

**EXTRA TUITION IN SOUTHERN AND EASTERN AFRICA:
COVERAGE, GROWTH, AND LINKAGES
WITH PUPIL ACHIEVEMENT**

**Paper prepared for the International SACMEQ Educational Policy
Research Conference, Paris, September 28 – October 2, 2005**

**Paviot, Laura
Heinsohn, Nina
Korkman, Julia**

Paris, July 4, 2005

ABSTRACT

The phenomenon of extra tuition is witnessed in many countries and is creating what some educationalists have described as a parallel education system. However, the incidence and impact of extra tuition are not well studied, especially on the African continent. This study uses cross-national data for six African countries (Kenya, Malawi, Mauritius, Namibia, Zambia and Zanzibar) collected by SACMEQ, the Southern and Eastern Africa Consortium for Monitoring Educational Quality, to assess: (1) the incidence and growth of extra tuition, (2) the characteristics of students who receive paid vs. unpaid extra tuition, and (3) the association between extra tuition and student achievement. Results show that the incidence of extra tuition is a widespread phenomenon in all six countries and that receiving extra tuition, in general, and paid tuition, in particular, is positively associated with socio-economic levels of students' home backgrounds. Results concerning the association between tuition and student achievements are mixed, while paid tuition in most cases associates with better student achievement. The issues and challenges associated with tuition are discussed and some suggestions for further research and areas for policy makers to focus on are made.

INDEX

Introduction and Method

The provision of “extra tuition” for children in school subjects outside school hours has become both a growing and a global phenomenon. A recent issue of the “Economist” (June, 2005) described this emerging trend in the developed countries (such as the United States, the United Kingdom, and Japan) as a “largely invisible, unregulated and fragmented new industry” in which parents invest important amounts of money in order to assure that their children will succeed in school. In developing countries (such as Nepal, India, Bangladesh, Jamaica, Kenya, Sudan, Thailand, and Sri Lanka) the incidence of extra tuition has also reached endemic proportions (Foondun, 1992).

While there is considerable anecdotal evidence that the scale of extra tuition is substantial in many countries, there has been very little systematic study of its coverage or its impact on student achievement in developing countries. Perhaps this is one reason why many people have to come to refer the phenomenon as forming part of a “shadow education system” (Bray, 1999).

This study seeks to shed some light on the subject of the coverage and impact of extra tuition in Sub-Saharan Africa. In particular it draws upon the rich information resources that are available within the large-scale data archive developed by the Southern and Eastern Africa Consortium (SACMEQ). This archive covers two SACMEQ studies (known as the SACMEQ I Project (1995-1999) and the SACMEQ II Project (2000-2004)) which were cross-national studies of the conditions of schooling and the quality of education at the Grade 6 level. Six countries participated in both the SACMEQ I and the SACMEQ II Projects, and it is data from these six countries that have been discussed in this paper.

The findings of both SACMEQ studies have been discussed and presented in a series of country reports (see www.sacmeq.org). These reports have indicated that extra tuition tends to be widespread in these countries. They have also indicated that little is known about the modalities, causes, and impact of extra tuition, and they recommend that further research into this topic should be undertaken (see for example, Nassor and Mohammed, 1998; Nzomo, Kariuki, and Guantai, 2001).

In the context of this paper, the term “extra tuition” and “extra lessons” are used interchangeably. They refer to supplementary classes in school subjects that take place outside school hours. In both SACMEQ studies data were collected for Grade 6 pupils as to whether or not they received extra lessons. However, in the SACMEQ II study an extra question was included in the pupil questionnaire to find out whether payments were made for this tuition. Therefore for the SACMEQ II study it is possible to distinguish “unpaid” from “paid” tuition. Before presenting the results of the analyses undertaken for this paper it should be pointed out that the data collected about extra lessons in the SACMEQ research was somewhat limited and did not reveal: (a) who provided the extra lessons, (b) the amount and type of payment that was made for extra classes, and (c) the intensity or frequency of these extra lessons.

The paper has been broken into five sections that each address a question related the provision of extra lessons in school subjects outside school hours. The first question (“What is the Incidence and Growth in the Provision of Extra Tuition?”) examines the amount of activity in this area and the emerging trends in terms of growth between the two SACMEQ studies.

The second question (“What are the Background Characteristics of Pupils?”) examines the social profiles of pupils who receive extra lessons along five dimensions: gender, school location, socioeconomic level, home language, and parent education levels).

The third question (“What is the coverage of paid tuition?”) takes advantage of a supplementary question for pupils that was used only in the SACMEQ II Project in order to identify whether or not pupils’ parents paid for the extra lessons that they received.

The fourth question (“What are the Background Characteristics of Pupils who Receive Paid Tuition?”) examines the social profiles of pupils in the SACMEQ II Project (along the same five dimensions employed in the second question) whose parents paid for their extra lessons.

The fifth and final question (“What is the Association between Extra Lessons and Pupil Achievement?”) considers the average literacy and numeracy achievement scores of pupils in both SACMEQ Projects who received extra lessons – and then considers data from the SACMEQ II study for pupils who are receiving paid tuition.

The data analyses for this paper were undertaken with the IIEPJACK software in order to ensure that all sample estimates of population characteristics were presented in association with their correct sampling error (SE) values. The IIEPJACK software adjusts sampling error calculations to account for complexities associated with stratification, clustering, and unequal probabilities of selection.

Question 1: What is the Incidence and Growth in the Provision of Extra Lessons?

In Table 1 the percentages of pupils receiving extra lessons in school subjects outside school hours have been presented for the six countries and both SACMEQ studies.

INSERT TABLE 1 ABOUT HERE

For the SACMEQ I Project the percentages ranged from a low of 22.1 percent in Malawi to highs of 68.6 percent and 77.5 percent in Kenya and Mauritius, respectively. The average percentage for the six countries indicated that around one in two Grade 6 pupils in this region of the world were receiving extra lessons in school subjects outside school hours.

The generally high coverage of extra lessons in the SACMEQ I Project was echoed in the results from the SACMEQ II Project. In the second study the overall average suggested that more than two out of three Grade 6 pupils were receiving extra lessons. The percentages for individual countries ranged from a low of 44.7 percent in Namibia to a high of around 80 percent or more in Kenya, Malawi, and Mauritius.

The percentage figures listed in Table 1 in bold type indicate that there was a statistically significant increase the percentages of Grade 6 pupils receiving extra tuition. The test of significance in this case took full account of the complex sampling procedures that had been employed in both SACMEQ studies.

To summarize these results one could say that for all six SACMEQ countries there was a high incidence and a substantial growth in the percentages of pupils receiving extra lessons. These results were completely congruent with observations made in other studies (Bray, 1999; Foondun, 1992)

From previous research it would appear that there were several factors that might explain the high incidence of extra lessons in the SACMEQ countries. These include: high pressure on students to do well in exams in order to be admitted to a selective or “good” secondary school, students’ desire to improve their academic performance more generally, teachers’ attempts to compensate for their low salaries by giving extra lessons, teachers’ concern about their reputation, and the extent of teachers’ dedication to their students (Foondun, 1992; Wanyama and Njeru, 2004).

The first three reasons were arguably the most controversial and important ones, indicating that there was both a demand and a supply side to the tuition phenomenon (Bray, 1999; UNESCO, 1991). However, it should be noted here that the exact reasons for the high incidence of extra lessons were not investigated in the two SACMEQ studies and therefore the explanatory factors listed above should be treated as “possible explanations”.

If the expansion in the provision of extra lessons noted in SACMEQ results continued at the same rate, it is clear that we might soon arrive at a stage of “universal coverage” – with nearly all Grade 6 pupils receiving extra tuition in school subjects outside school hours. Indeed, extra lessons are already so common in Mauritius that “it is accepted as an integral feature of the primary system” (UNESCO, 1991). According to Hollup (2004), extra tuition among Grade 6 pupils became widespread in Mauritius because Grade 6 exam results determined whether or not pupils were able to enter secondary school. There was “bottleneck” at the end of the primary schooling because demand for secondary places was higher than supply. Hollup further explained that there were several “elite” secondary schools and that only the 1,000 best-performing students were admitted to them. These selection procedures gave rise to a “race” for admissions into both ordinary and elite secondary schools, and hence a widespread “industry” of private tuition had developed (Hollup, 2004; Foondun, 1992).

It will be most interesting to examine the situation in Mauritius over the next five to ten years because the government has recently taken action to massively increase secondary school places and to improve the general quality of education of secondary education. These developments may result in diminished interest in private tuition.

As mentioned above, between SACMEQ I and SACMEQ II studies, the increase in the incidence of supplementary lessons was significant for all countries. However, the enormous

growth in Malawi was particularly striking because the incidence of students taking extra lessons rose by around 60 percent from 22.1 percent in SACMEQ I to 79.7 percent in SACMEQ II. The SACMEQ II National Research Report for Malawi (Chimombo et al., 2005) explained that the competition for a place in secondary schools was very intense in Malawi, and that teaching and learning in primary schools tended to be quite exam-oriented. The level of competition may explain the widespread interest in supplementary classes in Malawi but does not fully explain the high growth rate. Further research is needed on this latter issue.

Conclusion: Two important messages emerge from the results reported above. First, the incidence of Grade 6 pupils receiving extra lessons in school subjects outside school hours is very high in all countries. Second, the growth in the incidence of tuition has been substantial in the three to five year period between the SACMEQ I and SACMEQ II data collections.

Question 2: What are the Background Characteristics of Pupils?

The above discussion established that in the SACMEQ countries there was a high incidence and substantial growth in the provision of extra lessons in school subjects outside school hours. Some tentative explanations were offered – however these were drawn from studies outside the SACMEQ research programme and therefore needed to be viewed as “possible explanations”. The researchers who are currently responsible for the design and implementation of the forthcoming SACMEQ III Project should be encouraged to extend their data collections to include an examination of the reasons why the taking of extra lessons outside school hours has become so (increasingly) popular.

This paper now turns to examine the question of the background characteristics of pupils receiving extra lessons outside school hours.

(a) Gender

In many African countries girls are responsible for household duties with the result that enrolment rates for girls in higher grade levels generally tend to be lower than those for boys (Fuller, B., Singer J., and Keiley M., 1995). Such duties also mean that even if girls enrol in school, they tend to have less time and energy for learning (Husen et al., 1994). Against this background, it might be considered somewhat surprising that the SACMEQ data summarized in Table 2 indicated that there were no significant differences between the percentages of girls

and boys who were receiving extra lessons. Further, the overall increase in the incidence of these lessons, as observed in the discussion of Table 1 above, generally appeared to have occurred at a similar rate for both boys and girls, and this trend was consistent for each country.

INSERT TABLE 2 ABOUT HERE

(b) School Location

The provision of extra lessons might be expected to be associated with school location. The underlying assumption here is that such lessons are more likely to be provided in urban areas – where it is known from other studies that parents often are more motivated to ensure that their children perform well at school (Bray, 1999; UNESCO, 2004).

However, the research results summarized in Table 3 did not support this line of argument. The difference between more isolated/rural areas and small/large cities was very small in almost all the countries for both the SACMEQ I and SACMEQ II Projects. For the overall SACMEQ percentages, in SACMEQ I there was a negligible and non-significant 1.7 percent difference in favour of urban settings, and in SACMEQ II the slightly larger difference of 4.3 percent was also not significant.

INSERT TABLE 3 ABOUT HERE

Within the SACMEQ I group, Zanzibar was the only country where there was a significant difference between urban and rural children, favouring urban children by 7.2 percent. In SACMEQ II the difference between urban and rural children continued to be significant in Zanzibar, even though it decreased in magnitude to 5.5 percent. The only large difference between rural and urban was noted for Zambia in the SACMEQ II Project where there was a significant difference of around 20 percent favouring children from urban over rural settings.

(c) Socioeconomic Level

In both the SACMEQ I and SACMEQ II Projects, the socio-economic backgrounds of pupils was assessed through the application of a “Home Possessions Index” (HPI). This index was constructed by asking pupils if they had the following 13 items in the place where they stayed during the school week: daily newspaper, weekly or monthly magazine, radio, television set,

video cassette recorder, cassette player, telephone, car, motorcycle, bicycle, electricity, piped water, and a table to write on. Pupils who did not have a specific item were given a score of 0 for that item, while pupils who did have a specific item were given a score of 1. The sum of the scores formed the HPI, giving an indication of the material wealth of the place where pupils stayed during the school week.

INSERT TABLE 4 ABOUT HERE

In Table 4 the average values of the HPI have been presented for groups of students who were, and were not, receiving extra lessons. The overall trend in these values was that the average HPI was larger for the Grade 6 pupils who were taking extra tuition. Some of these differences were significant (for example, Mauritius and Zanzibar in both SACMEQ Projects, and Malawi in the SACMEQ I Project). However, even where “significant” differences were noted, these tended to be substantively small and, except for Zanzibar, the differences were less than 1 possession out of a list of 13 possessions.

From these results it would be possible to say that there was a tendency for pupils taking extra lessons to come from a slightly higher socioeconomic background than the pupils not taking extra lessons – however, the differences were fairly small for all six countries.

(d) Home Language

There are debates among educationalists as to whether it is better to use a home language or a national language for instruction in the early years of schooling (Malmquist, 1991). Some research has suggested that pupils score higher on reading comprehension tests when they are taught in their home language (Elley, 1992). It is also argued that home language is the best medium of education at school because it is the language the child knows well, in which he or she can form sentences and express meanings (Pattanayak, 2003).

The language used for testing pupils in the SACMEQ studies was the language specified by the Ministries of Education in each country. This was English in all but one of the six countries, namely Zanzibar, where Kiswahili was used as the language of instruction. Thus, in many SACMEQ countries, the language of instruction used at school was not the same as the language spoken in the child’s home. In Kenya, Malawi, Mauritius, Namibia, and Zambia

English was used as medium of instruction at school even though in certain regions of these countries the pupils have little opportunity to speak English outside school.

Following the argument presented above, it could be suggested that if English is used as the language of instruction at school, it might not facilitate learning unless it is also the language spoken at home (Ouane, 2003). Therefore it might be expected that pupils who do not speak English outside school hours need extra lessons in order to assure a good performance at school. Conversely, it might also be expected that pupils who often speak the language of instruction outside school are less in need of receiving supplementary lessons outside school hours.

The results presented in Table 5 do not support these expectations. The values show that in both SACMEQ studies the percentage of pupils “often” speaking the language of instruction outside school is higher among pupils “taking extra tuition” than it is among pupils “not taking extra tuition”.

INSERT TABLE 5 ABOUT HERE

(e) Parents’ Education Levels

Many research studies in education have shown that parents’ education levels influence the child’s performance at school (Duru-Bellat, 2004). Parents with higher levels of education are more likely to support and encourage their child’s schooling because they value and understand the economic and social benefits that better education will provide.

In the SACMEQ Projects, pupils were asked about the level of education that each of their parents had reached. The answer categories were coded as follows: did not go to school=1; completed some primary school=2; completed all of primary school=3; completed some of secondary school=4; completed all of secondary school=5; completed some education/training after secondary school=6.

The values assigned to the mother and father were summed in order to produce a Parent Education Index (PEI) ranging from 2 to 12. As such, a pupil was given a score of 2 in cases where neither the mother nor the father had gone to school. Similarly, a student was given a

score of 12 in those cases where both parents had completed some post-secondary education or training.

INSERT TABLE 6 ABOUT HERE

The average values across the six countries showed that parents' education levels tended to be higher for those students receiving extra tuition than for those who did not. In all but one instance the average on the PEI was higher for pupils who received extra lessons. The only exception as Kenya in the SACMEQ II Project and in this case the difference was negligible.

These results confirmed the often-reported finding mentioned above – that more educated parents value education and are therefore more likely to search for ways to ensure that their children learn more successfully.

Conclusion: The results presented above indicated that knowing the pupil's gender or whether he/she lived in a rural or urban setting gave no information concerning whether the pupil was likely to be taking extra lessons in school subjects outside school hours. On the other hand three variables that describe aspects of the socio-economic circumstances of pupils' homes (possessions in the home, education of parents, and home language) featured consistent linkages concerning whether or not extra lessons were being taken. That is wealthy and educated parents (who were more likely to speak the "national" language used in upper primary school) were more likely to have their children receiving extra lessons.

Question 3: What is the Coverage of Paid Extra Tuition?

This section of the paper takes up the issue of "paid" extra lessons. However, it is important to note that the discussion of research results presented below only refers to the SACMEQ II Project because the issue of paid extra lessons was not explored in the SACMEQ I Project. That is, the coverage of paid extra lessons can be studied – but not the growth in paid extra lessons over the time period between the two SACMEQ Projects.

In addition, it is important to note that the analyses of the nature of paid extra lessons in the following section of this paper has been based only on those pupils who indicated that they were receiving extra lessons. To achieve this the SACMEQ II data files were "filtered" prior to analysis in order to remove pupils who reported that they did not receive extra lessons.

Two other points also need to be made because they have implications for the interpretation of the research results. First, as will be elaborated below, data analysed in this area was collected from Grade 6 pupils who may, or may not, have known whether payment was made for extra lessons. For example, it is likely that in many cases that payment was made for extra lessons by the parents without their children's knowledge. Second, children at the Grade 6 level may or may not have been a little confused as to whether "payment" referred to money, goods (such as food), or both.

For SACMEQ overall a very high percentage (30.3 percent) of pupils reported that they "did not know" whether payment was made. It is therefore impossible to know exactly what proportion of Grade 6 pupils actually paid or did not pay. Therefore in the analysis presented in the following sections of this paper no significance tests of any kind were applied. In addition, any "explanations" made in the text must be considered as tentative.

The research results that examined the coverage of paid extra lessons have been summarized in Table 7. The pupils' responses to the question of whether payment was made fell into three categories: "Yes-payment is made", "No payment is made", and "I don't know". The final row of figures in Table 7 indicated that there was a substantial spread of responses across the three categories.

INSERT TABLE 7 ABOUT HERE

The interesting feature of Table 7 was the very different frequency distributions across the six countries. For example, in Kenya (57.9 percent), Mauritius (90.5 percent), and Zambia (50.9 percent) more than half of the pupils indicated that payment was made. In contrast, almost all pupils in Malawi (81.4 percent) did not know whether payment was made. Also, in Kenya (33.0 percent), Namibia (39.7 percent), and Zambia (39.5 percent) around a third of the pupils indicated that they were receiving extra lessons without payment. For SACMEQ overall, 43.9 percent of Grade 6 pupils who were receiving extra lessons indicated that payment was made and 30.3 percent did not know if payment was made.

The figures for Mauritius perhaps give some idea of where many SACMEQ countries will be in future with respect to "paid extra lessons". From the earlier Table 1 it is possible to see that nearly 90 percent of Mauritian Grade 6 pupils are receiving extra lessons and from Table 7 the figures show that around 90 percent of those pupils are paying for lessons. That is, around

80 percent of all Grade 6 pupils in Mauritius are receiving “paid extra lessons” and perhaps (given the trends in Table 1) it will not be long before 100 percent of pupils will be involved. Should such an outcome be interpreted as “the privatisation of a part of Grade 6 schooling in Mauritius”? This is a question that deserves extensive debate among all stakeholders in the Mauritius education system.

Conclusion: Very large percentages of pupils who did not know whether payment was being made for their extra lessons occurred in four of the six countries and this underlines the need for expanded data collections in this area – and perhaps suggests that in further SACMEQ studies the “survey research” method of data collection needs to be strengthened with the use of some in-depth interviews. In addition, with some advance planning, it might be possible for the SACMEQ researchers to include parents in the data collection.

The results showed that there were substantial percentages of pupils who reported that they were receiving “paid extra lessons” in countries except Malawi – where 81.4 percent “did not know”. In particular, in Mauritius the trend appeared to suggest a movement towards universal “paid extra lessons” at the Grade 6 level.

Question 4: What are the Background Characteristics of Pupils Who receive Paid Tuition?

(a) Gender

Gender did not appear to be a significant factor in terms of whether or not payment was made for private tuition. For all three answer categories (payment, non-payment, did not know), girls and boys were represented more or less equally. No tabulated results have been presented in this case.

(b) School location

School location was significant in terms of whether or not students paid for extra classes in several countries. In Table 8 it can be seen that for SACMEQ overall 51.9 percent of students in small and large cities indicated that they paid for their extra lessons whereas in isolated or rural areas only 37.1 percent of students confirmed that they paid. In all countries except Mauritius the percentage for pupils in small and large cities who indicated that they paid for extra lessons was significantly higher than for pupils in isolated and rural areas. The percentages of students who did not know whether payment was made was particularly high

in the isolated and rural areas of Malawi, Namibia and Zanzibar. The general trend was that the number of paying students was higher in urban than in rural areas, Mauritius provided an exception because the percentage who paid for extra lessons was almost universal.

INSERT TABLE 8 ABOUT HERE

(c) Socio-Economic Level

In Table 9 the mean scores on the Home Possession Index (HPI) have been reported for pupils who paid, did not pay, and did not know about payment for extra lessons. There as a consistent pattern across all countries which indicated that pupils who reported paying for extra lessons came from wealthier home backgrounds than was the case for pupils who reported no payment. However, again, the results for “did not know” tended to prevent a clear interpretation because the average HPI scores for this latter group were quite similar to the “no payment” group.

INSERT TABLE 9 ABOUT HERE

The finding that paying students tended to come from wealthier backgrounds was not surprising and has been reported extensively in other research studies (Joynathsing, M, Mansoor, M., Nabasing, V., Pochun, M., and Selwyn, P., 1988; Marimuthu, T., Singh, J.S., Ahmad, K., Lim, H.K., Mukherjee, H., Oman, S., *et al.*, 1991). This phenomenon suggests that “paid extra lessons” could emerge in some countries as a socially-divisive force. Several reports on the SACMEQ I Project have raised this issue (Nassor, S. and Mohammed, K.A. 1998; Nzomo, J, Kariuki, M. and Guantai, L. 2001). This problem was also pointed out by Bray (1999) who argued that extra lessons could contribute to social inequalities.

(d) Parent Education

In Table 10 the average of the Parent Education Index has been presented for the different categories of payment. For SACMEQ overall the average parent education level was significantly higher for pupils who paid (7.6) compared with pupils who had not paid (6.0). This same pattern occurred for all countries and was significant in all countries.

INSERT TABLE 10 ABOUT HERE

Conclusion: An examination of the background characteristics of pupils who received extra lessons revealed that pupils whose parents paid for these lessons tended to be located in urban areas, to come from homes that were wealthier, and to have parents that were more highly educated. There were no gender differences related to whether pupils did, or did not, pay for the extra lessons that they received.

Question 5: What is the association Between Extra Tuition and Pupil Performance?

The impact of tuition on learning outcomes is an area that has only received limited research attention. In a policy research report based on SACMEQ I for Mauritius (Kulpoo, 1998), tuition was found to be one of the stronger influences on pupil achievement. Kulpoo highlighted that tuition was a “malleable” factor that can be shaped by government policy as opposed to “non-malleable” factors (such as school location or socioeconomic background). Studies conducted in other countries have not, however, obtained similar results. In fact, the findings concerning the impact of tuition on educational outcomes have been surprisingly varied (Bray, 1999).

For this paper, the association between tuition and the reading and mathematics achievement of pupils was investigated by comparing the results of pupils who had and had not received extra lessons.

The average pupil reading and mathematics scores for pupils either receiving extra lessons or not receiving extra lessons have been presented in Table 11 for the six countries involved in both SACMEQ Projects. Note that mathematics achievement data were only collected in the SACMEQ II Project.

The overall SACMEQ results suggest a consistent pattern: that average pupil achievement scores in both reading and mathematics were significantly higher for pupils who took extra tuition. However, these overall results masked differences at the country level. For example, in Namibia the average achievement scores were significantly higher for those pupils who did not take extra tuition. This same result occurred for Kenya.

Do the results from Namibia and Kenya suggest that extra lessons have a negative impact upon pupil achievement? This would appear to be an unlikely explanation. A more acceptable

alternative interpretation of the results might be that in some countries extra lessons are seen as a way in which more able pupils can improve their test results so as to be able to enter “elite” secondary schools, while in other countries extra lessons are targeted towards less able pupils as a form of remedial instruction. In other countries perhaps a mixture of these interpretations is in operation. This “mixed” picture highlights, yet again, the need for detailed research into the whole area of extra tuition and the requirement that such research should acknowledge different reasons or motivations for parents to seek out private tuition for their children.

One of the most striking features in Table 11 was the massive differences between the performance of pupils taking extra tuition and not taking extra tuition in Mauritius. The SACMEQ reading and mathematics tests standardized to a standard deviation of 100. Therefore, the differences of around 100 score points between “no extra lessons” and “taking extra lessons” are extremely large and suggest that there is a major division emerging in Mauritius which is of worrying dimensions.

INSERT TABLE 11 ABOUT HERE

The research results presented in Table 12 further highlighted the complexities of undertaking research in this area. For example, in some countries the average achievement scores of pupils who “don’t know” whether there was payment for their tuition was higher than for the pupils who said there was “no payment” (Malawi); whereas in other countries (Zambia) the opposite is the case. Further, in Mauritius “don’t know” had a higher average than “no payment” for reading and a lower average for mathematics.

Conclusion: the analysis presented in this section of the paper raised more questions than have been answered. The whole methodology of research into extra lessons in school subjects outside school hours needs to be looked into and reinforced with more detailed data collections. For example, it would appear that attending extra lessons is driven by a variety of diverse forces (intensive coaching, remedial lessons, etc.) In addition, at Grade 6 level almost one third of the pupils taking extra lessons did not know if payment was made for these lessons – and it is likely that the whole notion of “payment” is unclear to pupils (for example, does this refer to money, food, housing, etc.)

3. Discussion and Recommendations

(a) Results and Issues

The analyses presented in this paper showed that the incidence of extra tuition was high in all six countries that participated in both The SACMEQ I and SACMEQ II Projects, and that growth rates were clearly detectable for all countries – especially Malawi and Kenya. The data therefore confirmed the argument that extra lessons in school subjects outside school hours was so widespread that one can speak of the development of a shadow education system (Bray, 1999; Foondun, 1992). The results also confirmed that it was students from higher socio-economic backgrounds and with more educated parents who were more likely to receive these extra lessons. There is therefore a danger that paid tuition may contribute to maintaining (or even expanding) pre-existing social inequalities.

The results reported in the latter sections of the paper suggested that our knowledge of the modalities by which extra tuition operates is rather limited – and that this needed to be addressed with more appropriate research methodologies. These results also raised questions – rather than providing answers – about: “Why are extra lessons provided?” and “Who are the members of the target audience?”

Other important aspects of the whole area also deserve attention. Most notable here is the issue identified by Bray (1999) as a corruption of the whole mission and operations of an education system because paid tuition encourages teachers on low salaries to optimize their income by presenting only a part of the curriculum during school hours and then offering the remainder as part of a paid extra lessons programme. If this scenario were to be true, then private tuition might indeed be seen as a threat to the quality of educational systems.

Yet another problematic area not addressed by the SACMEQ research is the issue of the amount of time given to extra lessons. This is an issue that certainly requires more attention as the coverage of extra lessons continues to grow. It might be the case that when coverage begin to move to higher levels then parents start to look for “competitive edge” for their children by demanding more and more hours of extra lessons. This situation needs to be considered as part of an “quality of life” matter for children.

(b) Suggestions for Further Research

In order to better understand the reasons and implications of extra tuition it is suggested that additional research be done on the following topics, be it in the context of the next SACMEQ study or else at the country level:

- Little information is available that can explain why extra tuition is so widespread and why there has been such a noticeable growth in its incidence. Reasons might be found on both the supply and the demand side. As suggested above, the former group of reasons may include the teachers' need or wish to increase their salaries. The latter group may be linked to high pressure on students to do well because places for good secondary schools are limited. Unless policy makers are aware of the reasons, it will be difficult for them to address these important developments.
- Linked to the above, it is important for policy makers to have a clearer picture of the providers of extra lessons. The SACMEQ data did not reveal whether the providers were family members, friends, the students' teachers or a third party providing tuition on the basis of payment. Family member involvement is likely to be regarded as beneficial. However, if research indicates that the providers of extra classes are mainly teachers or other private entities, the government may see a need to regulate this "industry".
- In terms of the danger that extra tuition may contribute to social inequalities, research could be done on the amount of money that parents or guardians pay for extra classes. The present findings indicate that paid tuition is associated with better student performance, meaning the market is guaranteed. This way, the phenomenon might be a threat to the mainstream education system (Bray, 1999). What kind of tuition is paid for and who are the beneficiaries would be interesting topics for further research.
- In order for policy makers to know whether and how to address the incidence, growth and implications of extra tuition, further research should be done into the modalities of extra classes. The modalities studied should include the frequency and intensity of

extra classes, the question as to whether tuition is provided on an individual or group level, and the nature of the subjects that are addressed.

This study has shown that, while general trends were clearly detectable in the incidence and growth of extra tuition, there were also country-specific variations with regards to the incidence and implications of extra tuition. Whether or not the described developments are a positive or negative can only be determined once further research is completed. Elitist school systems and tight job markets demand that children leave school with strong abilities. On the positive side, it is therefore not surprising that parents do their best to encourage their children to succeed in school, providing them with extra tuition. These extra lessons could be considered as one of the many forms in which parents reflect their involvement and concern. However, the widespread incidence of extra tuition could also be seen as a negative development if it can be shown to interfere with the equity and quality of the education system and /or have negative consequences for children's social and emotional development.

References

- Bray, M. (1999). *The shadow education system: private tutoring and its implications for planners*. Paris: UNESCO/IIEP.
- Duru-Bellat, M. (2004). *Social inequality at school and educational policies*. Fundamentals of Educational Planning. Paris: UNESCO/IIEP.
- Elley, W.B. (1992). *How in the world do students read?* Hamburg: The International Association for the Evaluation of Educational Development (IEA).
- Fuller B., Singer J., & Keiley M. (1995). Why do daughters leave school in Southern Africa? Family economy and mothers' commitments. *Social Forces*, 74(2), 657-681.
- Foondun, A.R. (1992). *Private tuition in Mauritius: the mad race for a place in a "five-star" secondary school*. Increasing and improving the quality of education – Monograph 8. Paris: UNESCO/IIEP.
- Hollup, O. (2004). *Educational policies, reforms and the role of teachers unions in Mauritius*. Telemark: Telemark University College.
- Husen, T., Postlethwaite, T. N., Clark, B.R. and Neave, G. (1994). *The International Encyclopedia of Education. Second Edition*. Pergamon.
- Joyathsing, M., Mansoor, M., Nabasing, V., Pochun, M., and Selwyn, P. (1988). *The private costs of education in Mauritius*. Port Louis: Government Printer.
- Kulpoo, D. (1998). The quality of education: some policy suggestions based on a survey of schools. *SACMEQ Policy Research Report No. 1*. Paris: UNESCO/IIEP.
- Ouane, A. (2003). The impossible debate about the use of mother tongues in education. In A. Ouane (Ed.), *Towards a multilingual culture of education* (pp.51-86). Hamburg: UNESCO Institute for Education.

- Malmquist, E. (1991). Literacy in the world: Myths and realities. In I. Lundberg & T. Høien (Eds.), *Literacy in a world of change: perspectives on reading and reading disability*. Stavanger: Center of Reading Research.
- Marimuthu, T., Singh, J.S., Ahmad, K., Lim, H.K., Mukherjee, H., Oman, S., Chelliah, T., Sharma, J.R., Salleh, N.M., Yong, L., Leong, L.T., Sukarman, S., Thong, L.K., Jamaluddin, W. (1991). Extra-School Instruction, social equity and educational quality. *Report prepared for the International Development Research Centre*. Singapore.
- Nassor, S. and Mohammed, K. A. (1998). The quality of: Some policy suggestions based on a survey of schools – Zanzibar. *SACMEQ Policy Research Report No. 4*. Paris: UNESCO/IIEP.
- National Research Report, Malawi. n.d. SACMEQ II Report.
- Nzomo, J., Kariuki M. and Guantai, L. (2001). The quality of primary education in Kenya: Some policy suggestions based on a survey of schools. *Working document in the series SACMEQ reports*. Paris: UNESCO/IIEP.
- Pattanayak D.P. (2003). Mother tongues: The problem of definitions and the educational challenge. In A. Ouane (Ed.), *Towards a multilingual culture of education* (pp.23-28). Hamburg: UNESCO Institute for Education.
- UNESCO. (1991). *Issues and Strategies: Education sector overview in the context of the Master Plan for Education*. Paris and Port Louis: UNESCO.
- UNESCO. (2004). *Education For All: The Quality Imperative*. Paris: UNESCO.
- Wanyama, I. and Njeru, N. (2004). The sociology of private tuition. *In: Institute for Policy Research and Analysis (IPAR) Policy Brief, Vol. 10, 7* (pp.1-4). Nairobi: IPAR.

¹ For further information on SACMEQ, please visit www.sacmeq.org.

Table 1. Percentages and sampling errors for pupils receiving extra tuition (SACMEQ I and SACMEQ II)*

Country	Percentage of pupils receiving extra lessons			
	SACMEQ I		SACMEQ II	
	%	SE	%	SE
Kenya	68.6	2.53	87.7	1.91
Malawi	22.1	1.96	79.7	3.47
Mauritius	77.5	1.44	86.6	1.07
Namibia	34.7	2.08	44.7	2.33
Zambia	44.8	2.35	55.1	3.56
Zanzibar	46.1	1.26	55.9	0.95
Average	49.0	1.94	68.3	2.22

Data source: Ross, K; Saito, M.; Dolata, S.; Ikeda, M; Zuze, L. (2004). SACMEQ Data Archive. Paris: IIEP

**Note. Significant results are bolded. The level of significance reported is at 95%.*

Table 2. Percentages and sampling errors for pupils receiving extra tuition by gender (SACMEQ I and SACMEQ II)*

Country	Percentage of pupils receiving extra lessons by gender							
	SACMEQ I				SACMEQ II			
	Boys		Girls		Boys		Girls	
	%	SE	%	SE	%	SE	%	SE
Kenya	66.7	2.88	70.6	2.61	88.7	1.74	86.7	2.36
Malawi	23.3	2.29	20.7	2.08	80.6	3.69	78.7	3.53
Mauritius	75.5	1.84	79.5	1.58	85.6	1.25	87.7	1.23
Namibia	33.5	2.21	35.8	2.53	42.5	2.33	46.7	2.52
Zambia	46.2	2.47	43.2	2.79	52.5	3.66	58.0	3.77
Zanzibar	46.6	1.91	45.6	1.83	55.2	1.58	56.5	1.48
<i>Average</i>	<i>48.6</i>	<i>2.27</i>	<i>49.2</i>	<i>2.24</i>	<i>67.5</i>	<i>2.38</i>	<i>69.1</i>	<i>2.48</i>

Data source: Ross, K; Saito, M.; Dolata, S.; Ikeda, M; Zuze, L. (2004). SACMEQ Data Archive. Paris: IIEP

**Note. Significant results are bolded. The level of significance reported is at 95%.*

Table 3. Percentages and sampling errors for pupils receiving extra tuition by school location*

Percentage of pupils receiving extra lessons by school location								
Country	SACMEQ I				SACMEQ II			
	Isolated/rural %	SE	Small/large cities %	SE	Isolated/rural %	SE	Small/large cities %	SE
Kenya	69.8	3.23	66.3	4.14	88.0	2.57	87.0	2.59
Malawi	20.9	2.46	26.1	2.84	77.4	4.59	84.3	4.88
Mauritius	75.3	1.75	79.7	2.28	86.4	1.37	86.8	1.62
Namibia	34.2	2.74	34.4	3.19	47.2	3.05	40.3	3.67
Zambia	44.2	4.18	40.7	3.39	44.2	3.87	65.0	5.09
Zanzibar	42.6	1.39	49.8	2.14	53.6	0.99	59.1	1.81
<i>Average</i>	<i>47.8</i>	<i>2.63</i>	<i>49.5</i>	<i>3.00</i>	<i>66.1</i>	<i>2.74</i>	<i>70.4</i>	<i>3.28</i>

Data source: Ross, K; Saito, M.; Dolata, S.; Ikeda, M; Zuze, L. (2004). SACMEQ Data Archive. Paris: IIEP

**Note. Significant results are bolded. The level of significance reported is at 95%.*

Table 4. Means and sampling errors for pupils' socio-economic level as measured by the HPI (Home Possession Index) by pupils receiving extra tuition*

Pupil home possession index								
Country	SACMEQ I				SACMEQ II			
	No extra-tuition		Taking extra-tuition		No extra-tuition		Taking extra-tuition	
	<i>M</i>	<i>SE</i>	<i>M</i>	<i>SE</i>	<i>M</i>	<i>SE</i>	<i>M</i>	<i>SE</i>
Kenya	4.9	0.18	5.3	0.14	4.7	0.45	4.3	0.14
Malawi	4.3	0.12	4.8	0.18	3.6	0.32	4.1	0.16
Mauritius	9.0	0.10	9.9	0.06	9.0	0.13	9.8	0.09
Namibia	5.9	0.17	6.1	0.16	5.5	0.13	5.2	0.15
Zambia	4.9	0.17	5.0	0.18	3.9	0.18	4.0	0.28
Zanzibar	3.8	0.09	5.1	0.13	4.0	0.09	5.0	0.09
<i>Average</i>	5.5	<i>0.14</i>	6.0	<i>0.14</i>	<i>5.1</i>	<i>0.22</i>	<i>5.4</i>	<i>0.15</i>

Data source: Ross, K; Saito, M.; Dolata, S.; Ikeda, M; Zuze, L. (2004). SACMEQ Data Archive. Paris: IIEP

**Note. Significant results are bolded. The level of significance reported is at 95%.*

Table 5. Percentages and sampling errors for pupils receiving extra tuition by use of language of instruction*

Pupils “often” speaking the language of instruction outside school								
Country	SACMEQ I				SACMEQ II			
	No extra-tuition %	SE	Taking extra-tuition %	SE	No extra-tuition %	SE	Taking extra-tuition %	SE
Kenya	81.2	2.67	86.8	1.80	86.2	3.23	86.4	1.22
Malawi	66.9	2.73	77.9	3.21	34.7	6.56	42.4	3.18
Mauritius	27.9	3.01	57.1	2.49	43.4	3.75	67.7	2.27
Namibia	72.1	1.98	79.4	1.82	76.2	1.56	80.4	1.50
Zambia	74.5	2.00	78.3	1.83	67.4	2.70	78.3	2.78
Zanzibar	94.7	0.72	93.6	0.89	96.9	0.57	95.6	0.69
<i>Average</i>	69.6	<i>2.19</i>	78.9	<i>2.01</i>	67.5	<i>3.06</i>	75.1	<i>1.94</i>

Data source: Ross, K; Saito, M.; Dolata, S.; Ikeda, M; Zuze, L. (2004). SACMEQ Data Archive. Paris: IIEP

**Note. Significant results are bolded. The level of significance reported is at 95%.*

Table 6. Means and sampling errors for students receiving extra tuition by parent education level*

Country	Parent Education Level							
	SACMEQ I				SACMEQ II			
	No extra-tuition		Taking extra-tuition		No extra-tuition		Taking extra-tuition	
	<i>M</i>	<i>SE</i>	<i>M</i>	<i>SE</i>	<i>M</i>	<i>SE</i>	<i>M</i>	<i>SE</i>
Kenya	6.9	0.22	7.4	0.13	7.5	0.37	7.4	0.13
Malawi	5.7	0.13	6.2	0.20	5.7	0.37	6.0	0.15
Mauritius	6.3	0.12	7.2	0.09	6.8	0.14	7.8	0.08
Namibia	6.7	0.13	6.8	0.12	6.8	0.11	7.0	0.10
Zambia	7.1	0.15	7.4	0.14	7.2	0.14	7.8	0.11
Zanzibar	5.1	0.09	5.3	0.11	5.5	0.09	6.3	0.08
<i>Average</i>	6.3	<i>0.14</i>	6.7	<i>0.13</i>	6.6	<i>0.20</i>	7.1	<i>0.11</i>

Data source: Ross, K; Saito, M.; Dolata, S.; Ikeda, M; Zuze, L. (2004). SACMEQ Data Archive. Paris: IIEP

**Note. Significant results are bolded. The level of significance reported is at 95%.*

Table 7. Percentages and sampling errors for pupils receiving paid vs. unpaid extra tuition*

Country	Pupils receiving extra tuition					
	Payment		No payment		Pupil didn't know	
	%	SE	%	SE	%	SE
Kenya	57.9	2.65	33.0	2.45	9.1	1.05
Malawi	8.9	1.41	9.6	1.73	81.4	2.34
Mauritius	90.5	1.01	8.1	0.89	1.4	0.35
Namibia	17.3	1.42	39.7	2.37	43.0	2.08
Zambia	50.9	2.64	39.5	2.40	9.5	1.30
Zanzibar	37.9	1.54	24.6	1.21	37.5	1.50
<i>Average</i>	43.9	1.78	25.8	1.84	30.3	1.44

Data source: Ross, K; Saito, M.; Dolata, S.; Ikeda, M; Zuze, L. (2004). SACMEQ Data Archive. Paris: IIEP

Table 8. Percentages and sampling errors for pupils receiving paid vs. unpaid extra tuition by school location*

Country	Pupils receiving extra tuition											
	Isolated/Rural						Small/large cities					
	Payment		No payment		Pupil didn't know		Payment		No payment		Pupil didn't know	
	%	SE	%	SE	%	SE	%	SE	%	SE	%	SE
Kenya	53.6	3.32	37.1	3.14	9.3	1.23	65.9	4.24	25.1	3.57	9.0	2.13
Malawi	5.7	1.59	7.6	1.74	86.7	2.51	15.0	2.88	13.4	4.01	71.6	5.16
Mauritius	91.7	1.24	7.1	1.06	1.3	0.51	89.7	1.58	8.9	1.44	1.4	0.47
Namibia	13.4	1.44	42.8	2.91	43.8	2.57	25.1	3.09	33.0	4.07	41.9	3.73
Zambia	31.9	3.19	57.8	3.69	10.3	1.94	62.1	2.66	28.7	2.15	9.2	1.83
Zanzibar	26.2	1.52	28.1	1.37	45.7	1.68	53.4	2.92	19.7	2.14	26.9	2.65
<i>Average</i>	37.1	2.05	30.1	2.32	32.9	1.74	51.9	2.90	21.5	2.90	26.7	2.66

Data source: Ross, K; Saito, M.; Dolata, S.; Ikeda, M; Zuze, L. (2004). SACMEQ Data Archive. Paris: IIEP

Table 9. Means and sampling errors for pupils receiving paid vs. unpaid extra tuition by home possession index*

Country	Home possession index					
	Payment		No payment		Pupil didn't know	
	<i>M</i>	<i>SE</i>	<i>M</i>	<i>SE</i>	<i>M</i>	<i>SE</i>
Kenya	4.4	0.17	4.1	0.13	4.2	0.37
Malawi	5.2	0.39	3.9	0.21	4.0	0.17
Mauritius	9.9	0.08	8.9	0.25	8.7	0.71
Namibia	6.0	0.27	5.1	0.16	5.0	0.18
Zambia	4.6	0.37	3.5	0.26	3.4	0.34
Zanzibar	6.2	0.19	4.5	0.17	4.2	0.15
<i>Average</i>	6.1	0.25	5.0	0.20	4.9	0.32

Data source: Ross, K; Saito, M.; Dolata, S.; Ikeda, M; Zuze, L. (2004). SACMEQ Data Archive. Paris: IIEP

Table 10. Means and sampling errors for pupils receiving paid vs. unpaid extra tuition by parent education level*

Country	Parent education levels					
	Payment		No payment		Pupil didn't know	
	<i>M</i>	<i>SE</i>	<i>M</i>	<i>SE</i>	<i>M</i>	<i>SE</i>
Kenya	7.5	0.15	7.2	0.17	6.9	0.38
Malawi	7.3	0.33	6.1	0.36	5.9	0.16
Mauritius	7.8	0.08	7.2	0.16	8.2	0.43
Namibia	7.7	0.17	6.8	0.15	6.9	0.13
Zambia	8.3	0.13	7.4	0.14	7.2	0.24
Zanzibar	7.1	0.14	6.1	0.17	5.7	0.14
<i>Average</i>	7.6	0.17	6.8	0.19	6.8	0.25

Data source: Ross, K; Saito, M.; Dolata, S.; Ikeda, M; Zuze, L. (2004). SACMEQ Data Archive. Paris: IIEP

Table 11. Means and sampling errors for reading and mathematics achievements associated with extra tuition outside school hours*

Country	Pupil achievement											
	SACMEQ I				SACMEQ II							
	Reading				Reading				Mathematics			
	No extra lessons		Taken extra lessons		No extra lessons		Taken extra-lessons		No extra-lessons		Taken extra-lessons	
<i>M</i>	<i>SE</i>	<i>M</i>	<i>SE</i>	<i>M</i>	<i>SE</i>	<i>M</i>	<i>SE</i>	<i>M</i>	<i>SE</i>	<i>M</i>	<i>SE</i>	
Kenya	547.4	6.90	541.5	5.21	553.2	12.63	545.6	5.25	564.4	11.82	563.1	4.87
Malawi	461.6	2.45	466.9	4.08	428.7	5.71	429.0	2.58	424.5	6.29	435.1	2.23
Mauritius	473.2	5.50	572.5	5.14	438.4	5.95	551.6	5.55	475.8	8.41	600.9	6.30
Namibia	478.6	6.37	462.5	3.26	457.8	4.40	437.6	3.41	440.3	4.15	419.1	2.90
Zambia	476.1	3.42	479.6	4.27	432.0	4.91	446.7	5.68	432.8	3.89	437.2	4.67
Zanzibar	489.4	3.22	495.1	3.99	476.1	2.23	479.8	2.13	476.7	1.90	479.3	1.82
<i>Average</i>	487.7	4.64	503.0	4.33	464.4	5.97	481.7	4.10	469.1	6.08	489.1	3.80

Data source: Ross, K; Saito, M.; Dolata, S.; Ikeda, M; Zuze, L. (2004). SACMEQ Data Archive. Paris: IIEP

Table 12. Means and sampling errors for reading and mathematics pupil achievements associated with paid versus unpaid tuition*

Country	Pupil achievement											
	Reading						Mathematics					
	Payment		No payment		Pupil didn't know		Payment		No payment		Pupil didn't know	
	<i>M</i>	<i>SE</i>	<i>M</i>	<i>SE</i>	<i>M</i>	<i>SE</i>	<i>M</i>	<i>SE</i>	<i>M</i>	<i>SE</i>	<i>M</i>	<i>SE</i>
Kenya	545.3	5.91	549.2	6.68	533.9	13.32	562.5	5.24	567.8	6.38	549.9	14.71
Malawi	441.9	7.15	420.8	8.41	428.5	2.65	447.3	5.3	424.0	8.24	435.0	2.36
Mauritius	558.4	5.43	482.4	12.66	505.9	20.71	608.3	6.2	529.5	13.22	524.9	22.55
Namibia	452.3	6.99	437.7	3.49	431.6	4.21	433.6	5.55	415.8	3.49	416.4	4.03
Zambia	464.2	7.58	431.0	5.14	418.3	7.18	447.0	6.49	427.6	4.34	425.0	6.50
Zanzibar	482.2	3.90	497.8	3.84	465.7	3.51	476.5	3.48	495.9	3.04	471.4	2.98
<i>Average</i>	490.7	6.16	469.8	6.70	464.0	8.60	495.9	5.38	476.8	6.45	470.4	8.86

Data source: Ross, K; Saito, M.; Dolata, S.; Ikeda, M; Zuze, L. (2004). SACMEQ Data Archive. Paris: IIEP