

## THE EFFECTIVENESS OF MEASUREMENT AND EVALUATION IN ZIMBABWEAN PRIMARY SCHOOLS: TEACHERS AND HEADS' PERCEPTIONS

*Dr. Thembinkosi Tshabalala<sup>1</sup> and Dr. Alfred Champion Ncube<sup>2</sup>*

<sup>1</sup>Faculty of Arts and Education at the Zimbabwe Open University, Zimbabwe

<sup>2</sup>Pro-Vice Chancellor-Academic at the Zimbabwe Open University, Zimbabwe

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**ABSTRACT:** Measurement and evaluation in education is very important on a wide spectrum across the board. They provide information needed in overall education planning. Decisions on instructional aims, units, grades or marks enable teachers and school administrators to determine the extent to which pupils are growing towards the desired goals. Through measurement and evaluation, a teacher can diagnose the strengths and weaknesses of pupils and takes a progress on remedial action. If effectively utilised, measurement and evaluation may lead to the improvement of both instruction and the learning situation. Without evaluation and measurement, it is impossible to know a student's needs and preferences. In the Zimbabwean primary school system, heads and teachers use measurement and evaluation to ascertain the abilities and levels of attainment by students in areas such as reading, writing, and in all subject areas. This research investigated the effectiveness of measurement and evaluation in Zimbabwean schools using the quantitative paradigm. The study adopted the descriptive survey design. The target population comprised all primary school teachers in Bulawayo's Mzilikazi district with a teacher establishment of 120 teachers. The sample consisted of 100 teachers and 10 heads of schools. Of the sample respondents, 85 were female and 25 were male. All the information was collected through a questionnaire which had both close-ended and open-ended questions. Descriptive statistical analysis was used to interpret data. The study revealed that heads predominantly used summative evaluation and teachers preferred tests, class work and oral work. The study also revealed that lack of resources hampered efforts by both heads and teachers to conduct effective measurement and evaluation sessions. The study recommends that schools should mobilise more resources towards measurement and evaluation.

**KEYWORDS:** Effectiveness, Measurement, Evaluation, Primary school, District, Teachers, Heads.

### INTRODUCTION

The most basic purpose of educational evaluation is to determine what a student's needs are. With proper testing and evaluation in the early grades, learning disabilities and handicaps can be identified (Gay, 2013). Without testing, problems can go unrecognised for years. The streaming of students into educational programs begins with standardized testing, which identifies student aptitudes and abilities. Education is effective when students improve overtime. Without measurement and evaluation, it is impossible to know whether students are making any progress (Chase, 2009). Tests and assignments can tell teachers which students are trying to learn and which students are not trying at all. As Camerroom (2008) argues, the progress in a student's grades overtime can say a lot about where that student is and where he/she needs to be. Therefore, it is apparent that the education process is characterized by a variety of activities undertaken by different people in educational institutions. The overall measurement of school effectiveness is determined by the quality of output produced by the school. Assessment of the effectiveness of the school as an organization is done through measurement and evaluation (Gay, 2013). The teaching and learning process cannot be complete without measurement and evaluation. This study therefore set out to explore the effectiveness of measurement and evaluation in Zimbabwean primary schools.

## **LITERATURE REVIEW**

Measurement and evaluation involves a number of approaches undertaken in the course of effective education (Madziyire, 2010). Some of the terms used interchangeably with measurement and evaluation are assessment, testing and appraisal (Drawnie, 2005). According to Drawnie (2005), measurement refers to the assignment of numbers, exact and quantitative numbers to objects. Measurement does not just start from assigning of numbers, but from administration of tests. After awarding marks an evaluation is required. Evaluation, unlike measurement is qualitative and not quantitative (Pophan, 2008). Pophan (2008) further states that evaluation is a formal assessment of the worthiness of an educational phenomenon. It involves judgement. The worth of the education process is determined by the output of the school.

Through effective measurement and evaluation, judgements are made. Cohen and Manion (2009) state that, measurement and evaluation incorporates both classroom based and formal evaluation. Tests are used to evaluate pupils in the classroom and formal evaluation occurs through supervision and appraisal of pupils, teachers and schools in general.

Literature reveals that measurement and evaluation is essential and is carried out all over the world and has been used in different countries. Evaluation is basically used to promote an individual teacher's work. As Chakanyuka (2010) postulates, teachers need to be aware of individual differences among their pupils. The teachers should be flexible and willing to do something about pupils' individual differences and provide individual pupils with opportunities to excel. Evaluation, therefore, is basically carried out to improve instruction.

Ogunniyi (2011) views supervision by, in most cases heads of schools as important evaluation. The heads as supervisors can only perform the functions for ensuring effective measurement and evaluation if they possess the competency to carry out the process. As Ogunniyi (2011) asserts, heads of schools should be well trained in the techniques of educational evaluation, be well acquainted with planning, blue print, construction and implementation of the curriculum programmes, possess qualities such as integrity, fairness but firmness, friendliness, enthusiasm and other leadership and possess up to date knowledge of subjects being evaluated, be an experienced teacher himself / herself and ready to accept suggestions from teachers. According to Madziyire (2010) heads do not only assess teachers and pupils. They also use the context, input, process and product (CIPP) model of evaluation to evaluate effectiveness of curricula and learning materials.

Teachers on the other hand, have immediate contact with pupils in terms of measurement and evaluation (Mpofu, 2009). Teachers perform formative evaluation which covers before-teaching, during teaching and after teaching in order to guide teaching. According to Mpofu (2009) before teaching evaluation determines the pupils' existing competencies in the area of learning and this is compared with results. This is referred to as diagnostic testing. During teaching, testing is done to try and determine whether pupils have requisite knowledge, concepts or skills about what was taught to them and are able to link up new knowledge with previous learning. Therefore as Mpofu (2009) argues, teachers act as navigators and they are with the syllabus on the ground. After teaching, testing is meant to determine how much the pupils have grasped the particular learning unit. These tests are usually used for grading purposes (Mpofu, 2009). Besides testing, teachers supervise children at work and they also report pupils' performance to the head of school as well as to parents through record books and reports. Reports and record books are critical features in measurement and evaluation (Madziyire, 2010). This underlines the need for the school and the home to work together.

According to Mpofu (2009) in Zimbabwe there are four types of tests used in schools. These are oral tests, objective tests, essay tests and practical tests. Teachers use their discretion on which type of test to use for what situation or context. However, each of the test type has strengths and weaknesses. Oral tests for example, provide no written record and give poor comparative evaluation and they are also time consuming. Objective tests, on the other hand, give an extensive sample and are more valid and reliable since they have clearly stated objectives (Ogunniyi, 2011, and Mpofu, 2009). However, they may frequently neglect measurement of higher thought processes. They are costly in terms of time to construct. Practical tests, on the other hand, stress application of knowledge and measure skills and abstract abilities not easily measured by other test forms (Mpofu, 2009). However, these tests are difficult to construct, difficult to grade and are time consuming.

## **STATEMENT OF THE PROBLEM**

Measurement and evaluation in schools play a very critical role during the teaching and learning processes. This study sought to explore the effectiveness of measurement and evaluation processes in Zimbabwean primary schools.

## **PURPOSE OF THE STUDY**

The study sought to explore and find out about the forms of measurement and evaluation techniques used in primary schools in Zimbabwe in order to reveal the challenges experienced by heads and teachers in their quest towards effective measurement and evaluation.

## **RESEARCH QUESTIONS**

1. What are the forms of measurement and evaluation used in primary schools?
2. What challenges do heads of schools and teachers meet towards effective measurement and evaluation?
3. How can the process of measurement and evaluation be improved in order to make it more effective?

## **SIGNIFICANCE OF THE STUDY**

The importance of the study is premised on the fact that it attempted to provide a picture of how measurement and evaluation is carried out in schools so as to suggest ways of making the process more effective for the benefit of the learning process. The study also envisaged to promote an awareness amongst educators about the role of measurement and evaluation in enhancing quality learning and teaching.

## **LIMITATIONS OF THE STUDY**

The study is limited to investigating the effectiveness of measurement and evaluation techniques in Zimbabwean primary schools using the descriptive method which according to Ary and Razaviah (2010), lacks predictive power since the research may discover and describe “what is” and unable to predict “what would be”. The study also used a small sample which made generalization quite difficult.

## **DELIMITATIONS OF THE STUDY**

The study was delimited to the way how primary schools carry out measurement and evaluation using a small sample of 100 respondents made up of 85 females and 25 males from Bulawayo’s Mzilikazi district. The respondents were made up of 100 teachers and 10 heads from the primary schools. Views from other key educational stakeholders like education officers, education directors and inspectors were outside the purview of this study.

## **RESEARCH METHODOLOGY**

The study employed the quantitative methodology and made use of a survey research design. According to Leedy (2009), the descriptive survey method looks with intense accuracy at the phenomenon of the moment and then describes precisely what the researcher sees. The questionnaire was used as the instrument for collecting data because as Anderson (2011) argues, it increases reliability as an instrument of gathering data because of its greater impersonality.

## **DATA COLLECTION AND ANALYSIS**

Data were gathered by means of a questionnaire which was largely made up of close-ended questions and two open-ended questions. All respondents were given the questionnaires by the researchers in their schools. The researchers also collected the questionnaires personally in order to increase on the rate of return of the instrument. As a result, all the questionnaires were returned and there were no non-returns. According to Phillips and Pigh (2011), non-returns introduce a bias in as much as they are likely to be different from respondents in many ways thereby adversely affecting reliability and validity of the findings. Data collected from the questionnaire produced descriptive statistics around the variables under study. These statistics were computed and inferential implications then deduced and recorded.

## **FINDINGS AND DISCUSSION**

The study sought to investigate the effectiveness of measurement and evaluation techniques used in Zimbabwean primary schools. This part is presented in two parts, namely actual findings and discussion.

FINDINGS

Table 1: Category of respondents (N=110)

Category	Frequency	Percentage
Heads	10	9
Teachers	100	91
<b>Total</b>	<b>110</b>	<b>100</b>

Table 1 above shows that the majority of respondents were teachers since they constitute the bulk of educators in the school set-up.

Table 2: Distribution of Respondents by Sex (N=110)

Category	Frequency	Percentage
Male	25	23
Female	85	77
<b>Total</b>	<b>110</b>	<b>100</b>

Table 2 shows that there were more female respondents than male ones. The datum was considered statistically significant to the extent that most urban schools in Zimbabwe had more female teachers than male ones.

Table 3: Composition of Respondents by Professional Qualifications (N=110)

Professional Qualifications	Frequency	Percentage
Certificate in Education	14	13
Diploma in Education	86	78
Bachelors Degree	10	9
Masters Degree	0	0
<b>Total</b>	<b>110</b>	<b>100</b>

The information in table 3 above shows that the majority of respondents (78%) were holders of the Diploma in Education qualification, followed by the Certificate in Education (13%) and the Bachelor's Degree (9%). None of the respondents were holders of the Master of Education qualification. Relevant professional qualifications provide the capacity of respondents to understand issues involved in measurement and evaluation.

Table 4: Responses to: "Forms of measurement and Evaluation used in your school" (N=110)

Procedure	Heads (N=10)		Teachers (N=100)		Totals (N=110)	
	F	%	F	%	F	%
Formative	2	20	10	10	12	11
Summative	3	30	17	17	20	18
Standardized	0	0	19	19	19	17
Diagnostic	0	0	12	12	12	11
Period tests	2	20	30	30	32	29
Supervision	2	20	0	0	2	2
Placement	0		3	3	3	3
Oral Work	0		4	4	4	4
Class Work	1	10	5	5	6	5
Appraisals	0	0	0	0	0	0
<b>Totals</b>	<b>10</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>110</b>	<b>100</b>

Table 4 above shows that heads mainly use formative (20%), summative (30%), period tests (20%) and supervision (20%) to evaluate goings-on in the schools. On the other hand, teachers relied on period tests (30%), standardized tests (19%), summative (17%), and a bit of class work (5%) formative (10%), as well as oral work (4%). The responses show that there are varied techniques that are used to measure and evaluate the learning and teaching process by heads and teachers. It is also clear that teachers and heads are aware of various forms of measurement and evaluation at their disposal.

**Table 5: Responses to the question: "What is the frequency of assessment of core-curricular subjects?" (N=110)**

Frequency of Assessment	Number	Percentage
Weekly	11	10
Fortnightly	11	10
Monthly	10	15
Termly	72	65
<b>Total</b>	<b>110</b>	<b>100</b>

Table 5 shows that the majority of respondents (65%) assessed the learning in the core-curricular subjects on a termly basis. Those who carried out the assessment on a monthly basis followed with 10% and those who indicated that they assessed core-curricula subjects fortnightly and weekly were both at 10% respectively.

**Table 6: Responses to the question: "What problems do you encounter when carrying out measurement and evaluation?" (N=110)**

Challenges	Heads (N=10)		Teachers (N=100)		Totals (N=110)	
	N=10		N=100		N=110	
	F	%	F	%	F	%
Lack of resources	3	30	15	15	18	16
Time shortage	5	50	11	11	16	15
Invalid tests	0	0	0	0	0	0
Large classes	0	0	3	3	3	3
Lack of knowledge	1	10	42	42	43	39
Lack of support	1	10	29	29	30	27
<b>Totals</b>	<b>10</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>110</b>	<b>100</b>

The information on table 6 above reveals that the most common problems faced by heads include time shortage (50%), lack of resources (30%) and a few heads indicated that they lacked knowledge (10%) as well as support (10%). On the other hand, the major problem highlighted by the majority of teachers 42% related to lack of knowledge, followed by lack of support (29%), lack of resources (15%), lack of time (11%) and large class sizes (3%).

The questionnaire had two open-ended questions which bolstered data from the close-ended questions. The first question wanted to find out from both heads and teachers what they understood to be the main functions of measurement and evaluation during the teaching and learning process. The majority of the respondents stated that measurement and evaluation if properly carried out promoted accurate recording of pupils' progress or lack of thereof in order to improve instruction and ultimately pupil learning. The second question wanted to find out what sort of support and assistance did respondents require to carry out effective measurement and evaluation. Most of the respondents indicated that they needed in-service sessions and workshops to be equipped with competencies to carry out effective measurement and evaluation. They further revealed that because of their lack of knowledge and skills pertaining to current trends in terms of techniques for measuring and evaluating the learning programs, they were window dressing in order to hoodwink authorities.

## DISCUSSION

Information from the study reveal that there are varied techniques used by both teachers and heads of schools to measure and evaluate pupils and teachers. Teachers appear to know many ways to assess or use as forms of measurement and evaluation. The most commonly used are period tests, standardized tests and summative evaluation. Heads of schools mainly relied on summative and formative evaluation. The data also show that teachers responded to measurement and evaluation in relation to pupils whereas heads were referring to both teachers and pupils. As Chakanyuka (2012) postulates,

teachers need to be aware of individual differences among their pupils and heads need to know both the strengths and weaknesses of their teachers and children.

Findings also show that most respondents resorted to termly tests and reports due to pressure of work and shortage of time. This implies that heads and teachers do not use continuous assessment which helps in the immediate diagnosis of learning problems that pupils come across. As Mpofu (2009) states diagnostic testing is done to try and determine whether pupils have requisite knowledge, concepts or skills about what was taught to them and are able to link up new knowledge with previous learning. Therefore, to wait for the end of the term to measure and evaluate the learning of pupils and the effectiveness of teaching methods might fail to provide the necessary remedial action needed to assist the pupils.

Data from the study also reveal that teachers and heads of schools encounter a number of challenges as they carry out measurement and evaluation. The major challenges include lack of resources, shortage of time, lack of knowledge as well as lack of support to effectively carry out measurement and evaluation. This information tallies with findings by Dawnie (2005) who found that the reason why most schools were not conducting effective measurement and evaluation of their learning and teaching was due to the failure by the education system to provide the wherewithals for this process. With the amount of work that heads and teachers do, it leaves them with very little time and energy to do proper measurement and evaluation.

The information from the study also reveal that the majority of respondents, particularly the heads of schools, lacked the competencies not just to conduct their own measurement and evaluation, but also to guide and support teachers to carry out proper measurement and evaluation in their teaching as well. As Ogunniyi (2011) observed, the heads as supervisors can only perform the functions for ensuring effective measurement and evaluation if they possess the competency to carry out the process. According to Madziyire (2010) heads do not only assess teachers and pupils; they also use the context, input, process and product, model of evaluation to evaluate the effectiveness of curricula and learning materials.

## **CONCLUSION**

- Both theoretical and empirical data in this study converge on the fact that there is no effective measurement and evaluation in Zimbabwean primary schools.
- Teachers and heads carry out tasks they believe are measurement and evaluation as a way of hoodwinking education authorities.
- Heads and teachers generally tend to rely on termly tests reports at the expense of formative and continuous evaluation due to shortage of time and work overloads.
- Teachers and heads experience a multiplicity of challenges as they try to implement measurement and evaluation which include lack of support and lack of time.
- The majority of heads and teachers lacked the competencies to carry out effective measurement and evaluation.
- Overallly, heads and teachers are very much aware of the significant role played by measurement and evaluation during the teaching and learning process.

## **RECOMMENDATIONS**

In light of the findings of this study, the researchers would like to make some recommendations.

- There is need for the Ministry of Primary and Secondary Education to come up with a blue print for guiding primary schools on effective ways of measuring and evaluating the learning of pupils in schools.
- Heads and teachers should be assisted to use continuous assessment to augment the use of summative evaluation.
- The Provincial and District Education offices should carry-out in-service workshops for heads and teachers on measurement and evaluation to enable them to effectively implement it in schools.
- Schools should be encouraged to utilize the cluster structure to share ideas on best practices on measurement and evaluation.
- External supervisors from within the Ministry of Primary and Secondary Education should periodically visit primary schools to provide expert guidance to heads and teachers on measurement and evaluation.

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**AUTHORS' BIO-DATA**

1. **Thembinkosi Tshabalala (Dr):** He is a Senior Lecturer and National Programme Leader for the Master of Education in Educational Management in the Faculty of Arts and Education at the Zimbabwe Open University. He is a PhD holder in Educational Management. He has published more than 30 papers in peer reviewed journals. He can be contacted by E-mail (tshabalalathembinkosi@yahoo.com).
2. **Alfred Champion Ncube (Dr):** He is an Acting Pro-Vice Chancellor-Academic at the Zimbabwe Open University. He is also the substantive Dean for the Faculty of Applied Social Sciences. He holds PhD studies in Educational Management. He has published more than 10 papers in peer reviewed journals. He can be contacted by E-mail (ncubeac@gmail.com).