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*The Role of Assessment in the Implementation of
National Education Policy*

Title: Politics of public examinations in Africa

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Abstract

Public (external) examinations have played a major role throughout the history of modern education in Africa. They serve a number of functions, the most important of which is to select students for limited places in successive levels in the education system. Public examinations also serve an accountability function for teachers and schools. Despite their central role, many criticisms have been made of their quality and their use. While education policies especially in Africa are intended to allocate scarce educational benefits in an objective and an unbiased way, concerns have sometimes been expressed that they discriminate against some communities, rural populations, girls and students whose first language differs from that of the examination. In order to address these issues most of the examination bodies or councils resort to a number of manipulations of the examination marks in the name of adjustment, standardization, moderation, compensation or quotas. This paper will examine a myriad of issues related to manipulation of national examination results and argue instead for improvement of the quality of the public examinations and appropriate use of examination results.

Introduction

Poverty will not be reduced on a large scale without tapping into the energy, skills, and motivation of the millions of poor people around the world. This is true for Africa now than any other part of the world. Education remains the most appropriate means by which African governments can tap on the energies and skills of their people and empower them to take responsibility of their destiny. Education can be used to increase poor people's freedom of choice and action to shape their own lives. For education to achieve this, three societal changes are required: a change in mindset, from viewing poor people as the problem to viewing them as essential partners in reducing poverty; a change in the relationship between the poor people and the formal systems, enabling them to participate in decisions that affect their lives and a change in formal and informal institutions to make them more responsive to the needs and realities of poor people (Narayan, 2002). The aforementioned societal changes are basic ingredients to empowerment of the people by governments committed to eradicating poverty by way of imparting the necessary skills and knowledge to enable them to participate meaningfully in the economic activities of their countries. A concern has been raised over the years about the wastage of human resources in Africa through systems of education and assessment methods that do not take into consideration the contextual realities of the people and the communities within which they live. As Van der Berg (2004) observes, variations in educational quantity and quality account for most labour market earnings differentials. The school system contributes insufficiently to upward mobility of poor children in the labour market. This paper intends to critically review some of the issues related to public examination that have created barriers to access to further education and employment opportunities for majority of African people while their governments continue with the "business as usual" attitude in the provision of educational opportunities.

World Bank education statistics (2001) presented in Table 1 show the wide disparities in school enrolment, public expenditure and pupil- teacher ratio across the various levels of the education system among selected African countries. While enrolment ratios are highest at the primary level they are dismal at the tertiary level. A strong foundation in basic education is recommended as a pre-requisite for acquisition of higher education. In addition, small pupil-teacher ratios especially at the primary level are ideal for teaching and learning. But the World Bank education statistics provide a different picture for the selected African countries where the provision of resources is skewed in favour of higher education. Therefore, the question we should ask our policy makers is where should our emphasis in the use of the limited resources be in education? Is it to provide access to education to majority of the population or to a selected group of people who have the means to pay for it?

INSERT TABLE 1 HERE

Economic development is a more potent indicator of school participation than, for example, political commitment (Kelleghan, 1990). Thus countries with low GNP but with free education and the goal of universal education (at least at the primary level) have lower participation rates than countries with higher GNP, even though education may not be compulsory and students have to pay tuition fees at all levels. Daily struggles for survival in most African countries prevent children from economically impoverished backgrounds from participating in education. This assertion coupled with the skewed allocation of resources to education by the African governments lead us to conclude that the poor will continue to lag behind those who can afford to provide for their children as far as access to high quality education is concerned.

Another issue to consider is that most African countries possess educational systems that are markedly pyramidal- broad at the bottom and narrowing as one goes up the hierarchy. Public examinations continue to play a crucial role in the selection of students to take the decreasing number of places that are available as one progress through the education system. The practice in most of the public examinations in Africa has been to use normal distribution curves to limit the proportion of students awarded various passing grades as evidence of acquired competencies that would enable them to get a place in the next level. This practice has led to a lot of wastage of human resources where children are declared failures when in actual fact they have the potential for further education. Again, public examinations are used to cover up failures by these governments in providing the necessary resources equitably to its children by using the examination results to legitimise failures of children especially the poor as lacking the required competencies when they know very well that these children were not provided with opportunities to develop these competencies. According to the South African Department of Education (2003) success of a given school or individual pupil should be gauged with the varying levels of resourcing and of socio-economic disadvantage.

With the slow economic growth and the increasing enrolment in most African countries, the choice for policy-makers for the next couple of years will be between increased efficiency in the use of existing resources in provision of education to benefit the majority of the people or the acceptance of declining standards of access, equity, and academic achievement.

A brief history of Public Examination in African Countries

The main purposes of public examinations have remained that of selection and certification since the first written public examinations were introduced over 2000 years ago, in China, to select the most able citizens for positions in the civil service and to reduce the effects of patronage (<http://www1.worldbank.org/education/exams/nature.asp>). The Chinese system of public examination spread into Europe in the 16th century and to the USA in the 19th century. Governments in those days were the main employers and competitive examinations were considered fair means of selecting a few competent people for government service.

Public examinations in schools have a shorter, but still considerable, history. Their use in schools in Africa can be traced back to the colonial times and have continued to be used ever since. A number of African countries continue to have ties with their former colonial masters in the development, administration and processing of public examinations. Most of the African countries have developed their own examination systems structured on the former colonial masters' model especially British and French. They continue to have ties with the European examination bodies for purposes of standardization. Public examination systems in Africa pay little attention to the disparities that exist in terms of opportunities for learning for individual learners and their impact on access to education and employment. Thus a common national examination is set for all students who have completed a specific number of years of schooling with the wrong assumption that all students were afforded equal or similar opportunities for learning.

Over the years education has been transformed greatly in Africa in an effort to address local needs and demands of modern economy. Assessment, which is central to any education system, has not been spared this transformation with changes occurring in the methods of assessment and instruments (or tests) used. During the 20th century, America developed a significantly different approach to assessment of students that had a strong theoretical base of behavioural measurement (psychometrics) and a heavy reliance on objective and standardized modes of assessment - especially multiple-choice testing. Examination systems built on the American approach or adapted forms of the same into various contexts can be found any where in the world.

Are African public examinations keeping pace with paradigm shifts in assessment?

A fundamental paradigm shift has occurred in the recent past in social sciences especially in education from an emphasis on prediction and control to emphasis on meaning and understanding. According to Dwyer, (1990), in assessment, specifically, we are seeing a shift from mathematical and statistical models to educational and psychological models to guide the formation of assessments and the interpretation of their results. The days when assessment people could say “if it predicts it must be okay” are gone for ever. We are experiencing a renewed sensitivity to the context of an assessment, and to the importance of understanding and theory in guiding our use of assessment. With this paradigm shift has come an increased influence of cognitive approaches to psychology in place of behavioural approaches, which has had ramifications for education and educational assessment as well. We must understand what it is that we are trying to assess before designing our assessments. We also need to develop measures of assessing the processes of learning instead of focusing on the outcomes.

This paradigm shift has seen a dramatic view about the place of validity in assessment. Replacing the old model of validity as a concept neatly divided into three parts (content, predictive and construct), we are now coming to view validity as an attempt to construct meaning from data and from a network of inferences (Messick, 1989, calls them evidences of validity). Empirical concerns such as reliability, while still important to interpretations of assessment data, can no longer be seen as the end objective of measurement. With this paradigm shift there is an increased sensitivity to the limitations of multiple-choice testing and an increased tolerance for the complexities and ambiguities that necessarily accompany more direct and contextually meaningful forms of assessment. We have seen an introduction of outcome based assessment, portfolios, and performance assessment. However, these assessments bring with them new challenges on how to use the existing test theory techniques to determine the psychometric characteristics (validity and reliability) of such assessment. With this shift comes also an increased interest in complex ways of reporting assessment results. How well have public assessment bodies in African countries adjusted to the new modes of assessment. The truth is that many continue to apply archaic methods of ensuring quality in the examination processes that have no relevance to the educational and assessment realities in specific countries.

Do public examinations promote inequity?

The world conference on Education For All (EFA) in Jomtien, in Thailand in 1990 held out a promise of improving the equity and quality of education systems throughout the world as nations sought to secure their economic competitiveness in a global economy. Assessment practices that ignore the diversity of learners and learning conditions can cause inequities in an education system. An equitable examination system should ensure that all students who possess the same

degree of ability receive the same results. Where there are inequities, an individual or group may gain an unfair advantage over others. It therefore follows that inequity places some individuals and/or groups at a disadvantage due to factors other than ability that the examination purports to assess.

Inequities may exist in the educational system so that some groups are placed at a disadvantage when it comes to opportunity to prepare for an examination. Other inequities may restrict access to the examination system. Finally, the examination process itself may introduce bias and other forms of injustice.

According to studies by the World Bank on public examination in Africa and other developing countries (<http://www1.worldbank.org/education/exams/equity.asp>) assessment practices associated with examinations that may create inequities include: payment of examination fees, influence of private tuition, use of culturally inappropriate questions and examinations set in a language with which the student is relatively unfamiliar.

Level of malpractices (e.g. bribery, cheating, intimidation, impersonation) in some countries is reported to be so high that it seriously undermines the credibility of the examination system.

Framework for analysis of the role of assessment

Little (1990), proposed a two dimensional framework for the analysis of the role of assessment in an individual, at national, international and comparative context that has relevance to Africa assessment systems. The first dimension is the level of analysis, that is, whether it is at an

individual or at a group level. The second dimension is the type of role played by assessment- that is, whether the assessment is facilitative or inhibitive of the learning process. This latter dimension compares the way assessment promotes or facilitates learning and the way assessment prevents or inhibits learning.

At the individual student level assessment is valued positively for the impact it has on learning motivation, for the cognitive impact it has on the reinforcement of learning objectives and for the access it provides to the “good life” or opportunities. On the other hand, assessment is inhibitory or preventive in that it alienates the learner from the process and enjoyment of learning and reduces in those who have fail feelings of self-esteem and to decelerate motivation for achievement. Assessment also inhibits social relations, leading to shame, social disgrace, suicide, and even murder. According to Little (1990), at the individual student and teacher level assessment sets the boundaries for legitimate knowledge, defines relations between teacher and student, and provides teacher and student with feedback on performance. On the other hand, the inhibitive impact of assessment at this level is that it restricts learning to that which is assessed.

Among social, political, and economic groups, assessment is facilitative in that it reinforces and creates group identities, and it assists lower social groups to achieve social mobility. On the other hand assessment inhibits greater group equality; legitimates inequalities of income, prestige and status.

At the national level the facilitative propositions are that “assessment certifies competency and qualifies for educational/occupational group membership, reinforces national unity, promotes economic growth, enables comparability between schools and facilitates accountability”. On the

other hand, the inhibitive propositions are that “assessment inhibits mass interests in capitalist society.” That is why in some of the African countries intellectuals or activists who propagate mass rejuvenation or empowerment are either banished to exile or get maimed or die in prison.

At the international level, for example, are facilitative propositions of the kind “assessment promotes global mobility” or inhibitive propositions of the kind “assessment inhibits equality between poor and rich countries; assessment legitimates the power of international elites and assessment encourages continued ‘dependence’ leading to ‘colonized’ or ‘crippled’ minds and inhibition of autonomous national development.

Applying this framework to the role of assessment in African countries, public examinations tend to play a greater role in inhibiting than facilitating learning especially among learners from poor backgrounds.

Is the framework relevant to public examinations?

Public examination councils (or boards) in Africa, use a multitude of methods to manipulate examination results in the name of moderation, norming, standardization, and quality assurance. These terms imply that there is a predetermined level of performance (achievement) that is expected of learners. One of the main reasons why such manipulations are done is the desire to control the number of candidates who achieve a certain level of performance and therefore control the number that is eligible for promotion or selection into the next level of the education system. The other reason is political, in that education officials wish to show that there has been an improvement in the education system during their term of office. First, public examinations have not been the best indicator of quality of schooling and therefore drawing such conclusions

would be using the results for the wrong purpose. The question we should ask is whether doing the manipulations reduces or improves the skills or knowledge that candidates at that level may have acquired. How does the manipulation of final scores take into account the multitude of errors committed through the various stages of the examination processes? Key among them, are the testing process, the development of the tests, administration process, and the marking and scoring? When we use norms based on previous years' performance are we saying that students of a given year should perform as well as those of previous years when we know that there have been changes in schooling, teaching and learning, school governance, supervision, new assessment methods, and entrance of new teachers into the teaching fraternity?

A public examination must have the following four key characteristics: Validity, reliability, efficiency and acceptability. Most public examination systems in Africa are not very keen to establish if the results of the system possess these characteristics. Forty years or so of independence have not enabled some of the African countries to take charge of their public examinations. The scarce resources are still being spent on foreign examination boards, or on foreign companies in printing examination papers. This calls in the question of the efficiency of public examinations in these countries. Governments that control public examinations seem not to care about whether the examination is acceptable by all interested parties (candidates, parents, teachers, institutions of higher education, and employers). The validity of the examination results seems to be wearing down instead of improving over the years.

What is the impact of the method of reporting examination results on stakeholders?

Reporting of examination results can have both facilitative and inhibitive effects on stakeholders such as students, parents, teachers, schools, community, and regions. Most examination bodies in Africa use ranking of students, schools, or regions to report on examination results. This system has been criticized for promoting unfair competition among schools. As one Kenya secondary school teacher, Abenea Ndago, wrote in the East African Standard newspaper (3rd September, 2004) in an article titled “*Tyranny of ranking uneven schools*” there is no moral justification in ranking schools where no genuine competition really existed. According to Ndago, some secondary schools admit the best primary school (Kenya Certificate of Primary Education- KCPE) candidates and have the best resources including teachers and wonders how any serious mind can be so appallingly narrow as to judge performance based on uneven playground. He argues that when student complete four years of secondary education, any secondary school - whether it enrolled high-scoring candidates in Form 1 (equivalent of Grade 9 in South Africa) and whether it was equipped with good resources and facilities will leave each candidate better or worse than it found them. Thus, instead of ranking schools using percentage of candidates who passed at some level of performance we should use deviations (both negative and positive) of the Kenya Certificate of Secondary Education (KCSE) grades from the KCPE.

The same concern on ranking of schools is raised by Fredua-Kwarteng of Ghana (<http://www.ghanaweb.com/GhanHomePage/features/artikel.phpID=52939>) who labels the ranking as unnecessary publication designed to undermine public confidence in some schools in Ghana. However, a majority of the people regard ranking as a positive step towards the promotion of competition among schools. To these people, schools require a heavy dose of

competition in order to raise standards of teaching, learning, and examination performance.

Because some conservative economists advocate competition as an effective means to improve business performance and profitability, these people also see positive correlation between competition and standards of teaching and learning and examination performance. However, this is a wrong application of the orthodox ideology of competition to the administration of public educational organizations because schools are supposed to be social, moral and academic organizations charged with the function of developing social responsibilities in young people, train them in sound moral precepts, and equip them with appropriate skills, knowledge and abilities for the purposes of future employment, professional education or post-secondary studies. Thus, one cannot use only a quantitative tool such as examination results to compare the performance of schools.

There have been some voices that are also suggesting that the public examinations results should be used as objective criterion for the allocation of resources of money, personnel, and other facilities to schools (<http://www1.worldbank.org/education/exams/equity.asp>). If so, then schools that came to the bottom of the ranking should receive the greatest portion of the educational allocation. Nevertheless, if schools that came to the top were to use their examination performance as a rationale for demanding more educational resources then schools that did badly would soon be wiped out. In this scenario, whose interest would be served? I think that if the government wants to find objective criteria for distributing educational resources, it must conduct a needs assessment of each school according to predetermined standards. National Department or Ministry of Education in a given country must develop such standards after consultation with stakeholders of the education enterprise such as headmasters, teachers, parents, students, and the general public. Needs assessment is comprehensive assessment carried by a team of seasoned

educators. They would visit each school, examine its facilities (classrooms, furniture, science, laboratories, etc.), observe instructional and assessment practices, teacher-student class interactions, school curriculum, the nature of learning activities, interview students, teachers, and headmasters, and ascertain the academic qualifications and length of experience of the teaching staff.

If examination results are the sole ground for judging a school's performance, then some schools are more likely to present only their best candidates in such examinations and the incidence of examination malpractices might increase astronomically.

According to Kellaghan (1996), one of the main disadvantages of ranking is that comparison between schools generally fails to take into account differences in intake and the social and physical conditions under which schools operate. Some of the negative consequences of ranking include: Schools can manipulate pass rates by practices such as student retention and pressure on students to leave school before reaching the examination; publication of school results may lead schools that are perceived to be doing well to attract students of high levels of ability, while those that are perceived to be doing badly (even though they may be "adding" more "value" than the perceived highly rated schools will be left with lower achieving students. It can also lead to the transfer for more able teachers, lower morale in individual schools, and create ghetto schools (Kellaghan, 1996).

The results of examination are sometimes used to monitor student achievements in the education system over time to determine the changes in education standards. The use, however, is problematic. First, a different examination is set each year and little is known on whether the

difficulty level of the examinations remains constant over time. Secondly, the results reported for examination are often standardized and norm-referenced, reflecting their selective function, in which the reported mean is fixed from year to year. Thirdly, as educational provision continues to expand and the characteristics of examinees change, the average level of achievement of examinees might also change. Thus, although public examination results can provide an indication of the quality of the school system, it alone, is not sufficient. Systemic assessment programs can provide useful information on the quality of the system.

Value-Added Indicators as alternative methods of reporting public examinations

Much work has been carried out on producing indicators of the “value” a school adds to the achievement of its students. No entirely satisfactory solution has yet been found but some countries are starting to publish value-added indicators. The most common approach is to:

- Measure students’ achievement on entry to school,
- Find mathematical model relating entry level to likely exit level for the population,
- Measure student achievement on exit from school,
- Apply model to predict how a particular school’s cohort should have performed,
- Compare achieved level with predicted level to estimate ‘value added’ by school.

Student score in primary KCPE in Kenya, for example, can be used to predict KCSE Secondary-level performance. Predictions are compared with actual results to produce a “mean residual score’ for each school in each subject. A positive mean residual for a particular subject indicates that, on average, candidates in that subject performed better than their KCPE grades would predict. A negative mean residual indicates that, on average, candidates performed worse than their KCPE grades would predict (www.wjec.co.uk/wed.html)

Some critics suggest that this strategy for reporting 'value added' is flawed because:

- Models used for predicting output from input are simplistic and ignore other significant factors,
- Determination of input levels is subject to error of measurement; and
- Determination of output levels is subject to error of measurement.

The value-added approach is fair and can be used to compare schools on the basis of the impact they have made to their students. It can also be used to develop a reward system for schools and teachers.

Conclusion

While public examinations continue to play an important role in selection and certification in African countries, it is critical to understand their inability to promote equity in selection for both educational and employment opportunities. The fact that learners are subjected to the same administration of examination at the exit of both primary and secondary cycles of education ignore the disparities that exist in terms facilities and learning and teaching resources among learners from economically diverse backgrounds. What we should be asking is whether public examinations are effective instruments for assessing the repertoire of knowledge, skills, and abilities that the students possess?

To address some of these questions we need to look closely at the purpose of public examinations as compared to school-based assessment modes or system-wide assessment programmes. Within our own context how do we make public examination responsive to the needs of the individual

student, the parents, community and the country as a whole. There is need to evaluate all the processes of the public examination in the light of new assessment paradigms and our abilities to distribute the limited resources equitably.

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Table 1: Education statistics- Source- World Bank

	Sub-S	Nige	Uga	Sene	Keny	SA	Swaz	Ghan
Gross enrolment ratio-Prim	86.9	96.5	136.4	75.3	96	105.1	100.4	81.4
Gross enrolment ratio-Sec	-	-	-	18.7	32	86.4	45.2	37.7
Gross enrolment ratio-Tert	-	-	3.2	-	3.5	14.6	5.2	3.2
PE on education(% GDP)	3.4	-	2.5	6.5	6.3	5.7	5.5	4.1
PE per student-prim	-	-	-	13.8	0.9	14.3	10.4	-
PE per student-sec	-	-	-	-	2.2	18.3	29.7	-
PE per student-Tert	-	-	-	-	256.7	56.8	253.2	-
Pupil-teacher ratio-Pri	45.1	39.8	59.4	48.9	31.7	37.1	32.2	32.1
Pupil-teacher ratio-Sec	-	-	-	-	26.1	-	-	18.6