Transformational Leadership Style

According to Yukl (1999) the origin of transformational leadership was introduced by Bass 1995-1996, and defines it in terms of leader's effect on followers, and the behavior used to achieve this effect. "The followers feel trust, admiration, loyalty, and respect toward the leaders, and they are motivated to do more than they are originally expected." Transformational leadership motivates and encourages intellectual stimulation through inspiration (Daft 2005 & Avilio 2004). According to Gill et al. (1998) transformational leadership fundamentally change the values, goals, and aspirations of followers who adopt the leader's values and, in the end, perform their work because it is consistent with their values and not because they expect to be rewarded.

Situational Leadership Style

Situational or contingency leadership theory was proposed by Dr. Paul Hersey and Dr. Ken Blanchard (2000). According to these theorists, successful leadership is achieved by selecting the right leadership style, based on followers' needs. According to Turner & Müller (2005) add by saying that where situational leadership is practiced it should give direction, coaches, supports and delegates duties in order to achieve the goals of the organization. Due to proper directives therefore, goals and objectives are agreed upon by both the leader and followers and the achievement is rewarded while failure is punished accordingly (Jones et al., 2007).

Transactional Leadership Style

Gill (1998) defines transactional leadership as an exchange-based relationship where self-interest is dominant. In this definition therefore, Gill describes transformational leaders as people who work within their organization's culture and follow existing rules, procedures, and operative norms. Yukl (1999) regards it as a process of leader-subordinate exchange, which includes a diverse collection of (mostly ineffective) leader behaviors that lack any clear

common denominator relying on the use of appropriate rewards to motivate followers. This type of leadership also puts emphasis on the completion and accomplishing of allocated tasks with less regard to the performer (Gill, 1998). According to Turner & Müller (2005) the transactional leaders manage by exemption, taking action when things are not happening as expected. According to Draft (2009) transactional leadership deals with present situation and excels at keeping the organization running smoothly and efficiently due to its ability to keep the traditions on planning, budgeting and the focus on job performance.

Spiritual Leadership Style

Spiritual leadership style, according to Fry et al. (2011) focuses on engaging all members to meet spiritual needs and enhance organizational commitment and high performance and in this way, enhancing positive feeling of belonging to the organization. It creates vision wherein organization members experience a sense of calling in that their life has meaning and makes a difference and establishing a social/organizational culture based on altruistic love whereby leaders and followers have genuine care for each other (Fernando, 2011). The leadership style is characterized by; listening, empathy, healing, awareness, persuasion, conceptualization, foresight, stewardship, commitment to the growth of the people, and building community (Avolio et al., (2009). According to Fry (2000) this leadership style puts emphases on collective social influence process that engages everyone and enables groups of people to work together in meaningful ways. Freeman (2011) suggests that, if a person wants to practice spiritual leadership s/he must first be a believer and have a higher calling to serve God.

Charismatic Leadership style

According to Yukl (1999) the origin charismatic leadership which was developed by Weber 1947 describes how followers attribute extraordinary qualities of leadership which he referred to them as charisma. This style of leadership became popular in 1980 and 1990, and arose from the study of successful business leaders who lead their organizations through change (Turner & Müller, 2005). According to Fry (2003:p701) "charismatic leadership works best because it creates congruence between follower and their values, the organization's values and culture". In a research carried out by Ehrhart and Klein (2001) the hypothesis showed that "followers" preference for charismatic leadership will be associated with high levels of achievement orientation, self-esteem, risk-taking, and the intrinsic rewards and participation in decision-making, work value, and with low levels of need for structure." According to Bryman et al. (2011) charismatic leaders are geniuses, and with great insight. He adds also that charismatic leaders are people with outstanding organizational ability and uncommon compassionate characters.

Servant leadership style

According to Greenleaf (1996) servant leadership is a model of leadership which puts service to others as the number one priority. It is a holistic approach to work; promoting a

sense of community and sharing of power in decision making. Greenleaf adds that such leadership possesses virtues such as; listening, empathy, healing, awareness, persuasion, conceptualization, foresight, stewardship, commitment to the growth of people and building community. A research carried out by Rusell and Stone (2002:p.154) revealed that “servant leadership is a concept that can potentially change organizations and societies because it stimulates both personal and organizational metamorphoses”. The study of Rusell and Stone discovered that apart from the virtues listed by Greenleaf, servant leadership possesses functional attributes like; vision, honesty, integrity, trust, service, modeling, pioneering, appreciating of others and empowerment others. They also discovered the accompanying attributes as; communication, credibility, competence, stewardship, visibility, influence, persuasion, listening, encouragement, teaching and delegation.

Laissez-Faire Leadership Style

According to Ronald (2011) Laissez-Faire leaders provide their followers with basic but minimal information and resources. Jones & Rudd (2007) refers this leadership style as a management by exemption where the leader only intervenes when goals have not been met or a problem arises. This means that the leader does not participate, or get involved, or even communicate with the workforce. Ronald noted that understanding of job requirements, policies, and procedures are generally exchanged from employee to employee (Ronald, 2011). According to Bass & Bass (2008), this leadership style is negatively correlated to Transformational leadership. The leader is ready to abide with the odes because he/she does not want to be involved thus he/she avoids making decisions (Turner & Müller, 2005).

Authoritarian/Autocratic Leadership Style

According to Goodnight (2011) the autocratic leader generally has a well-defined and controlled disciplinary process. The leaders are said to be rigid in their thinking and perceptions, they believe that leadership is serial, individual, controlling and dispassionate (Raelin, 2005). The autocratic leaders are traditional leaders whose style is highly efficient but causes discontent (Lewin's experiment of 1939), thus not applicable the leader needs members contribution in decision making (Raelin, 2005). Unfortunately, this style of leadership results in minimal or no innovation, and virtually no personal or organizational change, growth and development (Raelin, 2005).

Critique of the Theories

According to Bishop (2013) a leader is only as authentic as others believe him or her to be and not necessarily because of his successful performance. Bishop's observation seems to suggest that leadership is a perception in the follower's mind. Due to this observation Avolio et al. (2009) suggests that leadership should be examined in order to evaluate its

development though for a long time it this has not worked out properly. Their observation is that for a long time leadership has done too little to focus its energies on what contributes to or detracts from genuine leadership development.

The Link between Leadership, M&E and Sustainability

To link between leadership, M&E and sustainability we first look at a general view of what is leadership and the possible tasks of M&E that such a position is involved in. The main purpose is to ensure organization sustainability. As noted earlier leadership is a process by which an executive directs, guides and influences the behaviour and work of others towards accomplishment of specific goals in a given situation (Turner & Muller, 2005). Competitive leadership will therefore happen as a result of an individual executive taking responsibility to monitor the progress of the organization (Shah 2000). Bruce et al. (2009) suggests that if an organization wishes to succeed therefore authentic leadership that demonstrates appropriate conduct through personal actions and interpersonal relationships, and the promotion of such conduct to followers through participatory monitoring and evaluation, would be the most appropriate. The tone and action at the top and the sharing of information should clearly be heard and seen (IFAC 2011 & Kotter, 1988).

In an organization where there is strong leadership, participatory monitoring and evaluation sets in automatically. In such system there is flexibility and willingness to provide the requested information by staff members to the management team. This leads to the assumptions that the institution will provide expected results. As stated before, both management practices and leadership skills are necessary for institution management. Thus practices like; proper controls, coordinating, supervision, directing, training, development and accountability are clearly displayed by the team leader(s). Such an organization benefits from a leadership that articulate vision, redefining organizational problems, suggest solutions, transform or energize followers, and be an example and a mentor for the followers (Hand, 2012) leading to high achievements in organization with long term sustainability. The above mentioned strong values for organization growth, results in team spirit and cooperation in management of the projects (Drushal,1987).

RESEARCH FINDINGS

The research indicate that there was a balanced gender representation (50/50) in the management and fair representation (78%) on the age of the people in the leadership/management position, for whom 72.2% of them were head teachers and the remaining being administrators or directors. Majority (83.3%) of the schools were day mixed primary schools. The average age of the respondents who were in the leadership positions were between 35 and 45, which indicated a fair and recommendable age for schools leadership. The results also indicated that most the leaders had attained diplomalevel of education (50%+). A total of 66.7% of the respondents worked in the current schools for periods

between 1-5 years and that 100% of them were in the leadership positions and involved in both long and short term planning hence capable of predicting the future of the institutions. Results also indicated that 72% of the respondents were found to be in the administration position as well as in other departments and allocated other responsibilities. From our own observation during the survey all the fourteen schools involved in the research were managed either by religious sisters or priests which gave a picture that leaders were committed managers due to their background of servant leadership (Greenleaf 1996 & Rusell et al. 2002).

This study found also that styles of leadership that had low level ranking in these schools were authoritative and laissez-faire where both of them rated between 8% and 4% respectively, while transformative and democratic leadership styles ranked the highest and the most common style used in the target schools. Other styles like servant and situational were also practiced at averagely.

The study also indicated that elements of leadership roles including; vision creation, inspiring, culture creation, resources prioritization, empowering & motivation, evaluating were well embraced by over 50%. The discussions with the focus group confirmed these finding, that the employees expressed their joy openly that there was not misuse of resources and they empowered which and encouraged to continue working for the institutions. However, in some schools the employees complained being excluded in decision making which resulted inferiority complex and demoralization.

To establish the extent of influence of the role of leadership played on finance, institutions' management, employees' benefits, ownership and technical roles, and school sustainability, results indicated that the role of a leader on institutions' management was higher by 24% compared to others. The above findings confirmed also that all the schools (100%) had M&E systems with 77.8% having formal M&E systems only. The procedure used in caring out M&E included policy documents, self-appraisals and students' appraisals. In the second part of these findings, M&E was found to be a moderating factor between leadership and sustainability at a rate of about 50% and that it provided tips for establishing accountability and transparency in the institutions. The research also found that most of the schools were not donor funded to a large extent thus they were not guided by M&E to write proposals for funding rather, through proper resource management, the schools performed well financially. According the report given by the managers of the schools during face to face interview it was clear that the parents who could afford to pay school fees, did it in time in order to support the schools. This is was because schools were church owned, and that the parents acted as local donors of the schools.

A total of 66.7% respondents indicated that they were comfortable with the leadership styles in the target schools and that they were certain that this kind of leadership and current M&E systems would lead the schools to sustainability. In the schools where proper monitoring and evaluation was practices employees experienced high level of

involvement in decision making which made them more active participants in growing the institutions.

Effect of Leadership on Catholic Schools' Sustainability

The results indicate that leadership roles like vision creation, evaluating performance, culture creation, empowering & motivation, inspiring, and resource prioritization were essential for schools sustainability. According to the participants from the study focus group the above leadership roles encouraged team, energized, and enhanced a friendly working atmosphere which was necessary for the future of the institution. Generally, it was clear that there was a positive perception by the target participants that transformative and democratic leadership styles were the best styles for running their schools and that the practice of the above leadership elements led to success of an institution.

Influence of Leaders on Sustainability

The results indicated that leaders had great influence on ownership of the institution to its stakeholders. They (leaders) influenced in a great deal the running of the institution by communicating information, planning, training employees, coordinating activities, taking corrective actions among other duties for the smooth running of the schools. The results also indicated that leaders' technical skills and roles enhanced diversity, empowered staff, helped in formulating training designs as well as developing materials while monitoring and evaluating the progress.

M&E Systems in the Catholic Schools

The M&E systems available in the targeted schools were both formal and informal. The whole target population practiced monitoring and evaluation which according to the findings the system facilitated the process of gathering information, conducting assessment and involvement of the staff in the day-day activities of running the schools. According to the respondents these were vital steps in assessing the status of the programmes at any given time, and serve as a basis for reviewing the said programmes. Procedures followed for these assessments were basically through policy documents which were available in all the targeted schools. The survey also found that whole target population had meetings generally after three month (quarterly) which according to the respondents, it was the best time for reports presentation. General perception from the target respondents was that with M&E system the school are assured of a prosperous future

Relationship between Leadership, M&E and Sustainability

According to the findings above and focus group discussions there is positive perception towards M&E systems that were practiced in their schools and that according to them with the practice of the same there was hope for the future of the schools. Other explanation to confirm this relationship was that; due to M&E systems each employee worked with a

focused mind with the aim of achieving set goals. With M&E in place leaders were ethical, fair and results oriented which confirmed that there was a great relationship between Leadership, M&E and sustainability.

CONCLUSION

The study indicates that PM&E enhances collaboration and team work and that it can moderate between leadership and sustainability. This also is an indication that a shared leadership enhances collaboration, transforms, and inspires followers' performance. It transcends self-interest creating a culture that focuses on single direction for organization success. In conclusion, from research findings M&E appears to be a great contributor to the institutions' sustainability and that without involving team members in the leadership, success may not be forthcoming.

RECOMMENDATIONS

Based on the findings above it is clear that M&E provides consolidated source of information on the progress of the projects in an organization. However, in some of the schools the management did not involve senior staff in long term planning for the institution. Some schools lacked participatory M&E, which was also an indication that there was no participatory leadership in such schools. It was also noted that, from the findings it was clear that M&E often generated reports that contributed to transparency and accountability and also revealed mistakes and offered paths for learning and improvement among other benefits. This study recommends that; the Catholic Schools in Eastland to continue practicing PM&E. The study also encourages regular meetings and planning together, sharing of information, identifying and developing projects for schools sustainability in a collective decision making. The study also recommends the continuity of both transformative, democratic and servant leadership styles in the target schools. The study also recommends that other Catholic schools which were not covered by this survey may adopt the above recommended leadership styles and the M&E practices for the benefit of their future sustainability.

Additional studies could address several issues that emerged in this study and were not investigated. One of such issues was that, Catholic target schools did not rely solely on donations in their daily operations. However, the study did not establish other sources of funding for the said schools. Other studies may be carried out to uncover other sources of funding for Catholic schools in Eastland. Finally, since this study examined generally schools' sustainability, others studies could be conducted to on specific programmes such as ICT programmes, counseling programmes, resource sustainability, finance or human resource sustainability, organizational learning and sustainability, corporate responsibility or Social justice and equality as some of the not for profit organization run and manage by the Catholic Church.

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Educators' Perspectives on the Legacy of Colonialism in the Post-Colonial Tanzanian Educational System

Eugenia L. Wandela

ABSTRACT

The attainment of the political independence in Tanzania was a historical moment that gave people hope of achieving high socio-economic development through equity and quality education. After more than 50 years of independence, the optimism and hope have yet to be achieved by the majority of Tanzanian citizens especially those who are living in rural areas. This study tried to answer the question whether the legacy of colonialism still exists and how it is affecting the Tanzanian post-colonial educational system. The research focused on secondary science education. Therefore, nine science educators were interviewed and classroom observations were conducted. The data results from both interview and classroom observations were contextualized with data from existing documentation on Tanzanian secondary science education. The finding of the study shows two different points of views or beliefs. The first believe is that the legacy of colonialism still exists in the Tanzanian educational system and can be direct recognized through inadequate science curriculum, low-quality education, socio-economic gaps between rich and poor families, school segregation between students from low-income families and students from rich families, and inadequate language of instruction policy. The second believe is that Tanzanian post-colonial education system is suffering from its own problems of poor management, corruption, lack of funds, and unmotivated science teachers. These problems, however, have nothing to do with the legacy of colonialism. Drawing from these two beliefs the researcher concludes that both of the beliefs present some kind of truth and they cannot be ignored. In order to improve education to its citizens, the researcher suggests that Tanzania has to: motivate science teachers, create a corruption free education system, improve school management, increase school funding, develop science curriculum that honors both Western science and African science, provide equity and quality education at all levels of school, and reform the language of instruction system.

Key words: Educators' perspectives, Legacy of Colonialism, Educational System, Curriculum and school management.

INTRODUCTION

The achievement of independence in Sub-Saharan African nations in the last half of the 20th century was a defining historical moment, and people hoped for a bright future life (Young, 2004). Being free from colonial power gave African people a sense of excitement, hope, and anticipation that the struggles of life they endured for centuries would be over. The colonial legacy that was characterized with socio-economic inequalities (Mushi, 2009; Samoff, 1999; Young, 2004). In order to eliminate the socio-economic inequalities, most of the new governments

restructured the colonial educational system according to their society's structure and culture (Mushi, 2009). For example, Tanzania government reconstructed the new educational system by abolishing schools' racial segregation and other educational inequalities based on gender or religious background (Kassam, 1994; Mushi, 2009). In short, the Tanzania government opened doors to every child to receive a free education. Even children from non-Christian families who were denied education during the colonial rule were welcomed (Mushi, 2009). Making education accessible to citizens was the key solution thought to speed up socio-economic development (Kassam, 1994; Samoff, 1999; Young, 2004). The education sector became important because more children attended schools.

In general, the attainment of the political independence period in the Sub-Saharan African nations was a historical moment that gave people hope for attaining quality education and high socio-economic development. That dream, however, has never come true for the majority of people of the Sub-Saharan Africa (Samoff, 1999; Young, 2004). In addition, the new educational policies created during independence did not necessarily change the colonial educational system. School structures, hierarchies, and political control over public schools were maintained (Mushi, 2009). Moreover, most the Sub-Saharan nations opted to maintain colonial language of instructions in schools. For example, Tanzania opted to maintain English as the language of instruction in secondary schools and colleges (Mushi, 2009).

STATEMENT OF THE PROBLEM

Tanzania, as one of the Sub-Saharan nations, has a significant number of its citizens who were able to access free primary education in the 1970s and in the early 1980s (Kassam, 1994; Mushi, 2009). In addition to that the number of students' enrollment at different level of schools has increased numerically. Data from the Ministry of Education and Vocational Training (MoEVT, 2012), and from the National Examination Council (NECTA, 2012) show that primary school enrollment increased from 3,908,208 in 2006 to 8,419,305 in 2010; secondary school enrollment increased from 675,672 in 2006 to 1,638,699 in 2010; and higher education enrollment in universities and colleges increased from 40,993 in the 2005/2006 school year to 118,951 in the 2009/2010 school year (Mushi, 2009). This increase of school enrollment in all educational levels has not had major effects on the Tanzanian citizens' socio-economic development. In short, optimism and hope for societal and economic change through education that came with independence has not been achieved. Studies show that most of citizens living in rural areas have limited access to safe drinking water, clinics, electricity, and reliable communication (Mushi, 2009; National Strategy for Growth and Reduction of Poverty, 2005).

The aim of this present research is to understand how the legacy of the colonial power related to politics, and economics affects the Tanzanian educational system, especially, at

the secondary education setting. The research focuses on the governmental four-year level secondary schools. The main focus was on secondary science education and problems that might be hindering the growth of science literacy in Tanzania. In order to get rich information on the research problem, this study involved secondary science teachers and administrators who have the experiences of working in secondary schools as well as the experiences of the Tanzanian post-colonial educational system. This study was guided by the following question: To what extent does the legacy of colonial education and a Eurocentric mindset play a role in how secondary science education is provided?

Rationale of the Study

Currently, there is a limited research and scholarship on topic related to the legacy of colonial politics, and economics in Tanzania; and how these affect the current education provision in schools. Most of available literatures on post-colonial educational system in the Sub-Saharan Africa have focused on three major areas: (i) comparative education, which compares African education of pre-colonial, during colonial period, and after the colonial era (Osei, 2009; Nieuwenhuis, 1996; Mosha, 2000; Pandey & Moorad, 2003). (ii) The impact of using colonial language for instructing students in schools (Ngugi WaThiong'o, 1994; Brock-Utne, 2007). (iii) The problems of using Eurocentric curriculum in teaching science in secondary school (Osaki (2005, 2007; Mabula, 2012; Semali & Mehta, 2013). This study therefore aimed at understanding the colonial politics, and economic past remains impact the current science education in Tanzanian secondary schools.

THEORETICAL FRAMEWORK OF THIS RESEARCH

This study adopted post-colonial theory as an approach to analyze the historical complexity of the colonial politics, and economic structure that influences the current Tanzanian educational system. Post-colonial theory is one of the critical theories used by qualitative researchers to analyze or critique the historical implications of the colonial legacy in the economy, politics, education, language, and culture of countries that have been colonized (Ahluwalia, 2001; Hall, 1996; Venn, 2006). In this study, the researcher used this theory to analyze the historical complexity of the legacy of colonial education in the Tanzanian educational system since independency in 1961 to the current time. Historically, post-colonial theory originated from Edward Said's idea on *Orientalism*, which was published in 1978. Said used the term Orientalism to describe how the West thinks of the East or the "Orient" (the term Orient in Said's description means the "Other"). According to Said, thinking of the "Other" through the lens of Orientalism usually distorts the reality of those people and also perpetuates stereotyping (Said, 1978). Said's work on Orientalism has been considered one of the foundational texts for the academic field of post-colonial studies in educational research and curriculum, particularly in shaping school environment (McCarthy 1998). Therefore, post-colonial studies that examine educational phenomena attempt to make visible the issues and struggles endured by schools, especially toward providing both equality and quality education.

LITERATURE REVIEW

Tanzania Education, Economics, and Politics before the Colonial Rule

Before colonialism, education was conducted according to the structure of the society, which was tribally based. The emphasis was on good citizenship, life skills acquisition, and the value of local customs (MOEC, 1995; Moshia, 2000; Osaki, 2005). There was no national educational system, no classrooms, and no national exams. Every tribe or clan educated their youth according to their culture and social practice, and the education was passed on generation to generation (Moshia, 2000; Mushi, 2009). In most cases, Tanzanian indigenous culture shared a common educational philosophy. That means the educational system focused on understanding and finding harmony with nature through knowledge of plants, animals, soils, water, and the environment around communities (Moshia, 2000; NgugiwaThiong'o, 1994). Also, adults and children learned to work together for the community's common good. Collaborative learning and hard work was emphasized to a great extent (Moshia, 2000; Ngugi WaThiong'o, 1994).

It is also described by Settles (1996) that before the Berlin conference of 1884-1885 that portioned the African continent according to colonies, African people lived in small communities. These communities were identified in three categories, including communities ruled by chiefs, those ruled by kings, and those following an empire system. The empire systems were mostly prominent in Western Africa (Settles, 1996). All three groups had their own form of political and economic systems. Economically, they traded with other parts of the world through exchanged goods (Settles, 1996). For example, people of Tanzania exchanged iron products, spices, beads, and carvings with people from the Middle East, South Asia, and Portugal (Mushi, 2009).

Studies also show that between 3000 and 2500 BC, Africa had already developed an industry innovation in which individuals used smelting and forging theories to produce metal products like jewelry, agricultural tools, and weapons (Peter & Child, 1985). The smelting theory was used to produce metal products that needed high temperatures to separate the metal from oxygen and other elements before a refinery process. This entire process involved a number of stages: extracting ore from the soil, heating the ore at high temperatures between 800°C– 1150°C, and refining the metal into a final product (Gareth, 2008). Metal smelting and forging were not the only technologies that existed in Sub-Saharan Africa. Gareth explains that African people also used carving and ceramics to produce tools that were used for preserving, cooling, and cooking. They also used the process of extraction to produce dairy, grain, and medicinal products. However, Sub-Saharan African science, technology, innovation, and economic activities were interrupted during the African slave trade period from the 15th century to 19th century. This interruption continued during the colonial period from the late 19th century to the 20th century. During colonial rule, African science and technology was viewed as savage and uncivilized.

Tanzania's Education, Politics, and Economics during Colonia Rule

During the colonial rule, Tanzanian traditional education, politics, and economic were demonized and the local science and technology was viewed as savage and uncivilized. With that perspective, the colonizers introduced their own educational, political, and economical systems. Scholars such as, Mushi (2009), Osaki (2007), and Pandy&Moorad(2003) describe that science curriculum introduced in schools did not include African culture. Mushi (2009) also adds that the colonial curriculum focused on producing manpower and technicians needed in the agricultural processing industries, which did not need sophisticated science education. That type of curriculum also turned around the Tanzanian traditional economic system for becoming agricultural raw materials producers who did not have any power to their produces. That means, they to produce cash crops that were needed by the colonizer's countries. In addition to the change of the traditional economic, the traditional political form also changed. All the chiefdoms and kingdoms were forced to be under one nation with a top-down ruling system (Settles, 1996).

Tanzania Education, Politics, and Economics After Colonia Rule

When Tanzania gained independence from Great Britain in 1961, the educational system was segregated; children of African origin were provided low quality education compared to Western or Asian children. However, after the declaration of independence, Tanzania abolished all school discrimination based on gender, race, or religious background (Kassam, 1994; Mushi, 2009; Osaki, 2007). Despite that educational decolonization process, the system of schooling was not changed. Moreover, the science curriculum for secondary education remained Eurocentric (Osaki, 2005, 2007). Furthermore, not only did the curricula continue to be Eurocentric, but also the teaching approach remained that of memorizing science facts rather than of understanding the scientific concepts that needed for scientific expertise (Osaki, 2007). On the other hand, despite the fact that Tanzania gained its political independence from Great Britain in 1961, its economic development still strongly depended on the European market (Mushi, 2009), due the lack of local sophisticated industries. The lack of major industries to support strong science literacy and innovation had a major impact on the current Tanzanian secondary science education. That means, the current Tanzanian science education has not yet aimed at preparing critical thinker students who can solve real world problems by using their scientific knowledge.

RESEARCH METHODOLOGY

This study utilized a descriptive qualitative research approach to data collection and analysis. Qualitative approach was used because the researcher wanted to capture the experiences and perspectives of people who have firsthand experience with the investigated problem and learn how these individuals make meaning of their life experiences (Creswell, 2009; Merriam, 2002). This method of collecting data provides a mechanism for qualitative researchers to obtain rich and valid information (Creswell, 2009;

Lichtman, 2010; Merriam, 2002; Schram, 2006). In addition to the method of collecting and analyzing data, this study also utilized post-colonial theory as theoretical framework to explore and understand Tanzanian science educators' life experiences about the Tanzania post-colonial educational system.

Participants' Sampling Procedure

This study involved a total number of nine adults from four different departments who agreed to participate. These participants included: three science teachers; two administrators from the secondary science department in MoEVT office; two curriculum developers from the TIE department; and two secondary science education examination administrators from the NECTA department. The selection of participants depended on individual's schedule and availability. All nine participants have relatively good experience on teaching science in government secondary schools. Five participants out of nine were female, and four participants were men. The participants have a different range of experiences from 4 years to 22 years and education levels as summarized on the table below.

Table1: Participants' Level of Education, their Current Position in Secondary Science Education, and their Experience

Participants	Education level	Current Position	Experience
P1	DE	Chemistry Teacher	22 years
P2	DE & BS	Biology Teacher	17 years
P3	DE & BS	Physics Teacher	9 years
P4	DE, BS & MS	Ad-TIE	13 years
P5	BS & MS	Ad-TIE	12 years
P6	B. Ed. Science; M.Ed. Science	Ad-MoEVT	6 years
P7	BS, MS, M.Ed. Science	Ad-MoEVT	5 years
P8	B. Ed. Science; M. Ed. Science	Ad-NECTA	4 years
P9	B. Ed. Science; M. Ed. Science	Ad- NECTA	4 years

Note. P = participant; DE = Diploma in Education; B. Ed. Science = Bachelor of Education in Science; M. Ed. Science = Master of Education in Science; Ad = Administration; MoEVT = Ministry of Education and Vocational Training; NECTA = National Examination Council of Tanzania; TIE = Tanzania Institute of Education; BS = Bachelor of Science; MS = Master of Science.

Procedures of Data Collection and Data Analysis

The types of data collected are descriptive qualitative data that were analyzed through a basic interpretive qualitative research methodology. Methods of data collection included documentation, interview, and observation. The important selected documents included secondary science syllabi, national examination results obtained from the MoEVT website (<http://www.necta.go.tz/>); the 1999 and 2012 Tanzania Development Vision 2025 retrieved from the Tanzania National website (<http://www.tanzania.go.tz/>); and the 2010 science subjects past national examination question papers. These documents also played a crucial role in data analysis because of the rich information that reflected on data obtained from the interviews as well as from classroom observation.

Classroom observation was conducted at one of the government schools in the city of Dar es Salaam. Therefore, the observation was conducted only in classrooms in which science teachers agreed to participate in the interview process. Each observation activity lasted between 40 minutes to 45 minutes. The observation activities focused on teaching and learning materials such as books, laboratory equipment, and substances, teaching methods in lectures and laboratories, and the degree of transition of subject content and objectives from subject syllabus to classroom practice.

Additionally, the researcher observed student-teacher ratios, students' classroom participation (i.e., how they ask and answer questions, how they participate in laboratory work, and how they interact with their teacher and classroom environment). After each observation, field notes were analyzed and written according to emerged themes that were later integrated with data from documentation and interviews (Rubin & Rubin, 2012). Data collection through interview was guided by semi-structured, face-to-face, and audiotaped interview that lasted between 45 minutes to an hour. All interview activities took place at participants' work place. Data analysis followed the Lichtman (2010), data analysis guide, that is: transcription, coding, and concepts development. The data obtained from the interviewing process, classroom observation, and documentation were then analyzed and thematically conceptualized.

By enhancing validity and reliability of research, data interpretation and analysis followed the qualitative research approach suggested by Merriam (2002). Analyzing research data without enforcing own researcher's beliefs and biases is considered vital in this research. What is analyzed therefore includes, interviews data from participants, data from classroom observation activities, and data from documentation that are related to the research topic. These data were then contextualized with data from existing researches that relate to this present study. In summary, the data analysis of this current study focused on the participants' point of view on whether or not the colonial legacy is still present in the Tanzanian current educational system.

FINDINGS AND DISCUSSION

As noted earlier, the aim of this study was to understand how the colonial power related to politics, and economics affects the science education in Tanzania secondary schools. This research reveals the implications and challenges in Tanzanian governmental ordinary level secondary schools (O-level) settings. The research question guided this study was: to what extent does the legacy of the Colonial educational system and the Eurocentric mindset play a role in how secondary science education is provided in Tanzania? To answer this question, participants were asked to share their experiences with the Tanzanian post-colonial educational system. Their responses varied depending on the degree to which they believed and understood the differences between the colonial educational system and the current Tanzanian educational system. There are two major different points of views that emerged from the research question. These are "Not present" and "Present" of the colonial legacy in the Tanzanian post-colonial educational system. Therefore the presentation of the research finding honors the participants' point of views.

Colonial Educational System has no Influence in the Tanzanian Post-colonial Educational System

As noted previously that some of the participants do not see the legacy of colonial education in the current education system of Tanzania. They believe that after independence the colonial educational system was abolished. But the problems and issues of post-colonial education are: lack of management, corruption, lack of good implementation of the science curriculum, and lack of motivation for teacher. Three out of nine participants responded that the current educational system has nothing to do with the past colonial educational system. This is because after independence in 1961 Tanzanians have been in charge of the educational system. One among the three participants emphasized:

When we got our independence, the colonial educational system was abolished; the new nation insisted on educational equity and quality for all. Even now education is provided for all children, and good students are granted priority and scholarship.

Another participant who believed that the colonial educational legacy does not exist in the current Tanzanian educational system described:

When you look at the purpose of the colonial education system it was to train individuals needed to work for the colonizer, and that purpose ended after we gained our independence. I think the problem is with us, that we have not yet ourselves improved our learning and teaching environment. But, it does not show any influence of colonial education. Maybe our educational system is facing problems of poor management and corruption. However, we cannot say that poor management and corruption are the results of the colonial educational system.

“What do you mean by corrupt?” The interviewer asked. The participant responded:

I mean leaders or anybody in the administration putting schools' money in their pockets instead of using it for school improvement. Corruption happens in families too. Let us say a husband or anybody in that family decides to spend family money on his/her own.

The participant's responses suggest that the current educational system has some issues of poor management, corruption, teaching and poor learning environment that might be preventing the educational sectors from developing. For these reasons, then, the past colonial educational system does not have any responsibility for those issues.

Another issue that seems to be problematic in the Tanzanian post-colonial educational system is science curriculum implementation. Study shows that since the 1970s, Tanzania, through TIE department, has been in charge of developing its own educational curricula (Osaki, 2007). Responding to the question of whether or not the colonial education legacy still influences the current educational system in Tanzania, one of the participant said that the colonial education legacy no longer exists in the current educational system because since independence, Tanzanians have been responsible for developing the school curricula. The current problem is how the curricula and the training policy are implemented. The participant explained:

Personally, I do not see colonial education influencing our educational system because now we control everything from curriculum development to the school training policy. I think today we are the ones who prepare and implement our own curriculum and the school training policy. While we remain under the self-reliance training policy, [introduced by President Nyerere in 1967] our problem is around how this policy is implemented.

“Could you explain more about the implementation?” The interviewer asked.

The participant responded:

As women, we were able to study science because our teachers were good and they made us like science. Back then teachers were committed, motivated, and they were ready to spend extra time to help us. But now you can't see that. Teachers are protesting for their employment benefits. The truth of that is open. You have visited some of the schools. Do you think the teachers are willing to work?

The participant's responses indicate that teachers are responsible for the failure of the science curriculum in secondary schools because they are not motivated, and not committed for their jobs. On the other hand, studies show that Tanzanian science teachers are not motivated because of the work conditions that seem to deny their benefits. For example, teacher's low salary has been discouraging them from investing more time on their teaching career. They have to look for other alternatives to support their families

(Osaki, 2005, Osaki, 2007; Kitta, 2004; Vavrus& Bartlett, 2013; Semali& Mehta, 2012; Nieuwenhuis, 1996; Mushi, 2009). Mushi (2009) also explains that teachers' working conditions have been worsening after the government decided to expand secondary education in 2000. The number of secondary school facilities was increased, but most of these schools have no housing to accommodate teachers.

Colonial Legacy in the Current Tanzanian Educational System

As mentioned in the previous section, participants in this study had different opinions with regard to the Tanzanian post-colonial educational system. Four out of nine participants believe that the current educational system still has some elements of the colonial educational system. The elements described as still remaining are as follows: the secondary science content, socio-economic status, the use of English for instruction in secondary school, and the social alienation that results from them. Regarding of the secondary science contents, one participant, who teaches science, explained the current situation of secondary science curriculum in the following manner:

Tanzanian education still uses the same system that was used by the colonizers. For example, in science we learn many things but we cannot apply them in everyday life. That is a big problem. It may be true that every topic is important, but there are some topics that are useful and students can specialize in those topics. That way we would avoid teaching them material they will never use.

The participant's statement suggests that the current Tanzanian science education curriculum offers an excess of topics. This corresponds to Osaki (2007) and Semali& Mehta (2012), who indicate that the Tanzanian secondary science curriculum covers more information than needed. This participant's statement corroborates the latter study by suggesting that students learn unnecessary science materials that are hardly used on a daily basis.

Studies on socio-economic status during the colonial era describe that during colonialism socio-economic differences between the colonizer and the African people were evident (Mosha, 2000; Mushi, 2009). Schools were segregated based on race, socio-economic status, and religious background (Kassam, 1994; Mosha, 2000; Mushi, 2009; Osaki, 2007). Although these kinds of school segregations and economic differences were less observed after independence, the current situations of education and socio-economic status have no any difference from that of colonialism (Mushi, 2009). One the participant of this study described this in details as follows:

There are still influences of colonial education in the current education system. This is because during the colonial period, students of African origin were not provided a good education as compared to children from the colonizers' families. This privileged type of education gave the colonizers power over the African population. There are still

remnants of that system in our society because politicians and the elite are the products of that system. Currently, the elite are educating their children in private schools or are sending their children abroad for better education. Consequently, these same elite and their families and relatives are continuing to take over the best positions in governmental and other important offices. Meanwhile, the common majority of people are sending their children to government schools where there are not enough teachers, and where there is lack of both learning and teaching resources. As a result, the society is producing a generation that cannot question or challenge the authority. This growing generation is also unprepared to solve their economic problems. They have the mindset that politicians will provide for them and will take care of their problems.

The participant's statement indicates that there is a growing socio-economic gap between the elite and the majority of Tanzanians in terms of getting access to good education. It also shows that the elite have maintained socio-economic power, but the common people are economically struggling, and their children have limited access to good education. Meanwhile, politicians have made people believe that they are bringing development to every citizen; they do not foster self-esteem. In other words, the majority poor Tanzanian people believes and trust in promises from politicians who say they will bring them better life. Consequently, people are becoming more and more dependent on governmental help rather than on themselves.

The participant's point of view on the current socio-economic gap and school segregation situation relates to Mushi (2009) discussion the issue on socio-economic gaps between Tanzania's wealthy and poor populations. Mushi describes that since the resignation of President Nyerere in the mid-1980s, children from poor families have been struggling to access good education due to the government's inadequate educational policy. The new administration after Nyerere embraced the capitalist economic system, free market trade, and privatization. Since then, the governmental school institutions, especially in primary and secondary settings, have been lagging behind. Mushi explains that school privatization is a result of pressure from the World Bank, the International Monetary Fund (IMF), some of the Tanzanian elite, and some parents who wanted their children to be educated in English and in private schools. Consequently, the current educational system has been turned into a business, as opposed to its previous role as a service. More and more English-only schools from the preschool to secondary levels have been established. These schools also charge higher tuition, and therefore, families with lower incomes cannot afford them. Consequently, the Tanzanian government no longer funds 100% of the country's schools.

Another issue that was described by participants as colonial legacy in the Tanzania educational system is social alienation. This means that schools, especially boarding schools, tend to separate children from parents. Also, school graduates are frequently moving from rural areas to cities to look for employment and a better life. This process separates them from their communities. Consequently, formal education has been

perceived as an escape from farm work and from poor living conditions with limited social services, such as clinics, reliable communication, and electricity. The participant described:

The social ramifications of the colonial system still exist. First of all, acquiring formal education is still perceived as a gateway to escape farm labor and the hard life of rural areas. Secondly, most students still have to separate from their families to attend schools, especially those attending boarding schools. Secondary and college graduates have to separate from their families or communities because they are prepared for white-collar jobs, which are always in the cities. In general, the colonial educational system still has major impact on the current schooling system as well as on the school training outcomes.

“What would happen if the farming sector would be improved?” the interviewer asked. The participant answered:

The system was not founded to benefit the farming sector from the beginning. Although back then we used to sing songs about-facing our hardships, I have never seen anybody who graduated from college and after that went back to work in the farms. Those who are working in farms have no access to market or access to sell their products at a reasonable price. Maybe, if there was an equal distribution of resources and services, then people could live anywhere in the country. Since there is a lack of reliable social services, such as clinics, roads, and good schools in most of the rural areas, educated individuals get discouraged to stay in such an environment.

The participant’s description not only suggests that formal education is causing social alienation in the Tanzanian society, but also that the lack of necessary social services in rural areas contributes to the situation. The participant’s response provides a unique perspective that doesn’t seem to have been recognized in previous research. Previous studies such as Mosha (2000) and NgugiWaThiong’o (1994) argue that the educational system of colonizers separated children from families by educating them in boarding schools; also the elite Tanzanian group distanced themselves from the society (Mushi, 2000). Their argument is still accurate and as the participant describes: that currently, some students have to separate from their families to attend boarding schools. It is also true that graduates have to leave their families because they have to look for white-collar jobs in cities. However, the participant reminds us that not only the educational system causes social alienation, but also the harsh life in rural areas is a major cause for young people moving away from their families. Currently, there is a huge number of youth who have been migrating from rural areas to cities in search of a better life without having any educational qualifications. This problem has also been observed in neighboring countries, such as Kenya, Uganda, and Malawi (Mushi, 2009).

In this study, the use of English as a language of instruction in secondary school was also described as the colonial educational legacy. One of the participants described how this type of colonial legacy affects students as follows:

The current educational system still has some practices that are taking the Tanzanian educational system back to the colonial era. For example, teaching students in English. The current mandated training policy in the government school setting requires students from pre- kindergarten to grade seven to be instructed in Swahili, and English is taught to them as an independent subject. When these students start secondary school, the language of instruction shifts from Swahili to English. Shifting from one language to another language creates a difficult learning situation for students. It is hard for them to master their studies at the secondary level, especially for those who did not get the basics of English language in primary education.

The participant's discussion about the policy of teaching English in secondary schools suggests that students, especially those who did not master the language of English in primary schools, do struggle with English when they are in secondary schools. This also supports Neke (2005), Brock-Utne (2004), and Vavrus and Bartlett (2013), who argue that the use of English as a language of instruction in Tanzanian secondary schools is a barrier not only for students, but also for teachers. Data from classroom observation that was obtained during this study also supports the fact that both secondary students and teachers are impacted by the English policy. In this study, the researcher observed this fact to be true in a biology class. In this particular lecture, students were learning about "growth in flowering plants," and students were required to explain the concept of seed germination. The teacher wrote down a list of seeds that are locally grown in Tanzania. One seed listed was "millet."

Teacher: What is millet in Kiswahili?

Student 1: Ngano [means wheat]

Teacher: No. Who else wants to try? [Students remained silent]

Teacher: Millet means "mtama."

Students: That is it?

Teacher: Yes. It is mtama.

The students were surprised to find out that every one of them knows what mtama is in Kiswahili, because that type of grain is familiar in their environment, despite the fact that no one knows its name in English. The second seed that was discussed in that classroom activity was a kidney bean. The term kidney bean seemed unfamiliar to both teacher and students. After writing down the word kidney bean on the blackboard, the teacher asked students:

Teacher: What are kidney beans? [Students were looking at each other and no one said a word. After a short period of silence, the teacher spoke.]

Teacher: I do not know either. I do not think we grow kidney beans here in Tanzania. Don't write it down.

In reality, kidney beans are grown everywhere in Tanzania, and it is a type of grain that is consumed in almost every meal in most Tanzanian families. Since the word “kidney bean” was not culturally familiar, the subject was considered unknown.

The problem of using English as a language of instruction in secondary students has also been observed by Birgit Brock-Utne (2007). In this activity, Brock-Utne designed an experiment in which the teacher taught the same subject topic in English and in Kiswahili. The research findings show that when students were instructed in English, students’ participation was limited; they did not answer or ask questions. For example, in a biology class, some students failed to distinguish between a bird and a fish; however, when the same topic was taught in Kiswahili, the students’ learning atmosphere was different. Students seemed to understand the subject, and they were eager to answer and ask questions. They also shared some knowledge on the subject that was not written in the biology textbook. The teacher also learned some new knowledge from students. Brock-Utne, therefore, concluded that the current Tanzanian training system still reflects a colonial power that trained its work force to obey their masters and become compliant workers. However, if Tanzania wants its people to be productive and to develop creativity and critical thinking, then students have to be taught in Kiswahili. Meaningful knowledge that reflects student’s lives is very important to their development, not only in socio-economic terms, but also emotionally and mentally.

CONCLUSION AND RECOMMENDATIONS

This study answered the research question about whether the colonial legacy still exists in the present Tanzanian educational system. Despite the fact that participants expressed different perspectives on the issue, their opinions and beliefs provide some information as to how the Tanzanian post-colonial educational system is practiced, especially in the governmental secondary schools. In summary, participants described that the Tanzanian governmental secondary schools have problems. These problems include poor management, corruption, lack of funds, unmotivated science teachers, inadequate science curriculum, low-quality education, socio-economic gaps between rich and poor families, school segregation, and inadequate language of instruction policy. All these problems are described as limiting factors that are preventing Tanzanian secondary science education from developing.

Drawing from these findings, the researcher concludes that Tanzanian post-colonial educational practices, especially in the science area, have created their own identity. By using post-colonial theory as an approach to data analysis, the research findings show that the current Tanzanian science education in secondary settings has emerged out of the old system (colonial system). That means, the current secondary science curriculum is not 100% conceptualized into the Tanzanian or the African culture and tradition (Moshia, 2000; Semali & Mehta, 2012), nor is it 100% assimilated with the colonizer’s (Britain) science

curriculum (Osaki, 2007). Currently, science education is still perceived mainly as a process of memorizing facts and figures (Semali& Mehta, 2012), rather than as a questioning process of understanding the natural world (Tobin, 2000; Schiro, 2008). In order to improve the secondary science curriculum, the Ministry of Education needs to create a balanced science curriculum that will honor both Tanzanian science and European science. Merging both ways of knowing could result in creating a powerful curriculum that benefits students, as opposed to the current practice, which provides them with little benefit.

The research findings also show that to some extent the legacy of the colonial educational system still exists in the current Tanzanian educational system. The impact of English usage in secondary schools is clearly described by some of the participants and some of the existing research as the legacy of colonialism. In addition, debates surrounding policy of language of instruction in Tanzanian secondary schools are politically and economically driven, rather than educationally driven. Currently, there are limited empirical studies showing employment benefits for Tanzanian students who are graduating from English medium secondary schools over the ones graduating from governmental schools. Moreover, studies show that lack of employment for youth and poverty are shared as common problems in Sub-Saharan African nations, despite that fact that students in nations like Kenya and Uganda learn English at all levels of education (Brock-Utne, 2007; Mushi, 2009; Young, 2004).

In order to provide a better education that would open doors to employment for youth and help reduce poverty in Tanzania, the researcher suggests that the nation needs to create a balanced educational policy as opposed to its current policy. For example, the current policy of instructing secondary students in English is focused on some political and economic biases that seem to benefit a few. Therefore, a new secondary education policy is needed that will honor both Kiswahili and English and that will help students enjoy what they are learning in the classroom and enable them understand the world around them. I suggest an educational policy that will help secondary students gain better understanding of science concepts. For instance, science subjects can be taught in Kiswahili because students will be able to make connections between what they are learning in classroom and the world that surrounds them. At the same time, in order to make these students communicate with other parts of the world, I suggest that English must be seriously taught at all levels of education.

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Developing Competent Social Work and Community Development Professionals through Embedding Fieldwork Experience in Tanzanian Higher Education

Jan Wilmington and Francis Joseph Sunguya

ABSTRACT

Developing theoretical knowledge, capability, skill competence and employability are inarguably key aspects of teaching and learning across all disciplines within Higher Education across the World. This study is based on secondary data analysis; it focuses on the useful link between the theoretical components of training in people centred industries such as Social Work and Community Development on one hand and the need to develop a more practical approach on the other. The paper takes as its start point the premise that all learning is socially constructed and that to develop skilled social and community workers who are work ready and possesses employable attributes, traditional academic training now needs to bring theory and practice more into alignment. Past and contemporary theories and literature relating to social pedagogy are explored and challenges posed as to how the current gap between theory and practice might be bridged in the Tanzania Higher Education system. In its conclusion, the paper proposes that the Tanzanian University system should strategically re-position itself by re-defining its traditional mode of knowledge delivery in order to respond to the demands of today's society, the employment market and the subsisting challenges of development as captured in the Tanzania Education Policy (1995) and the Tanzania Development Vision (2025).

Key words: Constructive alignment, experiential learning, social and community work, pedagogy, socially constructed learning, praxis, and transformation.

INTRODUCTION

There is increasingly growing, market driven demand for a larger pool of good quality graduates in East Africa generally, and Tanzania in particular (Mshoro, 2010). The demand calls for Tanzanian Universities and other institutions of higher learning to produce graduates who will fit the professional needs of a fast changing and competitive regional and national socio-economic landscape. The growing demand comes at a time when reports from World Bank (2009), points out that many graduates in Sub-Saharan Africa lack the skills and competences needed to support national economic development in the 21st Century. As a consequence, Telli (2014) have rightly warned that without a critical mass of appropriate skilled and educated people, no country can ensure sustainable development.

Telli (2014) further posits that skilled professionals are the results of a well led and governed education system, which in his view, is a crucial vehicle for transforming the social and economic wellbeing of people in any society.

Therefore, educational institutions, namely Universities and Higher learning institutions have the pivotal share in the transformative role of the society. However, Universities will only be able to produce highly skilled professionals if the relevancy of experiential learning will be given the attention it deserves, integrated and embedded into the Tanzanian University education and training system. In this context, supervised field work placements in Social Work and Community Development disciplines cannot be understated or ignored.

The above analysis requires Universities to re-design their curricula to synthesise theory and practice. Mwapachu (2010) inform that apparently, higher educational system and curricula, in all societies, developed and developing, emphasizes too much focus on learning the facts (too academic) and not the rules (technical skills).As a consequence, there are highly reported cases of incompetence among newly employed graduates in Tanzania (Rweyemamu, 2016; Makene, 2016).

There would appear therefore that there is a broad consensus that Tanzanian Universities should shift from the current dominance on traditional Knowledge Based Approach (KBA) to Competent Based Education Training (CBET) in order that more attention may be given in development of technical skills among graduates. CBE Tensures a close working relationship between academic institutions; the present and future employing Agencies. To support this notion, Hewson *et al* (2010), claims that field practicum have several advantages, among them include: providing opportunities to integrate theory/methods with practice; development of a broad range of knowledge and skills; reduction of negative stereotypes; instillation of a passion and excitement for the professional work; and connecting students with agencies to engage in community based organizations. We call this professional capital building.

Investment in designing a high quality curriculum that includes supervised practicum experienceis crucial in preparing learners mentally, emotionally and physically to better meet, address and manage the many challenges that working in communities presents. Further to this it will enable graduates to become vibrant, dynamic and reflective professional practitioners and responsible citizens.

"A curriculum which acknowledges the social responsibilities of education must present situations where problems are relevant to the problems of living together, and where the observation and information are calculated to develop social insights and interest"(Dewey 2007, p 42).

Developing theoretical knowledge, capability, skill competence and employability are inarguably key aspects of teaching and learning across all disciplines within Higher

Education across the world. Contemporary scholarship practices in East Africa, particularly within the higher learning institutions, are strongly weighted towards formal, didactic pedagogical style and traditional knowledge based training (Mwapachu, 2010).

This article argues that the broad fields of education, social services and community development require a meaningful transformation from traditional knowledge based training to competence based learning and development. In this context, the Tanzanian University that trains professionals in such people centred industries must connect more closely within local communities, where the challenges of life, namely poverty, ignorance, diseases and grave youth unemployment, among others, are keenly felt. Nyichomba (2010) regrettably establishes that the linkage between institutions of higher learning and the community or marketing most African Universities and in Tanzania in particular is very weak. The lack of such linkage, in the view of Juma (2010), "stands out as one of the main source of inertia and waste in Africa's knowledge-based institutions". In addressing the mismatch in the University training system, the teaching methodology must also shift from a conventional system of intellectual inquiry to practice-oriented, community-based, problem-solving, gender-sensitive and interactive learning.

The paper further discusses how the synthesis of formal and traditional class based learning and appropriately supervised fieldwork experience will not only enable students to become skilled, confident and competent professional practitioners, they will become effective agents for social change within the community and wider society.

"There can be no solitary learning

The unfolding agency of the self grows out of interaction with others

It is inescapably a social creation"(Ranson, 1998, p. 20)

STATEMENT OF THE PROBLEM

Rweyemamu, (2016) and Makene (2016) has shed light on the incompetence noticed among newly employed graduates in Tanzania. Several factors have contributed to this. One of these is lack of a linkage between academic institutions and the labour market (the mismatch in curricula and market needs) (Nyichomba, 2010) and secondly, a small proportion of hours and funds set aside by the Universities to enable students undergo on-the-study-job-training (Mwapachu, 2010). Although there is an emphasis on-the-study-job-training among students of higher learning institutions and universities (URT, 1999; UNESCO, 2009), it has evidently been established that this requirement is poorly adhered to (UDSM, 2010).

The situation at present is alarming and it has indeed sparked hot debate among higher education stakeholders (Association of Tanzania Employers (ATE), institutions of higher learning, universities, students, parents and the community) on the paucity of required

skills among new employees from institutions of higher learning. Rweyemamu (2016) establishes for instance, that some new graduates happen to be eloquent and gifted in communication skills during the interview or scouting time but perform poorly after they are employed. Putting this in context, it would appear that new graduates have the academic knowledge but greatly lack specific job skills required to excel in the labour market. In this vein, Howard (2006) suggest that people who are charged at work places with selecting individuals who appears to possess the right kind of knowledge, skills and minds, “*should be searching individuals who possess disciplined, synthesizing, creating, respectful and ethical minds*”p. 88the type of attributes that we argue cannot be taught in the classroom.

Students and future graduates slowly internalize the above attributes if they are practically engaged in working with communities and organizations. This paper further argues, that since Universities cannot train each student on *specific duties* to be performed in employment, experiential learning out-with the classroom walls is a must. Learning the art and the craft of working with people through participating in a well-structured field work practicum is essential to sharpening graduates’ skills and competences and ensuring that theory and practice synthesise to suit both the needs of society and the employment market. In sum, this issue is a call to arms, it requires deliberate strategies to challenge and reform the Tanzanian University delivery systems and make them relevant to today’s society. Re-designing the curricula is the best option to give field work practice the same weight currently given to the dominance classroom teaching and learning environment.

The Emergence of Higher Education in Tanzania – the Social Work and Community Development perspective

The National Higher Education Policy (1999) identified two types of training institutions in higher education:

- i. Academic full-professional training institutions
- ii. Intermediary professional education and training institutions

Academic full-professional training institutions are represented by universities while the intermediary professional education and training institutions are represented by non-universities. The provision of university education in Tanzania began in 1961, just after the country had attained its political independence from Britain (Luhanga, 2010). The University College of Dar es Salaam, established in late 1961, was the first institution of higher learning to be operational, with fourteen students registered to pursue baccalaureate degrees in law as external students of the University of London. (Luhanga, 2010). Since then, the higher education sub-sector has expanded widely. Wangwe(2010) affirms that the phenomenal expansion of higher education in recent years is unprecedented in the history of Tanzania.

In the field of Social Work, training started in Tanzania in 1973. The government established the Institute of Social Work (the former *National Social Welfare Training Institute*) which has been paramount in training social workers who work in various social welfare agencies, Governmental and Non-Government Organisations (NGO's.) for a long time (ISW, 2014). This in turn stimulated the development of Social work education and training. Appendix I is how the registered and accredited universities in Tanzania in 2014/2015 (both public and private) that offer degrees in Social Work and Community Development while Appendix II lists registered Higher Learning Institutions that offers degree, certificate and diploma programmes in Social Work and/or Community Development (TCU, 2015). The participation of the private sector in higher education provision, as exemplified by some entries in Appendices I and II was made possible by the decision by the government to liberalize the establishment, ownership and management of higher education institutions in 1996.

METHODOLOGY OF THE STUDY

The paper is largely a collection of ideas, views and experience of the authors as social educators in the field of Social and Community work – one author is from Mwenge Catholic University based in Moshi, Northern Tanzania, who is also a researcher, educator and supervisor and the other from the University of Strathclyde, Glasgow in Scotland, who is also a fieldwork practitioner and supervisor. The combination of the two authors made this study richer in terms of experience, analysis and envisioning the embedment of experiential field work practice within Social and Community work training in Higher Education.

Where documented data and theory has been included, it has been confined to that which the authors felt was authentic; credible; representative of the topic area; and where the meaning was unambiguous and clearly related to the topic (Denscombe, 2010).

Scope and Limitations of the study

Discussion on pedagogically re-aligning theory and practice within Higher Education in East Africa as a whole has attracted much current debate. Due to the breadth of discussion surrounding the re-alignment of curricula within various academic disciplines, this paper necessitated a limitation of literature to let us deal only with the aspect of education and training in people centred courses, specifically Social Work and Community Development in Tanzania.

It is further acknowledged that this paper does not attend to the practicalities of **how** to manage the changes discussed. This is because it was felt that given the scope and limitations of a journal article, focus needed to be given to first raising the issue. No development happens without process, and as part of this process, it is hoped that the issues discussed in this paper raises awareness of the *need* for change - as well as posing further questions about how to start the *process* of change.

Contextual Setting of the study

The dynamic and complex nature of today's global society requires a critical reflection on how the East African and more specifically Tanzanian Higher Learning Institutions and Universities conduct their education and training.

Mwawasi and Gonsalves (2014 p.1) suggest that amongst the complex societal issues present within the African continent are "disease, poverty, unemployment, high rates of illiteracy, lack of access to higher education, and inadequate technological knowhow". We further suggest here that we might add to these challenges: lack of access to clean safe water, poor sanitation or inadequate housing, lack of access to adequate health education and appropriate knowledge of chronic disease prevention and management.

According to Beck and Purcell (2009, p. viii)

- ❖ All education is inherently political and all pedagogy must be aware of this condition.
- ❖ A social and educational vision of justice and equality should ground all education.
- ❖ Issues of race, class, gender, sexuality, religion and physical ability are all important domains of oppression and critical anti-hegemonic action.
- ❖ The alleviation of oppression and human suffering is a key dimension of educational purpose.
- ❖ All positions including critical pedagogy itself must be problematized and questioned.
- ❖ Education must both promote emancipatory change and the cultivation of intellect.
- ❖ Education often reflects the interests and needs of new modes of colonialism and empire. Such dynamics must be exposed, understood and acted upon as part of critical transformative praxis.

Mwawasi and Gonsalves (2015, p.1) further build on aspects of this theme by suggesting that amongst the current barriers to community and societal development are "rigid leadership structures that frustrate the ability of local communities to participate in social development processes as well as to exercise fundamental human rights and freedoms".

For the most vulnerable in society whose voices are not heard, it could be argued that it is the role, responsibility and indeed duty of professional social and community workers to help people manage their own lives and develop themselves and their communities in ways that most appropriately meet their needs. This notion of working in communities

with vulnerable or socially excluded people would also appear to be in alignment with the ideas of Nyerere (1999, p. 2) who spoke of creating *'peace, unity and people-centred development'* in Tanzania.

As previously noted, the current higher education system within Tanzania is firmly based on established, formal pedagogy with little emphasis given to experiential learning (Mwapachu, 2010). As a consequence of this, there is a lack of synthesis between formal academic theory and practice, in turn making it difficult for students and future graduates to fully immerse themselves within communities and confront contemporary socio-economic development challenges.

This paper attempts to examine this issue from two perspectives. Firstly, it explores the premise that all learning is socially constructed (participatory). Therefore, to develop skilled social and community workers, who are fit to practice and employable, traditional academic training must be aligned to allow a more focus on the development of practical skills. The technical skills are a prerequisite requirement for social and community workers to meaningfully engage with people and actively participate in the process of positive change. Secondly, it discusses the critical need to re-orientate the Curricula within the Tanzanian University system; in order to give experiential community based learning the same academic weighting similar to classroom based knowledge.

Synthesis between theory and practice: bridging the gap

Through carefully guided learning experiences within communities, theory and practice become constructively aligned. This alignment will create a strong synergetic relationship between formal pedagogy and experiential learning within communities with the resulting development of competent and skilled professional practitioners. As Tett (2006) argues, this synergetic relationship promotes community learning and development through skilled social educators equipped with the knowledge and skills required to work towards a more robust and just civil society. This perspective is supported by the Tanzania Education and Training Policy of 1995 which stipulates that the aim of the education sector in Tanzania is:

"to guide and promote the development and improvement of the personalities of the citizens of Tanzania, their human resources and their effective utilizations of those resources in bringing about individual and national development" (URT, 1995, p.1).

Tett (2006) further reminds us that:

"A healthy democracy requires a robust civil society in which a variety of constituencies are capable of making their voices heard" (Tett, 2006, p.59).

The Tanzania Development Vision 2025 (URT, 1996), is a major policy framework for guiding realisation of the nation's development aspiration to become a middle-income economy by 2025. Vision 2025 advocates that Tanzania will be:

... a nation with high level of education at all levels; a nation which produces the quantity and quality of educated people sufficiently equipped with the requisite knowledge and skills to solve the society's problems, meet the challenges of development and attain competitiveness at regional and global levels.

Specifically, the curricula should be tailored to ensure that firstly graduates are able to assume professionally sustainable roles and secondly, ensure there is maximum interaction between students and the future working environment, both in terms of course contents and modes of delivery.

As previously noted, students engaging in higher education degree courses in the fields of social work or community development will, by the nature of these professions, be working with people in the community. It is therefore prudent for Higher Education Institutions and Universities to design their courses in such a way that appropriate fieldwork experience is embedded into the curriculum. Henderson and Thomas (2000 p. 26) suggest nine(9) stages-process to working in communities:

- i. Entering the neighbourhood*
- ii. Getting to know the neighbourhood*
- iii. What next? Needs goals and roles*
- iv. Making contacts and bringing people together*
- v. Forming and building organisations*
- vi. Helping to clarify goals and priorities*
- vii. Keeping the organisation going*
- viii. Dealing with friends and enemies*
- ix. Leavings and endings*

Although the theory of these skills can be learned through formal class based education, the practical application cannot. To become skilled, confident and competent practitioners, ready to enter the world of employment, students *must* engage with the people and communities in which they will eventually be working - and learn through practical, real life experiences. In support of this argument Nyerere (1995) posited:

for while other people can aim at reaching the moon and while in future we might aim at reaching the moon, our present plans must be directed at reaching the villages ... and that ... the African University "must be in and of, the community it has been established to serve"(p.46-51).

Nyerere (1966) in his address to the World University Service General Assembly argued that:

when people are dying because existing knowledge is not applied, when the very basic social and public services are not available to all members of a society, then that society is missing its resources if it pursues pure learning for its sake (Nyerere, 1966, p.218-221).

To realize the above proposition, rigorous theory must of course underpin everything we do as educators, whether in academic establishments or in the community, however theory is not enough. Biggs, (1996) discussing Argyris' (1976) idea of espoused theories and theories in use notes:

... espoused theories ... are held to be those underlying professional practice, and theories-in-use... guide practice in the event; professionalism requires the espoused theories to be theories-in-use. (p.347)

Lave and Wenger (1991) address this notion of people centred, socially constructed learning when they discuss the idea of an apprenticeship model of learning whereby learners entered into '*legitimate peripheral participation*' situations (p.29). We identify with this idea of legitimate peripheral participation in three ways.

The first is that learning *is* socially constructed and learners learn best when actively engaged with others. This can be the case for in-class or out of class learning. The second is that situated learning requires student learners (or any worker new to the area) to know how to negotiate entry into the community. For this to happen, learners need to find out about and understand the culture of the people and community. They *need* to get to know and understand the people's values and attitudes; their particular '*language*' or style of communicating. They must also learn *who* to speak to and *how* to speak to the community leaders, elders, gatekeepers or whomever holds the power in the village or community.

Student learners must also be able to get to know and understand the values and practices of other professional workers and organisations that may already be in-situ because collaborative working is a reality of community work.

The third way we identify with legitimate peripheral participation is in the guidance (*mentoring*) required when students are in-situ in the community. For an apprenticeship to be an effective learning experience the mentor must also be knowledgeable and experienced in the particular professional discipline. To illustrate this point we suggest that one does not have a trainee carpenter, mechanic or midwife learning their trade, craft or profession without being properly guided and supervised!

Without adequate knowledge of how to enter a community and appropriately communicate with people, students will find it difficult to be accepted into such community, with the natural consequence that little or no effective learning or development work will happen and the situation holds potential for relationships to break down and barriers being put up by the community when other professionals come their way.

The theory that underpins how to enter a community and work with people remains academic and static in a class setting because these aforementioned skills are *people skills*. These skills are developed along with the students' individual development of inter and intra personal intelligences which require to be both taught *and* lived. Of course some of this can be practiced in a dynamic class setting but these skills are most effectively learned through experiencing the reality of interpersonal relationships within the community.

We must note here that the third point made about skilled and knowledgeable fieldwork/practicum mentors is a basic tenet of the apprenticeship model of learning but for the purpose of this paper we leave it here, to be discussed and more fully explored in a follow on paper.

Through such field-work practice, students can discover the real challenges, difficulties, joys and life issues that people face. The reality of being situated in communities to work and learn further helps students identify how to manage these real life issues in real time *and* how to manage themselves in the process. The situatedness of practicum experience and the support given by knowledgeable others also helps students identify where espoused theory informs (or does not inform) practice. The reality of humanity is that no theory fits all situations!

Face to face work in communities also, most importantly, helps students learn how to engage with difference, challenge their own taken for granted understandings, come to new ways of looking at the world and develop ability and skill in building the congruent professional and social relationships without which no effective development work can happen - no matter how much theoretical knowledge is embedded in the students psyche.

This practice of synthesising different methods of learning is not new. Wilmington (2010) suggests that it stems from as far back as ancient Athenian society, when the pedagogues used conversation and dialogue to instruct students on how to behave. Philosophers such as Socrates (470-399BC), promoted the notion that the *process* of education was more important than the outcome and actively encouraged his students to pose questions, think for themselves, make links with 'lived' experience and share their thoughts and ideas through dialogue with others.

Plato (427-347BC) and Aristotle (384-322BC), further developed the idea of aligning ideas and action in the quest to educate (Barnes, 2004, 9; Warburton, 2006). Most of the work of

social and community educators happens in towns and villages and we draw on the teaching of these classic philosophers at this point to acknowledge and locate their historical relevance within the pedagogy of synthesised formal, informal and community learning and the theory of social constructivism.

Learning as a socially constructed activity

The theory of social constructed learning has been developed and supported by many classic Sociological thinkers such as Brunner, Dewey, Piaget and Vygotsky– all of whom suggest that *all* learning is based on the need to communicate. This notion is further supported by critical theorists such as Freire, Gramsci and Habermas. The words of Gramsci (1971) draw together the idea of synthesising theory with social constructivism:

The mode of being of the new intellectual can no longer consist in eloquence ...but in active participation in practical life, as constructor, organiser ... (p.10)

The ability to work alongside people and communities of course requires the worker to be able to dialogue and for social and community educators this means they must first learn the skills required to effectively communicate with the people with whom they work. These again are not skills that can be learned in the classroom.

Beem (1999), Bourdieu (1983), and Putman (2000) further build on the theory of socially constructed learning by suggesting that it is through developing human relationships that social capital is built. Beem (1999) states that social capital can promote a sense of belonging based on relationships of ‘trust and tolerance’ and that without this interaction ‘...trust decays...and begins to manifest itself in serious social problems...the concept of social capital contends that building or rebuilding community and trust requires face to face encounters’ (p.20).

These theories and ideas seem to point in the same direction - that is - engagement and relationship building for social workers and community workers is *fundamental* to the development of people, community and society. Field (2003) puts this succinctly when he says the central thesis of social capital is that ‘relationships matter’ (p.1-2).

Building on this theme of taking learning outside the classroom to understand the real meaning of social capital and relationship building, McConnell (2002, p2&3) is in alignment with Henderson and Thomas (2000) when he states that community work happens in ... “neither primarily a school nor a college, though they certainly utilise such resources, it is outreach into the community, into the neighbourhood and the workplace, into the rural village”. He further states that the community workers’ task is to:

engage with people within that community identifying needs, motivating and enthusing individuals and groups to acquire new knowledge, skills and confidence, promoting learning that is enjoyable, relevant, accessible and empowering to the participating learners.

It can be seen therefore that for social and community work students across the world there is strong theoretical evidence to show that although learning in the classroom is indeed essential, it does not go far enough to support the development of the knowledge, capability, skills and competence that being a professional in these disciplines requires. It also begs the question about the employability of a graduate who may have wonderful academic grades but very limited practical experience of working with people in communities.

As educators within higher education in Tanzania, or elsewhere in the world, we ourselves need to accept the challenge of moving beyond class based learning – no matter how well designed, dialogical and interactive it may be - to blend formal theory based *education* with practice based *learning*. Thus, developing the professional craft and art of working with people - in any community and in any society.

As we move forward with the notion of synthesising theory and practice we turn to some critical theorists. Dewey's idea of 'theories in use' (1933) links to the teaching of Freire (1986) when in his seminal work 'Pedagogy of the Oppressed', he talks of problem posing education helping to develop conscientization – becoming fully conscious of the world through questioning taken for granted ways of thinking and being - challenging the dominant hegemony, dialoguing and developing critical thought. Freire, (1986, p.64) suggests that:

People develop their power to perceive *the way they exist* in the world *with which* and *in which* they find themselves; they come to see the world not as a static reality, but as a reality in progress, in transformation.

However, he also notes that although dialogue is an essential part of developing critical thought, it is only part of the process therefore not enough in itself to make the world a better place. He further suggests that to do this, we must not only think, challenge and talk - we must also *act* on what we discover through the process and named this praxis.

This idea of praxis can be likened to a strong thread that weaves the fabric of socially constructed learning; a thread that draws on relationships, dialogue, reflective practice and reflexivity. This fabric is the cloth of transformational learning and development.

Mezirow (2000) builds on Friere's idea of concensualisation and praxis and suggests that to actively engage in the process of transformation we must acknowledge, explore, challenge

and expand our existing frames of reference - the knowledge and understanding we hold and the lived experience that has informed our thinking and opinions and that we have learned to know the world by. Through this critical reflection on lived experience we may also come to see and understand the world differently and so enter into a process of transformation. Denscombe (2010, p.97) also builds on this thesis in the wider realm of research, positing that “when the social world is seen as ‘socially constructed’ it opens up the possibility that different groups of people might ‘see things differently’”. McGinley & Watson (2008) further articulate “when relevant theory and robust research is ignored, it results in a practice which functions without strong rudiments and without a clear rationale, justifiable purpose and considered action”(p.26).

The theory spoken about here is just the tip of the academic iceberg and is presented to highlight and give strength to the argument that teaching and learning should not be static; it should encompass both taught theory and lived experience, both within and without the classroom.

To be an agent for transformational change within the broad fields of social work and community development, workers are required to be dynamic and dialectical. They need to have ability in basing their thinking, interactions *and* potential interventions on more than academic theory; develop an understanding of the challenges of real life situations to be able to respond appropriately to the different and changing needs of people and communities.

Introducing informal pedagogies

There are many different ways to introduce the concept of informal education, including incorporating learning out with the classroom as part of a higher education degree programme. Learning outside the classroom provides individuals with an alternative way to learn and often better meets the needs of those students who may have originally been failed by traditional formal education systems (Stewart & Thomson, 2004).

Skills and knowledge learned out with the walls of the classroom can also be utilised in a constructive and purposeful way to develop analytical thinking, effective communication and interpersonal abilities. Further to this, such experiential learning is a method educators can use to draw on direct experience and offers opportunities for focused reflection, leading to an increase of skills, developed knowledge and a clarification of values (Association of Experiential Education, 2015). Experiential learning has also been described as “the new science of learning” (Branford, Brown & Cocking, 2000) and is based on the ‘theory of experience’ originally discussed by Dewey (1938). Dewey posited a new approach to learning required an attitudinal shift that moved away from the tradition of entirely classroom based pedagogical styles and that also required a sound *theory* of experience and learning to support this. According to Kolb and Kolb (2005) learning is “a transaction

between the person and the social environment...learning spaces are not necessarily physical places but constructs of the person's experience in the social environment (p.199-200). Learning takes place by engaging in a community of practice which leads us out with the classroom and supports individuals to begin forming their identity, developing skills and becoming a member of a wider community of practice (Kolb & Kolb, 2005). According to Schon (1983) critically reflecting both in-action and on-action entails relating what we discover through the reflective process to the sort of practical actions that can be put in place for the given situation. The fabric of praxis may be woven by the same threads, but no one coat fits everyone.

As Jeffs & Smith (2005) suggest:

We may work informally in one situation, formally in another. How we approach matters would depend on what is involved and what is appropriate. By setting informal against formal we run the risk of not seeing the shared concern for learning. We can approach them as unconnected, but that is mistaken. (p.21)

The challenge of developing competence based curricula

As noted earlier, the Tanzanian higher education system is firmly rooted in traditional, formal pedagogy. A reorientation of this must appropriately utilise and synthesise both informal and formal pedagogies, within the traditional classroom setting *and* within communities. However, to do this effectively requires *us* to not only know the theory of why change needs to happen; we must find courage enough to step out of the comfort of our own traditional teaching methods and participate in our own personal and professional transformative learning journeys. Once we are able to accept the challenge of changing established higher education pedagogy we are actively in the process of praxis.

Learning differently to think differently may also be a strongly positive influence in how to engage in dialogue with our constituents; the students with whom we work and the communities within which we are fitting *them* to work. Together we can teach *and* learn how to form relationships built on trust and respect; discover how others view the world; from where and whence these views stem; challenge the taken for granted hegemony and enter into teaching and learning about community work armed with information and first-hand experience.

It must be acknowledged that for most, leaving our traditional zones of educational comfort is unsettling. However, as educators, if we know and understand the theoretical foundations upon which we build change agency, *and* know how to actually work with people, together -educators, student learners and the community may be able to feel the disequilibrium of change and come to understand that stretching to learn is part of healthy development. Together as a community of learners we may find enough courage to *do* different, *be* different and *make a difference*.

Walking together for health strength and progress.

Transformative learning is often initiated when learners come up against their limitations, go beyond the habitual, experience the unaccustomed, meet, split or break down, face dilemmas, or must make incalculable decisions...problems and challenges encourage emotional intensity and innovation, and in this way also promote transformative learning (Illeris, 2014, p.11).

Policy and the Higher Education Curriculum

Bates (2008) and Cranmer (2006) posit that despite the best intentions of University teaching staff, learning situated mostly in the classroom is educationally limited and therefore does not adequately equip students and future graduates for the world of professional working practice. In addressing this issue, Patrick 'et al' (2008) suggest that integrating work based practice with classroom learning enables students to apply their theoretical knowledge in the reality of the world outside the classroom. This thinking is also in alignment with the teaching of Dewey (1916) who posited:

A curriculum that acknowledges the social responsibilities of education must present situations where problems are relevant to the problems of living together, and where observation and information are calculated to develop social insights and interest (p.142).

The Education Sector Development Policy Document(2008 – 2018) states that:

...performance will be judged on how well the institutions that they lead are functioning. Focus will be on promoting initiatives and creating an enabling environment for the prompt and proper handling of special situations.

Also...

Teachers' performance is judged on the basis of how well their students/learners perform in terms of added value achievements and attainments as demonstrated in tasks related to learning.

It would seem then that although there is some acknowledgement of the need for creating an "enabling environment" that teaches student practitioners how to handle "special situations" there is no indication in the Policy document of how or where this learning might be facilitated – or why students need to learn these skill in the first place.

The second point we make here is that if teacher performance is judged on student achievement in "tasks related to learning", it would seem prudent from both a teaching and a learning perspective that learning is taken out of the classroom and into the communities in which these "tasks" can be practiced and developed.

Little and Harvey (2006) draw on the views of workplace organisations, undergraduate students and Graduates to discover the holistic development of Workplace Practice experiences - as well as academic relevance:

I mean, it's all well and good somebody being able to write an essay on "Marx and labour", ... but if they can relate it to work, ... then they are going to be much better workers. So I think the ties have got to increase.

Had ... somebody had said, "Right, this is sociology in practice. Can you see the structure here, can you see the working relationships?", it would have been immensely beneficial.

(Graduand quoted in Harvey *et al.*, 1997)

This statement is in alignment with the theory of 'living' as opposed to 'espoused' theory mentioned previously in this paper. Little and Harvey (2006) suggest that their research conclusions strongly indicated the positive benefits of workplace practice across a number of different academic disciplines. The main findings of this study indicate an increased understanding of where and how the academic knowledge meets practice as well as coming to an awareness that in the reality of the workplace, theory and practice do not always synthesise. The findings further demonstrate a definite increase in the personal and social abilities (including developing a higher degree of emotional intelligence skills). However the research conclusion also indicates that student / graduate responses indicate no definite perception of higher level academic skill development. By exploring this further it is seen that researchers agree this may be because the increased level of other skills development may have been more important to the research participants and there was a taken for granted assumption that academic skill would increase. It should be noted here that the graduates participating in this study were all awarded 1st class Degrees.

In support of this research into practicum experience that drew on responses from over 250 interviews, Harvey *et al.* (1997, p.5) found that work experience made an "invaluable contribution" to the holistic personal and social development of students. Findings from interviews with employers further indicated that students who had engaged in practicum experience while in education subsequently held a greater level of skills and attributes such as "team-working, communication and interpersonal skills, as well as an awareness of workplace culture".

In collating this sample of research and literature, it appears there is a plethora of evidence suggesting the strongly positive benefits of student workplace practice. The suggestion is also that as well as gaining essential knowledge of specific fields of professional practice, the skills gained are also embedded in both personal and social development.

For some academics, this may not be enough to support embedding appropriate workplace practice experiences into the Higher Education curriculum. However, in the broad

professional fields of humanities social sciences it is exactly these skills that are required to help us tap into our common humanity and learn to understand and engage with each other in a way that is relevant to the situation and circumstance. It can be further argued that it is those personal and social skills (as well as theoretical knowledge) that enables us to appropriately manage feelings and emotions (in self and others) and deal with the oft times complex challenging or difficult situations that are encountered in life outside the walls of University, into the reality of the lives of people and communities, many of whom are vulnerable and excluded from actively participating in wider society.

Linking this back to theoretical underpinnings, this acquisition of personal and social skills can be seen to be instrumental to the development of Emotional Intelligence (EI).

Segal (2008, p.2) argues:

Developing emotional intelligence skills helps us recognise, contain, and effectively communicate our emotions, as well as recognise the emotions of other people. These abilities have been proven to surpass high cognitive intelligence (IQ) in predicting success in all types of relationships, at home, at work, and in all other areas of our lives.

We can identify this theory of Emotional Intelligence with Mezirow's theory of Transformative Learning(2000) as he suggested that, "... the more perceptive we are to the perceptions of others, the richer our imagination of alternative contexts for understanding will be." (2000 p.20).

Personal and societal transformation stems from challenging taken for granted assumptions and hegemonic beliefs at a both a micro and macro level. However this process can be both an emotional and a creative learning journey that requires us to step outside our zones of professional comfort. Illeris (2014) puts this well:

Transformative learning is often initiated when learners come up against their limitations, go beyond the habitual, experience the unaccustomed, meet, split or break down, face dilemmas, or must make incalculable decisions...problems and challenges encourage emotional intensity and innovation, and in this way also promote transformative learning (Illeris, 2014, p.11)

Dewey states:

A Curriculum which acknowledges the social responsibilities of education must present situations where problems are relevant to the problems of living together, and where observation and information are calculated to develop social insights and interest (Dewey, 2007 p.142).

CONCLUSION

The thread running through this paper is that of the synthesis between theoretical and practical learning and how through this students and graduates become more fit to practice and ready to be employed in the workplace. According to Harvey, (1999) there are 'three core processes which impact on employability. First the *pedagogic* process that encourages development, second, *self-reflection* by the student and, third, *articulation* of experiences and abilities'. Therefore as we move on from evidencing *why* practical fieldwork experiences within communities should be an essential aspect of learning in higher education, we must now think about *how* to this. As much as the rhetorical philosophy and professional dialogue on this subject is essential, we, as educators also need to engage in our own professional praxis and work out what needs to be in place to make changes happen. As Gramsci (1971, p.10) suggested:

The mode of being of the new intellectual can no longer consist of eloquence ... but in active participation in practical life, as constructor, organiser, permanent persuader and not just as a simple orator.

This paper has argued that higher education students – the educators of the future – are required to understand more than academic rhetoric. They are required to know how to enter into communities, engage with and know *how* to communicate with people to be able to actively participate in the process of social and societal development.

We leave this paper with the thoughts of Mwawasi and Gonsalves (2014) who posit, "significant social transformation is dependent on the active involvement of all stakeholders, more so the grassroots community" (p.10). In alignment with this thinking, we suggest that as educators within higher education we must take a leap of educational praxis to *think* differently, *do* differently, *be* different - and subsequently together achieve a different, better and more sustainable future for all.

We suggest the time for academic rhetoric is past and it is now time to adopt a pedagogical attitude that incorporates and *embeds* experiential fieldwork as a fundamental learning opportunity in a move towards positive societal change through active engagement and in partnership with all stakeholders.

RECOMMENDATIONS

Building on the above conclusion, the authors suggest that future consideration should (indeed must), be given to researching how Universities in other parts of the world have implemented supervised fieldwork practice into their 'people centred' degree course curricula.

Consideration is also required to be given to the importance of entering into discussions (through participatory communication in the field and within academic institutions) that includes all collaborative partners in this process such as: Universities and Institutions of Higher Learning; Communities; Community based organisations; Professional agencies; Politicians; Educational regulatory authorities; and Educational policy makers.

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APPENDENCES

Appendix I: List of Universities

S/n	Name of Institution	Location	Ownership	Status
1	University of Dar es Salaam (UDSM)	Dar es Salaam Mlimani Campus	Public	Fully Accredited
2	Mwenge Catholic University (MWECAU)	Moshi Municipality	Private	Fully Registered
3	Open University of Tanzania (OUT)	Kinondoni, Dar es Salaam (with branches in all regions)	Public	Fully Accredited
4	Hubert Kairuki Memorial University (HKMU)	Mikocheni, Dar es Salaam	Private	Fully Accredited
5	Muhimbili University of Health and Allied Sciences (MUHAS)	Upanga, Dar es Salaam	Public	Fully Accredited
6	University of Dodoma (UDOM)	Dodoma	Public	Fully Accredited
7	St. Augustine University of Tanzania (SAUT)	Nyegezi, Mwanza	Private	Fully Accredited
8	Kampala International University (KIU)	Dar es Salaam	Private	Fully Accredited
9	University of Zanzibar (ZU)	Zanzibar	Public	Fully Accredited
10	Zanzibar State University (ZSU)	Zanzibar	Public	Fully Accredited
11	Teofilo Kisanji University (TEKU)	Mwanjelwa, Mbeya	Private	Fully Registered

Source: Adopted from the Tanzania Commission for Universities, available at www.tcu.go.tz

Appendix II: Higher Learning Institutions

1	Institute of Social Work (ISW)	Kijitonyama, Dar es Salaam	Public	Fully Accredited
2	Newman Institute of Social Work (NISW)	Iringa	Private	Provisional Registration
3	Agape College (ACo)	Tabata, Dar es Salaam	Private	Provisional Registration
4	Community Development Training Institute (CDTI)	Tengeru, Arusha	Public	Fully Accredited



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