

Examining Classroom Assessment Practices of Secondary School Teachers in Tanzania

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This study examined classroom assessment practices of secondary school teachers in Tanzania. The major purpose was to establish the classroom assessment practices of teachers and the kind of support they receive from school authorities in conducting assessment. The questionnaire developed for that purpose was distributed to teachers who participated in the marking of the Certificate of Secondary Education Examination in 2013. A total of 4,160 questionnaires were completed and returned. Descriptive statistics were used to analyse data. Findings of the study revealed that the traditional methods of assessment are dominantly used in schools. The findings also indicate that teachers are overburdened with a heavy teaching load making it difficult for them to effectively use assessment strategies that could provide a comprehensive picture of students' learning. Conclusions and recommendations of the study were drawn on the basis of the findings, the key recommendation being the need for enhancing teachers' competences in assessing students and giving them the necessary resources and support to undertake classroom assessment.

INTRODUCTION

Classroom assessment refers to formative assessment conducted with the aim of enhancing both teaching and learning (Gronlund, 2003; Stiggins & Chappius, 2005; Shephard, 2000). It enables teachers to realize areas that students demonstrate mastery and those that they experience difficulties. Teachers use various methods of assessment to determine students' progress in learning and difficulties encountered (Stiggins & Bridgeford, 1985; Popham, 2008). Classroom assessment encompasses a range of activities from construction of assessment tasks, administration, marking and grading the tasks to interpreting the results. Information generated through assessment can help teachers to evaluate the effectiveness of their teaching strategies. It is essential to use assessment feedback to make decisions about teaching and learning so as to ensure that meaningful learning takes place. In a synthesis of over 250 studies, Black and William (1998) concluded that improvement of learning occurs when teachers use classroom assessment information to establish knowledge, skills and attitudes possessed by their students and incorporate that information in planning for lessons. The major purpose of conducting classroom assessment is to obtain information about student's progress in learning and the achievement attained (Airasian, 2001; Gronlund, 2003; McMillan, 2008; Popham, 2008).

Research evidence show that classroom assessment is an essential ingredient for effective teaching and learning (Gipps, 1990; Black & Wiliam, 1998; Shephard, 2000; Stiggins, 2002). Crooks (1998) reviewed the impact of classroom assessment practices on students and

observed that the choice of classroom assessment approach has a vital effect on the extent to which teaching and learning can be enhanced. Proper choice of classroom assessment method allows teachers to diagnose problems faced by students in attaining desirable learning outcomes and in devising appropriate remedial measures to redress the situation. In a nutshell, classroom assessment can be viewed as a totality of all the processes and procedures used to gather useful information about the progress in teaching and learning which facilitates in regulating the pace and strategies of teaching.

Frequency of assessment is also considered important in facilitating retention of material learnt. Shirvani (2009) observed that the frequency of assessment has a mediating effect on student engagement in learning. Research by Marcell (2008) showed that when the frequency of testing is increased, there is increased student involvement in responding to questions and in discussing the subject matter. Other scholars maintained that frequent testing helps students to monitor their learning and reinforces their engagement with the course as a result of immediate feedback provided (Haigh, 2007; Leeming, 2002). It has also been established that frequent testing has positive impact on future retention of material learnt (Roediger & Karpicke, 2006). Since retention of material is one of an important components of master learning (Wolf, 2007), it can be inferred that frequent testing contributes to mastery learning.

In order to gather information about teaching and learning, teachers use a variety of assessment instruments such as written tests, performance assessment, observation and portfolio assessment (Airasian, 2001; Stiggins & Bridgeford, 1984; Popham, 2008). Ndalichako (2004) observed that most primary school teachers in Tanzania prefer to use tests and examinations to evaluate students' learning. However, use of multiple methods of assessment is recommended due to its potentiality in yielding valuable information regarding students' strengths and weaknesses in their learning (Gonzales & Fuggan, 2012). There are various methods that can be used to assess students learning such as portfolios, projects, performance assessment such methods offer rich information about teaching and learning.

Portfolio is generally defined as a collection of student work with a common theme or purpose (Wolf, 1991; Arter & Spandel, 1992; Damian, 2004; Popham, 2008). The key characteristic of portfolio assessment is that it highlights student effort, development, and achievement over a period of time and emphasizes application of knowledge rather than simply recall of information (Price, Pierson, & Light, 2011). The main advantage of using portfolio is the engagement of students in assessing their own progress and achievement and in strengthening collaboration with their teachers through establishing ongoing learning goals (Popham, 2008). Portfolios encourages self-reflection and awareness among students as they review their previous assignments and assess strengths and weaknesses of both the processes as well as the final products (Sweet, 1993). The main challenges associated with use of portfolios are the reliability of scoring, time required to produce the product and to develop a credible scoring system.

Classroom observation enables teachers to conduct assessment in a natural environment. Observation can be conducted through formal or informal means, for example, through

observing students' behaviors in the classroom or while they are performing a certain activity. Angelo & Cross (1993) maintained that through close observation of students in the process of learning, classroom teachers can acquire important information about how students learn. The interactions between teacher and students and among the students provide a wealth of information about the functioning of the classroom.

Purpose of the study

The motivation to conduct the study stems from the role of assessment in influencing teaching and learning. The quality of classroom assessment can affect the quality of learning and attainment of students (Zhang & Burry-Stock, 2003; Gonzale & Fuggan, 2012). What is assessed and how assessment is done play a significant role in determining the effectiveness of teaching and learning. The main purpose of the study was to examine assessment practices of secondary school teachers in Tanzania. The study also attempted to explore methods of assessment used by teachers, nature of feedback provided to student and the support provided by school authorities to enable them undertake assessment effectively.

Research Questions

The study was guided by the following research questions:

1. Which methods of assessment are frequently used by teachers?
2. How do teachers' use information generated from classroom assessment?
3. What forms of assessment feedback mechanisms do teachers prefer to use?
4. What kind of support is provided by school administration in implementing classroom assessment?

Methodology

The questionnaire developed by the researcher was used to gather information for the study. It consisted of items concerning demographic information of the participants, items related to assessment methods in which they were asked to indicate the frequency in which they use each method in their classrooms using *1 to reflect daily, 2- weekly, 3-monthly, 4 – once a term, 5 – once a year and 6 – Never*. There were also items concerning teachers' assessment practices, use of assessment information, feedback mechanism and school support in assessment. Participants were asked to indicate the frequency in which each statement was applicable in their case using *1 – Never, 2 - Rarely, 3 – Sometimes, 4 – Often and 5 – Very often*. The reliability of assessment practices items computed using Cronbach Alpha yielded a coefficient of 0.85 indicating a high internal consistency of the instrument used.

Participants and Data Analysis

The study involved teachers who participated in the marking of the Certificate of Secondary Examination 2013. The marking exercise comprised of teachers from all the regions in the country. It was therefore considered that the views of the teachers who participated in the

marking exercise would be a representation of the perceptions of teachers in general. A total of 4330 teachers were requested to participate in the study and the questionnaires were given to them. Returned completed questionnaires were 4160. Data were coded accordingly and entered into SPSS programme for analysis. Descriptive statistics were used to provide information in accordance with the research questions of the study.

Findings of the study

Composition of Participants by qualifications

Teachers were asked to indicate their academic qualifications. Responses provided are summarized in Figure 1.

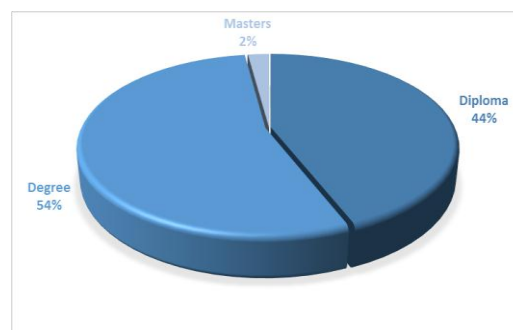


Figure 1: Composition of Participants by Qualifications

Figure 1 shows that a large proportion of teachers (54%) were degree holders followed by Diploma holders who constituted 44 percent of the participants. Only 2 percent of the teachers possessed Masters degree. It should be noted that teachers who participated in the study were markers of O-level examinations. The minimum required qualification to teach O-level is Diploma in Education. Thus, majority of teachers in the study had surpassed the minimum qualification required for them to teach O-level secondary schools.

Teacher Student Ratio

Teachers were asked to indicate the number of students that they were teaching. Their responses are summarized in Figure 2. Figure 2 shows that teachers have a considerable large number of students to teach. Only 13 percent of teachers were teaching less than 41 students whereas about 30% of teachers were teaching between 41-60 students. Contrary to the expectation, about 14% of teachers had more than 200 students which is actually an extremely large number if one has to teach effectively and conduct meaningful classroom assessment.

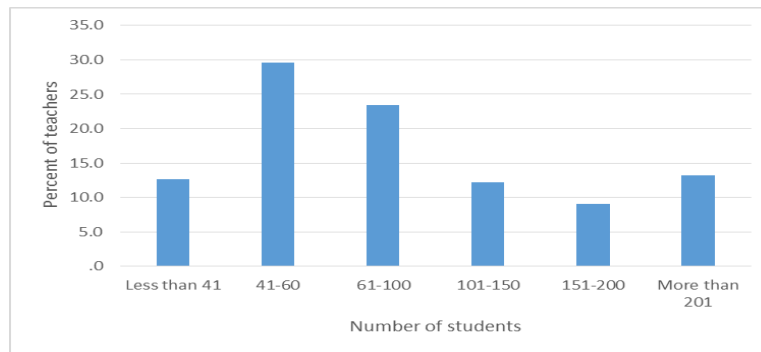


Figure 2: Number of Students Taught per Teacher

Some of the teachers with more than 60 students were required to teach all classes from Form I to Form IV. Because of the scarcity of teachers particularly in Mathematics and Science subjects, there are some schools in which only one teacher is expected to teach all the classes within a school. In such a situation, it makes it very difficult for teachers to conduct meaningful assessment of students.

Type of Assessment Methods that are frequently used by teachers

Teachers were asked to indicate the frequency in which they use various assessment types. They were asked to use a scale in which *1 -reflected daily use, 2- weekly, 3- monthly, 4 – Once a term, 5 – Once a year and 6 – Never*. During analysis the key was reversed so that the higher the number the more the frequency of use of the method. Responses provided by respondents are summarised in Table 1.

Table 1: Descriptive Statistics of Frequency of Use of Various Assessment Methods

Method of assessment	N	Mean	Std. Deviation
Class exercises	4055	5.30	.75
Homework	4110	5.06	.82
Quizzes	4079	4.71	1.25
Observation	4067	4.25	1.80
Tests	4049	4.15	.63
Practical	4061	3.44	1.59
Portfolios	3944	2.30	1.56
Projects	4073	2.28	.92

Table 1 shows that the most frequently used assessment methods include class exercises, homework, quizzes, tests and observation. The finding shows that traditional methods of assessment are predominantly used by secondary school teachers whereas methods of assessment that require extensive involvement of both teachers and students were not frequently used. As shown in Table 1, project was the least frequently used method of assessment followed by portfolios. This finding concurs with Ndalichako (2004) in her study which revealed that the predominant forms of assessment that were used frequently by primary school teachers included class exercises, tests and quizzes and homework. Thus, the

kind of assessment methods used by secondary school teachers tend to correspond to those used frequently by primary school teachers in Tanzania.

How do teachers use assessment information?

The study attempted to explore the predominant form of use of assessment information. Participants were presented with various possible uses and were asked to indicate the frequency of their use. Results are presented in Table 2.

Table 2: Use of Assessment Information

Use of Assessment	Std.		
	N	Mean	Deviation
I use assessment to evaluate the effectiveness of my teaching	3957	4.39	.79
I use assessment data to provide remedial teaching for low achieving students	3967	3.73	1.11
I use assessment results to give advice to students and parents	3969	4.15	.90
I use assessment data to punish students who do not meet the expected standard	3961	2.56	1.23
I use assessment data to help students to improve their grades	3963	4.17	.84
I use assessment to diagnose learning difficulties encountered by students	3962	4.18	.85

Responses of the teachers presented in Table 2 indicates that the most predominant uses of assessment were in *evaluating the effectiveness of their teaching*, *diagnosis of learning difficulties encountered by students* and in *providing advice to students and parents*. The use of assessment in *providing remedial teaching for low achieving students* is not as frequently used as others (Mean = 3.73, S.D = 1.11). The item "*I use assessment information to punish students who do not meet required standard*" has a mean of 2.56 and standard deviation of 1.23 indicating that a couple of teachers use assessment to punish students who do not meet expected standard. Such use of assessment to punish students may have negative effects on motivation of students to learn. Instead of assisting them to improve performance, punishing low attaining students may discourage them even in striving to understand what is taught. Teachers should feel obliged to give students appropriate instruction to raise their achievement standard rather than punishing them.

Assessment Feedback Provided by Teachers

The study attempted to explore the nature of feedback provided by teachers and the frequency in which such feedback is given. They were asked to use a 5-point scale in which *1 reflected Never*, *2 – rarely*, *3 – sometimes*, *4 – often* and *5 very often*. Their responses are summarised in Table 3.

Table 3: Nature of Assessment Feedback Provided by Teachers

Nature of feedback	N	Mean	Std. Deviation
I help students to realize specific errors in their solutions or answers	3972	4.23	.79
I provide feedback to students by explaining why an answer is correct or wrong	3969	4.38	.79
I provide feedback to students by focusing on their errors and misconceptions	3962	4.11	.91
I discuss with students the correct answers or solutions to problems	3967	4.37	.77
I usually inform my students the criteria in which their work will be assessed	3965	3.69	1.10

Table 3 shows that the nature of feedback that is mostly provided by teachers concerns the the correction of students' work. The items "*I provide feedback to students by explaining why an answer is correct or wrong*" (Mean = 4.38, S.D = .79) and "*I discuss with students the correct answers or solutions to problems*" (Mean = 4.37, S.D = .77). This finding suggests that teachers devote most of their time in correcting students work. Even the item "*I help students to realize specific errors in their solutions or answers*" has a mean of 4.23 indicating that most of the teachers who participated in the study are providing frequent feedback to their students. The item which has the lowest mean is "*I usually inform my students the criteria in which their work will be assessed*" (Mean = 3.69, S.D = 1.10). This finding implies that teachers are not doing well in communicating the criteria they use in assessing their students. Yet this is an essential requirement if assessment conducted is meant to support learning. Thus teachers need to strengthen their communication with students on the criteria they use to assess so that students could know in advance what they should strive to achieve desirable learning outcomes.

What kind of support is provided by school in implementing classroom assessment?

The study intended to explore the kind of school support that teachers receive in conducting classroom assessment. They were given statements that reflected possible kind of support from school and were asked to use a 5-point scale to indicate the frequency with which such kind of support is offered by their schools. The results are presented in Table 4.

Table 4: Frequency in which schools provide assessment support to teachers

Type of support	N	Never	Rarely	Sometimes	Often	Very Often
My school inspects assessment tasks prepared by teachers	3965	7.5	12.4	25.3	33.4	21.4
My school verifies the correctness of continuous assessment records	3968	5.5	11.2	21.7	37.2	24.3
My school provides guidelines for moderation of test items	3965	13.6	15.8	24.8	29.3	16.6
My school inspects continuous assessment records generated by teachers	3969	5.4	10.5	20.0	37.7	26.4
My school sets the required number of assessment tasks for each subject	3965	8.5	11.7	20.3	34.1	25.4
My school provides resources needed to undertake assessment.	3979	5.0	10.9	22.4	33.1	28.6
My school provides incentive for effectiveness in assessment	3963	16.1	16.6	26.1	25.6	15.5

Results presented in Table 4 shows that the predominant form of support offered is the provision of resources needed to undertake assessment as 28.6 percent of participants indicated that they receive that support very often whereas 33.1 percent indicated that they often receive that support. Only 5.0 percent indicated that their schools never provide resources needed to undertake assessment. Another form of support that is frequently offered by schools is the inspection of assessment records generated by teachers as well as the inspection of assessment tasks. In both cases over 50 percent of respondents indicated that they either receive the support often or very often.

As far as the guidelines for moderation of test items 16.6 percent of participants indicated that the guidelines are provided very often whereas 29.3 percent indicated that they the guideline is provided often. On the other hand, 13.6 percent of teachers indicated that their schools do not provide guidelines, 15.8 indicated that the guidelines are rarely provided whereas 24.8 percent indicated that the guidelines are sometimes provided. Moderation of test items is a crucial step in ensuring that assessment tasks used in schools meet the essential psychometric properties such as validity, reliability and fairness. Thus, the presence of over quarter of the participants who indicated that their schools do not provide guidelines for moderation shows that matters related to quality control of assessment tasks are not given due attention by school administrators. Also reflected in Table 4 is the fact that effectiveness in assessment is not considered as an important indicator in evaluating the performance of teachers. As shown in the findings, 16.1 percent of the participants indicated that their schools do not provide incentive for effectiveness in assessment whereas 16.6 percent indicated the incentive is rarely provided.

The mean of teachers' responses related to the frequency in which each support is provided are presented in Table 5.

Table 5: The Mean of frequency of support offered by schools

Type of Support	N	Mean	Std. Deviation
My school inspects assessment tasks prepared by teachers	3965	3.49	1.17
My school verifies the correctness of continuous assessment records	3968	3.64	1.13
My school provides guidelines for moderation of test items	3965	3.19	1.27
My school inspects continuous assessment records generated by teachers	3969	3.69	1.13
My school sets the required number of assessment tasks for each subject	3965	3.56	1.22
My school provides resources needed to undertake assessment.	3979	3.69	1.14
My school provides incentive for effectiveness in assessment	3963	3.08	1.30

Results provided in Table 5 tend to suggest that generally the items related to support offered by schools had low mean values compared to other items. That finding tend to suggest that

school authorities do not accord high importance in facilitating classroom assessment. It seems that schools tend to take it for granted that each teacher is capable of conducting assessment at the expected standard.

Discussion and Conclusion

This study attempted to examine classroom assessment practices of secondary school teachers in Tanzania. The findings of the study shows that the mostly used forms of assessment are class exercises, homework, tests and quizzes. The findings shows that teachers are not doing well in terms of communicating with students the criteria in which they will assess their students. Yet knowing the criteria for assessment is considered as an essential requirement for effective assessment. Schools ought to strengthen the support offered to teachers in conducting assessment particularly in supporting the process of assessment rather than inspecting only the product of assessment. Issues of moderation of assessment tasks and setting minimum assessment tasks are essential if assessment offered by various teachers are to be comparable across subjects within a school.

Teacher who participated in the study have a relatively high teacher student ratio. There is therefore a need for the government to consider rationalization of teachers and address the scarcity of teachers so that the number of students they are entrusted to handle is manageable for them to teach and assess effectively. There is also a need to offer regular in-service training for teachers to enhance their skills and competences in conducting assessment that facilitates teaching and learning.

References

- Angelo, T. A. & Cross, K. P. (1993). *Classroom Assessment Techniques*. San Francisco: Jossey-Bass Publishers.
- Airasian, P. W. (2001). *Classroom assessment: Concepts and applications*. New York: McGraw-Hill.
- Arter, J. A. & Spandel, V. (1992). Using Portfolios of student work in Instruction and Assessment. *Educational Measurement; Issues and Practice*, 26 - 44.
- Black, P., & William, D. (1998). Inside the black box. *Phi Delta Kappan* 90(2), 139 – 148.
- Crooks, T. J. (1998). The impact of classroom evaluation practices on students. Review of *Educational Research* 58(4), 438-481.
- Damian, V. B. (2004). Portfolio assessment in the classroom. *Helping children at home and school II: Handout for families and educators*, S3 - 129 – S3 - 131.
- Gipps, C. (1990). *Assessment: A teachers' guide to the issues*, London: Hodder and Stoughton.
- Gonzales, R. & Fuggan, F. G. (2012). Exploring the conceptual and psychometric properties of classroom assessment. *The International Journal of Educational and Psychological Assessment*, 9(2), 45-60.

- Gronlund, N. E. (2003). *Assessment of student achievement (7th ed.)*. Needham Heights, MA: Allyn & Bacon
- Haigh, M. (2007). Sustaining learning through assessment: An evaluation of the value of weekly class quiz. *Assessment and Education in Higher Education*, 32(4), 192-194.
- Leeming F. C., (2002). The Exam-A-Day Procedure improves performance in psychology. *Teaching of Psychology*, 29(3), 212.
- Marcell, M. (2008). Effectiveness of regular online quizzing in increasing class participation and preparation. *International Journal for the Scholarship of Teaching and Learning* 2(1), Article7. Available at: <http://digitalcommons.georgiasouthern.edu/ij-sotl/vol2/iss1/7>.
- McMillan, J. H. (2008). *Assessment essentials for student-based education (2nd ed.)*. Thosand Oaks: Crown Press.
- Ndalichako, J. L. (2004). Towards an understanding of assessment practices of primary school teachers in Tanzania. *Zimbabwe Journal of Education Research*, 16(3), 168-177. Available on <http://dx.doi.org/10.4314/zjer.v16i3.26046>.
- Popham, W.J. (2008). *Classroom assessment: What teachers need to know? 5th Ed.* Boston: Ally and Bacon.
- Price, J. K, Pierson, E. & Light D. (2011). *Using Classroom Assessment to Promote 21st Century Learning in Emerging Market Countries*. Paper presented at Global Learn Asia Pacific 2011, Melbourne Australia
- Roediger, H. L., & Karpicke, J. D. (2006). Basic research and implications for educational practices. *Perspectives on Psychological Science*, 1(3), 181-196.
- Shepard, L. A. (2000). The role of classroom assessment in a learning culture. *Educational Research*, 29(7), 4- 14.
- Shirvani, H. (2009). Examining an assessment strategy on high school mathematics achievement: Daily quizzes Vs weekly tests. *American Secondary Education* 38(1), 34-45.
- Shirvani, H (2007). Effects of teacher communication on parents' attitude and their children's behaviors at schools. *Education*, 128(1), 34-37.
- Stiggins, R. & Chappius J. (2005). Using student-involved classroom assessment to close achievement gaps. *Theory into Practice*, 44(1), 11-18.
- Stiggins, R.J. (2002). Where is our assessment future and how can we get there from here? In R. W. Lissitz and W.D. Schafer (Eds.). *Assessment in educational reform: Both means and ends (112-125)*. Boston: Allyn and Bacon.
- Stiggins, R. J., & Bridgeford, N. J. (1985). *The ecology of classroom assessment*. *Journal of Educational Measurement*, 22(4), 271–286.
- Sweet, D. (1993). *Student Portfolios: Classroom Uses*. Education Consumer Guide No. 8. Retrieved from <http://www2.ed.gov/pubs/OR/ConsumerGuides/classesuse.html>.
- Wiggins G. (1998). *Educative assessment: Designing assessment to inform and improve student performance*. San Francisco: Jossey Bassey Publishers.
- Wolf, P. (2007). Academic improvement through regular assessment. *Peabody Journal of Education*, 82(4), 690-702.
- Wolf, K. (1991). The school teacher's portfolio: Issues in design, implementation and evaluation. *Phi delta Kappan*, 73(2), 129 – 136.
- Zhang, Z. R., & Burry-Stock, J. A. (2003). Classroom assessment practices and teachers self-perceived assessment skills. *Applied Measurement in Education*, 16, 323-342.