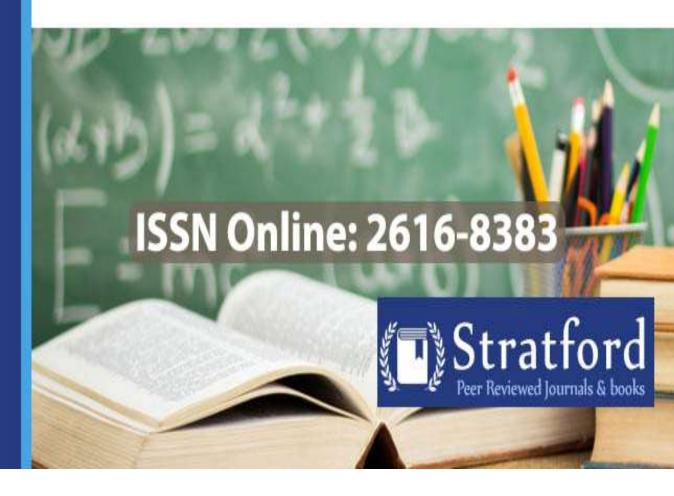
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Assessment of Practical Skill in the Implementation of Competence Base Curriculum in Secondary Schools of Temeke District –Tanzania

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Abstract

The purpose of this study was to explore on the Implementation of Competence Based curriculum in Secondary schools of Temeke District in Tanzania. The study was guided by following research questions: What are the assessment modes used in the implementation of competence based curriculum in secondary schools in Temeke district- Tanzania? Which resources are available for the assessment of the implementation of competence based curriculum in secondary schools in Temeke district-Tanzania? What are the teachers' skills and competency in assessing competence-based curriculum implementation in secondary schools in Temeke district-Tanzania? How do teachers use the assessment feedback to improve practical skills in secondary schools in Temeke District- Tanzania? The convergent research design method employed in the study. Probability random sampling and non-probability sampling helped to select respondents from learners, district educational officers and officers from National examinational council of Tanzania (NECTA). The actual sample was 391 students, 115 teachers, 7 headmasters/mistresses 4 students finished in those schools, 1 District education office, 1 director of NECTA and 1 Director from TIE. Data were collected by using questionnaires and interview guides. Qualitative and the quantitative data were analyzed separately and results converged during interpretation. The researcher adhere to the ethical consideration of research by betting the introduction letter from the Catholic University of Eastern Africa for data Collection, then sent the letter to Director of Municipal council in Temeke. The director gave the researcher permission collect data in schools by the allocation of the District Education Officer. In the process of data collection the research considered the anonymity and confidentiality of the respondent. The researcher considered the humanity to all respondent when they were participating in this study. Quantitative data were analyzed using



Statistical Package for Social Science version 23 and was presented using frequencies and percentages. Qualitative data analyzed using the thematic analysis approach and presented using narrative descriptions. The finding show that the competence based curriculum in Temeke District in Tanzania is still wanting. The mode of assessment used in school in pen and papers, the availability of resources is poor and the teachers are incompetent in assessing the practical skills in secondary school in Temeke District in Tanzania.

Keywords: Assessment, Competence-Based Curriculum, Practical Skills, Assessment Mode

1.1 Introduction

Classroom evaluations are a significant component of the teaching and learning process as they help teachers in decision-making in the classroom (Goodrum, Hackling & Rennie, 2001). Assessments are learning tools as well as a way to assign grades and determine whether students fulfill their learning goals. Learning and quality of education defined through assessment and any improvement in learning relies on the quality of improvement in assessment (Nenty, 2005). Assessment is at the center of all educational operations and in order to establish its validity and efficiency, each activity in education depends on evaluation. Quality assessment carries on the quality of instructional inputs, procedures and therefore on the quality of education that society enjoys (Nenty, 2005).

Student evaluation is a cornerstone of efficient teaching and learning, whether through standardized tests or classroom-based interventions. Good evaluations, taken as a whole, cannot only provide a reliable and valid measure of the learning and comprehension of a student, but can also help guide professors and students on a daily basis. Assessment has played a key role in United States education policy over the previous two decades, as it has for many centuries in other nations Large-scale, summative evaluations are seen as strong levers for affecting what occurs in schools and classrooms and as such, evaluation studies are regularly conducted to gage students 'strengths and weaknesses. In the United States of America, the adoption of the 2001 No Child Left behind Act has become more routine, more and more important and concentrated on key content fields. Results from large-scale summative assessments, along with other measures of achievement, are regularly used to determine whether students can advance to the next grade, and to judge the quality of schools and the educators who work in them, (21st partnership skills 2007).

Assessment is a systematic process for collecting information that can be used to make inferences about characteristics of people or objects (Reynolds, Livingstone & Wilson, 2009). Assessment is not only about gathering data, but is also a process used to evaluate the knowledge, understanding, skills or skills of learners and is an indistinguishably connected to a learning outcome course or program (Marriot & Lau, 2008). Cooper (2011) said that:

"We expect all teachers to teach all learners how to think and interact efficiently in order to survive in the 21st century, and they need to evaluate these abilities and benchmark expectations for what our high school graduates will require in the globe. Furthermore, in every class and at all grades, this must occur every day. If we do this in all our colleges, while also stimulating



curiosity and creativity, then all learners will have the abilities they need to get and maintain a decent job and be a citizen contributing economically, while our nation will have a workforce that can continuously generate innovations. An innovation-based economy in the 21st century will be more competitive and prosperous." It is evident that competences are part of what should be assessed and there for it is important for teachers to acquire skills for assessing these competencies

The competence based curriculum education has brought a positive impact in the world economy especially in the developed countries. The practical skills realization has empowered individual and employability as well as productivity increase. Advanced economies, innovative industries and firms, and high-growth jobs require workers that are more educated with ability to respond flexibly to complex problems, communicate effectively, manage information, work in teams and produce new knowledge. Competence based education enhanced the critical thinking and problem solving skills measured on, Partnership Innovation and Skills Association (PISA), which Hanushek *et al* (2008) term "cognitive skills," differentiate the economic leaders from the laggards among 50 countries from 1960 to 2000: "A highly skilled work force can raise economic growth by about two-thirds of a percentage point every year." Worldwide, the average annual Growth Domestic Product (GDP) growth rate for more than half a century is 2 to 3 percent, so this is a significant boost. "Higher levels of cognitive skill appear to play a major role in explaining international differences in economic growth, (partnership for 21st skills, 2008).

A study conducted by TIE (2008) in Tanzania on the status of curriculum for A-level secondary schools showed that the majority of form six students lack many crucial competencies including proficiency in spoken and written English, entrepreneurial skills, creativity, self-confidence patriotism and ICT mastery and application. This is evident enough that education system in Tanzania for secondary school does not equip learners with the required skills in the process of teaching and assessment.

The growing need for education system to produce graduates with capabilities has received significant attention in the recent education reforms in Tanzania (United Republic of Tanzania (URT), 2000; MoEVT, 2010). This is because it has come to surface that growth and development cannot be attributed to the increment in traditional inputs alone (Land, Labour, capital) but to the improvements in knowledge and skills of labour force and changes in technology, (Lewin, 2000). This seen in the Tanzania's Development vision 2025, which stipulates that: "Education should be treated as a strategic agent for mind-set transformation and for the creation of a well-educated nation, sufficiently equipped with the knowledge needed to competently and competitively solve the development challenges which face the nation. In this light, the education system should be restructured and transformed qualitatively with a focus on promoting creativity and problems solving" (URT, 2000).

Kitta & Tilya (2010) posit that for achieving what the policy stipulated in the year 2005, Tanzania government through Tanzanian Institute of Education (TIE) revised the curriculum from content- based to competence-based (CBC). The aims were equipping graduates



with sufficient knowledge and life skills such as communication skills, agricultural skills, entrepreneurial skills, vocational and technical skills, innovation and creative skills as well as ICT. On the view of the practical skills described in the curriculum to be imparted to the learners found that Tanzania should shift the education system from content based to competence-based curriculum. Competence based curriculum specifically outlines what is expected of the learners and what learners should be able to attain upon completion of the program of the study.

According to Tanzania Institute of Education (TIE), in secondary schools the curriculum and method used in the assessment of student was not clear. TIE further stated that Secondary Education curriculum provide information essential for assessing students' competencies that must cover a range of dimensions of student learning including mastery of content, cognitive development, social and psychological development and changes in terms of humanistic spiritual values. The learners shall demonstrate the practical value of their studies. The assessment of practical skills should be given more value to add in education system. The main purpose shall be to guide and improve the process of teaching and learning. Effectively planned assessment can promote learning, build confidence and develop students' understanding of themselves as learners. There shall be two main components of assessment: Continuous Assessment and Final Examination, (TIE, 2013).

The idea of paradigm shifts from content based to competence-based curriculum in Tanzania influenced with a lot of factor. The National Strategy for Growth and Reduction of Poverty (NSGRP) initiative, popularly known as MKUKUTA underscores the importance of education as an effective tool for poverty reduction and improving the quality of life. Goal 1: Ensuring equitable access to quality primary and secondary education for boys and girls, universal literacy among women and men and expansion of higher, technical and vocational education (TIE, 2010).

Tanzania Institute of Education (TIE) (2013), as an official body responsible for educational matters in Tanzania recommended that in secondary school education, there shall be two main components of assessment; Continuous Assessment and final Examination. Continuous assessment was to be formative in nature. It shall have diagnostic value in helping the learners develop a realistic self-image and inform the teacher on how the teaching and learning process can be developed (TIE, 2013). Continuous assessment determines the progress of the learner and monitor the learning process occur throughout the four years' cycle. The assessment tools used were assignments, tests, projects and terminal examinations. The scores for continuous assessments would constitute a part of the final assessment of the student. Terminal test scores and project scores sent to the National Examination Council of Tanzania (NECTA) as Continuous Assessment (CA) of the student. The assessment of practical skills is the method that shall be used to probe students' understanding, reasoning and critical thinking rather than their ability to return memorized facts. The methods shall include: Portfolios, Rating scales and rubrics, Checklists, Oral presentations, Project work, Practical tasks to demonstrate performance skills, Written essays or reports and Analysis, for example of texts.



1.2 Statement of the Problem

The African and American Institute 2015 report indicated that Africa is the world's most youthful continent with some 200 million young people between ages 15 and 24. It further added that finding productive jobs for young people is critical to the continent's future. That is why the African education system must be strengthened to absorb the entry of millions of African young people into the national and global workforce, (AAI, 2015). In Tanzania the participation of youth in the national economy and employability have been challenged by the education system. The assessment process is seeming has the contribution in the setback employability to the youth in Tanzania. The Tanzania Ministry of Labour has revealed that youth unemployment in Tanzania may be mainly caused by education system, lack of skills in business training, inadequate credit facilities, emphasis on formal sector alone, non-attractive agricultural sectors, gender imbalance and inadequate information (Samji *et al*, 2012). The information shows that there is vacancy but the problem is the personnel, because most of the youth applied are lacking the practical skills to perform.

There is a mismatch between teaching in the institutions of learning and the needs of the labour market. Students have no practical experience; they learn through lectures and academic textbooks and are academically sound but they have limited opportunities of acquiring practical experiences by using machinery, equipment and practical techniques associated with their professions. There is lack of qualified teachers to teach vocational, innovative, entrepreneurship and job skills. Therefore, they learn different things, different from what they are planning to do, (Ndyali, 2016).

Although Tanzania has changed the curriculum from the content -based curriculum to competency -based curriculum education, there is need to look for the way the practical skills are assessed in secondary schools in Tanzania. The education system does not fill the gap between teaching/learning and the skills imparted to the learning, which means out of the school system the learners, cannot do anything with their certificate. They are lacking the practical skills to apply in their environment, (Lubagumya, 2018)

The question of unemployment has been serious in Temeke district while the number of schools is quite good. The relationship between the schools and unemployment raise a question on how the competence based curriculum is implemented to promote the practical skills. The practical skills in school have to be treated as a panacea for unemployment in Temeka district. The study is assessing the implementation of competence-based curriculum in promoting practical skills in the process of curriculum implementation after rolling out the competence based curriculum education in 2005. The curriculum implementation in the whole process of teaching and learning and assessment is not clear. The researcher in intending to find out how the assessment bodies assess these skills and the resources available.

1.3 Research Questions

i. What are the assessment modes used to evaluate practical skills in competency based curriculum in the secondary schools in Temeke District-Tanzania.



2.1 Empirical Review of Studies

This section is going to focus on the study related to the competency based curriculum and the assessment of practical skills in global, Africa, East Africa and Tanzania in particular. The researcher will find the contribution and research gap of the reviewed literature. Moreover, the section will summarize the review and the end. Several assessment methods envisaged to be used in competence based curriculum. These include the use of portfolios, rating scales, checklists, oral presentations, project work, practical tasks to demonstrate performance skills, written essays or reports, analysis of texts and in-class tests and end of terms written examinations. Assessment is mainly based on two major types namely; formative and summative assessments. Assessments become formative when the information used to adapt teaching and learning to meet student needs. It encourages teachers to use questioning and classroom discussion as an opportunity to increase their students' knowledge and improve understanding. In addition, by giving feedback to learners, formative assessment can help improve their learning and performance. Summative assessment is normally used to determine whether students are promoted to a higher grade or education level, or awarded certificates or diplomas (Greaney, 2001).

Recent research in the area of practical work done by Abrahams and Reiss, (2012) on the assessment of practical skills basing on the major changes are currently a foot as to how practical work will be assessed in high status examinations (GCSEs for 16-year-olds and A-levels for 18-year-olds in England. The research aimed to explore how practical skills might best be assessed in school science and introduce two terms: direct assessment of practical skills (DAPS) and indirect assessment of practical skills (IAPS). The research finding conclude that both the direct and indirect assessment of practical skills have their place in effective assessment of school science and that too great a reliance on the indirect assessment of practical skills will lead to assessment that is less valid, (Abraham *et al*, 2015); (Abraham *et al*, 2016)

The assessment increases the learning, understanding and application of the acquired knowledge and skills, (Kipkorir, 2015). The learning and participation in the assessment always increases the power of skills application to the learner as individual, which empower the students in the whole learning process.

Salema (2017) carried out a study on focused on the assessment practices in secondary schools in Kilimanjaro and to determine how they align with the learner centered approaches. This study also assessed the attitudes of teachers and students and challenges encountered in assessment practices. The researcher adopted mixed research methods for data collection and analysis. This study sampled 580 students, 115 teachers, 6 heads of secondary schools, and one National Examination Council of Tanzania (NECTA) official. Data collection instruments were questionnaires, in-depth interview guides and document analysis guide. The findings indicated that there was a gap between theory and practice in assessment. A good number of teachers use teacher centered approach in both teaching and assessment procedures. The previous research did not cover the part of assessment especially the practical skills which is the key note of competence based curriculum. The study will establish strategies of assessing the practical skills



in Secondary schools in Tanzania in the implementation of competence based curriculum in Tanzania.

3.0 Research Methodology

Research methodology it is all about research design, Kothari (2014) said research design is an arrangement of condition for gathering and analysising information in a way that the aims combined for the significance of the study basing on economic cost in conducting research. This study employed mixed method research design which included the qualitative and quantitative method. This study used the two-research design, which is qualitative research design, and quantitative research design. The advantage of using the mixed methods helped the researcher to get information that were overlooked from one of the paradigm. The target population for this study was all the 23 principals, 575 teachers and 18400 students of secondary schools in Temeke district town. The district education office, the direct on Tanzania Institute of Education (TIE), the director National Examinational council (NECTA) and the former students from the selected school. A sample is a miniature proportion of target population selected for analysis. In this study, the probability and non-probability sampling used. Purposive sampling used as a non-probability sampling while stratified sampling design, simple and random sampling design sampling used as probability sampling.

Table 1: Sample Matrix

Category	Target population			Percentage (%)		
Schools	23	Random	7	30		
Principals Teachers	23 575	Purposive Stratified	7 115	30 20		
Students Education Officer TIE	18400 1	Stratified sampling Purposive	391 1	2.12 100		
Director NECTA	1	Purposive	1	100		
Director Alumni	1	Purposive Snowballing	1 4	100 100		

This study used both qualitative and quantitative research instruments. Interview guideused to collect qualitative data whereas questionnaire used to collect quantitative data. The researcher tested the validity, Reliability and credibility of the research instrument before going to field for data collection, the pilot test that used to test the validity reliability and credibility of the research



instruments. The questionnaires distributed to the participants by researcher. The researcher personally administered the interview guide to the headmasters'/ headmistresses education officer, Director of Tanzania Institute of Education (TIE), alumni and director of National Examination Council of Tanzania (NECTA). Quantitative data analyzed using descriptive statistics using the Statistical Package for Social Sciences (SPSS) version 21/23 and presented through tables, percentages, means, standard deviations and frequencies. Qualitative data that generated in the study organized in themes and patterns, grouped through content analysis and then tabula.

4.1 Findings and Discussion

This presents data analysis, interpretation, presentation and discussion of findings. The purpose of this study was to assess competence based curriculum implementation in the assessment of practical skills in secondary schools in Temeke district- Tanzania. The study was organized based on the study research questions. Included are the assessment modes used to evaluate practical skills, resources available for the assessment of practical skills, and the teachers' skills and competencies in assessing practical skills. Others are the extent to which feedback of assessment in secondary schools help the learners to improve their acquisition of practical skills as well as how assessment of practical skills help the students in the job market. The responses were analyzed and presented into frequencies, percentages and mean and tables.

Table 2: Instrument Return Rate

Respondents	Sampled size	No. collected	Return rate (%)			
Head teachers	7	7	100			
Teachers	115	69	60			
Students	391	337	86.2			
District education officer	1	1	100			
TIE Director	1	1	100			
NECTA Director	1	1	100			
Alumni	5	3	60			
Total	521	419	-			

Table 3: Teachers Response on Assessing Students Practical Skills n = 69

Responses	Frequency	Percentage
Yes	14	20.3
No	55	79.7
Total	69	100.0



Table 3 shows that majority of the teachers 79.7% did not assess students' practical skills while 20.3% assessed students' practical skills. The teachers explained that practical skills are only assessed in subjects like physics, chemistry, biology, computer and home science whereby students are required by the examination body to do practical but in other subjects the grading is 100% from theory.

The DEO, TIE and NECTA directors support the teachers' findings. They have their own formula they use to calculate to get the 100% marks for the final examination and the continuous assessment. Most of the practical examination which are common for every school are for three subjects; Biology, Chemistry and Physics. There is no practical examination for mathematics; there is no practical examination for agriculture science. There is practical examination for computer and technology studies but very few schools that offers the subject. In more than 6000 secondary schools in Tanzania, less than 5% of them teach-Information Communication and Technology (ICT) and do the national examination (Interview, 4 February, 2019).

Table 4: Students' Response on Assessing Practical Skills n= 337

Responses	Frequency	Percentage		
Yes	188	55.8		
No	149	44.2		
Total	337	100.0		

Source: research 2019

Table 4 shows that 55.8% were in agreement with the teacher that student' practical skills were assessed while 44.2% of the students indicated that their practical skills were not assessed. The findings also show that the teachers still use the traditional modes of assessment. The finding concurs with Ndalichako (2011) study which revealed that the traditional methods of assessment are dominantly used in secondary schools in Tanzania. The examinations are in the form of the old model which pen and paper and therefore there is need to train teachers on other modes of assessment that also assess students' practical skills as the implementation of competence based curriculum.

This shows that practical skills assessment is not so much clear to all subjects taught in secondary schools, only for physical science subjects taught in secondary schools in Temeke district. This finding is not in agreement with Noonan and Duncan (2011) who found out that improvement of learning occurs when teachers use classroom assessment information to establish knowledge, skills and attitudes possessed by their students.



Table 5: Teachers Response on Frequency of Employing Assessment Modes n=69 (100%)

Teachers responses	1		2		3		4		5		
	F	%	F	%	F	%	F	%	F	%	Mean
Communication skills											
	24	34.8	24	34.8	4	5.8	3	4.3	14	20.3	1.75
Creative thinking	27	39.1	15	21.7	11	15.9	0	0	16	23.2	1.80
Entrepreneurship	10	14.5	15	21.7	14	20.3	8	11.6	22	31.9	2.80
Problem solving	26	37.7	14	20.3	12	17.4	3	4.3	14	20.3	1.75
Leadership skills	13	18.8	16	23.2	18	26.1	5	7.2	17	24.6	2.44

Source: research 2018

Table 5 shows that the teachers always assessed communication skill in 34.8% creative thinking skills and problem solving skills. The teachers never assess entrepreneurship skills, which show the response of 31.9%, and the teachers often assessed students' leadership skills. This shows that the teachers assessed communication, creative thinking, entrepreneurship, and problem solving and leadership skills in students although the frequency of assessing every skill varied

5.0 Conclusion

The implementation of competency based curriculum is not well realized in the assessment of practical skills. Because the Tanzania Institute of Education (TIE) have not developed an instruments of assessing the practical skills. Second, the assessment of practical skills in secondary schools in Temeke is not well realized because in most schools the resources for assessing the practical/soft skills are not available. The classrooms are crowed, there few teachers for physical science subjects. The challenges of resources are in formal of human, financial and infrastructure. The challenges resources were more in public schools than in private schools. Tanzania Institute of Education (TIE) should develop the clear document for the assessment of practical skills in Secondary school and in-service training for teacher. The education system in Tanzania is still far from the competence-based curriculum, there is need to revise the education system.

6.0 Recommendations

The findings in study from the students, teachers, headmasters, district education officer, Tanzania Institute of Education (TIE) and Director of National Examination Council (NECTA) have the similar responses. The students responded that teacher usually assess them in practical skills. Most of the student making 188, which is equal to 55.8%, responded that teachers usually not assess them in practical skills in their teaching. The modes of assessments used included the class assignments, examinations, practical, tests, quizzes, class presentation and sports. The majority of the students are aware of the assessment of the practical skills in their process of learning. Apart from the responses of the student that teachers are assessing the practical skills



but most of the teachers are still using the tradition way of teaching. Teacher are using pen and paper in assessing student the assessment means which are not compatible with the assessment means proposed for competency based curriculum.

The headmasters/mistress indicated that the most mode of assessment used to assess students in school is pen and pen assessment. The district educational officer said that the most assessment used to evaluate student in school is pen and paper. The reason behind that is the teacher are not trained in the assessment of practical skills, she said "The common model of assessment used in school is the pen and paper assessment. The teachers do not assess students' practical skills because teachers are not well exposed to the competence based curriculum.

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