

Working paper

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The Progress of the Primary
Education Development Plan
(PEDP) in Tanzania: 2002-2004

Euan Davidson



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The Progress of the Primary Education Development Plan (PEDP) in Tanzania: 2002-2004

Euan Davidson¹

1. Introduction

For many years, there has been concern about the quality of education provided within many primary schools in Tanzania (DFID 1999, Kuleana 1999, MOEC, 2001). Even:

“The President, Hon. Benjamin W. Mkapa, had openly declared recently that it is now axiomatic that the quality of education is in serious trouble all the way but especially at primary school level where performance is quite pathetic” (Mosha 2000, p2).

However, alongside disquiet about the quality of education, there was also worry about the lack of access to primary education. Although, according to UNESCO statistics, Tanzania managed to increase the Gross Enrolment Rate² (GER) from 33% in 1970 to 94% in 1981, it had dropped to just 62% by 1998. The corresponding Net Enrolment Rate³ (NER) fell from a peak of 68% in 1991 to just 46% in 1998, meaning that fewer than half the school age population were attending primary school close to forty years after independence.

Even though Tanzania has been a signatory to many global commitments made in recent years regarding Universal Primary Education (UPE), including the Jomtien World Declaration on Education for All (EFA) (UNESCO 1990), it was not until the introduction of the Primary Education Development Plan (PEDP) (MOEC 2001) that serious initiatives were implemented to tackle problems related to quality of and access to primary education in Tanzania.

The PEDP, which started in January 2002, is a five year plan which aims to ensure that quality basic education is available for all by the end of 2006. However, despite the importance placed on quality, the PEDP explains that

“The highest priority for primary education is to increase overall gross and net enrolment of girls and boys. This will be done through a combination of strategies: (a) to increase enrolment rates of all groups of children; (b) to use existing teachers and classrooms more effectively; (c) to recruit new teachers and to construct new classrooms⁴” (MOEC 2001, p4).

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² This is a measure of the number of children of all ages who attend school in relation to the number of school age children in the population.

³ This is a measure of the number of children of school age who attend school in relation to the number of school age children in the population

⁴ This quote ended with ‘and (d) to expand complementary education programmes for out-of-school children and youth.’, but it was not within the remit of the research to explore this.

The purpose of this paper is to explore the progress of PEDP between 2002-2004, with respect to the plans to expand the primary education system and the issues related to quality. The insights contained within this paper are based upon three years of research conducted by the researcher, as part of his doctoral studies, with the financial support of the UK Economic and Social Research Council. The research in schools, which was primarily qualitative in nature, is based on visits to 50 government primary schools in Morogoro Region. Hundreds of formal interviews and informal discussions were conducted with teachers, pupils, parents, community members, representatives of non-governmental organisations and education officials at all levels, amongst others; more than 50 full lessons, and many more partial lessons, were observed; a variety of meetings and conferences were attended; and a detailed review of the wider literature that relates to the quality of primary education within Tanzania was undertaken. This paper is only a summary of the major insights gained from the overall research process. For further information, please contact the researcher directly, or refer to the published thesis.

This paper is divided into three parts. Firstly, it explores issues related to the number of pupils, classrooms and teachers. Secondly, it discusses the quality of education provided within schools. Thirdly, it briefly explores how the quality of education can be improved.

2. The Expansion of Education

2.1 Number of Pupils

With respect to access to education, the PEDP has made enormous progress towards the goal of achieving UPE, as can be seen in Table 1 below.

Table 1: Primary School Pupil Enrolments and Enrolment Rates 2001-2004

Year	Total enrolment	Percentage change (compared to 2001)	GER	NER
2001	4,875,764	+0%	84.4%	66.0%
2002	5,960,368	+22%	98.6%	80.7%
2003	6,531,769	+34%	105.3%	88.5%
2004	7,041,829	+44%	108.3%	90.5%

Sources: MOEC 2004b

In 2004, more than 7 million children were enrolled in primary school, an increase of nearly 2.2 million children as compared to 2001 (a 44% increase in pupil enrolments in three years). These figures also show that the GER and NER have reached 108.3% and 90.5% respectively, which suggests that UPE is close to being accomplished.

It is clear from the more detailed government statistics that these increased enrolments are almost entirely due to the increased Standard I enrolments in recent years, although a small part of the increase can be attributed to the increase in the number of pupils who repeat years of school, as can be seen from Table 2 below.

Table 2: Pupil Drop-outs and Repeaters 2000/2001 – 2003/2004

Year	Number of Drop-outs	Drop-out Rate⁵	Number of Repeaters	Repetition Rate⁶
2000/2001	221,232	5.6%	123,823	3.1%
2001/2002	176,349	4.0%	136,463	3.1%
2002/2003	266,605	4.9%	390,443	7.2%
2003/2004	210,991	3.2%	375,624	5.7%

Sources: MOEC 2003a, MOEC 2004b

Even though these increases in pupil repeaters are clearly significant, it is too early to say what their effects will be and whether they will lead to increases in the number of pupils who drop-out of school. However, it can be seen from Table 2 above that, although the number of pupils who drop-out of school has remained constant, the drop-out rate has actually decreased since 2000/2001.

To summarise the present situation, it is clear that significant progress has been made towards achieving UPE, from the perspective of pupil enrolments. It also seems that there are no major reasons, from the available enrolment data, to suspect that this will not continue in the future.

2.2 Number of Classrooms

The most recent government figures available suggest that approximately 30,000 new classrooms were constructed between 2002 and 2004, with a further 20,000 under construction (MOEC 2004a), meaning that the Government was close to its target of building a total of 54,000 new classrooms during the PEDP (MOEC 2001). If all of these new classrooms to date (including the ones under construction) were additional classrooms, then this would mean that the total number of classrooms would have increased by 83%, which would easily surpass the 44% increase in pupil enrolments between 2001 and 2004.

However, it is unclear how many of the new classrooms are actually additional classrooms as opposed to replacement classrooms. The Morogoro research found that more than half of the new classrooms were actually, in one way or another, replacements for existing classrooms.

If the findings from the Morogoro schools are representative of the country as a whole, there are reasons to believe that a significant proportion of the new classrooms may actually be replacement classrooms. Unfortunately, as recent data about the total number of classrooms in existence were not available, it is not easy to verify the extent of this phenomenon.

Further reason for questioning how many of the new classrooms are genuine additions to the school infrastructure relates to the condition of the existing classrooms at the time that the PEDP began. In 1995, the Government estimated that '70% of the 10,400 primary schools are in a state of disrepair, and therefore need urgent rehabilitation' (MOEC 1995, p37), as confirmed in a report by Kuleana which concluded that, in 1999, 'Over 70% of school buildings have collapsing or leaking roofs, cracking walls and floors, and no windows or lighting.' (Kuleana 1999, p8).

⁵ The drop-out rate is the percentage of pupils enrolled in primary school in a given year who are not subsequently enrolled as required in the following year.

⁶ The repetition rate is the percentage of pupils enrolled in a primary school in a given year who repeat the same class year in the following school year.

The implication of this is that, at the start of the PEDP, there were only approximately 18,000 existing classrooms that were in good condition. Furthermore, as there was little evidence that non-PEDP related classroom refurbishment was taking place in the schools visited, this suggests that, by the end of 2004, there were only approximately 48,000 good quality classrooms within the whole country⁷. Furthermore, even if all of the new classrooms were built during PEDP, this would still give a maximum number of only 82,000 good quality classrooms by the end of 2006⁸.

With enrolments expected to increase by 67% between 2001 and 2006, it can be seen that, provided that all 54,000 new classrooms are built, the pupils per classroom ratio could be expected, in a best case scenario, to reach 78:1⁹, and, in a worst case scenario, to reach 98:1¹⁰, which both compare unfavourably with the Government's target of 45:1 (MOEC 2001). Given this uncertainty, there is a need for accurate data to be collected and made available about the total number of classrooms available for teaching, as well as about their condition. Either way, it is unlikely that much improvement will be made on the 81:1 ratio in 2001.

2.3 Number of Teachers

The PEDP also proposed that there should be an expansion in the number of teachers employed within the schools. In 2001, before the introduction of PEDP, there were 105,921 teachers working in primary schools (MOEC 2003a). According to the PEDP projections there would be 137,071 teachers in the schools by the end of 2006, representing an increase of 29%, far short of the expected 67% increase in pupil enrolments.

The most recent figures show that total number of teachers had reportedly reached 119,773 by mid-2004 (MOEC 2004b), an increase of 13% from 2001. This is significantly lower than the corresponding 44% increase in pupil numbers. Given that the PEDP proposed 'To establish teacher-to-pupil ratios that effectively accommodate enrolment increases' (MOEC 2001, p6), the difference between the rise in pupil enrolments and the rise in teacher numbers is a cause for concern. This can be evidenced by the fact that the pupils per teacher ratio has increased every year since the PEDP began (see Table 3 below), with recent pupil per teachers ratios being far in excess of the maximum of 45 pupils per teacher proposed in the PEDP.

Table 3 Pupil Teacher Ratio 1999 – 2004

Year	Number of Pupils	Number of Teachers	Pupil Teacher Ratio
1999	4,182,677	103,731	40:1
2000	4,370,500	107,111	41:1
2001	4,875,764	105,921	46:1
2002	5,960,368	112,109	53:1
2003	6,531,769	114,660	57:1
2004	7,041,829	119,773	59:1 ¹¹

Sources: MOEC 2003a, MOEC 2004b

⁷ The 18,000 existing ones plus the 30,000 new ones

⁸ The 18,000 existing ones plus the 54,000 new ones

⁹ Under the assumption that the PEDP target of 103,000 classrooms by the end of 2006 is reached

¹⁰ Under the assumption that only 18,000 of the existing classrooms were in good condition, meaning that the 54,000 new classrooms were largely replacement classrooms

¹¹ The use of the raw data in the 2004 statistics gives a ratio of 59:1, although the ratio given in the report is 58:1

It is important to note that the PEDP projections give a pupil:teacher ratio of 58:1 for 2004, which is very close to the actual 59:1 ratio. This apparent shortage of teachers (and classrooms) was to be overcome through the widespread use of double-shift systems (see below). Nevertheless, the end result is that the number of pupils per teacher, and the pressure that this puts on the teachers, has increased every year since the commencement of PEDP.

Furthermore, when the problems related to the aggregating of data are considered, the shortages of teachers and classrooms become even more apparent. For example, a year group of 60 pupils should be divided into two different streams, as it has more than the maximum of 45 pupils. However, if this school has another year group of just 30 pupils, then this cancels out the shortage of teachers i.e. the two year groups have 90 pupils and 2 teachers, which fits the maximum of 45 pupils to a teacher, when in fact the actual need is for 3 teachers once streamed. For this reason, simple aggregations can distort real needs. Further analysis of the data from the Morogoro research would suggest that these types of issues mean that there is a need to increase the required teachers and classrooms by at least one third, which is an issue that is of serious concern. On this subject, the (October) 2004 PEDP Review¹² notes that:

‘Shortage of teachers is having a negative effect on efforts to improve the quality of education in schools... Unless urgent measures are taken to address the issue of teacher recruitment, teacher shortage[s] are likely to seriously affect quality of learning in schools.’ (MOEC 2004a, pp28-29)

2.4 Double-Shift Systems

The PEDP proposed that “67% of the classrooms will be used on a double shift basis from 2002 through 2006” (MOEC 2001, p8), whilst “It is intended that 11% of the teachers will teach on double shifts in 2002, 18% in 2003, and 25% from 2004 to 2006.” (MOEC 2001, p6).

The use, on this scale, of double-shift systems offered a way to reduce the number of classrooms and teachers required by 40% and 20% respectively. The Morogoro research showed that double-shift systems were being used within a majority of the schools visited, especially within the lower standards (where the enrolments were the highest). Although it is evident that the use of double-shift systems reduced the average class sizes and enabled more efficient use of the limited number of classrooms and textbooks at the schools’ disposal, the Morogoro research highlighted that their use also compromised the quality of education.

At one level, use of double-shifts necessitated that timetables be re-written. This resulted in each shift receiving fewer periods (normally between one quarter and one third fewer periods) per week than would be the case with a single-shift system. This had implications for the teachers’ ability to cover the syllabus and for the pupils’ level of learning. Moreover, the research highlighted that the use of double-shifts was very unpopular with teachers. It often resulted in more periods going untaught than before. Given that the very same teachers were being asked to cover the extra periods required under a double-shift system, it could be argued that neither of these effects should have been unexpected. Interestingly, although the PEDP annexes contain an explicit budget line for incentives to teachers who do double-shift teaching, there was no evidence of this within the schools visited during the research, nor within the various PEDP reports and reviews that have been compiled.

¹² The 2003 and 2004 PEDP Reviews were commissioned jointly by donors and the Government.

3. The Teaching and Learning Process

It can be seen from the previous section that the large increases in the pupil enrolments have been accompanied by increases in the number of classrooms built and teachers employed. However, these have failed to keep pace with the enrolment expansion. This is particularly so with reference to teachers. Although it is arguably too early to observe all of the effects that this will have on the quality of education within schools, it is clear that the extra strain may threaten the already poor quality of education provided within many schools.

The best way to assess the quality of education is by examining the teaching and learning process taking place within a school, rather than the condition or number of classrooms, teachers and other resources that are available (even though these are likely to affect the teaching and learning process).

3.1 The Teachers

In the words of A. Kamwela¹³, “It is widely known that the quality of education depends mainly on ability of the teachers to manage and actively engage the children in the process of learning in a classroom.” (Kamwela 2000, p210). Given the importance of the teachers’ role in the provision of education, the most important factor of the teaching and learning process is ensuring that the teachers are motivated and able to participate in the process. Without their active participation, attempts to improve the quality of education are unlikely to succeed.

The Morogoro research found that, in general, the teachers were seen to be facing many challenges, in both their working and personal lives. These were negatively affecting their ability to perform the roles expected of them. Furthermore, most teachers observed that their overall welfare had not improved since the onset of PEDP.

The most common complaint made by teachers related to salary levels. Every single teacher interviewed about this issue felt that their salaries were too small even to provide for the most basic needs of a teacher and his or her family. The general consensus was that the absolute minimum salary that a teacher who did not have a family should be expected to live on was approximately Tshs 100,000 per month. Although this does not compare too unfavourably with the current starting salary of Tshs 70,000 (URT 2003a), it needs to be stressed that this was seen as the level required to pay for the basic necessities of life. The consensus was that a salary of about Tshs 400,000 per month would be sufficient for a teacher to live a decent lifestyle.

Furthermore, teachers made frequent references to the lack of benefits, especially those to which they felt that they were entitled. For example, teachers complained of having a proportion of their salaries deducted to pay for healthcare, when either no, or inadequate, healthcare was being provided. Other examples included the failure to receive leave allowances to travel to family homes, the difficulty of obtaining transfer allowances, the problems with the transfer system in general and the lack of appropriate teachers’ housing.

Many teachers noted that they were unable to cover the costs involved themselves, forcing them to search for alternative sources of income that often interfered with a teacher’s duties. Furthermore, failure to receive entitlements caused resentment and resulted in the teachers’ motivation being further eroded.

¹³ A. Kamwela until recently served as the Coordinator of the District Based Support to Primary Education (DBSPE), a programme of the Ministry of Education and Culture.

Teacher morale was further affected by the fact that there were often teacher shortages within schools. Although it was generally (but not always) possible for a head teacher to design a timetable, this often had little relation to what happened in practice. Teachers were frequently assigned 30 periods or more per week, but the Morogoro research suggested that very few teachers were willing or able to teach more than 20 periods per week. In many cases, the result was that fewer than half the allocated lessons were being taught. Teachers could often be found in the staffroom working their way through a pile of marking or writing up lesson plans, or engaged in some other non-teaching activity.

In summary, the Morogoro research suggested that during the first three years of PEDP implementation teachers were often being asked to undertake high amounts of teaching and other activities, and that they were very poorly rewarded for their efforts. When the issues of training, as discussed below, are considered, it is hardly surprising that the quality of teaching was generally low.

3.2 The Teaching

According to the Morogoro research, and the available literature (e.g. Olekambine 1991, Massawe and Kipingu 2000, Rajani and Sumra 2003, Aga Khan Foundation 2004), the large majority of teachers rely heavily on the lecture or ‘chalk and talk’ method, where the teacher writes on the blackboard and offers some further verbal explanation, followed by the pupils copying the contents of the blackboard down into their books. Invariably, the end result of this method was that the pupils had records of the contents of the blackboard, but failed to record the extra explanation given by teachers.

In the Morogoro research, occasionally teachers were observed to ask simple questions to clarify lessons. However, pupils who responded were selected, normally from a narrow pool of those who had raised their hands to volunteer the answer. Regardless of how often the answers that were given were correct, this method inevitably engaged only a small proportion of pupils.

Furthermore, there was little evidence of the use of other participatory teaching methods, such as splitting the class into groups, or allowing pupils to interact with one another. On the rare occasions that such teaching methods were attempted, the effectiveness and appropriateness of their use were often questionable, as the teachers, to their own admission, invariably lacked the confidence, training and resources to use these methods successfully. The 2004 PEDP Review confirmed these findings:

‘Overall quality of teaching was poor. Most classroom teaching observed was teacher centred. Children sit in regimented rows and little interaction with each other occurs. In nearly all the classes observed, few questions originated from pupils who were simply recipients of what the teacher was transmitting.’ (MOEC 2004a p34)

Moreover, there was often very little structure to the lessons, with learning objectives being unclear. Little thought appeared to have been given to ensuring that and assessing whether the pupils were successfully achieving learning objectives.

Poor pedagogy was often attributed to lack of training. For example, a head teacher noted that the predominance of such poor teaching methods is related to the teachers’ lack of academic ability and subject knowledge, and the subsequent lack of confidence that this caused them to have in the classroom. However, the lesson observations, and the time spent within the schools themselves, suggest that the main reason for the failure of teachers to use effective teaching

methods may be something else. Both Grade A and Grade B/C¹⁴ teachers were observed, and there was little or no discernable difference between the quality and variety of teaching methods used. This would strongly suggest that the level of education of the teacher was not a key factor within the schools researched. In fact, I observed that often the teachers who taught the most innovative lessons did not have the minimum Form IV level qualifications. Perhaps they were able to do this by drawing on their many years of teaching experience.

This finding was confirmed by many respondents. The vast majority of teachers interviewed, whilst recognising that they had been taught how to use a variety of different teaching methods at teacher training college, admitted that they did not feel confident enough to use them in their lessons. They explained that this lack of confidence was not due to academic ability but to the lack of practical experience in the use of these techniques.

The implication of this analysis is that attempts to improve the quality of teaching need to focus on the application of teaching methods rather than teachers' academic qualifications.

The PEDP document recognises that "improving teachers' teaching styles and methods in the classroom" (MOEC 2001 p9) is central to improving the quality of education being provided. However, in the schools visited in Morogoro, I did not see any substantial evidence that such activities were taking place. The few efforts that were made appeared to have negligible impact. For example, at one of the research sites a few seminars were held in 2003, but these were said to be of limited use by the teachers who had attended them. The three day seminars were considered far too short for the purpose, with too little time for teachers to practice what they were taught.

A Teacher Resource Centre co-ordinator who attended these seminars observed that more had to be done to enable teachers actually to practice different methods. However, this issue appears to have been neglected by the teacher trainers and planners. According to the 2003 PEDP Review:

"As yet, there has been little or no progress with the proposed reform of in-service training for teachers, which MOEC officials feel may have a significant effect on the quality of teaching in schools." (MOEC 2003b, p21)

These findings demonstrate that improving teaching methods employed by existing teachers remains a critical challenge. In this context, arguably, the newly qualified and pre-service teachers should be the focus of attention. However, not only will it take many years before the newly trained teachers will form a significant majority of the teaching force, but there is also reason to doubt that these newly trained teachers are actually more skilled.

Every respondent interviewed about this issue in the Morogoro research expressed doubts about the competence of newly qualified teachers. The situation seems to have been exacerbated by the decision to shorten the in-college teaching training period from two years to one year, followed by a one year 'probationary period' within a school. Despite warnings from the Tanzania Teachers' Union (TTU) that the "one-year program is unlikely to produce good primary school teachers and there is a danger of sacrificing quality for the sake of quantity of the teaching force"

¹⁴ Where Grade A teachers have a 'Secondary Certificate and 2 years pre-service training at a Teacher Training College.', and Grade B and C teachers are 'Primary school graduates with between 2-3 years of teacher training or distance training during the Universal Primary Education (UPE) campaign.' (Aga Khan Foundation 2000, p2)

(TTU 2001), the new programme was introduced in 2002. TTU has continued to express concerns about this issue, but apparently to little effect.

The 2004 PEDP Review also notes serious doubts about the quality of teacher that would be produced during the one year programme. It noted concern about the near absence of training that was being offered to the new teachers during their second, in-school, year of training (MOEC 2004a). In the Morogoro research, respondents, ranging from teachers to university lecturers, expressed serious doubts about whether the education system had the capacity to carry out such in-service training. Most observed that, in practice, teachers would be left to ‘train themselves’ in their second year, which in fact may simply mean that they will teach with negligible tutoring or supervision. It should be noted that the intention is to restore two years pre-service training after 2006, “since by then the acute shortage of teachers will have been overcome” (MOEC 2003b, p19).

3.3 The Learning

With respect to the quality of the learning environment, the 2004 PEDP Review commented that “The majority of classrooms seen were dull, devoid of colour.” (MOEC 2004a, p34). The Morogoro research is wholly consistent with this finding. However, there is a need to distinguish between the condition of the building and the presence of teaching and learning materials, as is illustrated in photographs 1 to 4 from Morogoro reproduced below.

Photograph 1



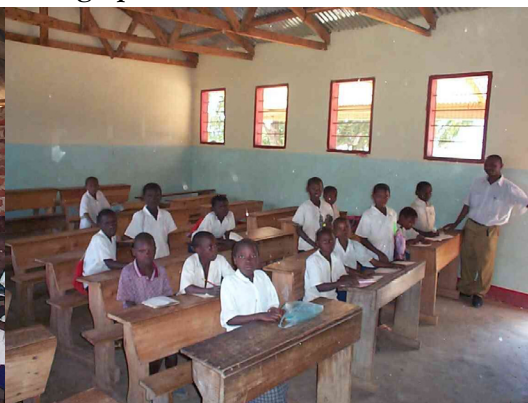
Photograph 2



Photograph 3



Photograph 4



Within the schools visited, there was a near total absence of displayed teaching and learning materials within all the classrooms, irrespective of the quality of the buildings themselves.

Furthermore, the Morogoro research showed that, with the exception of textbooks, it was also very rare for a teacher to enter the classroom with additional teaching and learning materials. The research revealed that the main reason for this was that such materials were not available within the schools. Even when materials were available, they were frequently unused.

It was clear from the examinations of pupils' exercise books that they often did not fully understand what they were writing in them. It was also often clear from the pupils' behaviour (e.g. how they interacted during the classes with respect to answering questions and how they carried out activities) that many of them were finding it very difficult to understand what they were being taught.

The Morogoro research also suggested that the teaching styles appeared to have been chosen to underline the authority of the teacher and to maintain control of the classroom, as opposed to aiding the learning process.

This is probably because it was the very same teachers, who are using the very same teaching methods, with the very same teaching and learning aids, with little meaningful opportunity provided to do anything differently. The lesson observations failed to perceive any difference between the quality of teaching or learning that took place within the different types of classrooms.

In short, while the new classrooms had the potential to become stimulating places of learning, this potential was not used. Three years into PEDP implementation there was little evidence that quality learning was taking place within schools.

3.4 Examinations

Recently, it has been argued that examination results provide an objective basis for assessing quality improvement. The Primary School Leavers' Exam (PSLE) results for the last six years are shown below:

Table 4 The National PSLE Pass Rates for 1998-2004

Year	% Pupils who sat the exam that passed	% Original Standard I cohort who passed
1998	21.3	11.6
1999	19.3	12.3
2000	22.0	12.7
2001	28.6	17.9
2002	27.1	18.5
2003	40.1	26.8
2004	48.7	35.0

Source: MOEC 1994, MOEC 1999, MOEC 2004b

Although there was a small positive trend in the number of pupils who passed their PSLEs between 1998 and 2002, it is clear from Table 4 that large improvements took place in 2003 and 2004, when pass rates jumped from 27% to 40% and 49% respectively. However, several important issues need to be considered before these increases can be said to indicate improvements in the quality of education.

First, it should be noted that even in 2004, the year with the best record, more than half of the pupils failed to pass these exams, i.e. to score 43% or more. Furthermore, the final column of Table 4 shows that, by factoring in those pupils who dropped out of school early, far lower percentages of the original Standard I pupils have actually been passing their PSLEs. For example, in 2003 only approximately 67% of the original 1997 Standard I pupil cohort actually took their PSLEs in 2003, meaning that actually only about 27% of these original pupils managed to pass their PSLEs¹⁵. Anecdotal reports also indicate that some teachers or parents may deliberately discourage less able pupils to sit for exams, so as to 'increase chances of better results'. These issues need further exploration. In any scenario, however, the fact remains that in 2004 a majority of pupils failed to successfully complete their primary school education.

Second, aggregate pass marks may hide significant variations and differences among regions and districts. With respect to the schools visited during the Morogoro research, PSLE pass rates varied from one school which had, in some years, passed 100% of its pupils, to schools that had never, to date, passed any of their pupils. The Morogoro research revealed serious inequalities amongst the schools in other respects, ranging from utilities and resources at the schools' disposal to the motivation of the teachers. Interestingly, there appeared to be a fairly close correlation between the quality of these various inputs and the pupils' performance in the PSLEs. While it is difficult to assess what is measured by the PSLEs, the poor pass rates at many of the schools indicate that many pupils were not achieving adequate levels of learning¹⁶.

Third, it is not clear that the recent dramatic increases in pass rates necessarily reflect actual improvements in pupils' learning and understanding. It is plausible that examinations are not a good measure of the sort of learning that matters, such as critical thinking and problem solving abilities, and that in fact pass rate increases reflect better 'coaching' or 'cramming'. Only a careful assessment of what the examination measures can clarify this question.

Fourth, at least some of the increase may be explained by changes in the examination structure rather than actual improvements in performance. In 2003, for example, English and Swahili began to be treated as separate subjects, which in effect reduced emphasis on Mathematics (which has traditionally had poor pass rates in recent years). For this reason, comparisons between pre- and post- 2003 years should be treated with caution, or adjusted to ensure that the same yardstick is used throughout.

Fifth, the potential relationship between PEDP interventions and examination performance at the upper levels of primary education are not clear. Which aspects of PEDP have contributed to the change? Is it the renovated classrooms? Is it the increased number of teachers or books made available to upper classes? Is it the removal of school fees and mandatory contributions? Is it increased political pressure to show results? Or is it better school committee governance or something even less tangible such as the 'psychological good feeling' created by greater attention to education? The truth is likely to be a combination of these factors, but understanding causality more precisely is important to inform policy.

The point is that the explanation of recent increases in pass rates is not as simple as it might first appear, and that the issue needs further study, interrogation and understanding, before it can be categorically concluded that the quality of education has improved. For the time being, the

¹⁵ When it is considered that, prior to PEDP, many of the school-age children did not even enrol in Standard I, the percentage of Standard VII aged children who pass their PSLEs is further reduced

¹⁶ The issues relating to what the PSLEs measure and whether they are an indicator of learning would benefit greatly from further research and analysis in Tanzania

PEDP Review and Morogoro research findings clearly show that recent reforms have not paid adequate attention to the quality of teaching and learning, and therefore indicate that increases in pass rates are unlikely to be due to increases in quality of education, at least not the sort that is needed by Tanzania to reduce poverty and enable vibrant citizen engagement. Furthermore, there is no doubt that progress made to date can be greatly enhanced by concentrating further efforts on improving the teaching and learning process. Given this, it is important to address the question ‘How can the quality of education be improved?’

4. How Can the Quality of Education be Improved?

4.1 Key Questions

The basic premise of this paper is that the most effective way to improve the quality of education is by focussing on the teaching and learning process itself. The teacher is central to this. The PEDP document would appear to be consistent with this view: “The teacher in the classroom is the main instrument for bringing about qualitative improvement in learning” (MOEC 2001, p9). However, in order to put this thinking into practice, the following key issues need attention:

1. How much emphasis should be put on pre-service rather than in-service training, and should it be geared towards improving teaching methods and styles rather than subject content?
2. How effective will attempts to improve teacher training be without improvements in the teachers’ welfare and motivation?
3. Will good teacher training and incentives lead to improvements in teaching practice?
4. How critical are access to adequate teaching and learning materials and sufficient numbers of teachers and classrooms to improving education?
5. Are the political will, leadership, capacity and resources available to implement serious initiatives to address these issues and deal with the inevitable challenges?

4.2 Key Recommendations

Based on the research, the five key issues raised above can be responded to as follows:

1. Although pre-service training of teachers must remain a priority, significant attention needs to be given to in-service training. The main aim should be to improve teaching *methods* and *styles*. These training programmes should be largely school-based and geared towards the needs of individual teachers, and seek to develop a level of confidence among teachers in the use of participatory and interactive approaches.
2. The welfare of teachers needs to be significantly improved, primarily through the provision of adequate salaries that are paid on time. Teacher benefits regarding health care and double-shift, leave and transfer allowances, among others, need to be clarified, known to all and made available on time. The negative affect of promising an already demotivated teacher something, and then not giving it, should not be underestimated. This entire process should be done closely with the representatives of teachers, with a demonstrated commitment to taking their ideas and inputs seriously. Agreements made should be realistic and abided to. Constraints and limitations, such as those related to salary increases, should be clearly explained and communicated to all teachers.

3. Hand in hand with improved teacher welfare reforms, teachers should be supported and held accountable to fulfil their roles. This can be done by more effective use of existing ward, district and regional education officials, including the inspectorate, as well as by providing training to head teachers and other teachers. A major focus should be on ensuring teachers are in school during school time, and that all periods are taught fully and effectively.
4. The full \$10 capitation grant¹⁷ should reach the schools in a dependable manner, and measures put in place to assure that it is used effectively and transparently. Particular attention should be put on making sure that adequate textbooks, as well as other teaching and learning materials, are being purchased. Where possible, these materials should be on permanent display within the classrooms. Where this is not possible, teachers should be encouraged to enter the classroom with them and to use them.

While effective planning, including use of double shifts, will help, more teachers need to be employed. Where this is not possible, extra incentives need to be given to teachers to increase their willingness and ability to shoulder the extra burden, and to teach in remote/difficult areas, consistent with the provision for the same in the PEDP budget. Where resources are insufficient, trade-off options need to be explicitly debated. For example, spending significant proportions of the education budget on classroom construction is unlikely to be as effective as employing more teachers or targeting the teaching and learning process.

5. Increased attention, political will, and government and donor resources in recent years have created a window of opportunity that should be seized and used to optimal effect. Instead of being satisfied with progress made to date, greater attention should be given to answering the question: what more can be done under the present circumstances? This will require strategic leadership from the Government, better harmonization between different government bodies at national and local levels, the active engagement of civil society organizations, including the Tanzania Teachers' Union (TTU), and open, critical debate among all stakeholders.

¹⁷ The PEDP provides for US \$10 be given to each school, per pupil, per year, to buy textbooks, other teaching and learning materials and to pay for other essential school expenses related to quality improvement.

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