African Population and Health Research Center

Policy Brief

No. 4, 2008

Promoting the well-being of Africans through policy-relevant research on population and health

What Quality of Primary Education are Children in Urban Schools Receiving?

Evidence from Nairobi

The Policy Issue

The concept of 'quality of education' has been difficult to define. Debate on quality of education has focused on learning achievement, relevance of the curriculum to labor markets and/or social, cultural and political environment in which the learner finds him/herself, and conditions of learning including teachers and facilities. The notion of quality of education should, however, go beyond student results and look at the determinants of such results including provision of teachers, buildings, equipment, and curriculum, among others.

From this argument, the quality of education constitutes three interrelated aspects: quality of human and material resources available for teaching (inputs), quality of teaching practice (process), and the quality of results (outputs and outcomes). The first two are inputs into the schooling process. This policy brief examines the input factors and relates their quality to the national and international benchmarks in the context of Free Primary Education. Benchmarking is important as it provides best practices that enhance quality of education and learning outcomes. Understanding school quality characteristics will therefore inform policy decisions that require knowledge of a particular dimension of school inputs that matter. This policy brief is based on data from Nairobi's informal settlements.

How did the Issue get that way?

The government of Kenya re-introduced free primary education policy in 2003. The policy was meant to remove the cost constraints on parents and hence increase school enrolment, which was declining. While the policy has succeeded in improving demand for education and hence increased enrolment, the supply of education inputs has lagged behind. Consequently, the quality of education has been negatively impacted. As a reaction to public failure to supply adequate school places, the private sector has filled some of the gaps by providing what we describe here as non-government schools - privately owned by individuals, private religious groups owned, private NGOs owned and community owned schools. Well-off parents who, for whatever reason, do not enroll their children in public schools choose better quality private schools, while poor parents who either miss a place in public schools nearby or perceive the quality of public schools as low, enroll their children in poor quality private schools.

Evidence of Characteristics

Analysis of data of characteristics school quality in various types of schools in Nairobi's settlements show that schools are not meeting the quality benchmarks in several indicators. Based on national quality benchmarks, the quality of education provided in government schools in urban settlements is 'better' on infrastructure, teacher qualifications and text book provision than that provided in all the non-government owned schools.

Class Size and Pupil-Teacher Ratio

From national benchmarks, class size and pupil-teacher ratio norms are 45 and 40, respectively. In informal settlements, non-government schools have smaller class sizes (22) and lower pupil-teacher ratio (27). Government schools have large average class sizes (50) and higher pupil-teacher ratio (47) hence low teacher-pupil interaction. Literature on the effect of class size on learner achievement show that large class sizes disadvantage weak students as the teaching methods focus on the average student.

Quality of Building Structures

According to the Ministry of Public Works' building norms, classroom walls are supposed to be made of building stones/blocks while the floor should be made of concrete. Materials making the classroom building were observed and their quality rated on a likert-type scale. On the quality of materials making the classrooms, overall (95%), classroom wall materials are good or very good. In community schools, walls in 19% of the classrooms are described as poor or very poor – made up of cement-mud, wood, mud, carton or plastic materials. The condition of the floor of

Student learning space in non-government schools is constrained by the classroom size.

96% of classrooms observed in government schools is described as very good, with only 2% being categorized as poor. In community schools, the floor in 91% of the classrooms is described as very good, with the remaining 9% being made of mud, dung or soil. Building structures are meant to provide an enabling learning environment in the school. Their absence and/or poor state create a learning environment that is not child-friendly.

Pupil-Textbook Ratio

Government policy on pupil-textbook ratio stipulates that lower primary (grades 1-4) should have a ratio of at most 3:1, while upper primary should have a ratio of at most 2:1 in all main subjects. While government-owned schools have almost attained the required pupil-textbook ratio, the non-government schools have higher pupil-textbook ratios. For example, the private individual owned schools have a mean ratio of 2:5 and 7:6 in lower and upper primary, respectively, while the community owned schools have mean ratios of 5:4 and 2:3 for these levels. Textbooks are an important learning input that provides the learner with different learning experience. Most of the schools with pupil-text book ratios that are of the minimum standards for lower grades are in informal settlements.

Teaching Load

Teacher teaching load in the schools studied varies by school ownership and location. On average, in government-owned schools, teachers teach for 32 hours in a week followed by those in private NGO (28 hours), and community and private religious group owned schools (27 hours). Teachers who teach for more hours in a week are not in schools located in any particular type of urban settlement. Teachers in private individual schools teach for 17 hours in a week. From these results, teachers in government schools not only teach large class sizes, but also teach for many hours than their peers in non-government schools.

Classroom Space

According to United Nations Educational Scientific Cultural Center (UNESCO), the minimum student classroom space should be 1.5 square meters with one-seater desk, which would translate to 67.5 square meters for a room expected to hold 45 students. The Ministry of Education recommends a 7.5m x 6.0m classroom. This translates to 45 square meters or about 1 square meter per child in a room with 45 children. Most of the schools studied have student spaces that are below the required benchmark. Government-owned schools have the least (0.86sq.m) student average physical space. This is mainly due to the large class sizes witnessed after the introduction of free primary education. Students in schools owned by private individuals and private religious groups enjoy the largest physical space in a classroom (above 5sq.m.). Students in schools in informal settlements have among the least (below 1sq.m) student physical space – indicating either small class sizes or large classroom space or both. The main concerns of the classroom physical space include: safety and accessibility to learning; arrangement of furniture; and the teachers' use of physical resources. While in the government schools student learning space is constrained by the class size, the student learning space in non-government schools is constrained by the classroom size. Meeting quality benchmarks in schooling therefore remains a challenge in urban populations.

Location of Toilets

In most of the schools in the study (over 90%), toilets are located less than 100 meters from the tuition block. However, a considerable number of schools do not have separate toilets for girls and boys. For example, 47% of private individual owned schools and 32% of community schools do not have separate toilets. The Ministry of Education has set the minimum standards for the provision of toilets as part of the school sanitation facilities: the minimum number of toilets in a school is 4 for the first 30 pupils, thereafter a ratio of 25:1 and 30:1 applies for girls and boys, respectively. Based on the Ministry's standards, the average pupil-toilet ratios in government schools, 47 for girls and 56 for boys, are far above the benchmark. The average pupil-toilet ratio in non-government schools are below 30 and within the recommended ratios. School sanitation facilities are critical in safe school environment as they influence children's health and wellbeing. In particular, girls feel unsafe to use toilet facilities that are situated in an isolated location because of the risk of rape or harassment.

Policy Implications

From this study, three implications to education policy can be discerned.

First, there is need for the government to expand school infrastructure and employ more teachers in urban settings to cope with the rapid urbanization and create opportunities for disadvantaged urban children to access quality education. The aim is to reduce both class sizes and pupil-teacher ratios to the Ministry of Education's acceptable standards. This may call for radical measures some of which may require political good will and community consultations.

Secondly, to improve the quality of education in urban informal settlements, public-private partnership initiatives should be encouraged and supported by the government. Such a partnership targeting urban school quality improvement is one way of mobilizing resources for improving quality of education. For this to be successful across different school ownerships, all education institutions should register with the Ministry of Education as they stand to benefit from technical support among other gains. In particular, the government should extend the provision of textbooks and inspection visits to private schools serving the poor.

Finally, education stakeholders go beyond the education sector. In view of this, it is imperative to address the problem of school inputs from a sector-wide approach. For example, provision of school toilet facilities and safe drinking water would benefit from a sector-wide approach with stakeholders coming from the education, housing, environment, health, water and local government sub sectors.

This policy brief is based on APHRC WP No.39, 2008: What Quality of Primary Education are Children in Urban Schools Receiving? Evidence from Nairobi. Ngware, M., O. Oketch & A. Ezeh.