



Implementation of learner-centred approach among teachers in ordinary level secondary schools in Tanzania A case of Mbinga District Council

DALIKO MHULE

Department of Technical Education, College of Science and Technical Education, Mbeya University of Science and Technology, Tanzania-East Africa
P.O.BOX 131, Mbeya

PERPETUA J. KALIMASI (PH.D.)

Department of Education, Faculty of Social Sciences Mzumbe University, Tanzania-East Africa
P.O.BOX 63, Mzumbe, Tanzania

Abstract:

This holistic case study aimed to assess how Learner-Centred Approach (LCA) is implemented among teachers in selected ordinary level secondary schools in Tanzania. Based on the constructivism theory various factors for LCA are analysed. Data were collected by questionnaires, semi-structured interview, observation and documentary review. The findings show that LCA is partially implemented in schools due to number of factors including limited relevant resources, inadequate knowledge, and big number of students in classes, English language barrier and inadequate number of teachers. The study highlights the need of the government education authorities to regularly monitor and evaluate the implementation of LCA, supply teaching and learning resources in schools and to involve teachers and all relevant stakeholders in curricula design and reform.

Keywords: *Learner Centred Approach (LCA), Constructivism, Zone of Proximal Development (ZPD), ordinary level secondary school teacher*

1. Introduction

Education is a crucial sector which cuts across all spheres of human development such as social, economic, political and technological (URT, 2000). In this respect, provision of quality education is crucial for socio-economic development for any nation. Quality education is also regarded as a hub for socio-economic development also used to solve various problems a nation may face (URT, 2007). In order to achieve such goals of education, nations worldwide are striving to change their education policies and operations to solve the 21st century challenges that demands for quality education. Emphasis on Competence - Based Education (CBE) curriculum is geared by learner-centred teaching philosophy which is thought to promote practical skills; independent thinking, entrepreneurial spirit and freedom in the practice of democracy (Vavrus et al., 2011). Globally, there has been a shift of policies and practice which has led to reforms and contextual reconstruction of curricula that suit teaching and learning to equip learners with skills, knowledge and competences required in the labour market.

Learner-Centred Approach (LCA) has been in existence since the times of the Socrates around 400BC. It then spread to the North Atlantic countries particularly Canada, North America and Great Britain. Prominent American philosophers of the late 19th and early of 20th centuries were key advocates and implementers of the idea with the main striking question on child mental development and how they should be educated in order to cope with the future life. On the other hand, constructivists see learning

as a non-directive phenomenon in which learners understand themselves better, construct their own knowledge, and set goals for social and academic domains (Joyce, Weil & Calhoun, 2015). Knowledge is socially constructed and can be acquired when an individual interacts with other people in the society such as teachers, elders, peers and other skilled people through which meaningful world is experienced (Santrock, 2009). The main psychological idea is that, learners construct and reconstruct knowledge for meaningful learning.

From this view, the nations need well prepared and competent individuals to fit in the fast growing world where the major concern of educators at various levels is to inculcate skills, knowledge and competencies to learners (World Bank, 1995). Tanzania launched LCA in 2005 as means for implementation of Competence-Based Education Curriculum (Tilya & Paulo, 2014). However, LCA in Tanzania dates back to the times of Education for Self-Reliance (ESR) which was pioneered by Mwalimu Julius K. Nyerere in 1967. The ESR primarily focused at development of practical skills to meet Tanzania agrarian and new ideology of socialist society which also put pressure on educational pedagogical reforms. The pedagogical reforms focused at moving away from teacher-centred methods (Mushi, 2009; Ishumi & Anangisye, 2014). Kafumu (2010) points out that global changes call for secondary education to focus at cultivating specific skills and competence to students. Therefore, learning ought to involve reviewing, reflection, making inquiries and experiments.

The study by Mwangi (2014) in Kenya revealed that LCA contributed in high performance of Biology in Kenya Certificate of Secondary Education Examinations (KCSEE) however 85% of teachers were not willing to use it. Furthermore, the study by Chipshiko and Shawa (2014) in Malawian primary schools, Kafyulilo and Moses (2012) on implementation of competence-based teaching approaches in Tanzania among pre-service teachers and Mtitu (2014) focused on learner-centred teaching Geography teachers' perceptions and experiences on LCA commonly found that LCA is not effectively implemented.

Moreover, Msonde (2011) studied on enhancing competences to teachers in secondary schools while the study by Makunja (2015) focused at adoption of Competence-Based Curriculum to improve quality of education in Tanzania. Komba and Mwandanji (2015) also traced on the reflection of LCA in secondary schools, Nihuka and Ambrosi (2012), studied on teachers' perceptions and challenges towards application of LCA in curriculum implementation in secondary schools.

The aforementioned studies found that LCA is constrained by several factors including inadequate teachers as well as teaching and learning resources, low morale among teachers, time, and big number of students in classrooms. The reviewed studies employed qualitative approach and were limited to geographical areas and therefore couldn't be generalized to other areas. The studies also focused on teachers as solely implementers of LCA. Therefore, researchers focused at studying on the implementation of LCA among teachers in ordinary level secondary school at Mbinga District Council, Tanzania.

1.1 General objective

The general objective of this study was to assess the implementation of LCA in ordinary level education secondary schools in Tanzania.

1.1.1 Specific objectives

1. To find out teachers' understanding on LCA
2. To explore how LCA is practiced by teachers
3. To determine facilities for the implementation of LCA
4. To assess the administrative support on LCA

This paper begins by conceptualization of key terms, followed by conceptual framework, methodology, findings and discussion subject to the study objectives, conclusion and recommendations, Policy implication then a conclusion is given at the end.

1.2 Conceptualization of terms

The study is governed by constructivism theory. The theory considers a learner knows with the major assumption that knowledge emerges through interaction and experience, knowledgeable individuals and through reflection on the learner's own ideas. Constructivism theory is an epistemology of learning of meaning-making and how human beings learn things (Vivrus et al., 2011). Constructivists believe that the real learning and understanding is only constructed based on the learner's previous experience. Philosophers appeal on LCA by creating conditions for students to discover and actively construct knowledge in their own, learn how to learn and to develop skills in higher order of reasoning. Socrates (551-479BC) the Greek philosopher emphasize on good citizenship and critical thinking by considering an individual learner in teaching and learning (Henson, 2003). Moreover, Nyerere (1967) advocates for problem solving as a base for learning and solving problems while Montessori advocates for natural learning tendencies of a child as grows up, natural environment which favours natural growth and learning are important for human to grow to full functioning adult. It is advocated that learning environment should contain well designed manipulative materials, supportive which promotes discoveries, innovation, motivation and self-discipline (Thayer-Bacon, 2011).

Similarly, Zone of Proximal Development (ZPD) reflects LCA. It is a term coined by Vygotsky referring to a distance or gap between all aspects which a learner can do alone and those aspects which can do by assistance of knowledgeable others (Santrock, 2009). A learner is therefore having an ability to construct knowledge under the guidance of others.

1.3 Conceptual framework

The practice of LCA is an interactive process between the learner and teacher, learner and curricula, school and learner, learner and community or among learners themselves. In this context, a learner is a focus in the whole process of teaching and learning while teachers in school and community members have significant contribution in facilitating the learning process (Figure. 1).

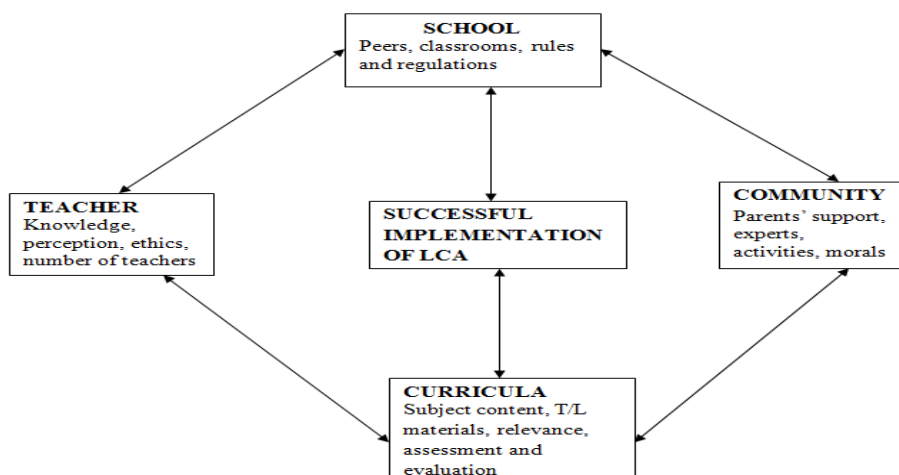


Figure 1: Conceptual Framework

Source: Adapted from Chaka, (1997, p. 17).

School

The school environments including classrooms, auxiliary buildings and social environment promote constructive learning, independent thinking, discovery and self-efficacy among learners (Dewey, 1929). School is an agent for socialization where learners interact with peers, materials and teachers through which accommodation and adaptation of new experiences is evident. It maintains order through rules and regulations of which students are subject to follow for proper transition.

Community

Community plays important role on learner's moral, physical, cognitive development and social development through provision of necessary materials for learning, to teach values, norms, economic

activities and morals. The community helps the school to maintain security and peace, supply students with teaching and learning materials and help students to learn through interaction and participating in socio-economic activities (Dewey, 1929; Hammond et al., 2001; Santrock, 2006).

Teacher

A teacher is facilitator, motivator and mentor of learner in learning process. Teacher's knowledge, motivation, number teachers in the school and teacher's ethics, have great influence on implementation LCA. The teacher ought to be equipped with pedagogical skills and subject matter, be good role model, friendly to learners and creative in variety of environments (Slavin, 2003).

Curriculum

Curriculum comprises the teaching and learning materials, subject content, teaching and learning experiences and assessment procedures. Good curriculum addresses the needs of the entire society and learners are likely to actively participate in learning process when the curriculum fulfils the needs (URT, 1995; Tilya & Paulo, 2014).

Learner

In LCA, a learner is a locus in learning while a teacher is a motivator, mentor, facilitator and manager of students in classroom. LCA is activities oriented which a learner ought to embrace and accomplish them in order to acquire skills, knowledge and experiences (Froyd & Simpson, 2009).

2. Research Methodology

The study used qualitative approach through which qualitative data were gathered but supplemented by quantitative data. Qualitative approach entailed behavioural, cultural, emotional feelings and psychological patterns of respondents on the implementation of LCA while quantitative approach used to gather demographic characteristics and attitude of respondents towards LCA where Likert Scale questions were used. The researcher employed holistic case study design to assess the implementation of LCA in ordinary secondary schools. Purposive sampling was adopted to obtain 80 respondents comprising 4 heads of schools, 20 teachers and 56 students from the four selected ordinary level secondary. The qualitative data were analysed by the aid of ATLAS ti.7 while quantitative data by SPSS version 20.

3. Findings and Discussion

This section is the presentation and discussion of the study findings in light of main objective and related specific objectives. The main objective of the study was to assess how LCA is implemented in ordinary level secondary schools being guided by four specific objectives namely teachers' understanding on LCA, to explore how teachers practice LCA, determine facilities for the implementation of LCA and to assess the administrative support on LCA. They have been presented and discussed as follows:

3.1 Teachers' understanding on LCA

With regard to teachers understanding, the data on understanding of LCA were gathered from teachers and heads of schools through questionnaires, interview, classroom observation and documentary review. From the findings, LCA is perceived as the use of participatory teaching and learning techniques such as discussion, questions and answers, role play, think pair and share while in reality LCA calls for intensive involvement of each learner in learning. Regarding LCA and TCA one head of school pointed out that:

In LCA, a learner is the main focus in teaching and learning and calls for the exploration of prior knowledge of learners and LCA demands learner's participation in the lesson and knowledge based while TCA is content based, TCA based on banking of content while LCA activity based, TCA a teacher is the source of information while in LCA learning is two ways traffic where teacher and

learner both learn from each other (Field data, 2017).

The headmistress from one of the four secondary schools had different perceptions on LCA as she expressed that it is a form of teaching and learning as the teacher is an expert and a learner is a mere receiver of the knowledge from the teacher. However, she critically argued that:

“In my experience with ordinary level secondary school students, LCA probably can be applied to higher levels of education but our students still need knowledge and directives from the teacher since they are not mature enough to search materials on the particular subject in their own”. (Field data, 2017).

These findings show that teachers have insight on LCA however, they perceived it as a mere use of participatory teaching and learning approaches in classrooms such as discussion, questions and answers, role play, think pair and share to mention some. These findings indicate that LCA is misconceived and superficially implemented.

In addition to that, researchers sought attitude of teachers on LCA in classroom (Figure 2).

Teachers' attitude towards LCA

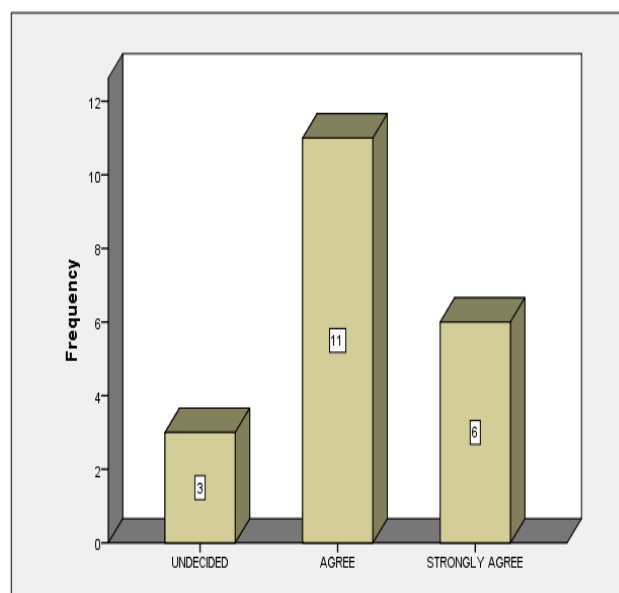


Figure 2: Attitude of teachers on consideration of learners' diversity in LCA

Source: Field data, (2017).

This was evidenced by the statistics (Figure 2) which indicate that (85%) of teachers were aware of learners' learning diversities. However, classroom observation revealed that teachers used talk and chalk approach, there were no teaching and learning aids; students were passive. On the side of documentary review data from lesson plans and scheme of work showed the evaluation part across the documents reviewed it was solely done by teachers although LCA lesson calls for two-way evaluation. It is quite contrary to idea of LCA which calls for a teacher and learner to cooperate in designing educational experiences to advance learning and provide opportunity to practice, work independently and in groups so as to achieve the set objective of the entire subject matter (Froyd & Simpson, 2009). Similarly, Weimer (2002) adds that LCA is not a process of adding tasks and techniques to a learner during classroom sessions rather it is a transformational process and criterion-based outcome. Documentary review data also showed that teachers had varied conception on technical terms used in lesson plans and schemes of works in which each teacher wrote and used according to his or her experience. This variation implies that teachers have partial understanding on LCA. The questionnaires

response from heads of schools supported where 3(75%) agreed that teachers have partial knowledge on LCA and therefore there is a need of training for properly implementation of LCA in classrooms (Table 1).

Table 1: Teachers’ knowledge on Learner Centred Approach

Teachers have partial knowledge on Learner Centred Teaching Approaches		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	STRONGLY DISAGREE	1	25.0	25.0	25.0
	AGREE	3	75.0	75.0	100.0
	Total	4	100.0	100.0	

Source: Field data, (2017).

Furthermore, the researcher surveyed the teachers’ belief on learners in the course of implementing LCA (Table 2).

Table 2: Teachers’ response on position of learners in LCA

In learner centred approach a learner is recipient of knowledge and a teacher is an expert		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	STRONGLY DISAGREE	7	35.0	35.0	35.0
	DISAGREE	4	20.0	20.0	55.0
	UNDECIDED	1	5.0	5.0	60.0
	AGREE	2	10.0	10.0	70.0
	STRONGLY AGREE	6	30.0	30.0	100.0
	Total	20	100.0	100.0	

Source: Field data, (2017).

From the findings (Table 2), 11(55%) agreed that learners have knowledge while 8(40%) disagreed that learners have both knowledge and experience. The findings are consistent with constructivism theory that learners have ability to construct their own knowledge under guidance of a teacher. However, classroom observation and documentary review showed that teachers had surface knowledge as findings revealed misconception of key terms in lesson plans and scheme of works; hence discrepancies in LCA practice among teachers.

The findings from documentary review add to the reviewed literatures Yandila, Komane and Moganane (2002), Kafyulilo and Mosses (2012), Lal (2014), Chiphiko and Shawa (2014) which found that teachers had superficial knowledge, misconception on LCA and interchange it with participatory approaches.

3.2 The practice of LCA by teachers in ordinary level secondary schools

With regard to practice of LCA by teachers, findings revealed that teachers employ mixed teaching and learning approaches. Statistics (Table 3) have also shown that (91.1%) of students agreed that their teachers commonly employed mixed approach in teaching and learning. However, the practice of LCA reported to be hindered by big number of students in classes, inadequate teaching and learning materials, limited time, few teachers, English language problem among learners, learners’ abilities and laboratories and few classrooms.

Table 3: Students’ response on teaching and learning

Teachers use lecture methods with other methods in teaching and learning		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	STRONGLY DISAGREE	1	1.8	1.8	1.8
	UNDECIDED	1	1.8	1.8	3.6
	DISAGREE	3	5.4	5.4	8.9
	AGREE	16	28.6	28.6	37.5
	STRONGLY AGREE	35	62.5	62.5	100.0
	Total	56	100.0	100.0	

Source: Field data, (2017).

On the other hand, heads of schools’ opinions on teachers’ knowledge about LCA indicated that teachers do not have adequate knowledge on LCA. Low knowledge on LCA reported to be attributed by lack of in-service training as the study findings across the four secondary schools only eight teachers received training. Despite low knowledge on LCA, 15(75%) among 20 teachers (Table 4) reported to prefer TCA to LCA in teaching and learning as they pointed out that TCA is easy to use.

Table 4: Attitude of teachers on Teacher Centred Approach (TCA)

Teacher Centred Approach is time effective and easy to use in classrooms		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	STRONGLY DISAGREE	1	5.0	5.0	5.0
	DISAGREE	2	10.0	10.0	15.0
	UNDECIDED	2	10.0	10.0	25.0
	AGREE	10	50.0	50.0	75.0
	STRONGLY AGREE	5	25.0	25.0	100.0
	Total	20	100.0	100.0	

Source: Field data, (2017)

The findings of classroom observation and documentary review revealed that teachers use questions and answers and revert to lecture approach. Similarly lesson plans and schemes of works showed no activities to reflect the practice of LCA. It is evidence that teachers have negative attitude towards LCA. These findings contradict with Salema (2015) who found that teachers had positive attitude on LCA. Regarding assessment and evaluation of learning, the study findings revealed 14(70%) among 20 teachers admitted with questionnaires agreed that examinations, tests, quizzes were commonly used to assess learner’s skills and knowledge (Figure 3).

Tests, examinations and quizzes are the only tools for assessing learner's competence

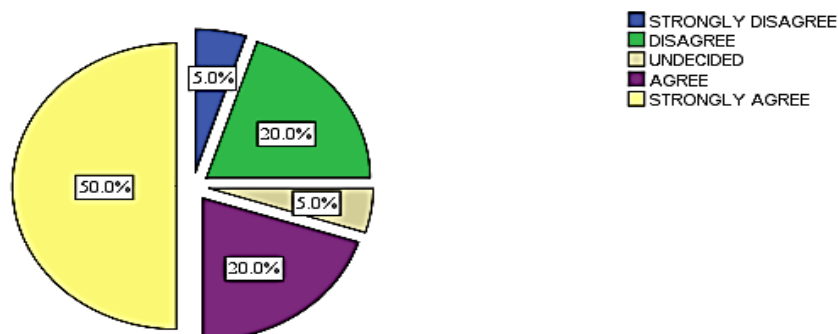


Figure 3: Mode of learners’ assessment

The findings revealed that assessment techniques were limited to examinations, tests and quizzes as reflection LCA practice. These findings diverge from Competence Based Education Policy in which the competences of a learner ought to be measured by outcome-based activities among others include

projects, experiments, terminal examinations, portfolio, assignments and tests but the assessment shall be formative in nature (URT, 2005, p.30).

On the other hand, the use of teaching and learning aids, the study found that among 56 students 51(91.1%) admitted with questionnaires responded that their teachers used teaching and learning aids in classrooms; but classroom observations revealed that teachers did not use teaching and learning aids. Likewise regarding classroom interaction, sixteen students were interviewed where three students reported that they rarely interacted with their teachers because they were harsh while thirteen students admitted that they were free to interact with their teachers. In addition, the findings from questionnaires revealed that among 56 students 48(85.7%) agreed that they were free to interact with their teachers (Table 5).

Table 5: Opinions of students on teacher-student interaction

We are freely interacting with our teachers					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	UNDECIDED	3	5.4	5.4	5.4
	DISAGREE	5	8.9	8.9	14.3
	STRONGLY AGREE	19	33.9	33.9	48.2
	AGREE	29	51.8	51.8	100.0
	Total	56	100.0	100.0	

Source: Field data, (2017).

3.3 Facilities for implementation of LCA

Facilities for implementation of LCA also were the concern of researches where the study findings showed that among four schools, one private secondary school owned by church had full equipped science laboratories, enough books and classes while three schools including one private school had inadequate books, few classes and laboratory equipments. This situation opposes the policy which demands for schools to be well equipped with modern laboratories to create environment for successful learning of natural sciences (URT, 2005, p.24). This finding contradicts with the study by Salema (2015) found that private owned have resourceful learning environments unlike public secondary schools.

3.4 The administrative support in implementation of LCA in schools

In regard to administrative support, one of the heads of schools pointed out that: “implementation of LCA is a joint effort in which community and parents have roles to play such as construction of classes, fulfilling needs of students including food, stationery, truancy intervention, behavioural modifications also teacher-parent communication” (Field data, 2017).

The supports to teachers also reported to motivate working and retain teachers in schools as the heads of schools from privately owned secondary school pointed out that her teachers were served tea, recognised them for hard working, given free accommodation with electricity, water and furniture, good salaries, and soft loans. While the experience from three secondary schools motivating services were limited. The situation is against the Tanzanian Government strategy that stipulates:

For political, economic, social and technological prosperity in 21st century, Tanzania requires peaceful environment, well informed, skilled and committed citizens. To meet this target, the government has committed itself to create conducive teaching and learning environment which will render access to quality education (URT, 2000, p.18).

Regarding school inspection services, heads of schools and teachers acknowledged that the service helped to correct misconceptions pertaining curricula changes hence improvement of classroom instruction and quality of education. However, the heads of schools reported that there were no regular school inspection services. This finding adds to the study findings by Chaka (1997) which revealed that LCA was not effectively implemented due to lack of teachers' morale, motivation, commitment and lack of teaching and learning resources and little knowledge on LCA, less involvement in curriculum development and changes.

To sum up, this study found that parents and community have significant support in creating environments for implementation of LCA in schools including academic support services such as stationery, welfare services such as food, behavioural interventions to enhance teacher-student relationships. In addition, regular school inspections as administrative support reported to correct misconceptions in implementation of LCA. The study found that community participation and school inspection services are imperative for implementation of LCA, in addition to those reported by preceded studies and therefore LCA is multi-dimensional.

4. Conclusion

The study focused at assessing the implementation of Learner Centred Teaching Approach among teachers in ordinary level secondary schools by gathering data on teachers' understanding, the practice of LCA, facilities for the implementation, and the administrative support.

The study findings revealed that there is a bottleneck in understanding of LCA among teachers for effective implementation. In course of LCA implementation, several dimensions are involved such as community and parents' participation and administrative supports including inspection services.

5. Policy and practical implications

According to the study findings, the LCA is not adequately disseminated and widely instilled among teachers hence misconception and superficially implemented. Implementation of LCA is multi-dimensional therefore all dimensions are equally important and therefore ought to be involved. Also policies and circular reported to follow top-down approach through which teachers are less involved eventually difficult to implement the policies. Training to teachers on curricula development and reform is low thus impairing outcome-based teaching and learning.

Schools' quality assurance services reported to be inadequate therefore hampering implementation of new curricula and teaching approaches. Adoption and implementation of LCA in schools is pertinent to keep pace with global changes and challenges.

6. Recommendations

Regarding the study findings, the implementation of LCA is not effective in schools so it is important for the Ministry of Education, Science and Technology to take deliberate effort on training teachers, supply of teaching and learning resources, to build enough classrooms and laboratories in collaboration with parents, community and other education stakeholders. Motivation, recognition and good working environment among others were reported to be factors for enhancing hard working among teachers; therefore, the government ought to improve these factors.

The Ministry of education, Science and Technology need to improve quality assurance in education by equipping quality assurance department and education officers with skills to regularly monitor and evaluate the implementation of LCA in schools.

On the other hand, curriculum developers are urged to involve teachers, students, society and other education stakeholders since implementation of LCA involves multiple dimensions.

The inadequate number of teachers in secondary schools especially science teachers, inadequate teaching and learning materials, many students in classes, inadequate laboratories and laboratory equipments were reported; therefore, government and other education stakeholders to improve the environment for the effective implementation of LCA in secondary schools.

The study employed qualitative approach using holistic case study design whereby the findings cannot be generalized to the large population therefore; further studies can be done on the same problem in other areas in Tanzania or elsewhere in the world.

References

1. Ambros, B & Nihuka, A.K. (2012). Learner Centred Approach for Curriculum Implementation: Teachers' perceptions and Challenges. Dar es Salaam: Open University of Tanzania.
2. Chaka, M. V. (1997). Learner-centred education in Namibia: A case study. A thesis submitted to University of Alberta. Canada. Unpublished.
3. Chipshiko, E & Shawa, L.B. (2014). Implementation of Learner Centred Approach to Instruction in primary schools in Malawi. *Mediterranean Journal of Social sciences*, 5(23).
4. Dewey, J. (1929). My Pedagogic Creed: *Journal of National Education*, 18(9), 291-295.
5. Dewey, J & Dewey, E. (1915). *School of Tomorrow*. New York: E.P. DUTTON & COMPANY.
6. Farrant, J.S. (1980). *Principles and Practice of education*, new edition. Longman: Pearson Education Limited.
7. Froyd, J & Simpson, N. (2009). *Student-Centred Learning: Addressing Faculty Questions about Student-Centred Learning*. Texas University
8. Gerring, J. (2007). *Case Study Research Principles and Practice*. Boston: Cambridge University Press.
9. Henson, T.K. (2003). Foundations for Learner-Centred Education: *International Journal of Educational Development*, 29(6), 628-634.
10. Ishumi, A.G.M. & Anangisye, A.L.W. (2014). Fifty years of education in Tanzania: A Historical Account and Review. Dar es Salaam: Dar es Salaam University Press.
11. Joyce, B; Weil, M & Calhoun, E. (2015). *Models of Teaching*, 9th edition. Boston: Pearson.
12. Kafumu, M.P. (2010). *Assessment of Learner Centred Education in Tanzania*. Dar es Salaam: MoEVT.
13. Kafyulilo & Moses (2012). Implementation of Competence-Based Teaching in Morogoro Teachers' Training College, Tanzania. *Makerere Journal of Higher Education*, 4(20), 311-326.
14. Komba, C.S.& Mwandanji, M. (2015). Reflection on implementation of competence Based Education in Tanzanian Secondary schools: *Journal of Education and Learning*, 4(2).
15. Lal, K. (2014). *Teachers' understanding of Child-Centred Approach and its implementation*. Haryana: Indus College of Education.
16. Makunja, G. (2016). Challenges Facing Teachers in Implementation of Competence-Based Curriculum in Tanzania. *Journal of Education and Social Sciences*, 3(5).
17. Msonde, C.E. (2011). *Enhancing teachers' competencies on Learner-Centred approaches through learning study in Tanzania*. Unpublished Doctoral Thesis. University of Hong Kong.
18. Mtitu, A.E. (2014). *Learner-Centred teaching in Tanzania: Geography Teachers' Perceptions and Experiences*. Unpublished thesis submitted for the fulfilment of PhD of Victoria University of Wellington: New Zealand.
19. Mushi, A.K.P. (2009). *History and Development of Education*. Dar es Salaam: Dar es Salaam University Press.
20. Mwangi, G.M. (2014). *Influence of Learner-Centred Strategies in Students' Biology performance in Kenya*. Unpublished Dissertation.
21. Nyerere, J.K (1967). *Education for Self-reliance*. Dar es Salaam: Dar es Salaam University Press.

22. Olson, H.W & Hergenhahn, R.B. (2013). An introduction to theories of learning, 9th edition. Boston: Pearson Education, Inc.
23. Paulo, A & Tilya, F. (2014). The 2005 Secondary Education Curriculum Reforms in Tanzania: Disjunction between Philosophy and practice in its implementation. *Journal of Education and Practice*. 3(35).
24. Salema, V. (2015). Assessment of the Attitude of Teachers and Students towards Learner Centred Pedagogy in Secondary Schools in Kilimanjaro Region. *Educational Research*, 6, 31-38.
25. Santrock. W.J. (2009). *Educational Psychology*, 4th edition. New York: McGraw-Hill.
26. Thayer-Bacon, B. (2011). Maria Montessori: Education for Peace. 5 (3), 307-319
27. URT. (2000). *Education in Global Era: Challenges to equity, opportunity for Diversity*. Ministry of Education and Culture: Dar es Salaam.
28. URT. (2001). *Education Sector Development Programme*. Dar es Salaam.
29. URT. (2007). *Ministry of Education and Vocational Training: Curriculum for Ordinary level secondary school Education*. Tanzania Institute of Education: Dar es Salaam.
30. URT. (2010). *Education Sector Development Programme: Secondary school Education Development Programme-II*. Dar es Salaam: MoEVT.
31. URT. (2014). *Education and Training Policy*. Dar es Salaam: Ministry of Education and Vocational Training.
32. Vavrus, F; Thomas, M; & Bartlett, L. (2011). *Ensuring quality by attending to Inquiry: Learner-Centred Pedagogy in Sub-Saharan Africa*. Addis Ababa: UNESCO.
33. Weimer, M. (2002). *Learner-Centered Teaching*. San Fransisco: John Wiley & Sons, Inc.
34. World Bank. (1995). *Development in Practice: Priorities and strategies for education*. Washington, DC: The World Bank.
35. Yandila, C. D., Komane, S. S., & Moganane, S. V. (2002). *Towards Learner-Centred Approach in Senior Secondary School Science Lessons*. University of Botswana: Educational Resources Information Centre (ERIC).