

# Challenges and Recommendations Regarding Teaching Large Classes in Kenyan Secondary Schools

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Africa-U.S. Higher Education Initiative Partnership**

## **Building Capacity Through Quality Teacher Preparation**

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The reality that teachers in developing countries teach large, and even overcrowded classes, is daunting and one that may not go away any time soon. The resolution on Education for All arising from the 1990 Jomtien World Conference on Education, and the follow up later in the 2000 Dakar conference, has placed a very high emphasis on the need to expand access to education for all children. This goal, followed by high population growth has led to one positive, but also complex outcome – soaring enrollments, which in most cases are not accommodated by the recruitment of additional qualified teachers, increase of physical space, and the provision of more textbooks and other teaching equipment.

In Kenya, we have seen that the introduction of Free Primary Education in 2003 and the launching of the Free Secondary Education Programme in 2008 have increased the number of pupils in both primary and secondary public schools by more than twice. This problem has not only eroded teacher confidence, but has also placed the issue of class size at the forefront of the educational and political agenda in the country. As evidenced in numerous stories in the national newspapers, there has been an outcry from teachers and all citizens for the government to reduce class size by employing more teachers, and in recent times the shortage of teachers has led to union agitation against the government. Clearly, due to economic as well as political factors, the problem of large classes may not disappear from the Kenyan school system any time soon.

### ***Large Class Pedagogy***

Although class size reductions are often proposed as a way to improve student learning, research does not suggest that smaller classes will necessarily lead to improved student achievement (Hattie, 2005; O’Sullivan, 2006). It has been observed that even small classes can be seriously affected by inadequate teacher education as well as a lack of teacher experience. Lowering the number of students in a class does not guarantee quality of instruction; neither does increasing class size necessarily imply poor education (Maged, 1997; Nakabugo et al., 2008). Ehrenberg et al. (2001) stressed that class size reduction leads to improved student achievement only if teachers modify instructional practices to take advantage of small classes.

Any fruitful discussion of class size issues needs to take into account how teachers are being prepared to manage large classes by their pre-service programmes, as well as how they are supported at the in-service level. Even though changes have been made in the Kenyan schooling system, the teacher-training curriculum has not been modified (Otienoh, 2010). Otienoh further suggested that teacher preparation programmes have failed to prepare future teachers to handle large classes.

### ***Research Study***

As part of our partnership project, one of the collaborative research studies we undertook was to examine the issue of class size and its effect in

Kenyan secondary schools. In this research study, we used questionnaire, interview and classroom observation data to address the following research questions: (a) What are the sizes of secondary school classes in Kenya?; (b) What are teachers' perspectives regarding the effect of class size on teaching and learning?; (c) What are principals' perspectives on the effect of class size on teaching and learning?; and (d) What are teachers' practices in teaching large classes?

We collected data through questionnaires, interviews and classroom observations: (a) questionnaires completed by 194 teachers teaching from among 19 subject areas, (b) interviews with 18 Kenyan public secondary school principals, and (c) classroom observations of 18 classroom lessons across seven subject areas in Kenya public secondary schools.

In selecting schools and teachers, we began with the eight provincial regions of Kenya and selected at least one county from each of these regions, for a total of 12 counties. We selected 18 schools across the 12 counties, with six national schools, six county schools, and six district schools. Thirty-eight percent of the schools were boys' schools, 36% were girls' schools, and 26% were mixed gender schools. The schools were split almost equally between urban (56%) and rural (44%) schools.

We analyzed the data by first compiling the data using *SurveyMonkey*. We used data from the questionnaires and the observed lessons to answer our first research question. We used data from the questionnaires to answer our second research question. We used data from the principal interviews to answer our third research question. We used data from the classroom observations to answer our fourth research question. We used open coding to establish codes for data that appeared able to help us answer our second and third research questions and then used axial coding to look for patterns and make sense of the data.

From our data analysis, we have the following findings:

- ***Finding #1: Class Size in Kenyan Public Secondary Schools***

The vast majority of schools had between 40 and 59 students in each class. Researchers reported that 72.2% of the 18 observed lessons (n = 13 lessons) had 40-59 students, while 76.3% of the teachers (n = 148 teachers) completing the questionnaire reported the number of students in each class at their schools being between 40 and 59 students.

- ***Finding #2: Teachers' Perspectives On the Effect of Class Size on Teaching and Learning***

The vast majority of teachers (88%) agreed or strongly agreed that their schools have large classes. More than half of the teachers (58.3%) agreed or strongly agreed that classrooms in their schools are congested. More than two-thirds of the teachers (68.1%) agreed or strongly agreed that student performance in their classes is negatively affected by having a large number of students, and 70.8% of the teachers agreed or strongly agreed that teachers in their schools are overworked.

There was clear support by more than 70% of the teachers that teaching large classes is a problem in their schools (76.2%), the school is not adequately staffed with enough graduate teachers (71.9%), Ministry of Education officials do not play a very important role in helping them become better teachers for large classes (72.3%), and student performance is affected by class size (72.6%).

More than 20% of the teachers (n = 41) listed a need for professional development, including teaching new pedagogical skills, a variety of ways of assessing student learning, ICT skills, team-teaching skills, and how to develop learner-centered materials. Many teachers (n = 83) commented on the need to reduce teachers' workload, through employing more teachers, reducing the number of students per class, reducing the number of lessons per teacher, integrating ICT into teaching and learning, and revising the syllabus to cover less material. More than 60% of the teachers (n = 117) noted the need for increased resources, including materials, facilities, equipment, books, excursions and

practicals, additional pay, more time for teaching, and larger classrooms.

- ***Finding #3: Principals' Perspectives On the Effect of Class Size on Teaching and Learning***

Each of the 18 principals interviewed noted that class sizes in their school are too large. Two-thirds of the principals mentioned that the size is making the classes difficult to manage; two-thirds also noted that there is no end in sight to the issue – class size will continue to grow. Principals made remarks such as “not healthy,” “overcrowded and inaccessible during teaching,” “teacher-to-student interaction is very low,” “little attention to individual differences,” and “a challenge to teachers, especially when managing slow learners who may not participate fully.”

When asked how class size affects student performance in their schools, the principals noted the lack of individual attention (61.1%), poor results on exams (44.4%), limited feedback from teachers to students (22.2%), and poor skill development (5.6%). All of the principals noted that they lacked resources, needed more teachers, had inadequate classroom space, a lack of textbooks and other books, inadequate laboratory equipment and materials, inadequate boarding facilities, and a lack of ICT equipment for teachers and students.

Twelve out of the 18 principals noted that there is no support in the school or through the government to improve teachers' skills in meeting the diverse needs of large classes. The principals overwhelmingly (77.8%) viewed pre-service teacher programmes as not preparing teachers with the attitudes and skills necessary to teach large classes, with another principal noting that he/she did not know.

Thirteen out of the 18 principals identified professional development for teachers as a needed change, while 16 out of 18 principals said that teachers' workload should be reduced, for example, by employing more teachers, reducing the number of students per class, or integrating ICT into teaching and learning. All

of the principals identified additional resources as being necessary to have more effective teaching with large classes, including materials for teachers and students, facilities, books, and additional pay for teachers.

- ***Finding #4: Teachers' Practices in Teaching Large Classes***

In the 18 classroom lessons that we observed we found that teachers spent the majority of the lesson time lecturing (58.8% of teachers spent 50-100% of lesson time lecturing). Teachers spent little lesson time on demonstration, class practicals, question and answer time, pair or group work, or class discussion.

Researchers noted that in 15 out of the 18 lessons that the classroom was congested, and noted that while in some cases the classrooms were large enough to accommodate the number of students, in other cases there was no space between desks and students were too close to the blackboard and to the teacher.

Researchers rated the teacher-to-student interaction as “good” in two of the lessons, as “fair” in six of the lessons, and as “poor” in 10 of the lessons. Researcher comments included: “There was minimal interaction due to space. The large numbers of students hindered movement of the teacher to maintain the attention of all students;” and “She tries to reach all students, but only a few can get turns to read and contribute.” These ratings and comments demonstrate the constraining effect of a large number of students on teacher-to-student interaction. Large class size may also have contributed to the minimal student-to-student interaction noted by the researchers. In 15 of the 18 observed lessons, researchers noted that there was no student-to-student interaction or very minimal, if any.

Conducive learning environments for students and teachers are predicated on providing schools and teachers with the necessary resources. Based on our research, we have the following recommendations:

- **Recommendation #1:** There is a need for training all teachers, pre-service and in-service, in large class pedagogy.
- **Recommendation #2:** There is a need to reduce teachers' workload (e.g., through hiring more teachers, reducing the number of students per class, reducing the number of lessons per teacher, integrating ICT in teaching).
- **Recommendation #3:** There is a need for increased resources (e.g., materials for teaching and learning, books, facilities, equipment).

### References

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