The Use of Learner-Centered Approach and Materials in Teaching and Learning Social Science Subjects in Tanzania Secondary Schools

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Abstract

Purpose: **The main aim of this study was to motivate and raise interest of social science students and teachers in the use of learner centered approach and materials biased in Practical Geography topics, field research techniques in particular. Specifically, the study intended to assess the available challenges on teaching and learning social science subjects with the use of learner centered approach. And then came up with possible solution through designing materials reflecting competence based.**

Methodology: **Quasi-experimental design was employed. Then, both qualitative and quantitative approaches were employed during data collection and analysis. The sample of the study included two secondary schools. One as an experimental, which was a boarding school, and the second as controlled which was day school, the two schools were purposively selected.**

Findings: **The study revealed that the material designed and the approach used in the experimental school motivated the students in learning. Also, indicated that students of the experimental school showed considerable change in performance in the post-test compared to the students of the control school.**

Unique contribution to theory, practice and policy: **The study recommended; the government to consider social science teachers in the programs related to teachers' professional development and improvement in case of any curriculum reforms. Team teaching should be encouraged so that teachers who are acquainted with the application of learner-centered approach could help those who are not. Furthermore, the study recommended other researchers use lessons from this study to improve teachers' knowledge and skills on the use of learner-centered approach.**

Keywords: **The learner-Centered Approach (LCA), The teacher-Centered Approach (TCA), and Innovative Instruction Scenario**

I. INTRODUCTION

Improving teaching and learning has been a major concern in all education systems. One way of improving teaching and learning is through designing an innovative instruction scenario (IIS), implementing it and making an evaluation before adopting it to be used in the classroom (McKenney, 2001). Schneider and Krajcik (2002) insist that designed 'educative' curriculum materials intend to support the teacher learning as well as the student learning. This is due to the fact that, the friendly teaching and learning materials constitute an important element in teaching and learning, resulting to students positive performance (Mlekwa, 1997). Therefore, this study justifies the assumption that if the new designed materials, particularly considering learner centered approach (LCA), well implemented in the classroom by the skilled and competent teachers they are likely to bring positive performance to the students. Yore (1991) argues that a well prepared textbook and other teacher and the student supportive materials (modules) continue to be a major source of information as well as a starting point for effective learning.

In Tanzania, the general condition of teaching and learning resources particularly on teaching and learning approaches in secondary schools are insufficient (Makene, 2004). The few available teaching and learning materials concerning pedagogical improvement are in Science subjects only; Biology, Chemistry, Physics, and Mathematics. This is contrary to Makene (2004) who insisted that teaching and learning resources should be equally distributed. Recently developed teaching and learning materials on Science pedagogical improvements in Tanzania include; Mtaita (2004) in Chemistry, Mafumiko (2006) in Chemistry and William (2009) in Chemistry, Tilya (2003) in Physics, Kitta (2004) in Mathematics and Nihuka (2004) in Biology.

Developing the learner centered teaching and learning materials based on social science subjects like Geography, Languages, History and Economics has been neglected by researchers and other actors in education development including Tanzania Institute of Education (TIE). The main reason claimed to concentrate on Science subjects is poor performance of these subjects in final examinations (Kitta, 2004 and Mafumiko, 2006). Nevertheless, available data shows that the problem observed in Science subjects is also evident in Arts subjects especially in Geography.

The data indicates that the students in Geography perform almost as poorly as in Science subjects. But no efforts have been made to address the situation although Geography is part and parcel of science courses and subject combinations like; CBG and PGM. This situation was among the driving forces of this study to design an innovative instructional materials considering learner-centered approach (LCA) in order to improve teaching and learning of Geography and hence improving the students' performance.

Statement of the Problem

Research done on supportive educative materials in Tanzania apparently point out the gap in teaching and learning approaches used in Tanzanian schools. Mafumiko (2006) argues that traditional the teacher-centered 'chalk and talk' teaching method appeared to still dominate most lessons. Similarly, Osaki (1999) asserts that most of the teachers lack skills in the promotion of the student-centered teaching and learning procedures. Despite the gap pointed out on the teaching approaches, still research works on improving teaching and learning in Tanzania seem to be inadequate. Nevertheless, the few existing research projects have been directed to Science subjects but not Social science subjects. The present study considered the gap by researching on Social science subjects, Geography in particular.

Therefore, the aim of this study was to improve teaching and learning of Geography by developing an innovative instructional scenario based on the learner-centered approach in teaching field research techniques in Tanzanian A-level Secondary Schools. If the new approach and material is successfully implemented and adopted the students' interaction, discussion and presentation would results to better students' performance and motivation in learning Geography subject.

II. CONCEPTUAL FRAMEWORK

The conceptual framework of this study draws some insights from Adey's (1999) model of '*Teaching for Thinking'*. The idea of LCA insisting on helping an individual student to apply what is being taught in the classroom in his/her real environment. This is realized in case of three dimensions are being intersected; independent variable, intervening variable as well as dependent variable.

The dependent variable in this study was the students' motivation and performance in Geography, which is likely to be higher or lower in connection to independent variable applied. The designed LCA and material focused this dependent variable by critical analysis of results from the students' questionnaire and tests. If the independent variable is treated positively it is assumed to come up with positive outcomes.

In this study independent variable was a designed LCA and material implemented in the E school basing on supporting the students' full participation as well as teaching and learning strategies like; group discussion, presentation, debate, role-play, field trip and questioning so as to encourage the students' learning. These aspects under independent variable were well controlled during the implementation of the new material and approach. So the good performance realized in the E school resulted purely from new material and approach used.

Sometimes independent variables may result into unexpected results in case of the presence of intervening variable. The challenges such as overcrowded classroom, fixed chairs, school environment, and school's regulation as well as the inability of the instructor to adapt the designed approach during lesson implementation might interfere in the whole process of implementation of the new designed material and LCA and resulting to de-motivation and poor performance of the students in Geography.

Due to overcrowded classroom and fixed chairs the researcher decided to use the assembly hall where chairs were taken from other classes and returned back after the lesson. This move succeeded because ordinary level students were in their terminal vacation which made easy availability of chairs. Moreover, the researcher dealt with intervening variable concerning school regulations by seeking permission three days before the actual implementation of the lessons which demanded field trips. So, the students were able to participate in all activities suggested in the module/material designed.

The difference in school environment in the sense that E school is a boarding-school while C school is a day-school was treated accordingly through advice. To cope with the boarding students who are assumed to have better conducive environment for both group discussion and private study. The day- students were advised to use extra time at school for group discussions and prepare personal time-table for private study at home.

Therefore, the good result obtained in the post-test in the E school is assumed to be resulted from the well designed material and approach used in the E school. So, this proves that when independent variables are well controlled in the absence of intervening variables it is their presence or absence that is likely to be directly responsible for whatever outcome observed. In this study 'outcome' means the students' motivation and performance in relation to the teaching material and approach used. Figure 1 summarizes the variables involved in the conceptual framework model.

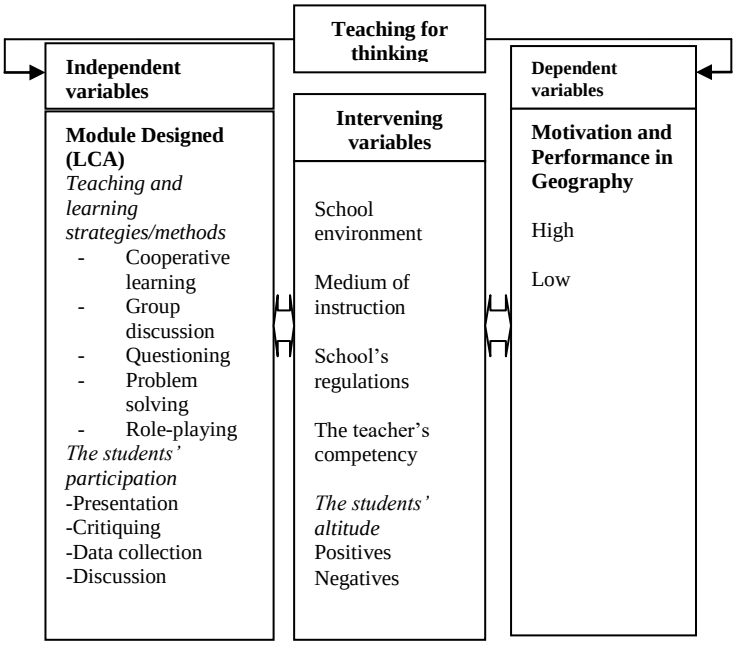


Figure 1: Conceptual Framework Model

III. METHODOLOGY

Quasi-experimental design was employed. Then, both qualitative and quantitative approaches were employed during data collection and analysis. Qualitative data were collected through, documentary review, structured interview with the students and classroom observation during piloting stage of the designed material and approach. Quantitative data were collected by using test and questionnaire to determine the students' performance before and after the use of LCA as well as the students' perception on the designed approach and material. The sample of the study included two secondary schools in Morogoro municipality as experimental (E) and controlled school (C). Form Five Geography students in both E and C school were purposively selected to involve in the study. The collected data were analyzed considering qualitative and quantitative approach.

IV. RESULTS AND DISCUSSION

Design and Develop Exemplary Lessons on LCA on Field Research Techniques

The researcher designed the exemplary lessons on *Field Research Techniques* based on LCA aiming at improving teaching and learning of Geography. The task under this objective was to design, develop and validate the LCA exemplary lessons on *Field Research Techniques*. It was guided by a research question aiming at exploring the characteristics of an effective LCA material toward effective teaching and learning of Geography. Interview and documentary review were used in the process of meeting the above objectives.

The Interview Results

The researcher interviewed both Geography teachers and the students during diagnostic study done in two schools in Dodoma Municipal. The aim was to explore their views on what methods as well as teaching and learning aids are suitable for effective teaching and learning and motivation in Geography lessons.

The results from the interview responses showed that:

i. The learner-centered lessons must reflect what the students already know from their real environment.
ii. The materials used in the learner-centered lesson must give the students opportunities to generate their own knowledge.
iii. The methods like role-play, field trips, field study, discussion and debate should be encouraged during teaching and learning process.
iv. It is also commended on the use of pictures, maps and charts as the teaching aids.
v. The examples used during lesson implementation must reflect the real context of the learners' environment.

The Results from Documentary Review

The results from documentary review of research works, books and articles review revealed that the learner-centered lesson must comprise of the following:

i. The materials must be designed in the basis of tasks oriented.
ii. The materials must draw examples that reflect the learner background knowledge.
iii. The materials must show clearly what the teachers and the students should do during lesson presentation.
iv. Also, the literature show that local teaching aids must be encouraged to motivate teachers' creativity.

Pre-testing of Designed Exemplary Lessons Based on LCA and Material on Field Research

Pre-testing of the designed materials was done at Al-Qaim Islamic Secondary School and involved 30 form five students. The interview and classroom observations were administered to investigate challenges that might occur before actual implementation of the designed exemplary lessons in the E school. Five lessons were taught by the researcher within the normal school time. The following found to be the possible challenges of the designed approach:

Time Management

The results from the students' interview responses revealed that time located for every designed lesson in the approach was a challenge. This is due to the fact that the teacher failed to complete lesson one as planned. The lesson used 100 minutes instead of 80 minutes. The reason compelled the failure of time management was explained to be lack of familiarity by the students on the new teaching approach. Therefore, much time was used by the students in forming (selecting the secretary and chairperson) the group, self volunteering to present before the class and concentrating on making comedian entities rather than dealing with the tasks assigned like answering worksheets given, critiquing each other and presenting. The researcher overcame the above challenge by developing ***'time management guideline schedule'*** showing time proportion for each stage of the lesson and for every activity either to the teacher or the students. The time management guideline schedule was given to the chairperson of each group before beginning a lesson.

The Used Terminologies

The results from the interview with the students showed that some of the terminologies used in the exemplary lessons (module) designed were confusing. For instance, the words *'Organization of Field Research'* as it appeared in the Geography secondary school syllabus (2005) seemed to confuse the students and so they failed to respond on the given tasks in the introduction stage of lesson 2. Most of the responses given from the students seemed to contradict the intended meaning. When asked to brainstorm on the meaning of 'organization of field research' all the students

conceptualized it as 'stages/steps of field research. To minimize the confusion observed, the lesson-heading was changed and written as *'Pre-requisite/Pre-preparation of Field Research'* instead of '*Organization of Field Research'***.** In due regard, the students understood the lesson-heading. So they managed to respond to the assigned tasks in the other stage of the lesson accordingly.

The Designed Worksheets

Among the challenges identified from the students` interview responses and classroom observation by the researcher was failure of the students to implement and accomplish worksheets solving. Tasks in the worksheets included psychomotor skills that is, collection of data outside the classroom and role-playing activities. These activities required more time for preparation.

Positive Comments Observed from Piloting

Notwithstanding the challenges discussed above, the students were asked to mention things seemed interesting during teaching and learning process of field research techniques. The results showed to support the designed material and approach used. For instance, one student was quoted saying that:

> **"…***before introducing this new approach and material I found field research to be a complicated topic and I didn't have any idea of how to answer it in any exam. But now I am so much interested with this topic. I am going to answer it in the national exam".*

When asked to specify the goodness of the materials applied the students commended that they have enjoyed the lesson because of the use of the worksheets used, discussion, role-play and presentation helped them to remember and understand better. Also, he commended that the approach used helped them to gain confident of standing in front of others to present the findings discussed in the group.

The results from Try-Out the Designed Module in the Experimental Classroom

Before try-out of the designed material, pre-test was implemented on E and C school. The aim was to find out the level of understanding of the students in the E and C school on the *Field Research Techniques* topic before applying the new material and approach in the E school. The results from the pre-test of the two schools are shown here under:

Pre-Test Results of E and C School

Pre-test was done in the same date between the two schools. Results showed that the E school performed better with the mean score of 34.21% than the C school with the mean score of 21.50%. Table 4 summarizes the pre-test mean score of E and C school.

Table 4. Mean Scores for Pre-Test Results in E and C School

School type	Number of the students	Minimum score	Maximum score	Mean score	Std. Deviation
E school	56	15	59	34.21	10.42
C school	22	0	42	21.50	11.57

Source: Field data (2010)

A t-test for independent sample was conducted to see if the difference observed was statistically significant or insignificant. See table 5.

Table 5. Pre-Test Mean Score of E and C school (Independent Samples Test)

t-test for Equality of Means						
T	*df*	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
					Lower	Upper
4.70	76	.000	12.714	2.705	7.328	18.101

Source: Field data (2010)

The results showed that the observed discrepancy of mean score between E and C school in the pre-test to be statically significant with (M=34.21, SD=10.42) and M=21.50, SD= 11.57; *t*= 4.70, *p*= .000) of E and C school respectively.

In the attempt to minimize the effects of discrepancy of performance in the research data between E and C school during the study, the researcher discussed with the students of C school on the importance of preparing self study time table and use of extra time for group discussions at school.

Moreover, the students of both schools were interviewed to explore their views on the test given. The results from interview showed that the students felt the test to be difficult. The reason given was the fact that the test was not in accordance with the notes given by their teacher in O-level. Nevertheless the content of field research in O-level is almost similar to that taught in A-level. One student in E school argued that:

> *"This test is practical in nature, it is impossible to apply our theoretical knowledge attained before to answer it".*

Implementation of the LCA Module in the E School

Under this task, the researcher assessed the viability of the LCA and material designed in the E classroom in comparison to the traditional teaching approach used in C school. The observation checklist as a tool for data collection was used to gather information required. The researcher was involved in teaching the developed exemplary lessons in E school. The subject teacher was assigned the teaching process in C school. The teacher in C school was not aware of the study so he used a traditional approach during the teaching and learning process. A trained assistant researcher was involved in recording required information in both schools by using observation checklists. The main focus was to evaluate the designed exemplary lessons to see if it was practical in the normal classroom setting. Worksheet, the students learning in groups, the students' presentation and discussion were assessed in this phase. Six groups with 9-10 the students were created in each lesson. At the end of each lesson, the researcher and the assistant researcher discussed the observations made from observational checklist and the following were the results:

The Results from Observation Checklists in the E school

The results showed that the students were highly motivated and interested in working and presenting groups works/findings. Also, the students managed to discuss in groups cooperatively. Furthermore, the students were observed being free in contributing their views during discussion. In case of the teacher, he was observed being moving around the classroom during worksheet solving and group discussion. Also, he was observed encouraging every student to contribute on the task assigned. There after each group was observed getting the chance to present their findings during lessons. The Chairperson of each group appointed representatives to present before the class and every member from a particular group had equal chance of being appointed to present the entire group work. Furthermore, the observation results showed that presentations and discussions were done as indicated in the plan as far as time allocated for every activity was concerned. Most of the students who were presenting seemed confident and effective, while the other students were observed being attentive and recording important notes. Moreover, during presentations the students in E school were eager to ask questions to the presenters. The questions that were posed during presentation were answered not only by the members of the presenting group but also by members from other groups. Generally the observation showed that most of the students managed to answer the questions correctly and the teacher involved in making clarification if necessary.

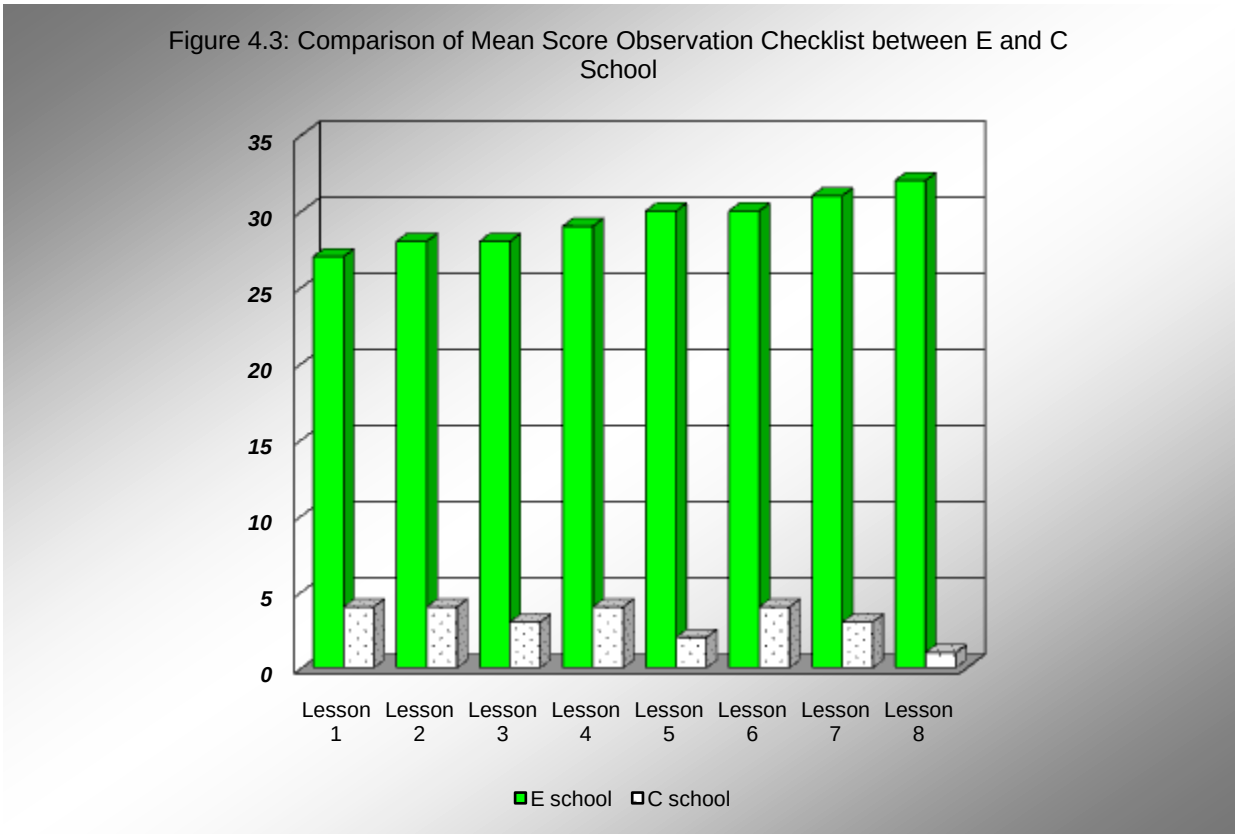
In the application stage the observation results showed that the students managed to conduct a debate. During the process of debating, the students were observed to be interested in this new approach of teaching whereby every student would like to contribute on the debate topic. Furthermore, the results showed that the students managed to perform the outdoor activities and presented the findings as stipulated in the designed material and approach. The tasks assigned as homework were done accordingly and one member from each group presented before the class in the next lesson. In case of group discussion and class discussion, the students were observed working cooperatively under the control of chairperson of each group. The chairperson appointed a willing individual to contribute or challenge each point raised out for more elaboration while the secretary was involved in recording the accepted points. Thereafter, any member of the group had an opportunity to present before the class whereas other members were responsible for answering the questions asked at the end of presentation.

The Results from Observation Checklists in the E school

The same observation checklist was used to assess lesson progress during teaching and learning process in C school similar with that applied in E school. The results from lessons observations showed that the teacher-centered approach was dominant used. The teacher was observed using the most of the time in writing notes and the student followed lesson progress mostly by coping down written notes on the chalkboard.

Therefore, the students' learning was neither in group work nor discussion conducted among the students or between the teacher and the students. There were neither field trips nor outdoor activities given to the students. Also, observation showed that the students did not get enough time to ask questions during the teaching and learning process as the teachers seemed to dominate the process. Figure 4.3 shows the comparison of the mean score results from observation checklist.

Figure 4.3: Mean Scores of Observation Checklist between E and C School



Source: Field data (2010)

The figure above (4.3) indicates that the students of E school scored higher total mean scores with 29% mean score out of 33% expected mean score compared to 3% mean score of the students of the C school. Also, the results showed that in E school the level of performance was increasing from one lesson to another. For instance, in the first lesson the mean score was 27% in the next lesson changed to 28% and it was ended with 32% (see Figure 4.3).

Evaluation of the New Designed Approach and Material after Implementation in E School Compared to the Traditional Approach Used in C school

Under this objective the task was to evaluate the performance of the students at E school after the teaching and learning by the new material and approach and their perception of it as compared to the students of the C school taught by traditional approach. Post-test was used in both schools to evaluate their performance while questionnaire method was used in E school to evaluate the students' perception on the new approach and material applied. This task was guided by three research questions aimed at evaluating the performance of the students of both school in the post-test as well as investigating the level of changes within the school between pre-test and post-test as well as the students' perception of E school on the designed exemplary materials and approach used. The results from both test and questionnaire are shown below:

Results from Post-Test in E and C School

After the implementation of the new designed material and approach in the E school, the students from both schools sat for post-test. The test was invigilated by the researcher and the subject teacher in both schools. The test was done on the same day in both schools.

The results showed that both schools performed better in the post-test. The performance of the students in E changed from 34.26% mean score (pretest) to 63.86% (posttest). For the case of the C school results changed from 21.50% (pre-test) to 27.73% mean score in (post-test). Table 6 summarizes post-test mean scores of E and C school.

Table 6: Post-Test Mean scores of E and C School

Type of School	N	M	S.D
Experimental School	56	63.86	13.19
Control School	22	27.73	9.11

Source: Field data (2010).

Note: **N** = Number of Candidates

M = Mean Score

S.D = Standard Deviation

Comparison of Pre and Post Test Results within E and C School

The Pre and Post-Test Results of Control School

The results from C school were 21.50% and 27.73% mean score of pre and post-test respectively. The results showed to increase from 21.50% to 27.73% with the range of 6.23% mean score. The significant test by using Paired Sample Test and eta squared was conducted. The researcher aimed at assessing whether the level of improvement has statistical significant difference as well as the magnitude level. Table 7 summarizes mean score of pre and post-test of C school of a Paired Sample Test.

Table 7: Significance Test of Mean score between pre and post test of C School (Paired Sample Test)

Paired Differences					***t***	***df***	**Sig. (2-tailed)**
Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
			Lower	Upper			
6.23	9.370	1.998	2.07	10.38	3.117	21	.005

A paired-sample t-test was conducted to evaluate if the mean score of pre-test and post-test of C school either is statistically significant or insignificant. There was a statistical significant increase in the students mean score from pre-test (M=21.50, SD=11.57) to post-test (M=27.73, SD=9.11), t (21) =3.117, p<.0005. The eta squired statistic (.31) indicated a large effect size.

The Pre- and Post-test Results of E School

The results from E school showed that the students' performance improved from 34.26% mean score to 63.86% mean score of pre and post-test respectively. This increment is almost double (90%) when compared to the pre-test mean score. The paired Sample Test was conducted to see if the increment observed was statistically significant or insignificant. Table 8 shows pre and post-test mean score of paired sample test of E school.

Table 8. Significance Test of Mean score between pre and post test of E School (Paired Sample Test)

Paired Differences					***t***	***df***	**Sig. (2-tailed)**
Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
			Lower	Upper			
29.64	15.761	2.106	25.42	33.86	14.074	55	.000

A paired-sample t-test was conducted to evaluate if the mean score of pre-test and post-test of E school either is statistically significant or insignificant. There was a statistically significant increase in the students mean score from pre-test (M=34.26, SD=10.42) to post-test (M=63.86, SD=13.19), t (55) =14.074, p<.000. The eta squired statistic (.78) indicated a large effect size.

The students' Perception on Teaching and Learning material and approach used

After all processes involved in the implementation of material designed in field research in the E school as well as doing a post-test the students of the E school were given questionnaires to fill. The main focus was to explore their perception on the new material and approach used.

The 15 questionnaires in the form of statements and questions divided into two parts were given to the students. The first part contained 10 statements in a form of Likert's scale statements aimed at exploring the students' perception on the material and approach used. The second part contained 5 questions probing their general views on the material (module) and approach used. Table 9 summarizes the students' perception of the new approach and materials used.

Table 9. The students' Perceptions on the New Approach Used

S/N	Statement	Responses							
		S.D	*%*	*D*	*%*	*A*	*%*	*SA*	*%*
1	This new approach is good	2	3.60	0	0.00	29	51.80	25	44.60
2	The approach of teaching raised my interest in learning	6	10.70	8	14.30	1	1.30	41	73.20
3	I have been finding the topic difficult before being taught by the new approach.	2	3.60	0	0.00	41	73.20	13	23.20
4	I found a topic easy after being taught by this new approach	10	17.90	1	1.80	18	32.10	27	48.20
5	The approach used was helpful in understanding	11	19.60	0	0.00	0	0.00	45	80.40
6	Able to perform the designed activities	7	12.50	0	0.00	0	0.00	49	87.50
7	Free to participate during lesson implementation	3	5.40	0	0.00	0	0.00	53	94.60
8	Group members were cooperative	3	5.40	0	0.00	0	0.00	53	94.60
9	Other teachers use the LCA in teaching.	53	94.60	0	0.00	0	0.00	3	5.40
10	Get a chance to contribute when TCA used	25	44.60	0	0.00	0	0.00	31	55.40
Total Mean score %			21.79		1.61		15.84		60.71
Except QN9 & 10			**14.51**		**1.78**		**17.42**		**66.24**

Source: Field data (2010).

Table 9 above, illustrated that the students' response on the first part of the questionnaires showed support on the teaching and learning material as well as approach used with 84% as compared to 16% who responded negatively. Specifically, when asked if the new approach was good, almost all the students (96.4%), with (51.80%) agree and (44.60) strongly agree; commended that new approach was good compared to (3.6%) who viewed new approach negatively. The same difference was observed when the students were asked if the new approach raised their interest in field research (75%), with (1.30%) agree and (73.20%) strongly agree, responded positively while (25%), with (10.70%) strongly disagree and (14.30%), rejected the statement. Moreover, when asked if the topic of field research was difficult before the use of new material and approach, 54 students out of 56 the students responded affirmatively and only 2 students responded negatively. And when asked their views on field research after the use of new material and approach 45 positive views were noted whereas the negative views were only 11. Furthermore, the students were asked if they managed to perform the activities in the way designed in the module, the students response was 87.50% strongly agree compared to 12.50% of strongly disagree.

Also, the students were asked whether or not they had the freedom to give their views during group discussion and if group members worked cooperatively during teaching and learning by using this new approach. The students commended that they were free to contribute and group members worked cooperatively during group discussion with 94.60% of acceptance compared to 5.40% of objection. When asked whether they had previously been taught in other Geography topics the same approach as they are being taught in field research, 94.60% responded that their the teacher used approach which is not similar to the one used in teaching field research while 5.40% commended that the approach used was similar to the one used by their teacher in other Geography topics.

Apart from results obtained from the first part of the questionnaire. The students were asked to give their general view on the new material and approach used in relation to the traditional approach used to teach other topics in Geography. Most of the students (48) supported the new approach rather than the traditional approach which was supported by 8 students. For instance, when asked to state the importance of using the new approach the following points were mentioned; it encourages thinking, creativity, and activeness; it increases the spirit of co-operation between the students and the teacher and among the students, and so the students were able to generate their own ideas. Other points of importance noted that it is easy to remember, no time consuming and discourages cramming, which results in higher performance. Lastly, the students were asked to give their suggestions for the improvement of teaching and learning of Geography in A' level. The students commended that the teachers should be trained so as to capture this new way of teaching.

V. CONCLUSION AND RECOMMENDATION

Conclusion

In light of the conceptual framework used in this study it has been established that in the whole process of teaching and learning the intended outcome is to produce the learner who is

well motivated and competent with higher performance in his/her studies. In due regard, the applied teaching and learning approach and materials should reflect the above depicted aim. In this study new approach and material was implemented in the E school while in the control school subject the teacher assigned to teach the same topic and traditional approach of teaching was dominated in all lessons. The results showed that the students from E school who learned field research techniques through discussion, questioning, presentation, debating, and role-playing as well as outdoor data collection were observed to have tremendous improvement in the post-test results compared to the students of the C school. Therefore it could be justifiably concluded that the observed difference between the two schools implied that the new material and approach used was useful and practical in the classroom environment.

Recommendation

Basing on the findings and interpretations of this study which showed that the students taught via new material and approach performed better than those taught by using traditional approach. Moreover, findings showed that the teachers are not accustomed to the use of LCA as a result of this study the researcher seeks to recommend the followings:

- The government should consider social science the teachers in the programs related with the teachers' improvement in case of any curriculum reforms.
- Team teaching should be encouraged through that; those teachers who are conversant with the application of the learner-centered approach would help those who are not.
- Well designed materials should be exposed to and easily accessed by the students and through that they can use it in studying topics which are uncovered in the classroom.

Suggestions for Further Research

Since most of studies on improving teaching and learning in Tanzania have been done in science subjects and the present study concentrated in geography especially in field research techniques topic , it is therefore advisable to other researchers that:

- Use the same study in improving the teachers' knowledge and skills on the use of the learner-centered approach.
- Design teaching and learning materials based on the learner-centered approach for improving teaching and learning of other social science topics.
- Carry-out the similar studies in other secondary schools allocated in rural area so as to have a comparative perspective with that done in urban secondary schools.

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