

National Assessment Initiatives in Kenya and their Impact on Quality of Education

Paul M. Wasanga and Francis Kyalo
Kenya National Examinations Council

Abstract

The paper reviews national assessment studies being carried out in Kenya. These include a baseline survey on learning achievement; Monitoring learning achievement in lower primary (MALP); Development of English literacy norms (ELN) for primary schools in Kenya; Southern African consortium for monitoring education quality (SACMEQ) research.

The recommendations of these studies are briefly analyzed in the paper as a way of sharing experience in national assessment. To show the achievements made in national assessment, an attempt is made to explain how the results of these studies have been used to influence policy formulation in education and design of interventions as well as the impact of such interventions.

Introduction

Geographically Kenya is made up of eight Administrative Regions known as Provinces namely; Coast, Central, Eastern, Nairobi, Rift Valley, Western, Nyanza and North Eastern Provinces.



Four out of the eight provinces (**Coast, Eastern, Rift Valley and North Eastern**) consist of large proportions of arid and semi arid lands. Education management is managed under eight provinces.

In Kenya like any other Country, public examinations tend to provide a measure of achievement at the end of a cycle without necessarily providing the requisite evidence of learners' achievement of the prescribed competencies at various levels progress through school. Public examinations this do not therefore provide a systematic evaluation and intervention system to improve learner achievement.

In Kenya, it has been felt that the decline in candidates' performance in National Examinations particularly in Primary Leaving Examinations had been as a result of lack of Monitoring of Learning Achievement System that could provide a basis for provision of intervention strategies to address the weaknesses portrayed by candidates before they take the National Examinations.

In order to address the causes of decline in performance as well as factors that contribute to low enrolment and poor quality of education, various National Assessment initiatives have been conducted in Kenya. These initiatives include: *the Southern Africa Consortium for Monitoring Education Quality (SACMEQ), Monitoring Learner Achievement in Lower Primary (MALP), Baseline survey on Learning Achievement, English Literacy Norms for Primary Schools in Kenya (ELN) Project, Baseline Survey on Learning Achievement*. These National Assessment Initiatives had been motivated by the realization that in most of the provinces in Kenya, performance was declining and that under enrolment as well as gender disparities were also prevalent. In addition, the quality of education was also threatened and hence the need to find out the factors that impact negatively on quality of education through the National Assessment Initiatives. These National Assessment initiatives are described in this paper as well as their impact.

2.0 A STUDY OF CONDITIONS OF SCHOOLING AND QUALITY OF EDUCATION BY SOUTHERN AND EASTERN AFRICA CONSORTIUM FOR MONITORING EDUCATIONAL QUALITY (SACMEQ)

SACMEQ was launched in February, 1995 in Harare, Zimbabwe by the National Research Coordinators from the Ministries of Education of Malawi, Kenya, Mauritius, Namibia, Tanzania (Mainland and Zanzibar) Zambia and Zimbabwe.

SACMEQ's main objective has been to undertake integrated research for monitoring and evaluation of the general schooling conditions and the quality of basic education. It further aims at generating reliable information that can be used by decision makers to plan improvements in the quality of education.

Since inception, SACMEQ has undertaken two policy research projects; SACMEQ1 between 1995 – 1998, which focused on baseline indicators for educational inputs, the general conditions of schooling, equity assessments for both human and material resources allocation, and literacy levels of Grade 6 pupils. SACMEQ II between 2000 and ended in 2005, which focused on assessment of performance levels of pupils and their teachers in literacy and numeracy. SACMEQ III is currently in progress.

The two SACMEQ research studies sought to find out the personal characteristics of Standard 6 pupils that might have implications on equity and that might impact upon teaching, learning and achievement. These characteristics included: *age, gender, parents' education, regularity of meals, instructional materials, classroom furniture*

and *equipment, general school infrastructure* and *teaching resources*. A summary of the findings with respect to some of these factors are outlined below:

2.1 Findings of the Studies

2.1.1 Age

Standard six pupils were found to be 3 years older than expected. There were also disparities in age at provincial level. Nairobi, the capital city of Kenya, had the youngest Standard 6 pupils with an average of 12.4 years in 1998 and 12.8 years in 2000; while the North Eastern province, which is an arid region and where the inhabitants practice nomadism, had the oldest Standard 6 pupils in 2000 with an average of 14.3 years.

2.1.2 Factors leading to over-age pupils

The factors that were discovered to have led to over-age pupils included:- grade repetition; late entry to primary education, forced repetition at upper primary in some schools occasioned by over-emphasis on examination performance and constant drop out and re-entry attributed to non-payment of school levies, poverty and HIV/AIDS.

2.2 Gender

The two SACMEQ studies showed that gender disparity was a real issue especially in the North Eastern and Coast Provinces. However, the gender disparities in the other provinces were not significant at Standard 6.

2.2.1 Reasons for gender disparity arising from the two SACMEQ Studies

- § The culture of early marriage for girls to earn dowry for parents.
- § Parents prefer taking boys rather than girls to school.
- § Girls' involvement in domestic chores.
- § Persistent absenteeism from school for girls and eventually dropping out.
- § In some high potential areas, boys are involved in income generating activities instead of going to school e.g. in Eastern and Central provinces.
- § Teenage pregnancies.
- § Unsuitable learning environments especially for girls e.g. insecurity and lack of sanitary facilities.

2.2.2 Use of results on gender disparity to influence policy formulation

- § Engendering of the curriculum, teaching and learning materials has been put in place.
- § Development of a gender education policy has been completed.
- § Re-admission of girls to school who become pregnant while in school.
- § Bursary allocation at secondary school level has been enhanced for girls who score high points.

2.2.3 Parents' Education

The SACMEQ studies made the following findings on parents education. That:

- § that 72% of fathers and mothers had no schooling.
- § 20% of the fathers were married to wives with little primary education.
- § that 5% of the fathers were married to wives who had completed primary school.
- § general trend seems to be that men marry women of either the same level of education or one or two levels below them.
- § that parents education levels have a bearing on their children's education. In most cases, children whose parents have attained some education are likely to benefit from greater parental support than those whose parents do not have education.
- § girls whose mothers have formal education were more likely to go to school than those whose mothers have not been to school.

2.2.4 Use of findings on parents' education to influence policy formulation

As a result of the findings of the SACMEQ studies on the influence of the parents level of education on the education of their children, the GoK has expanded provision of education to all groups of all ages. These GoK initiatives include:

- § Programmes for Adults and Youth-out-of-School have been enhanced to support Free Primary Education;
- § The Adult and Continuing Education (ACE) and non-formal education (NFE) programmes have also been enhanced;

2.3 Regularity of meals

Findings

- § The study showed that poor nutrition contributed to lack of concentration and reduced perseverance in school. The regularity of meals has been found to be a factor likely to influence the acquisition of learning skills.
- § Food programmes attract pupils to school.

These findings have led the GoK collaboration with its development partners, enhance support of the school feeding programmes as a retention strategy in Free Primary Education especially in the ASAL areas.

2.4 Provision of Instructional Materials

The aim of the study was to find out whether Standard 6 pupils had sufficient access to instructional materials including textbooks, readers and stationery in order to be able to participate fully in the learning process.

2.4.1 Findings

- § There was a deficiency in the provision of text books for both reading and mathematics and notable variations among provinces. The Western and

North Eastern provinces had the least percentage of children owning textbooks while Nairobi had the highest percentage although close to 50% of the children still lacked text books.

- § 75% of the Standard 6 children in Kenya, on average, did not have textbooks of their own.
- § There is a positive correlation between the availability of textbooks and learning outcome levels. Western and North Eastern provinces, which have pupils with the lowest percentage of textbooks, also performed poorly compared to Nairobi.

2.4.2 Use of these findings in policy formulation on provision of instructional materials to schools

Among the strategies outlined in the Kenya Education Sector Support Programme (KESSP) to address issues related to textbooks are the following:-

- § Enhancing quality of education through provision of textbooks and other instructional materials.
- § Enhancing equity by ensuring that all children in public primary schools have textbooks irrespective of their geographical location or parents' economic ability.
- § Providing textbooks for teachers as key tools for attaining quality education.

2.5 Pupils' Learning Achievement

The objective of the study was to find out the reading and mathematics achievement levels of Standard 6 pupils and their teachers.

2.5.1 Findings

The results indicate that:

- § The leading provinces in terms of mean scores in reading were Nairobi, Eastern, Coast and Central while North Eastern and Western had the lowest scores.
- § On average, the mean score in Mathematics was higher than in reading.
- § The highest teacher performance in reading was recorded in Central Province while the lowest was in North Eastern Province.
- § Teachers of Standard 6 from North Eastern Province had the lowest performance in mathematics.
- § Teachers from Eastern Province had the highest performance in mathematics.
- § The analysis reflects a positive correlation between the teachers' and pupils' performances.
- § 25.3% of the pupils were at interpretive reading level while 4% were at critical reading level.
- § 5.6% of the pupils could be said to be illiterate.

2.5.2 Use of these findings in policy formulation

- § The government, in collaboration with development partners put in place an in-service training programme for teachers in pedagogical skills.

§ The government has intensified quality monitoring and teacher support visits for seriously needy schools.

The results of SACMEQ studies have been used to a large extent by the Government of Kenya and the Ministry of Education to develop policies that have led to significant reforms in the education sector. This has led to improved participation of pupils as well as performance as shown earlier in the table

3.0 ENGLISH LANGUAGE LITERACY IN KENYA (THE ENGLISH LITERACY NORMS (ELN) PROJECT

3.1 Objectives of the ELN

- 3.1.1 To support the Kenya government effort in the provision of quality education to all primary school pupils through development of interventions in the form of resource materials.
- 3.1.2 To institutionalize interventions that promote English language literacy in Kenya through collaboration with the Ministry of Education, Kenya Institute of Education, Kenya National Examinations Council and the schools.

3.2 Findings of the Study

- 3.2.1 When the Criterion Referenced Tests (CRTs) were administered to first year teacher trainees, it was found that 40% of the teacher trainees did not attain the Desired Competence Level (DCL). They were particularly poor in listening and writing skills.
- 3.2.2 92.9% of the teacher trainees failed to attain the (DCL) in the composition test.
- 3.2.3 The results showed that the pre-service trainees were not prepared to teach the four basic English language skills.
- 3.2.4 When the writing and listening paper was administered to Standard six pupils, only 11.7% of the sample attained the Desired Competence Level; 44.4% attained the Minimum Competence Level (MCL); while 43.9% failed to achieve the Minimum Competence Level.
- 3.2.5 In the paper that tested listening, speaking and reading skills, only 20.8% of the sample attained Desired Competence Level.
- 3.2.6 Performance by pupils in Standard 3 test papers was worse than that of Standard six. In the paper that tested listening and writing skills, only 1.65% of the sample attained the DCL; 17.4% obtained the MCL; while 81% failed to attain the MCL.
- 3.2.7 In listening, speaking and reading, 29% attained DCL; 33% got MCL and 38% failed to attain the MCL.
- 3.2.8 In the paper that tested reading and writing skills, 18% attained DCL, 23% the MCL and 59% failed to attain the MCL.

3.2.9 Lack of DCL in the English language, which is the medium of instruction and the language of the textbooks, meant that the learners lacked the necessary means to access knowledge from various sources.

3.2.10 The study indicated that 72% of the Standard three sample had not attained a desirable level of literacy in English to be able to cope with learning in English as the language of instruction in the primary cycle.

3.3 Use of these findings to influence Quality of Education in primary schools

3.3.1 The project developed a set of benchmarks that are referred to as norms for Standards 3 and 6 pupils. These are descriptions of what the speakers of English would consider as standard and correct. It is anticipated that the use of the norms will help primary school teachers to interpret, teach, practice, consolidate and assess the mastery of the four basic language skills as well as grammar and vocabulary at different levels.

3.3.2 It is expected that the norms will guide the teacher trainers, curriculum developers, pupils, parents, test developers as well as writers of reading materials and course books.

3.3.3 The norms will also facilitate the development, adaptation, selection and evaluation of instructional material. This study is still in progress.

4.0 MONITORING ACHIEVEMENT IN LOWER PRIMARY (MALP)

The Ministry of Education (MoE), in collaboration with UNICEF and the World Bank started a project on the Monitoring of Achievement in Lower Primary (MALP) in the year 2003.

MALP is a Ministry of Education initiative which adopts an approach which allows for longitudinal studies i.e. following cohorts of learners and cross sectional studies, that is, studies across schools, districts and provinces.

The MALP initiative sought to monitor quality of education in fulfilment of the EFA) goals as specified in the Dakar 2000 Framework of Action. The MALP initiative aims at encouraging schools to ensure that the majority of learners at each grade level attain mastery of nationally defined minimum competencies and its objectives were as follows:

- Ø develop a system of monitoring learning achievement starting at lower primary (Standard 1 - 4).
- Ø evaluate the relevance and adequacy of curriculum instruction and materials.
- Ø evaluate the acquisition of skills and attitudes.
- Ø improve capacity to develop monitoring tools and reporting of results to influence the direction of teacher training.

The MoE has already developed the expected competencies in English and Mathematics for all grade levels in the primary school cycle. These provide a basis for monitoring the acquisition of the desired competencies by pupils at each grade level.

5.0 MINISTRY OF EDUCATION BASELINE SURVEY ON LEARNING ACHIEVEMENTS

A baseline survey on learning achievement was commissioned by the Ministry of Education, to assess learning achievement levels in the public primary schools in Kenya in 2005. The major objectives of this survey was to determine the effects of teaching and learning inputs on learning achievement levels. Specifically the objectives of the study were to:-

- Ø Collect and analyse data on learning achievement levels;
- Ø Assess competency levels for the pupils at selected levels in English, Kiswahili, Mathematics and Science;
- Ø To determine the extent of interactive learning;
- Ø To assess levels of application of knowledge learnt by pupils;
- Ø To assess problem solving skills acquired and evaluate the impact of school inspection on teaching/learning outcomes.

5.1 Findings and Recommendations of the Study

- 5.1.1 The survey results showed that girls do better than boys in languages. On the other hand boys perform better than girls in Science and Mathematics.
- 5.1.2 It was observed that all pupils performed better in the knowledge domain compared to comprehension application domains.
- 5.1.3 The survey findings indicated that both headteachers and teachers admit that pupils do not perform well in the school tests and that there are no guidelines on benchmarks against which an individual school's performance levels can be judged. This means that individual schools may be using or accepting poor performance as fair or good.
- 5.1.4 All the key education stakeholders within the district mentioned shortage of staff as one of the principal challenges facing the implementation of the FPE programme which in turn impacts negatively on learning achievement.
- 5.1.5 Since the launching of the Free Primary Programme in January 2003, over-age pupils are attending primary school classes.
- 5.1.6 The survey revealed that early marriages, traditional practices, lack of parental value for education, among other factors, have contributed to school drop outs especially by girls in Arid & Semi Arid Lands (ASAL).
- 5.1.7 The survey results indicated that there is critical gender imbalance in both direct and indirect service providers in favour of males in the sub-sector except in the number of teachers.
- 5.1.8 The survey showed that girls in the ASAL and urban areas were not as satisfied as boys with school related factors.

6.0 IMPACT OF THE INTERVENTION STRATEGIES BASED ON THE RESULTS OF THE NATIONAL ASSESSMENT INITIATIVES

Arising from these National Assessment initiatives the Government of Kenya put

in place intervention strategies to address all issues raised based on the research finding of the National Assessment initiatives and some of these strategies have had a positive impact as summarised.

6.1 Impact on policy formulation

Repetition has been outlawed in Kenya especially on grounds of poor performance and education was also made free at primary school level since January 2003 to address the low enrolment rates in certain regions, constant dropout and low retention rates.

6.2 Impact on gender disparities

- § gender parity in enrolment has been enhanced nationally.
- § in some Central and Eastern provinces districts, the number of girls is now higher than that of boys.
- § the disparity in performance gap between females and males at KCPE is narrowing.

6.3 Impact of findings with respect to meals

As a result of provision of meals:

- § The rate of school attendance and completion rates have improved.
- § The performance in the national examinations has also been improving.

6.4 Impact on Performance in Primary Leaving Examination (KCPE)

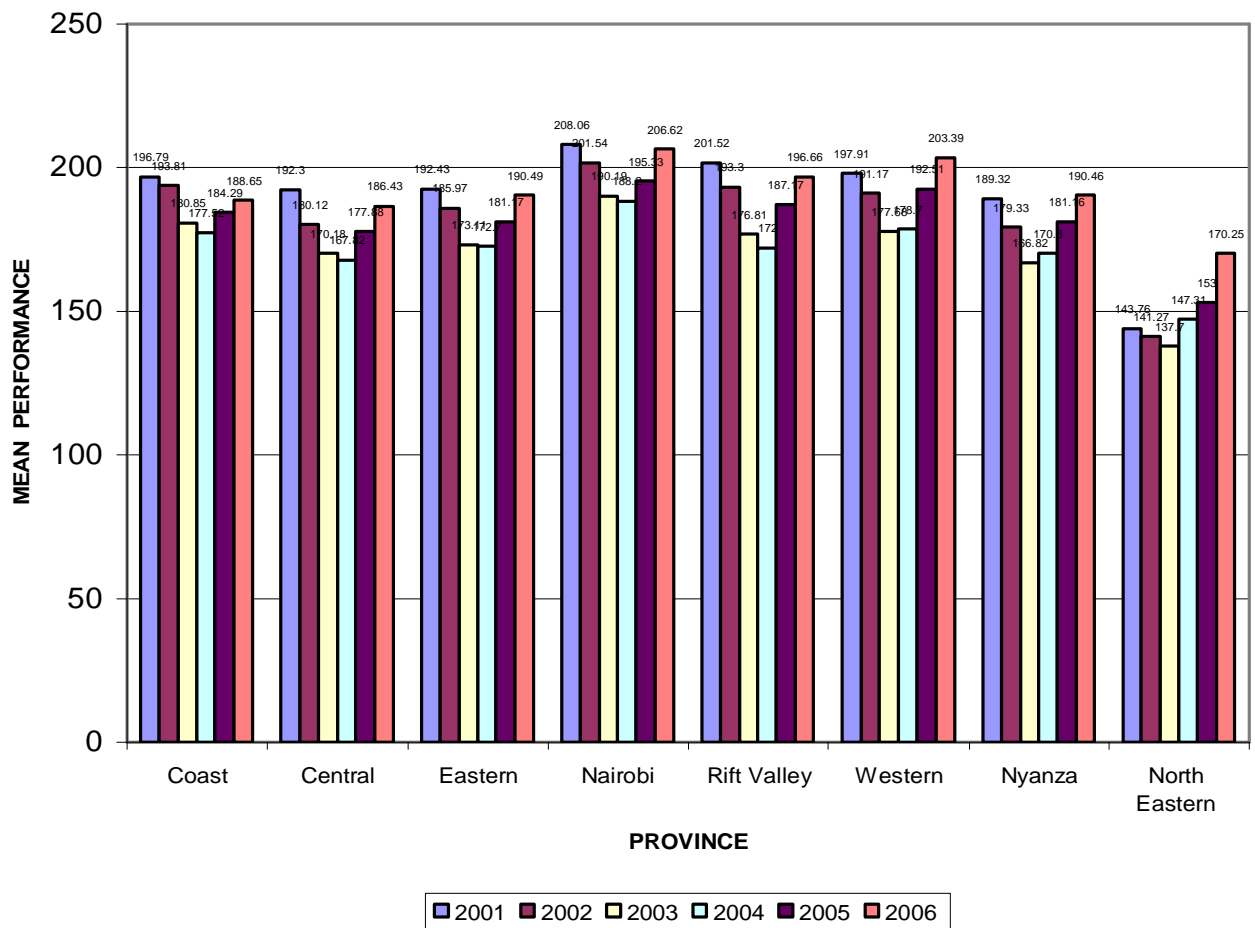
The decline in performance which had been witnessed over the last 10 years has started changing up as evidenced by the table below which indicates the performance patterns in Kenya Certificate of Primary Education for the *eight (8) provinces* over the last *six (6) years* expressed in *means* \bar{x} .

Table: Mean \bar{x} Performance for 8 provinces in KCPE

| PROVINCE \ YEAR | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 |
|-----------------|-----------|-----------|-----------|-----------|-----------|-----------|
| | \bar{x} | \bar{x} | \bar{x} | \bar{x} | \bar{x} | \bar{x} |
| COAST | 196.79 | 193.81 | 180.85 | 177.52 | 184.29 | 188.65 |
| CENTRAL | 192.3 | 180.12 | 170.18 | 167.82 | 177.88 | 186.43 |
| EASTERN | 192.43 | 185.97 | 173.11 | 172.7 | 181.17 | 190.49 |
| NAIROBI | 208.06 | 201.54 | 190.19 | 188.2 | 195.33 | 206.62 |
| RIFT VALLEY | 201.52 | 193.3 | 176.81 | 172 | 187.17 | 196.66 |
| WESTERN | 197.91 | 191.17 | 177.68 | 178.7 | 192.51 | 203.39 |
| NYANZA | 189.32 | 179.33 | 166.82 | 170.3 | 181.16 | 190.46 |
| NORTH EASTERN | 143.76 | 141.27 | 137.7 | 147.31 | 153 | 170.25 |

Graph: Graphical Representation of the Mean Performance in KCPE for the 8

Provinces



Observations

From the table and the graph, it can be seen that the overall trend in the KCPE performance had been declining but improvement has been realised for the last 2 years, 2005 and 2006 in all the eight (8) provinces. This upward trend in the KCPE performance could be attributed to the intervention measures put in place as a result of findings from national assessment initiatives in Kenya.

7.0 CONCLUSION

As seen in this paper, several National Assessment studies have been carried out in Kenya and the findings from these initiatives have influenced policy formulation that have led to various intervention measures which have greatly enhanced provision of quality education in the country.

REFERENCES

Gathumbi, Agnes W., *et al* (2003). *The methodology for Developing English Literacy Norms for Classes 3 and 6* – Kenyatta University, Kenya

Ministry of Education, Science and Technology and World Bank (2003): *Education Sector Strategic Plan* - Government Printers, Nairobi, Kenya.

Onsomu, J., C. Obiero and J. Nzomo (2005): *Draft SACMEQ Policy Research Report*. (Unpublished).

Kimani G. N. (2007). *A National Assessment System for Monitoring Learner Achievement in Kenya*.